SOUTH ORANGE COUNTY TRANSPORTATION INFRASTRUCTURE IMPROVEMENT PROJECT LOCATION HYDRAULICS STUDIES VOLUME 2 (APPENDICES A TO M)

FINAL

Prepared for:

Foothill/Eastern Transportation Corridor Agency
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Prepared by:

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Costa Mesa, CA 92626
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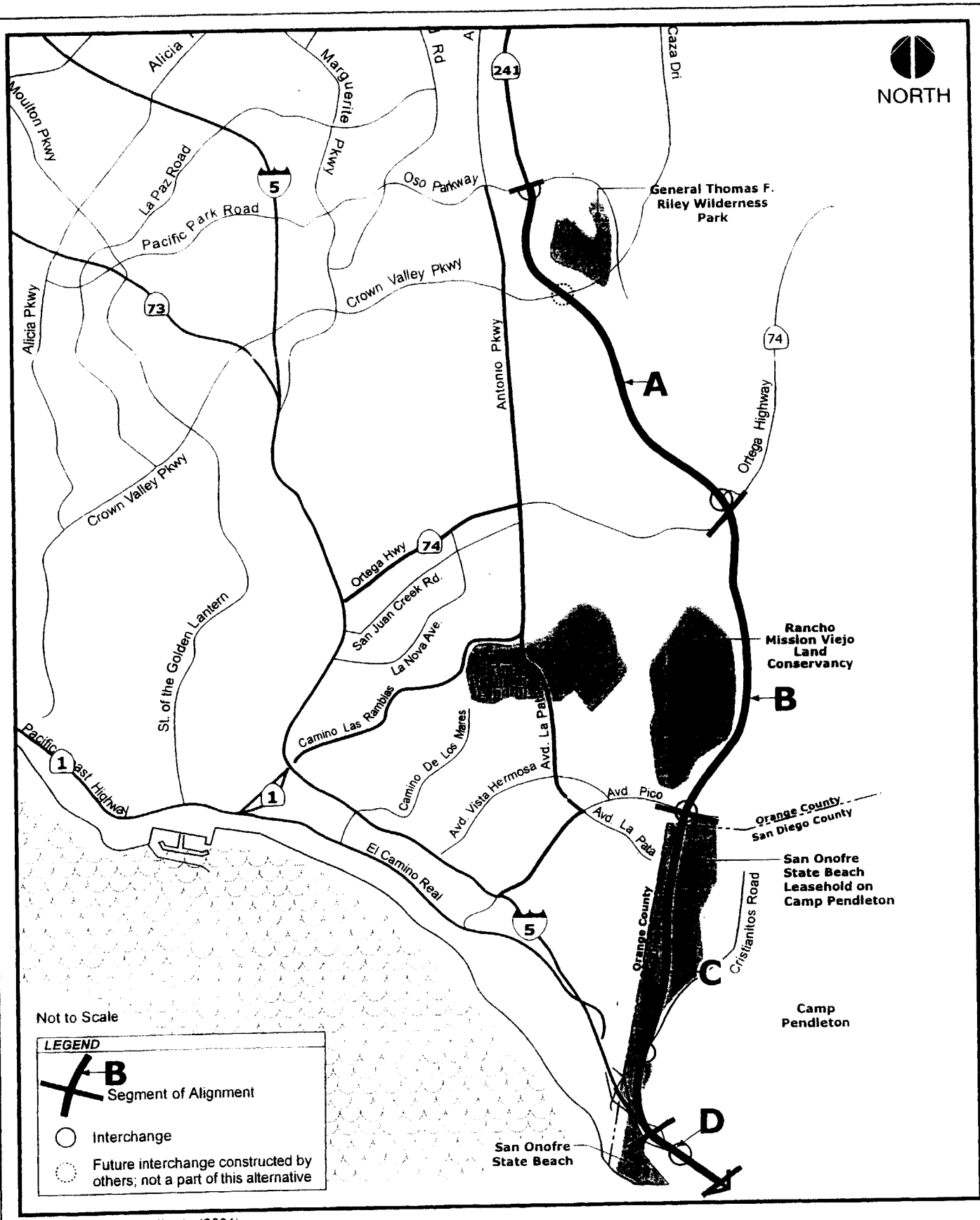
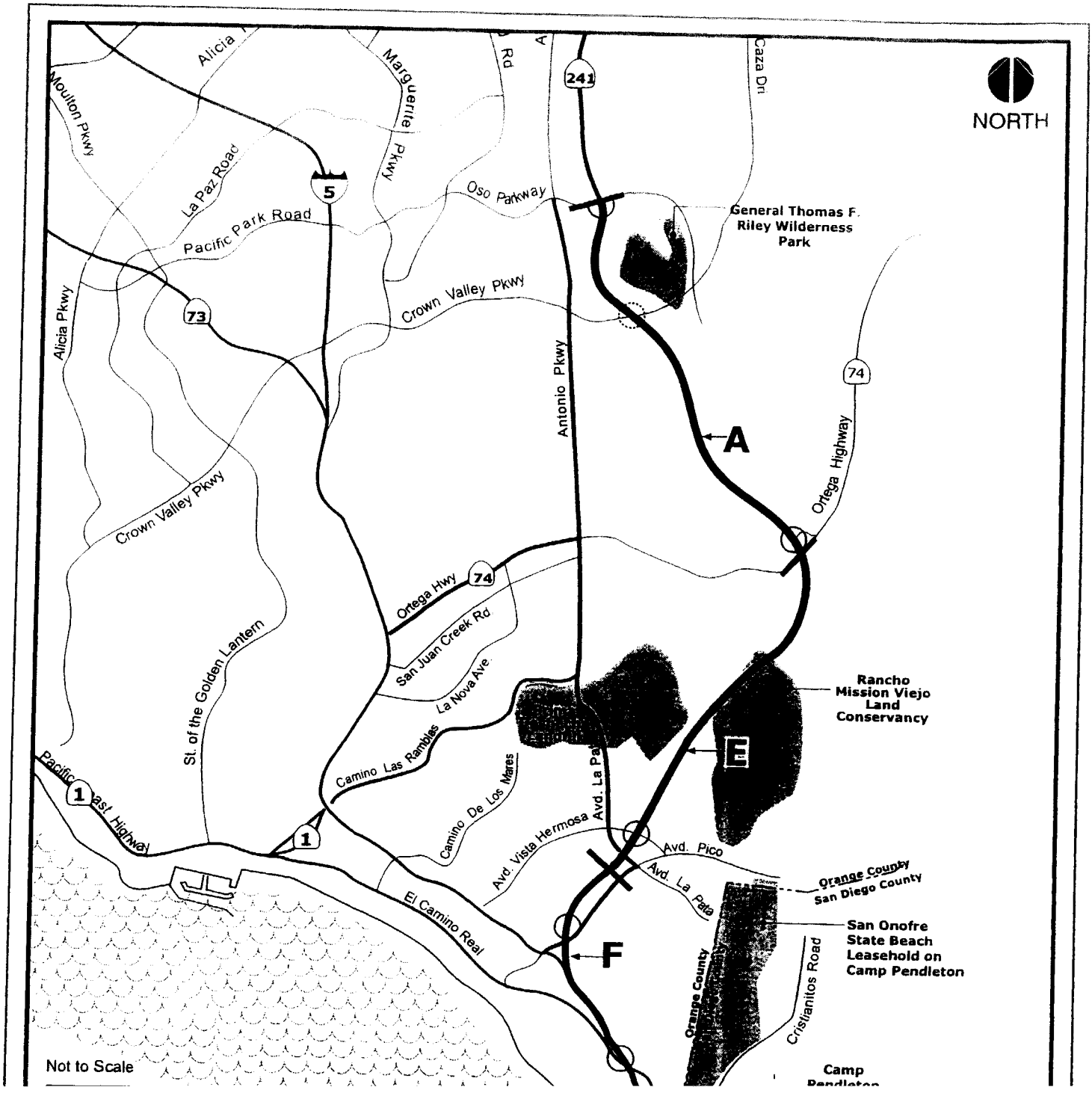
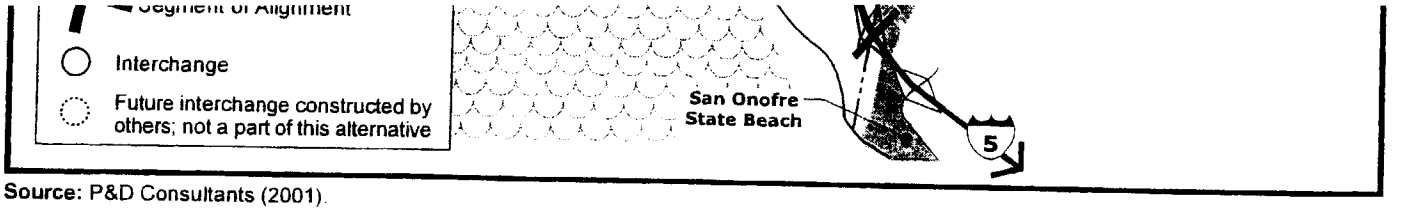
December 2003



Source: P&D Consultants (2001).

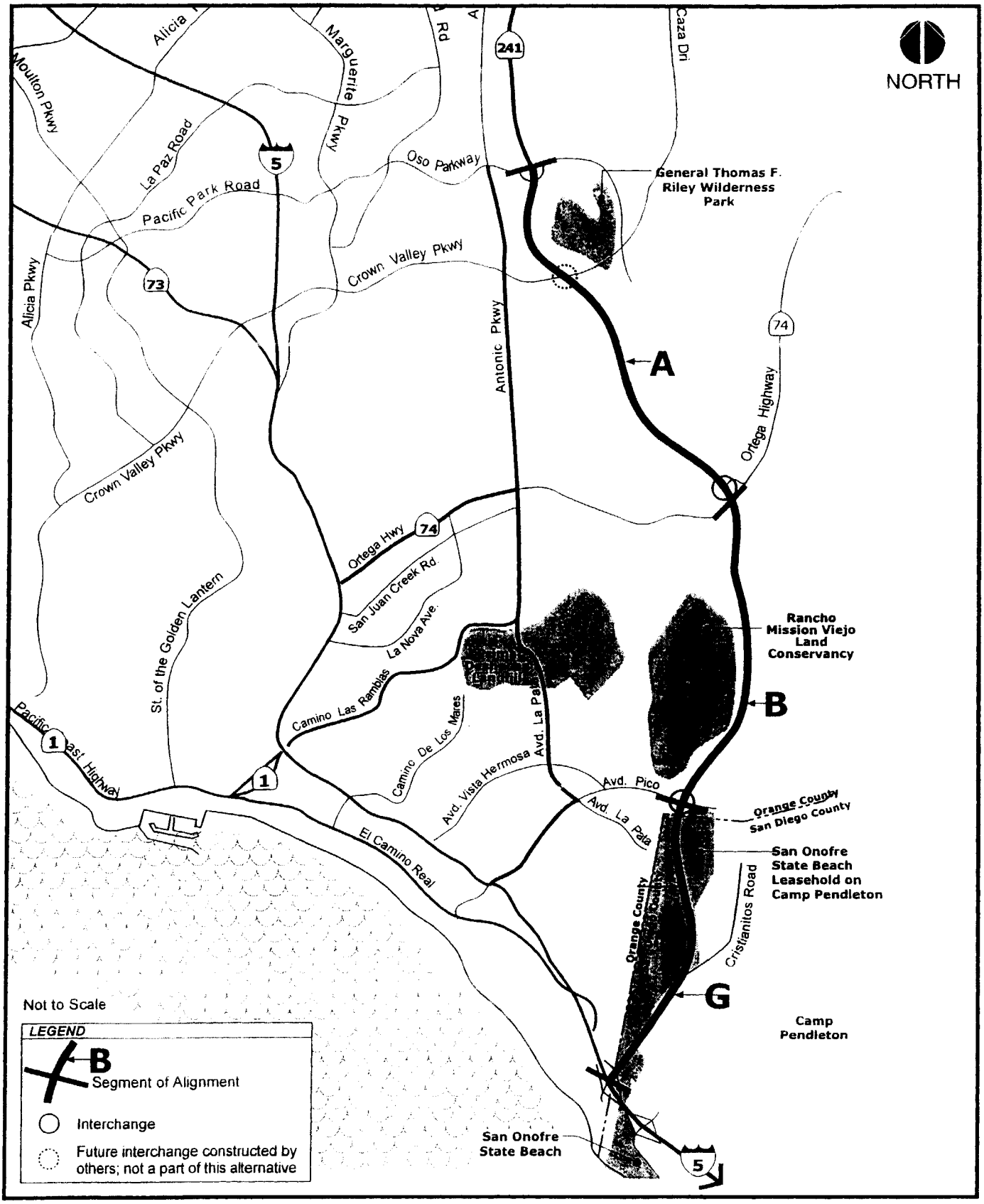
Alignment of the Far East Corridor-Complete Alternatives





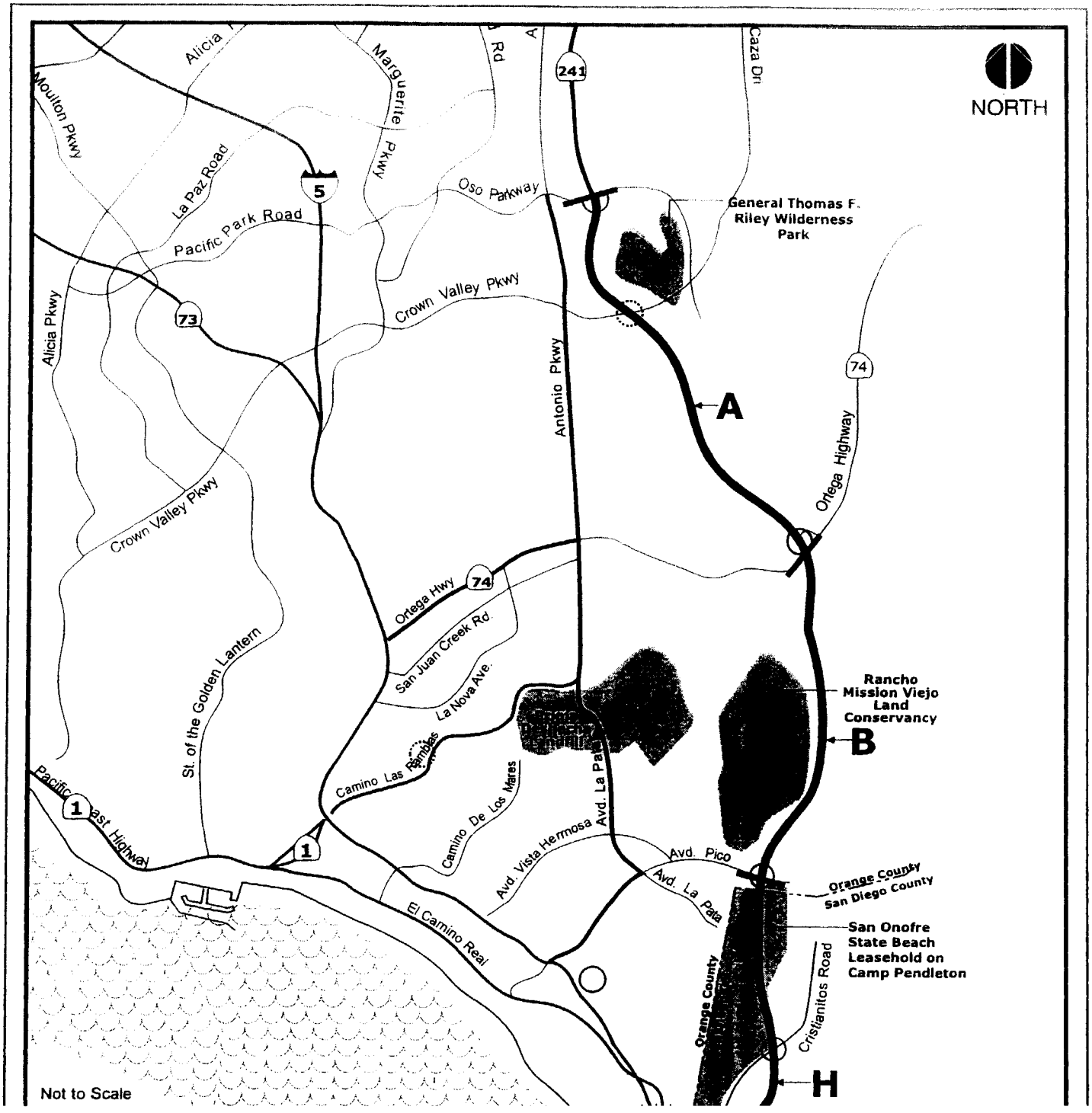
Source: P&D Consultants (2001).

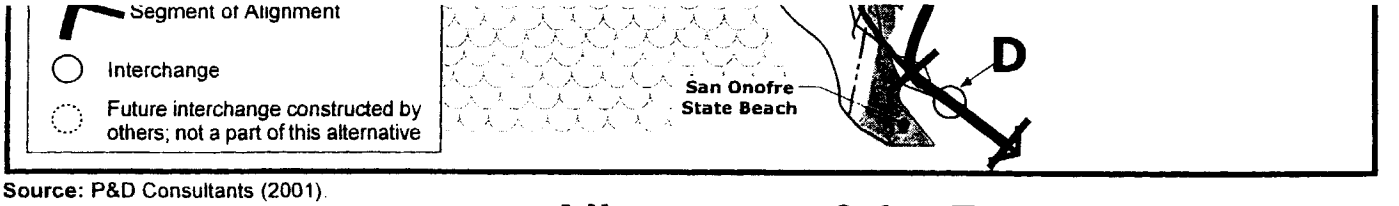
Alignment of the Far East Corridor - Talega Variation Alternatives



Source: P&D Consultants (2001)

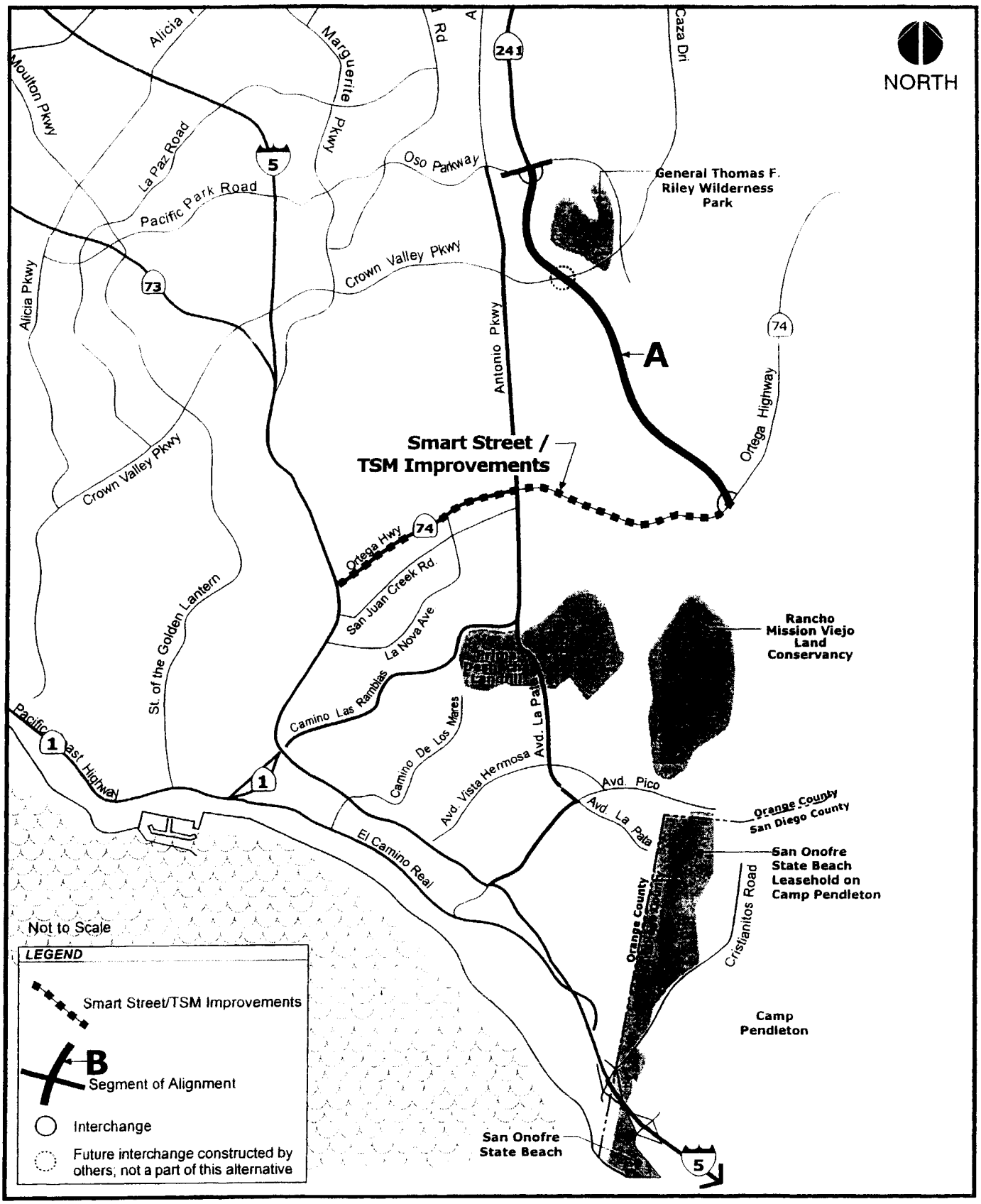
Alignment of the Far East Corridor - Cristianitos Variation Alternatives





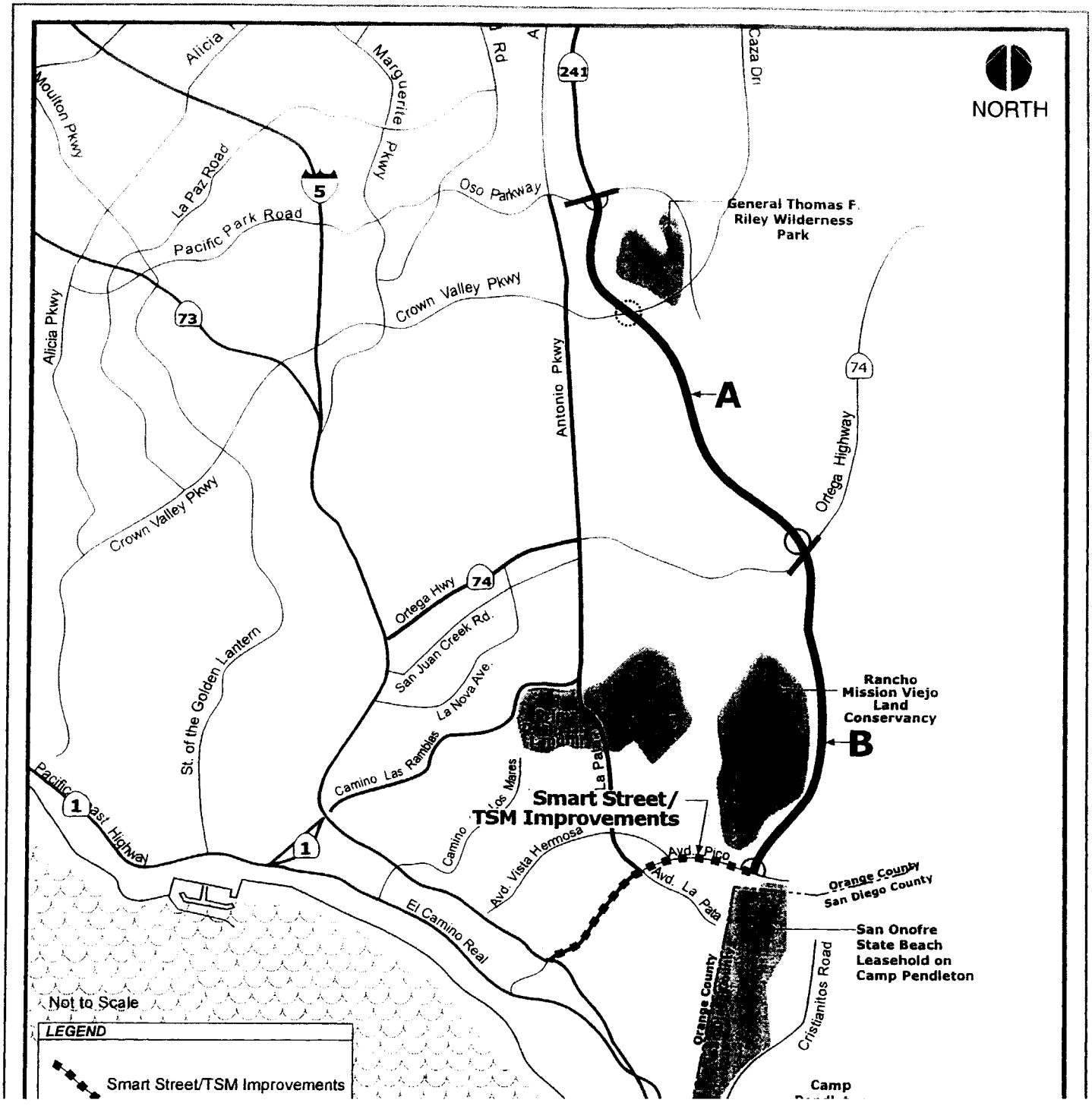
Source: P&D Consultants (2001).

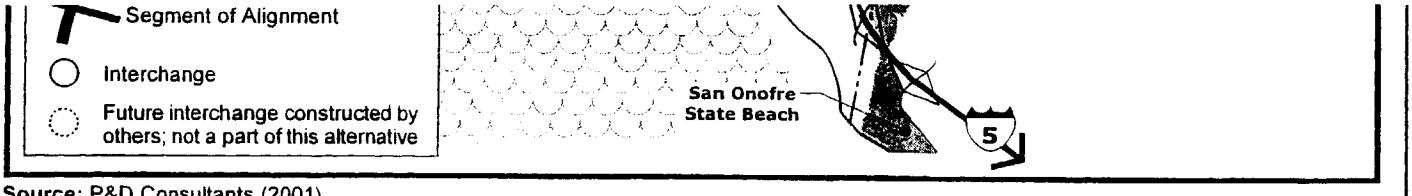
Alignment of the Far East Corridor - Agricultural Fields Variation Alternatives



Source: P&D Consultants (2001).

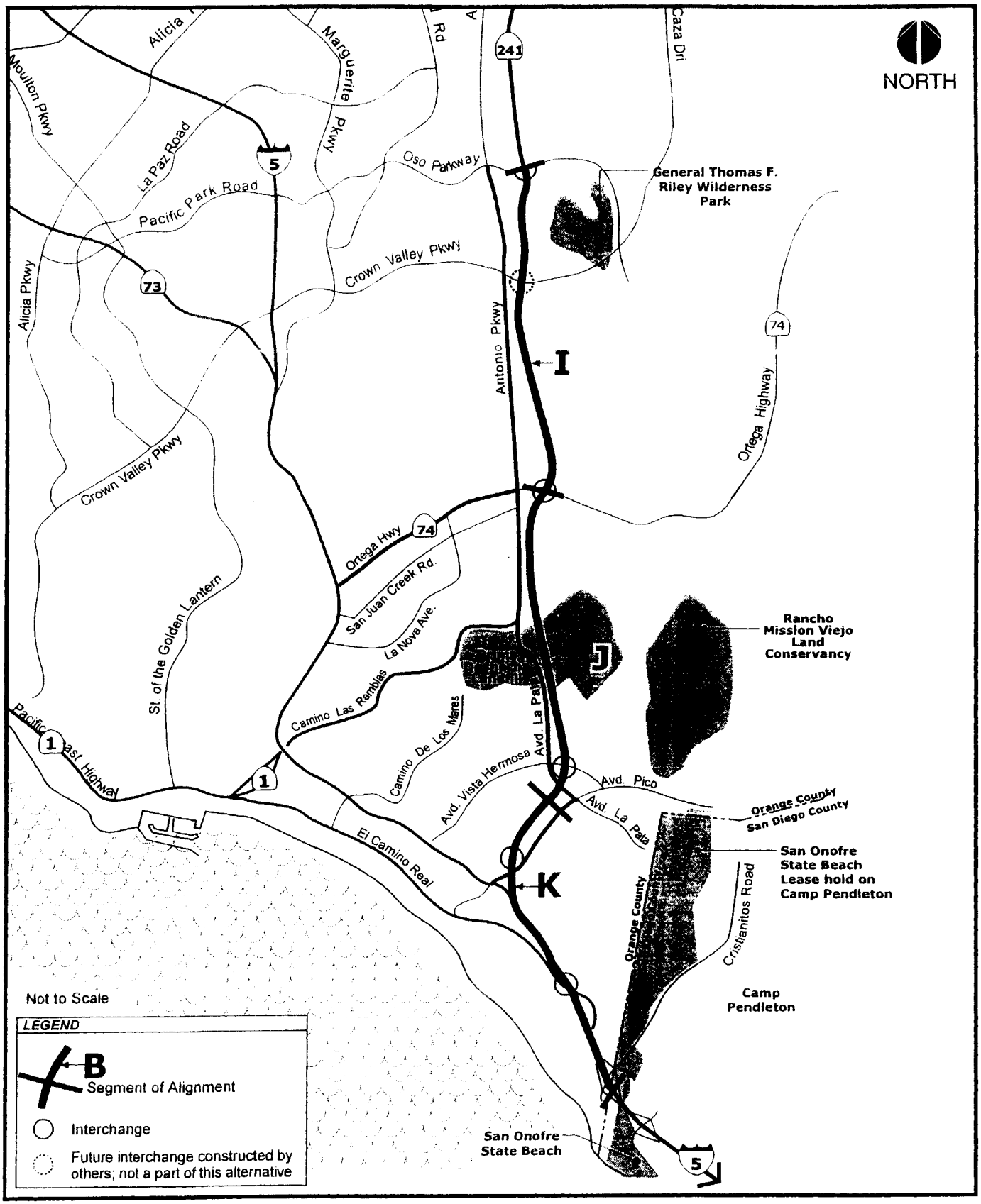
Alignment of the Far East Corridor - Ortega Highway Variation Alternatives





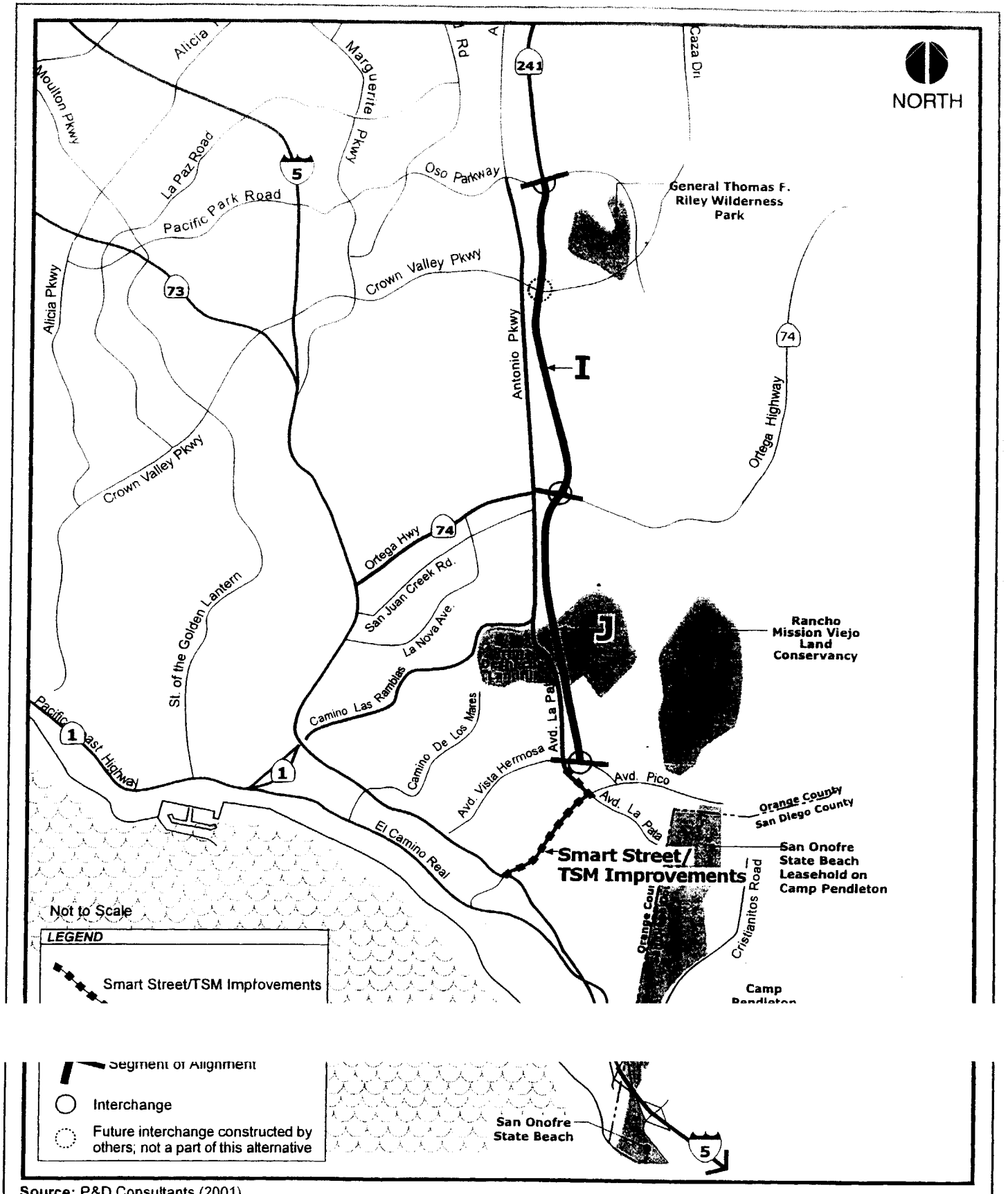
Source: P&D Consultants (2001).

Alignment of the Far East Corridor - Avenida Pico Variation Alternatives



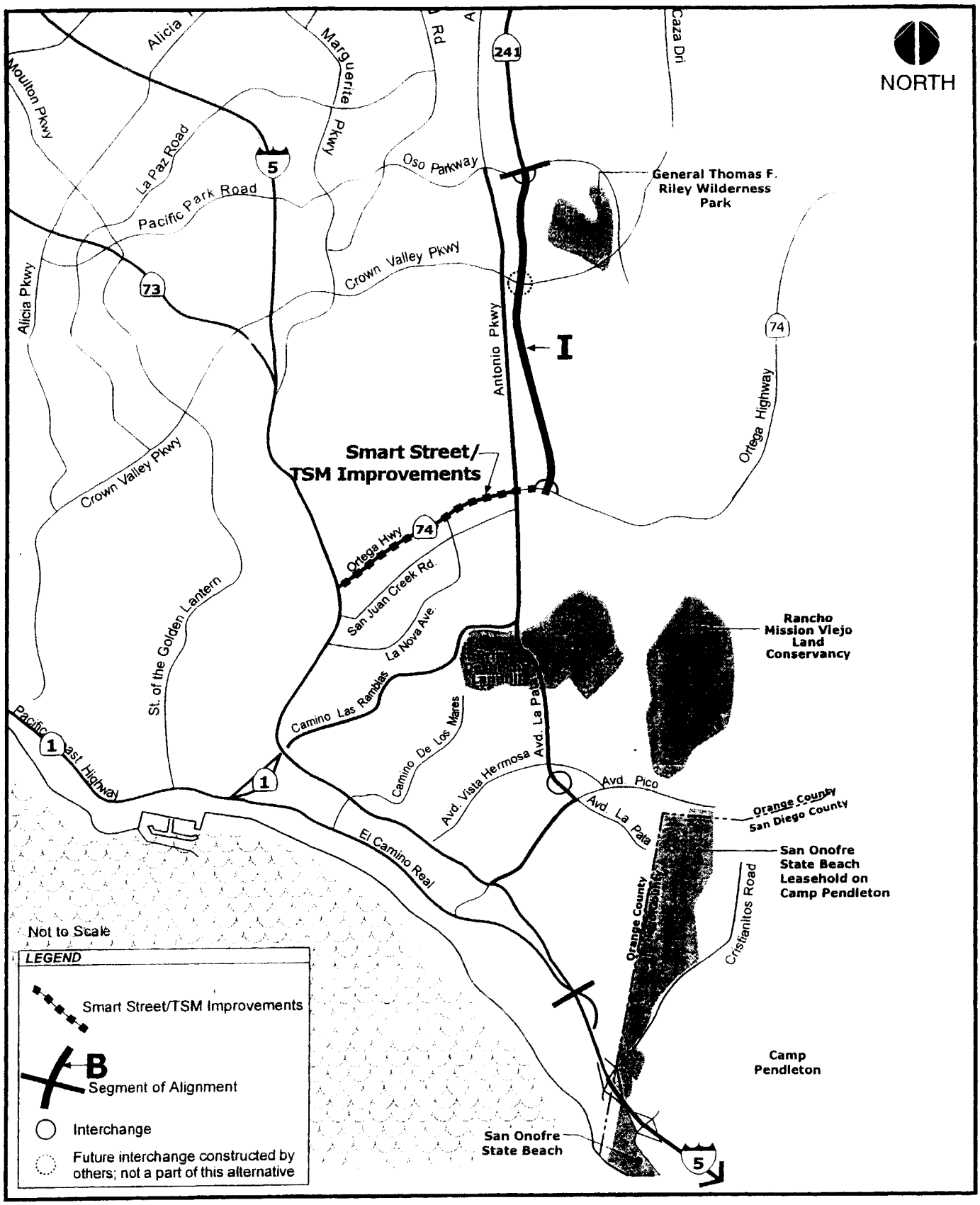
Source: P&D Consultants (2001).

Alignment of the Central Corridor - Complete Alternatives



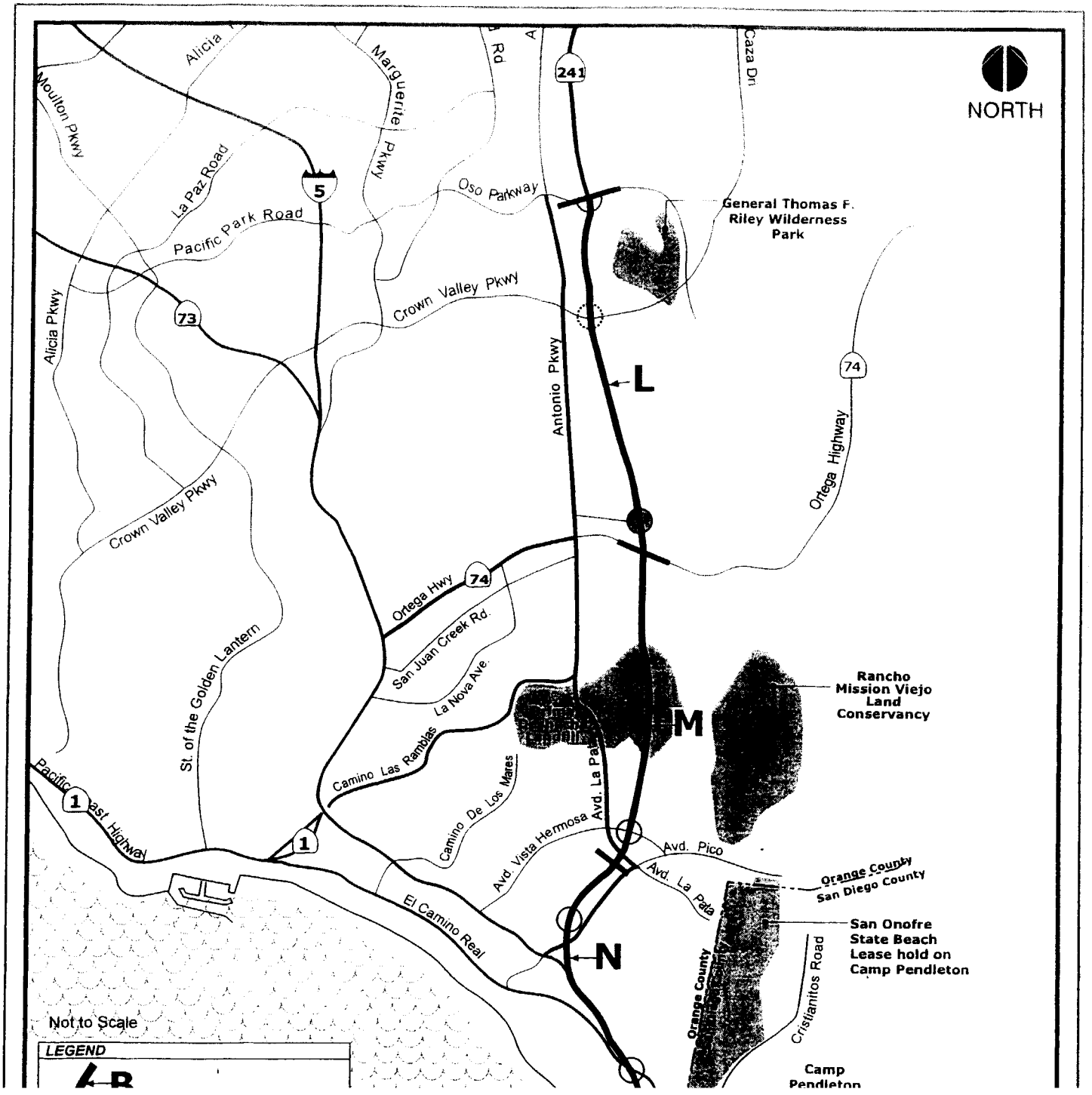
Source: P&D Consultants (2001).

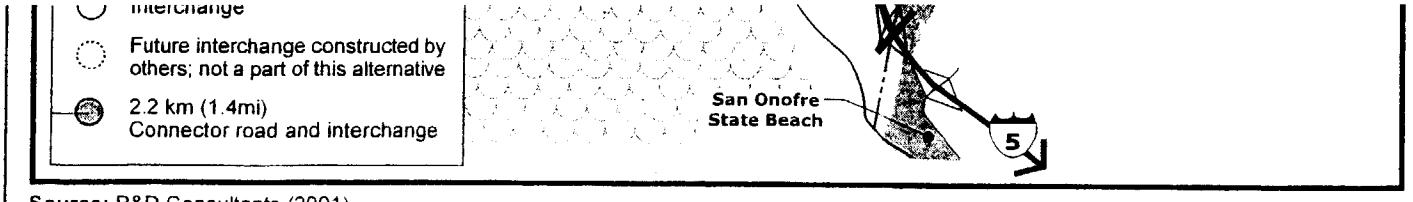
Alignment of the Central Corridor - Avenida La Pata Variation Alternatives



Source: P&D Consultants (2001).

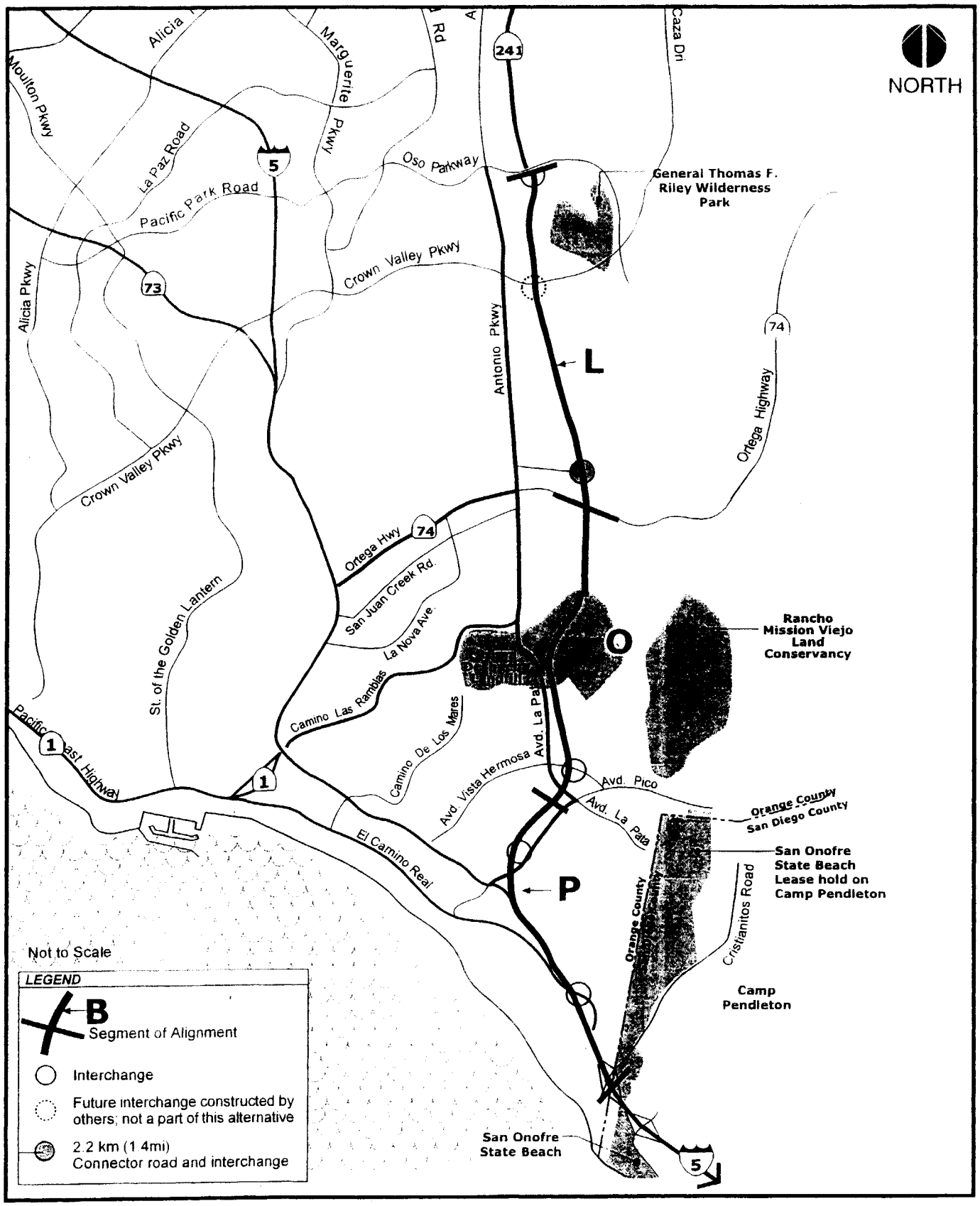
Alignment of the Central Corridor - Ortega Highway Variation Alternatives





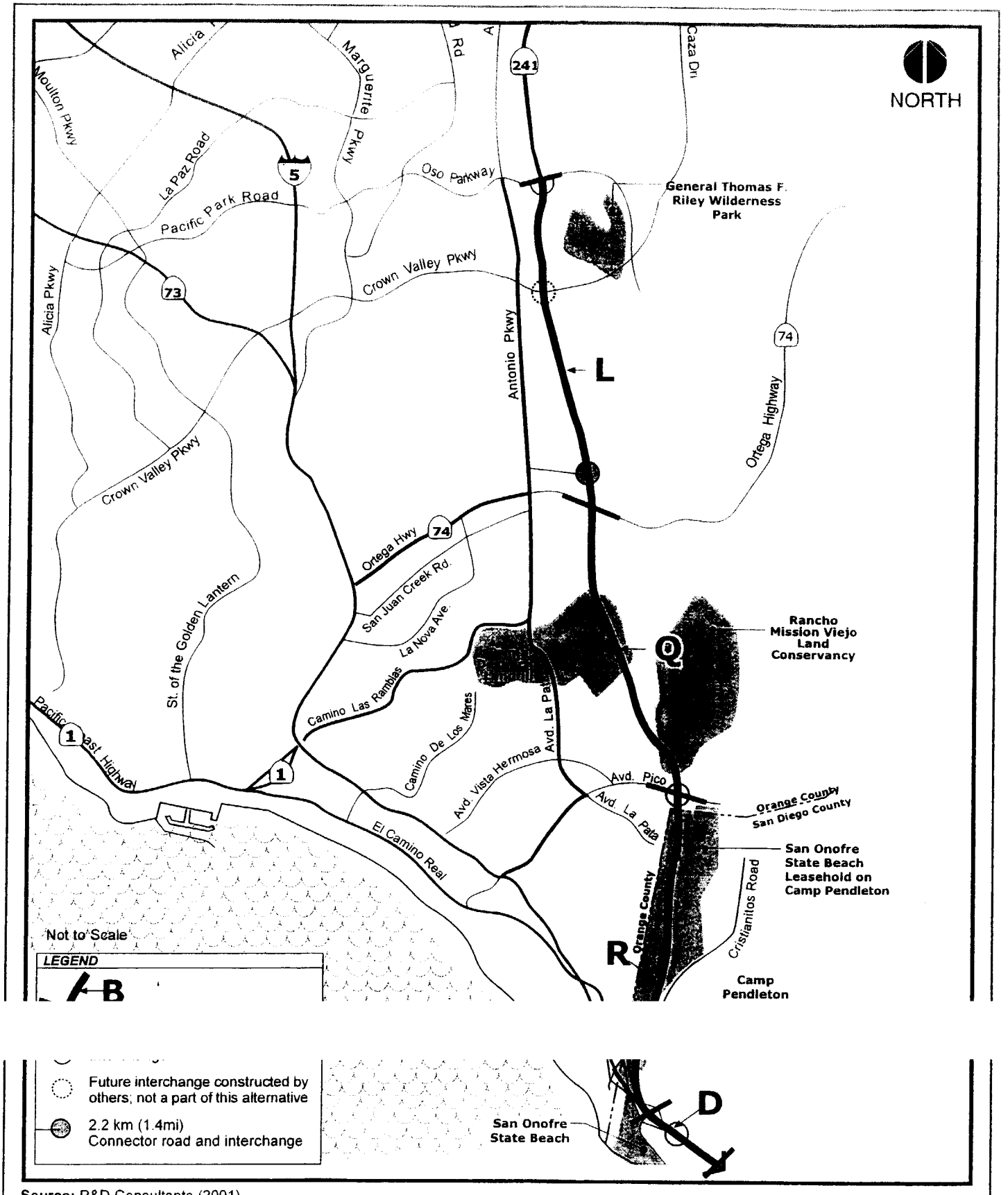
Source: P&D Consultants (2001).

Alignment of the Alignment 7 Corridor-Complete Alternatives



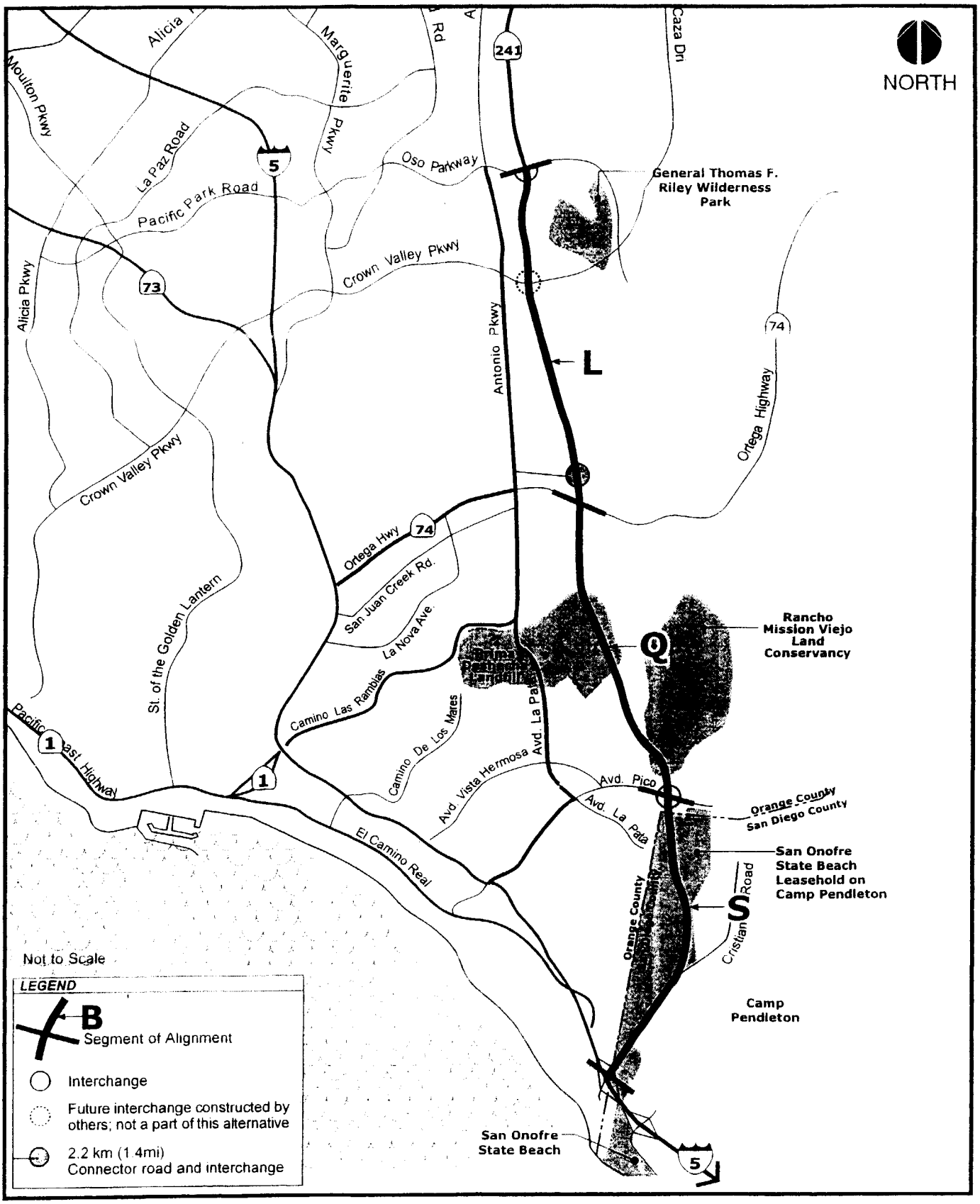
Source: P&D Consultants (2001).

Alignment of the Alignment 7 Corridor - 7 Swing Variation Alternatives



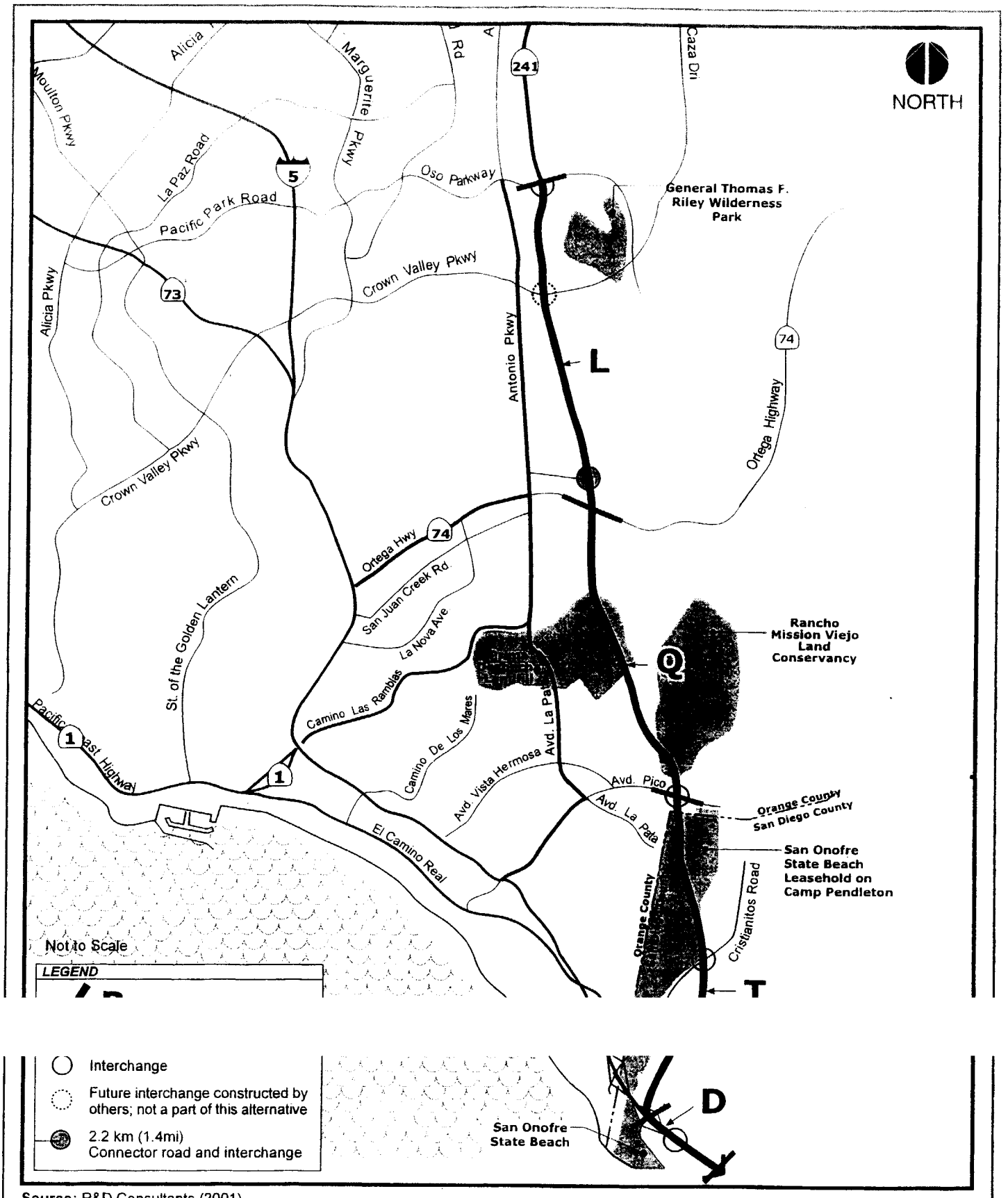
Source: P&D Consultants (2001).

Alignment of the Alignment 7 Corridor - Far East Crossover Variation Alternatives



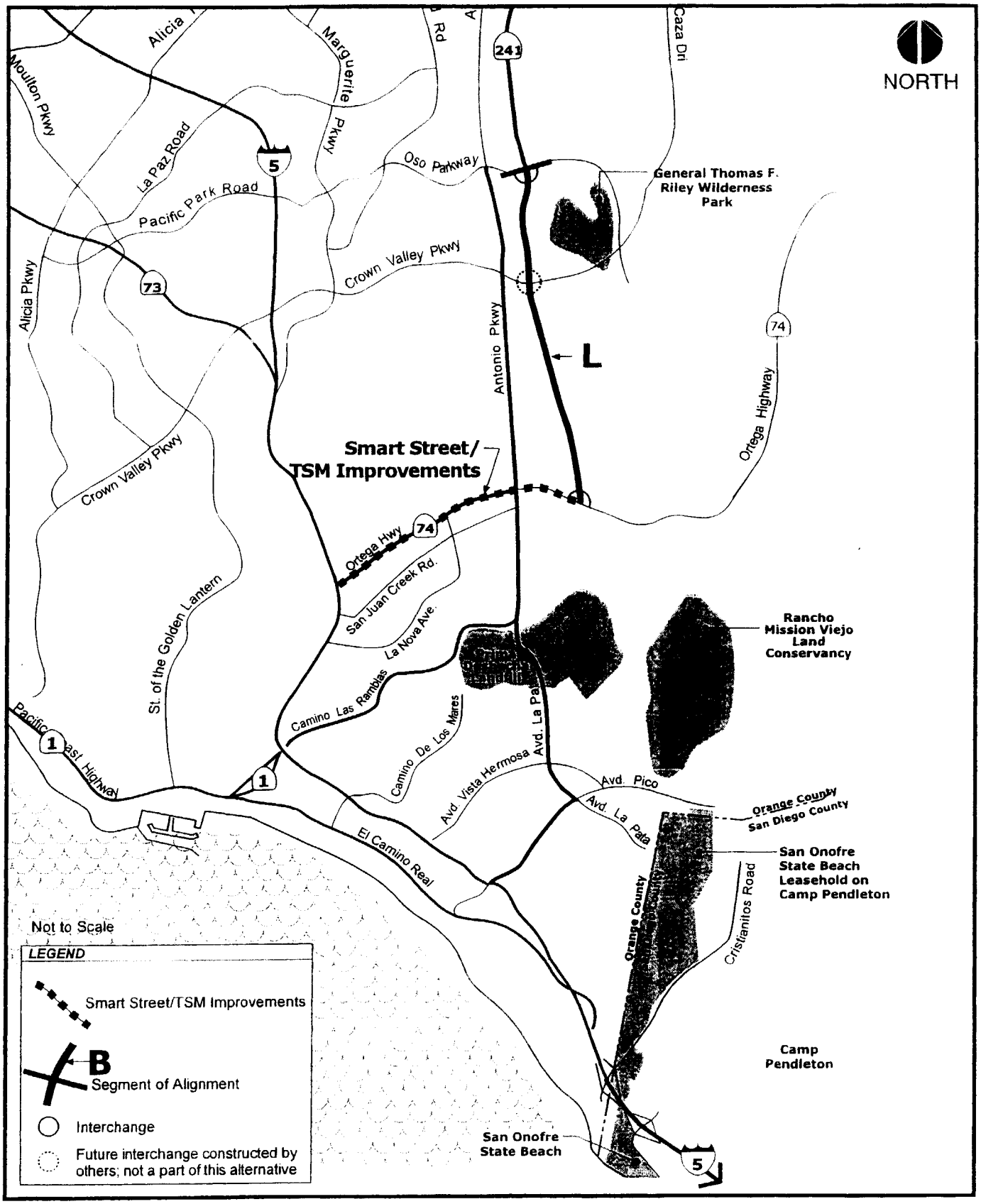
Source: P&D Consultants (2001)

Alignment of the Aligment 7 Corridor - Far East Crossover (Cristianitos) Variation Alternatives



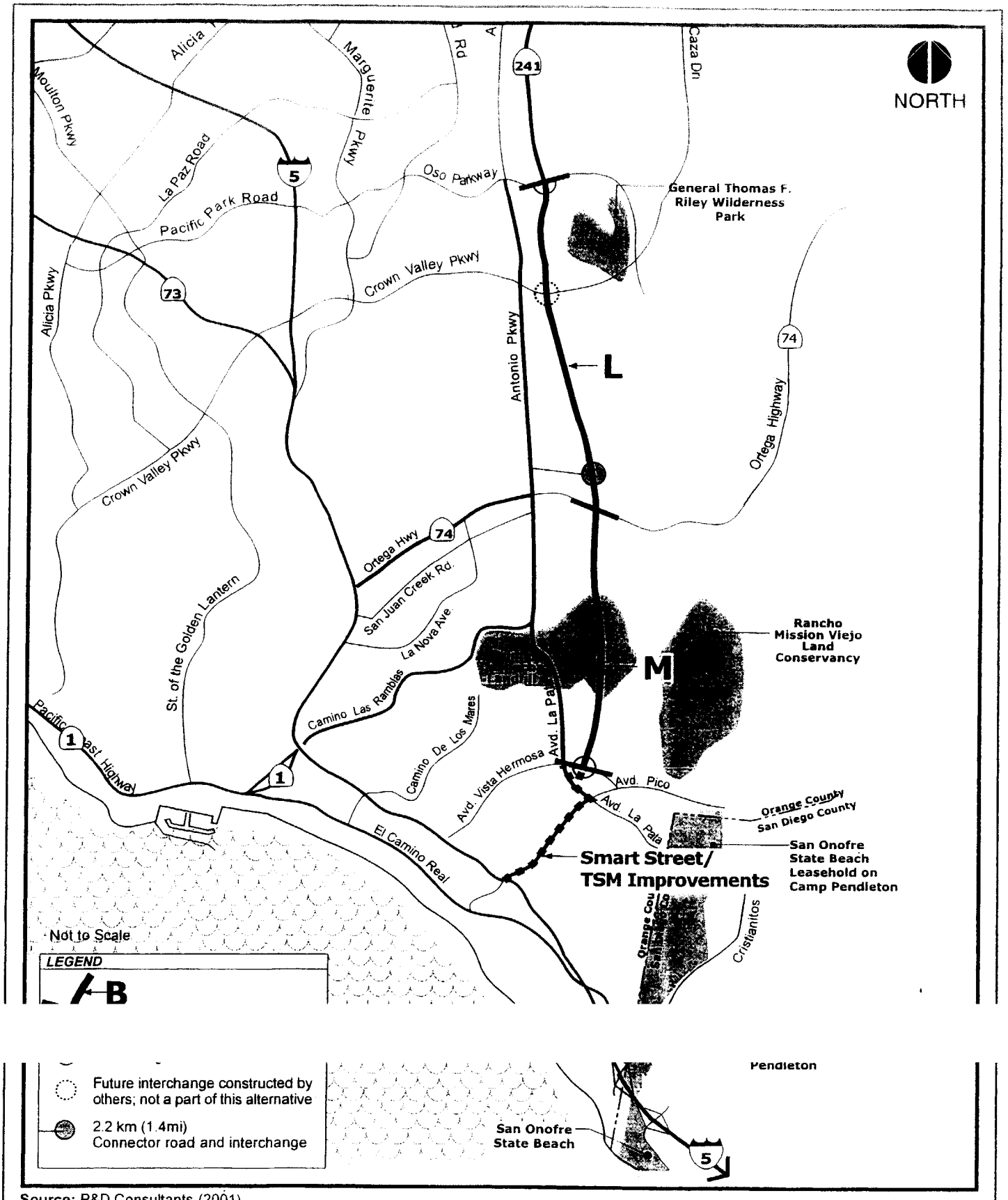
Source: P&D Consultants (2001).

Alignment of the Alignment 7 Corridor - Far East Crossover (Agricultural Fields) Variation Alternatives



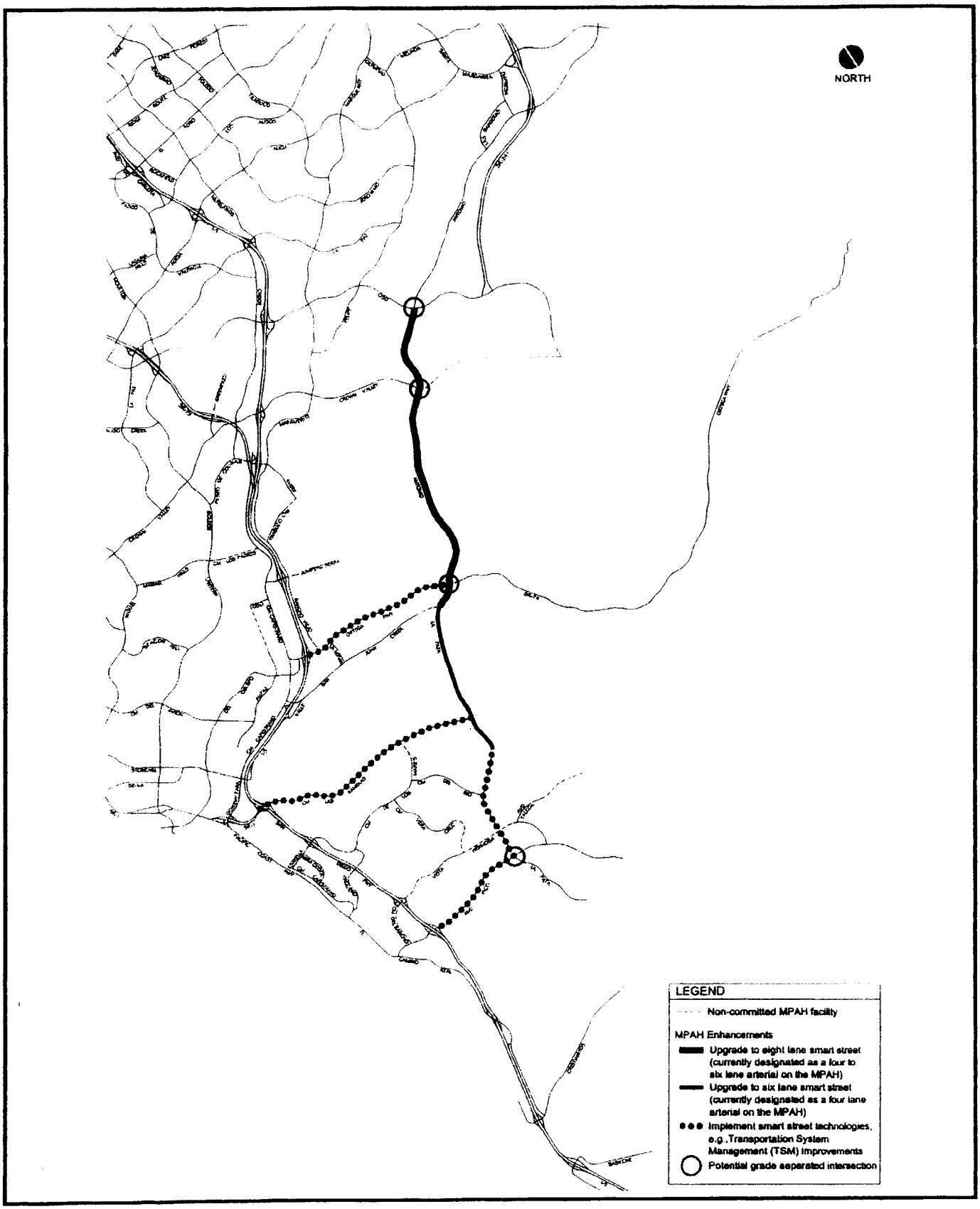
Source: P&D Consultants (2001).

Alignment of the Alignment 7 Corridor - Ortega Highway Variation Alternatives

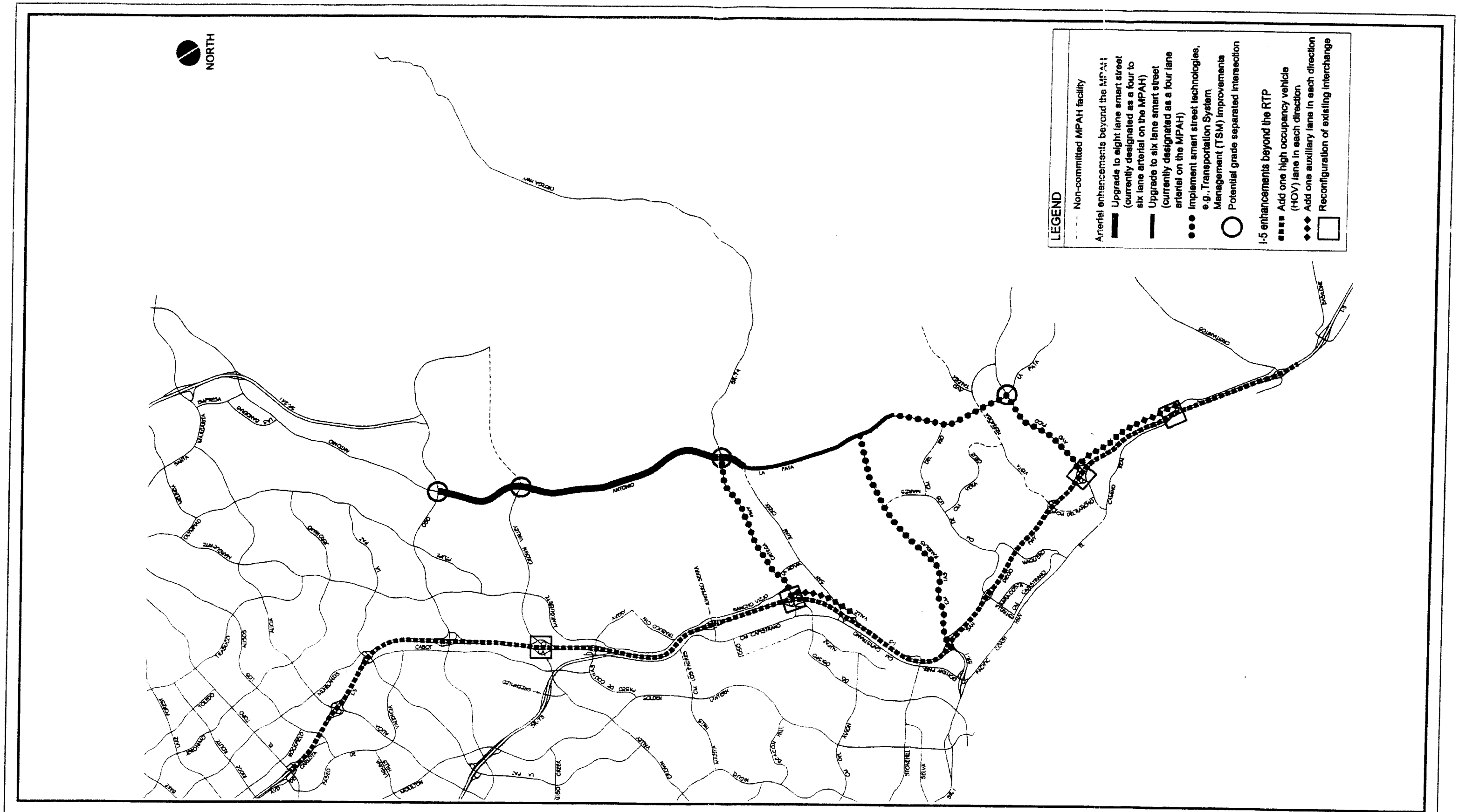


Source: P&D Consultants (2001).

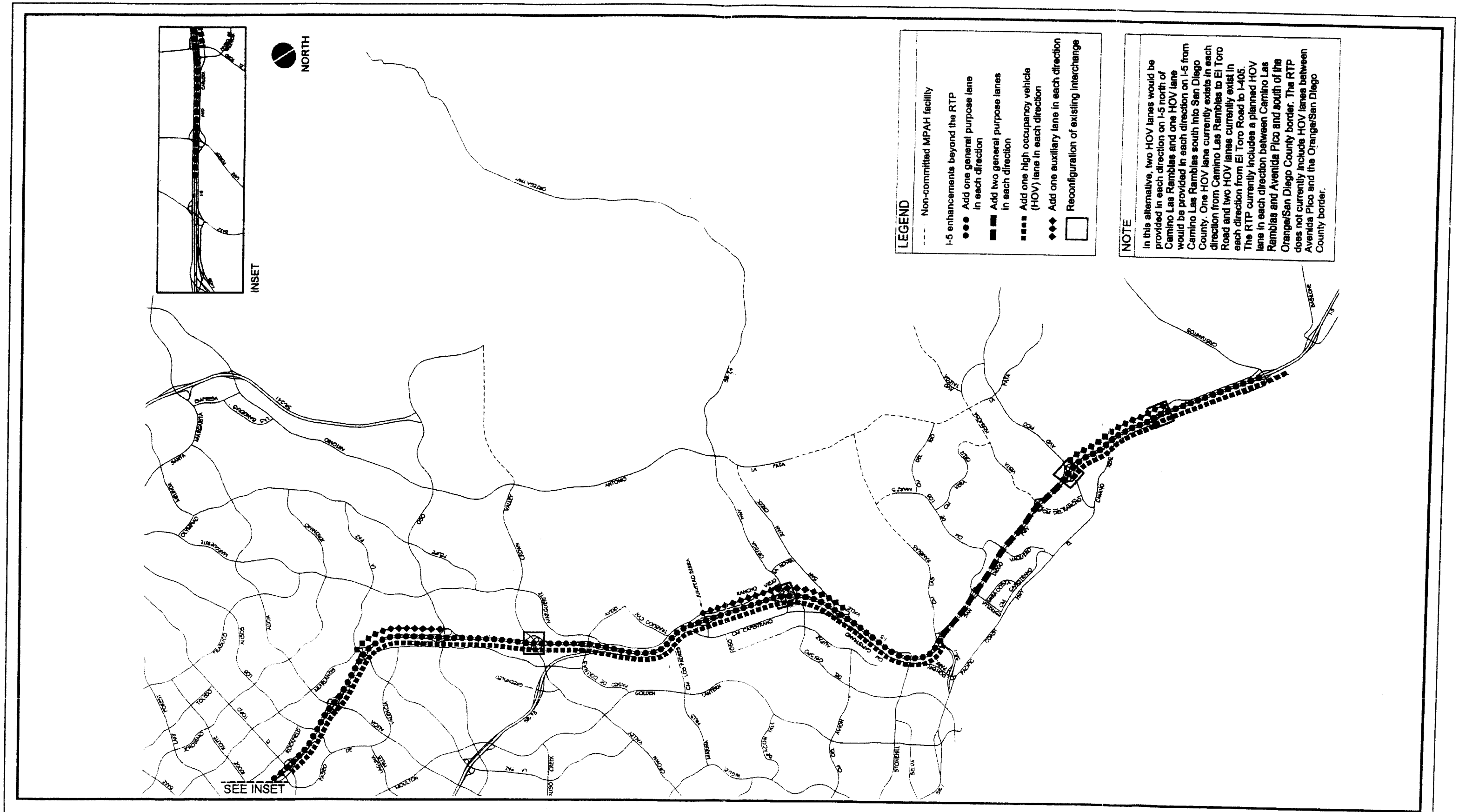
Alignment of the Alignment 7 Corridor - Avenida La Pata Variation Alternatives



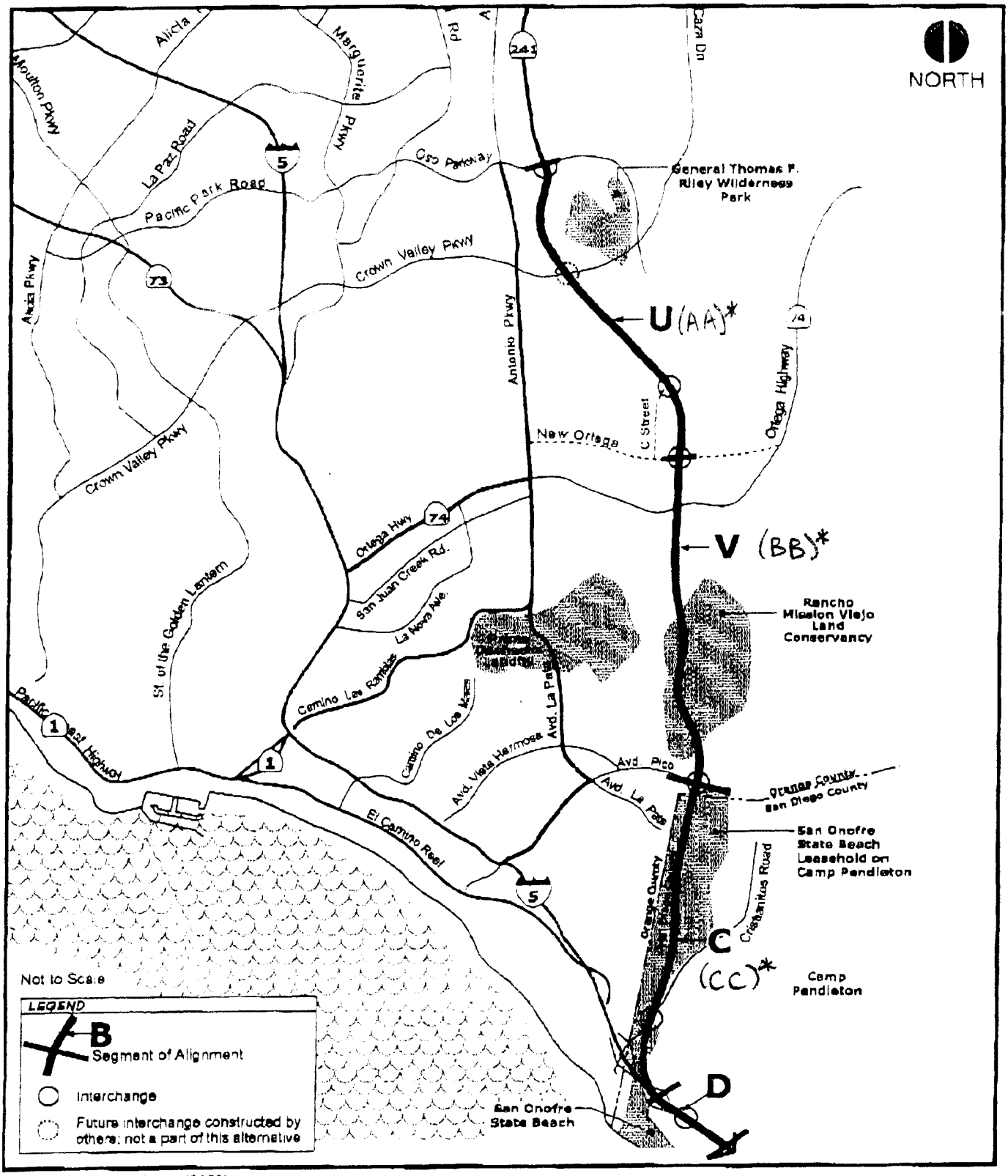
Arterial Improvements Only Alternative



Arterial Improvements Plus I-5 Alternative



I-5 Alternative



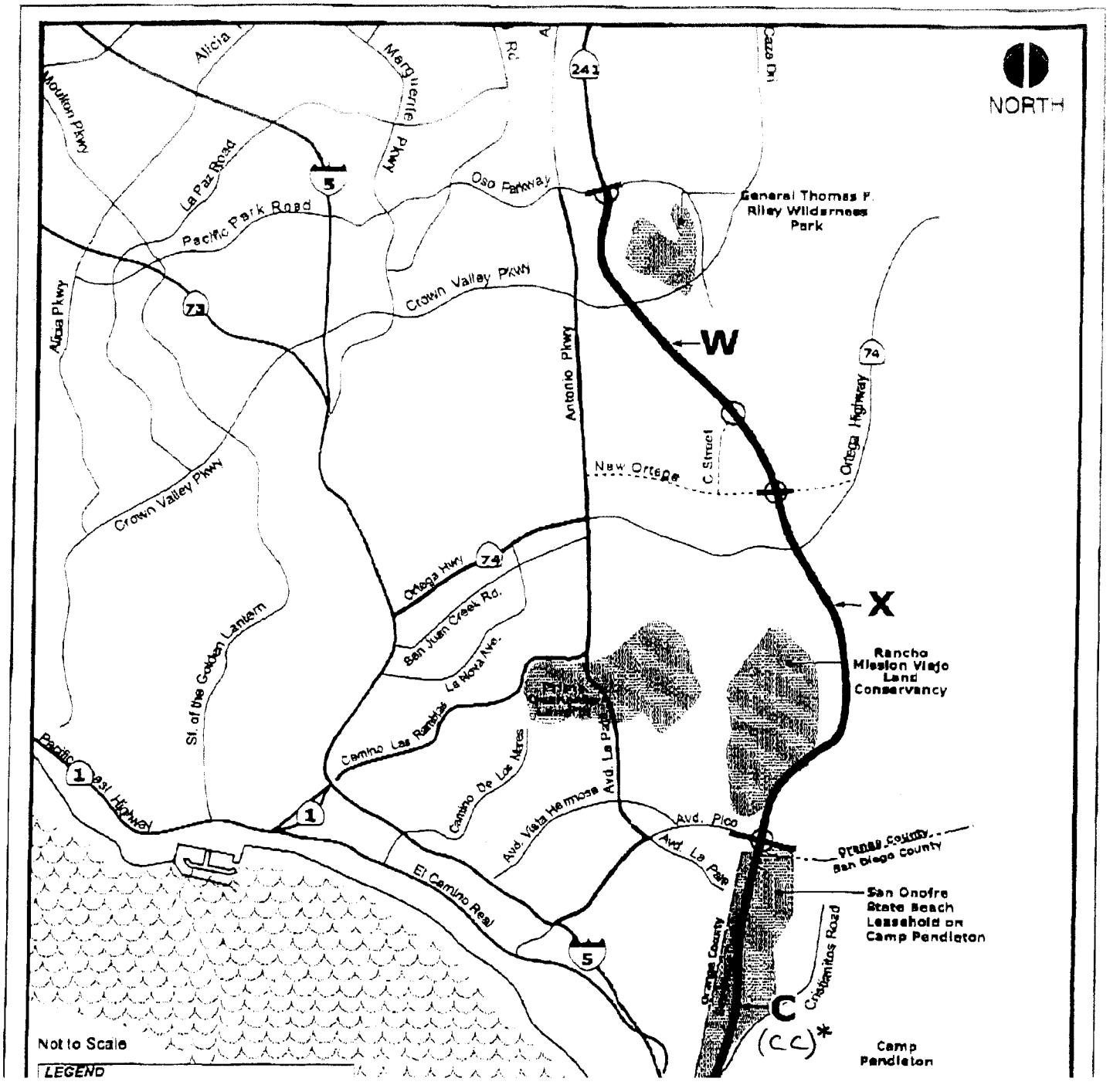
Source: P&D Consultants (2003).

Alignment of the Far East Corridor-West Alternatives

SOCTIIP EIS/SEIR
Project Alternatives Report

Figure 4.2-12

* PSOMAS CONVENTION



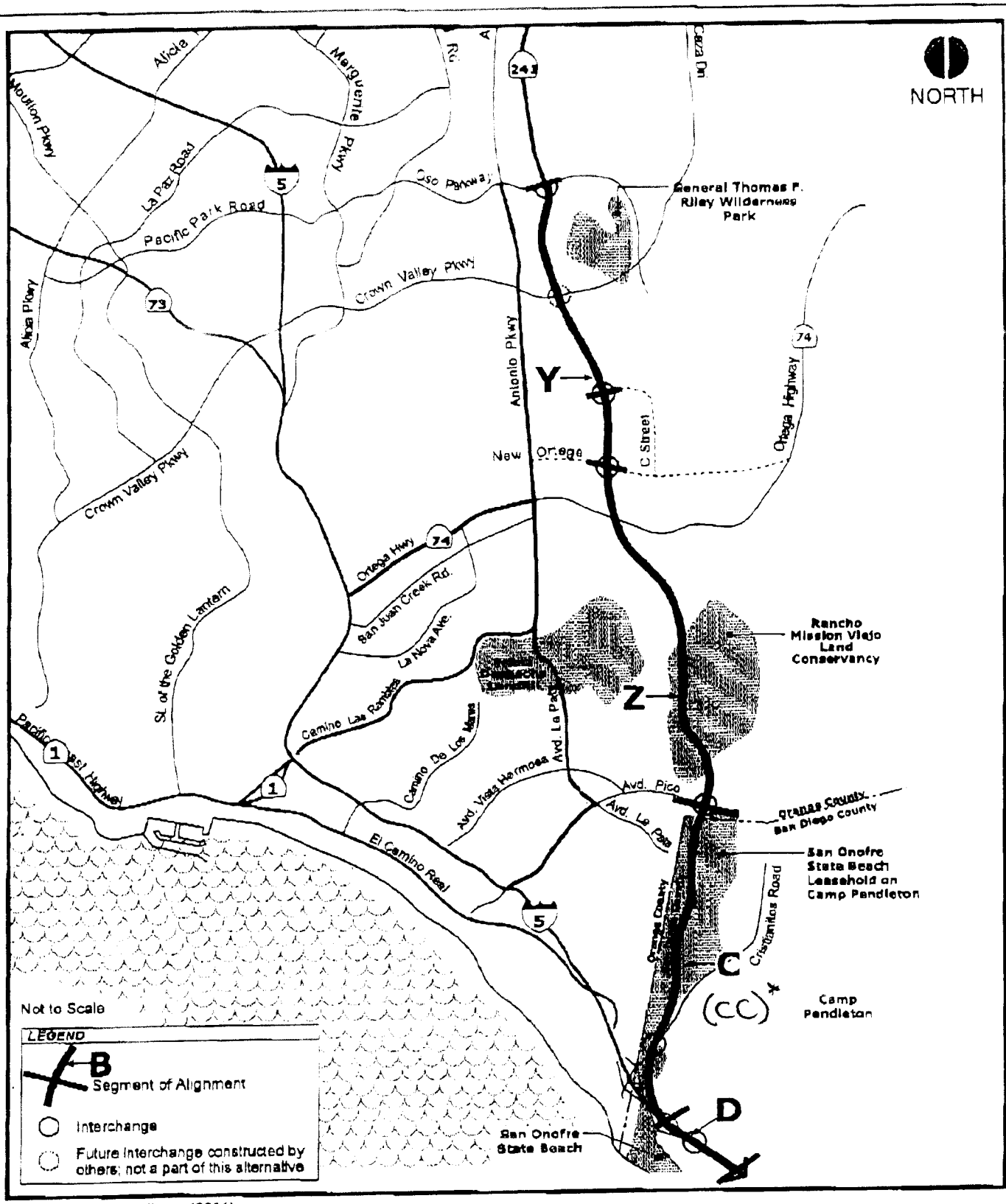
Source: P&D Consultants (2003).

Alignment of the Far East Corridor-Modified Alternatives

SOCTIIP EIS/SEIR
Project Alternatives Report

Figure 4.2-13

* PSOMAS CONVENTION



Source: P&D Consultants (2001).

Alignment of the A7C-Far East Crossover-Modified Alternatives

* PSOMAS CONVENTION

APPENDIX B
HYDRAULIC MODEL INPUT & RESULTS
FEC ALTERNATIVE AT CAÑADA GOBERNADORA
(MODEL "A")

Appendix B. **Hydraulic Model Input & Results**

FEC Alternative at Canada Gobernadora (Model A)

- Model Report
- Project geometry, plan view
- Cross Sections comparing 100-yr existing and project geometries and water surface elevations
- Geometry and water surface elevation profile

Cross sections associated with the proposed bridge structure include:

1002 (3287)

973 (3193)

943 (3093)

912 (2991)

881 (2889)

850 (2790)

818 (2683)

HEC-RAS Version 3.0.1 Mar 2001
U.S. Army Corp of Engineers
Hydrologic Engineering Center
609 Second Street, Suite D
Davis, California 95616-4687
(916) 756-1104

```
X     X  XXXXXX    XXXX        XXXX       XX      XXXX
X     X  X        X    X       X   X     X  X    X
X     X  X        X            X   X    X    X   X
XXXXXXX  XXXX     X       XXX  XXXX     XXXXXX    XXXX
X     X  X        X            X  X     X    X        X
X     X  X        X    X       X   X    X    X        X
X     X  XXXXXX    XXXX        X    X   X    X   XXXXX
```

PROJECT DATA
Project Title: Project Model A
Project File : PMA.prj
Run Date and Time: 11/14/02 8:26:27 AM

Project in English units

Project Description:
FEC Alternative - Canada Gobernadora Crossing

PLAN DATA

Plan Title: Existing Flow/Existing Geometry
Plan File : p:\2PDA0104\Hydr\LHS\Modeling\Model A\HecRas A\PMA.p01

Geometry Title: Existing Conditions
Geometry File : p:\2PDA0104\Hydr\LHS\Modeling\Model A\HecRas A\PMA.g01

Flow Title : Existing Conditions
Flow File : p:\2PDA0104\Hydr\LHS\Modeling\Model A\HecRas A\PMA.f01

Plan Summary Information:
Number of: Cross Sections = 51 Mulitple Openings = 0
Culverts = 0 Inline Weirs = 0
Bridges = 0

Computational Information
Water surface calculation tolerance = 0.01
Critical depth calculaton tolerance = 0.01
Maximum number of interations = 20
Maximum difference tolerance = 0.3
Flow tolerance factor = 0.001

Computation Options
Critical depth computed only where necessary
Conveyance Calculation Method: At breaks in n values only
Friction Slope Method: Average Conveyance
Computational Flow Regime: Mixed Flow

FLOW DATA

Flow Title: Existing Conditions
Flow File : p:\2PDA0104\Hydr\LHS\Modeling\Model A\HecRas A\PMA.f01

Flow Data (cfs)

River	Reach	RS	Q2	Q5	Q10	Q25	Q50	Q100	Q100HC
Canada	GobernadoMiddle	4267.755	1	52	141	491	1097	1720	5804

Boundary Conditions

River	Reach	Profile	Upstream	Downstream
Canada	GobernadoMiddle	Q2	Normal S = .006	Normal S = .002
Canada	GobernadoMiddle	Q5	Normal S = .006	Normal S = .002
Canada	GobernadoMiddle	Q10	Normal S = .006	Normal S = .002
Canada	GobernadoMiddle	Q25	Normal S = .006	Normal S = .002
Canada	GobernadoMiddle	Q50	Normal S = .006	Normal S = .002
Canada	GobernadoMiddle	Q100	Normal S = .006	Normal S = .002
Canada	GobernadoMiddle	Q100HC	Normal S = .006	Normal S = .002

GEOMETRY DATA

Geometry Title: Existing Conditions
Geometry File : p:\2PDA0104\Hydr\LHS\Modeling\Model A\HecRas A\PMA.g01

CROSS SECTION RIVER: Canada Gobernado
REACH: Middle RS: 4267.755

INPUT
Description:
Station Elevation Data num= 39

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	392.11	24.15	387.63	40.15	385.4	60.41	383.69	82.28	382.45
98.84	380.27	149.27	380.69	247.37	380.99	290.66	380.27	327.89	380.16
351.91	379.97	420.14	380.67	428.15	380.61	440.99	380.48	452.83	380.37
464.76	380.28	471.12	380.23	481.21	380.17	484.73	380.15	593.31	379.62
638.93	379.71	639.07	379.71	643.17	379.76	649.63	379.84	706.47	380.42
725.22	380.68	734.29	380.05	754.06	378.68	757.18	378.47	763.2	378.17
768.52	378.89	770.16	379.11	777.03	380.05	783.38	380.9	784.86	381.1
788.47	382.78	811.13	391.67	812.43	392.19	819.32	393.73		

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	639.07	.05	777.03	.035	811.13	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
725.22	783.38	37.27	37.4	39.85	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: Canada Gobernado
REACH: Middle RS: 4230.35*

INPUT
Description:
Station Elevation Data num= 66

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	391.58	6.09	390.14	14.4	388.06	21.64	386.32	23.94	385.94
24.5	385.87	33.22	384.7	39.81	384.02	59.89	382.77	64.9	382.57
81.57	381.91	97.99	380.34	136.57	380.73	147.99	380.8	181.42	380.88
245.24	380.82	269.06	380.44	270.53	380.42	288.16	380.22	325.07	380.19
348.89	380.09	373.3	380.31	416.53	380.68	424.47	380.64	437.2	380.55
448.94	380.48	453.27	380.46	460.77	380.4	467.07	380.35	477.08	380.29
480.57	380.27	536.06	379.96	588.21	379.84	593.3	379.86	633.44	379.9
633.58	379.9	637.64	379.94	644.05	380	656.92	380.09	660.17	380.11
700.4	380.41	718.99	380.6	727.7	380.06	729.72	379.94	735.16	379.61
740.27	379.3	746.68	378.92	749.68	378.76	755.46	378.51	760.09	379.12
761.52	379.3	761.61	379.32	764.53	379.7	767.5	380.1	773.03	380.82
774.51	381.16	774.68	381.2	778.69	383.08	782.87	384.83	787.64	386.31
793.47	388.01	794.62	388.35	798.79	389.6	803.85	391.11	805.3	391.54
812.95	392.95								

Manning's n Values num= 10

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	633.58	.046	660.17	.039	718.99	.035	737.35	.035
767.13	.035	773.03	.05	794.62	.05	803.85	.05	812.95	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
718.99	773.03	37.27	37.4	39.85	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: Canada Gobernado
REACH: Middle RS: 4192.95*

INPUT
Description:
Station Elevation Data num= 66

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	391.05	6.04	389.31	14.28	386.7	21.46	384.58	23.74	384.26
24.28	384.19	32.94	383.08	39.46	382.64	59.37	381.86	64.33	381.73
80.87	381.38	97.14	380.41	135.39	380.86	146.71	380.91	179.84	380.97
243.12	380.65	266.73	380.3	268.19	380.28	285.67	380.18	322.26	380.23
345.86	380.2	370.07	380.4	412.92	380.69	420.79	380.67	433.41	380.62
445.05	380.59	449.35	380.58	456.77	380.52	463.03	380.47	472.94	380.41
476.4	380.38	531.42	380.04	583.12	380.06	588.16	380.09	627.95	380.09
764.31	381.23	764.49	381.3	768.9	383.37	773.5	385.4	778.74	386.67
785.16	388.02	786.42	388.3	791.01	389.32	796.58	390.54	798.16	390.9
806.58	392.17								

Manning's n Values num= 10

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	628.09	.043	654.45	.043	712.76	.035	729.72	.035
757.23	.035	762.68	.05	786.42	.05	796.58	.05	806.58	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
712.76	762.68	37.27	37.4	39.85	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: Canada Gobernado
REACH: Middle RS: 4155.56*

INPUT
Description:
Station Elevation Data num= 66

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	390.52	5.98	388.48	14.15	385.34	21.27	382.84	23.53	382.57
24.07	382.51	32.65	381.46	39.12	381.26	58.85	380.94	63.77	380.9
80.16	380.84	96.29	380.48	134.2	380.99	145.42	381.02	178.27	381.06
240.99	380.48	264.4	380.15	265.84	380.13	283.17	380.13	319.44	380.26
342.84	380.32	366.83	380.48	409.31	380.7	417.12	380.7	429.63	380.7
441.16	380.7	445.42	380.7	452.78	380.64	458.98	380.6	468.81	380.52
472.24	380.5	526.77	380.12	578.02	380.29	583.02	380.31	622.46	380.29
622.6	380.29	626.59	380.29	632.89	380.31	645.53	380.32	648.73	380.32
688.26	380.38	706.53	380.42	714.52	380.09	716.37	380.01	721.36	379.8
726.05	379.61	731.93	379.41	734.68	379.33	739.98	379.18	743.24	379.57
744.24	379.69	744.3	379.7	746.36	379.94	748.45	380.19	752.34	380.65
754.11	381.31	754.31	381.39	759.12	383.67	764.14	385.98	769.85	387.04
776.85	388.03	778.23	388.24	783.23	389.04	789.3	389.98	791.03	390.25
800.21	391.38								

Manning's n Values num= 10

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	622.6	.039	648.73	.046	706.53	.035	722.09	.035
747.34	.035	752.34	.05	778.23	.05	789.3	.05	800.21	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
706.53	752.34	37.27	37.4	39.85	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: Canada Gobernado
REACH: Middle RS: 4118.164

INPUT
Description:
Station Elevation Data num= 32

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	389.99	5.93	387.65	14.03	383.98	21.08	381.1	23.86	380.83
32.36	379.84	63.21	380.06	133.02	381.12	176.7	381.15	262.07	380
263.5	379.99	363.6	380.57	441.49	380.82	522.13	380.2	577.88	380.54
639.84	380.44	643.01	380.43	700.3	380.34	709.7	380.05	714.46	379.9
718.94	379.76	732.24	379.52	735.65	379.89	737.27	380.06	741.99	380.57
743.91	381.39	754.77	386.55	760.96	387.4	768.54	388.04	770.03	388.19
775.45	388.76	793.84	390.6						

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	643.01	.05	714.46	.035	770.03	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
700.3	741.99	38.08	39.08	41.5	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: Canada Gobernado
REACH: Middle RS: 4079.07*

INPUT
Description:
Station Elevation Data num= 60

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	389.98	6.18	387.87	12.24	385.51	14.62	384.6	21.96	382.03
24.86	381.73	33.72	380.7	36.52	380.65	48.64	380.2	51.41	380.07
65.86	380.04	74.82	380.08	97.59	380.24	138.59	380.8	179.6	380.88
184.1	380.87	257.97	379.83	273.05	379.65	274.54	379.64	284.08	379.67
317.22	379.77	336.5	379.88	375.13	380.02	378.84	380.03	459.99	380.18
470.17	380.11	487.32	380.07	524.52	379.96	529.06	379.95	544.01	379.92
592.91	380.35	602.1	380.43	618.17	380.46	620.08	380.47	651.41	380.47
664.2	380.45	666.06	380.45	666.65	380.45	669.95	380.44	671.06	380.44
677.55	380.43	729.64	380.37	739.39	380.09	744.32	379.95	748.97	379.81
762.76	379.56	767.17	379.9	769.27	380.06	775.39	380.52	777.86	381.23
790.98	385.37	791.85	385.65	795.29	385.99	799.83	386.49	809.59	387.23
811.51	387.39	812.06	387.44	818.49	388.06	832.48	389.37	842.19	390.07

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	487.32	.041	524.52	.064	620.08	.038	666.06	.053
669.95	.053	729.64	.041	745.18	.041	775.39	.053	811.51	.053
842.19	.053								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
729.64	775.39	38.08	39.08	41.5	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: Canada Gobernado
REACH: Middle RS: 4039.99*

INPUT
Description:
Station Elevation Data num= 60

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	389.98	6.43	388.09	12.73	386.01	15.21	385.21	22.85	382.95
25.86	382.64	35.07	381.57	37.99	381.45	50.6	380.45	53.48	380.18
68.51	380.02	77.82	379.97	101.51	379.96	144.17	380.48	186.82	380.62
191.51	380.59	268.34	379.46	284.03	379.29	285.58	379.28	295.5	379.3
329.98	379.31	350.04	379.43	390.21	379.48	394.07	379.49	478.49	379.54
489.08	379.48	506.92	379.51	545.62	379.59	550.34	379.59	565.89	379.64
616.76	380.22	626.31	380.32	643.03	380.41	645.02	380.42	677.61	380.47

690.91	380.46	692.85	380.46	693.46	380.46	696.9	380.45	698.05	380.45
704.8	380.45	758.99	380.4	769.08	380.13	774.19	380	779	379.87
793.27	379.6	798.69	379.91	801.27	380.05	808.78	380.48	811.81	381.07
827.86	384.52	828.93	384.75	833.14	385.06	838.69	385.58	850.64	386.41
852.99	386.59	853.66	386.64	861.54	387.36	878.65	388.89	890.53	389.54

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	506.92	.047	545.62	.058	645.02	.04	692.85	.057
696.9	.057	758.99	.047	775.9	.047	808.78	.057	852.99	.057
890.53	.057								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
758.99	808.78	38.08	39.08	41.5	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: Canada Gobernado
REACH: Middle RS: 4000.90*

INPUT
Description:
Station Elevation Data num= 60

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	389.97	6.68	388.31	13.22	386.51	15.79	385.83	23.73	383.88
26.86	383.54	36.43	382.43	39.45	382.24	52.55	380.71	55.55	380.29
71.16	380	80.83	379.86	105.44	379.69	149.74	380.17	194.04	380.36
198.91	380.31	278.72	379.09	295.01	378.94	296.62	378.93	306.93	378.92
342.74	378.85	363.57	378.98	405.3	378.95	409.31	378.95	496.99	378.91
507.99	378.85	526.52	378.96	566.71	379.21	571.62	379.24	587.77	379.36
640.6	380.09	650.53	380.21	667.89	380.36	669.95	380.38	703.8	380.48
717.62	380.47	719.64	380.47	720.27	380.46	723.84	380.46	725.03	380.46
732.05	380.46	788.33	380.43	798.77	380.18	804.05	380.04	809.02	379.92
823.78	379.64	830.22	379.92	833.27	380.05	842.17	380.43	845.76	380.91
864.75	383.66	866.01	383.85	870.99	384.14	877.56	384.66	891.69	385.6
894.47	385.79	895.27	385.85	904.58	386.66	924.82	388.41	938.88	389.01

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	526.52	.052	566.71	.053	669.95	.043	719.64	.06
723.84	.06	788.33	.052	806.62	.052	842.17	.06	894.47	.06
938.88	.06								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
788.33	842.17	38.08	39.08	41.5	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: Canada Gobernado
REACH: Middle RS: 3961.82*

INPUT
Description:
Station Elevation Data num= 60

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	389.96	6.92	388.53	13.72	387.01	16.38	386.45	24.61	384.8
27.86	384.45	37.78	383.29	40.92	383.04	54.51	380.96	57.61	380.39
73.8	379.98	83.84	379.75	109.36	379.41	155.32	379.85	201.26	380.1
206.32	380.04	289.09	378.72	306	378.58	307.67	378.57	318.35	378.55
355.49	378.39	377.1	378.52	420.39	378.42	424.54	378.41	515.49	378.27
526.9	378.21	546.12	378.41	587.81	378.83	592.89	378.88	609.65	379.08
664.45	379.96	674.74	380.1	692.76	380.31	694.89	380.34	730	380.48
744.33	380.47	746.42	380.47	747.09	380.47	750.79	380.47	752.02	380.47
759.3	380.47	817.68	380.47	828.46	380.22	833.91	380.09	839.05	379.97
854.3	379.68	861.74	379.93	865.27	380.05	875.57	380.39	879.7	380.75
901.63	382.8	903.09	382.95	908.84	383.21	916.42	383.75	932.74	384.78
935.95	384.99	936.87	385.05	947.62	385.96	970.99	387.93	987.23	388.48

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	546.12	.058	587.81	.047	694.89	.045	746.42	.063

817.68	875.57	38.08	39.08	41.5	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: Canada Gobernado
REACH: Middle RS: 3922.73*

INPUT
Description:
Station Elevation Data num= 60

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	389.96	7.17	388.75	14.21	387.51	16.97	387.06	25.5	385.73
28.86	385.35	39.14	384.16	42.39	383.83	56.46	381.22	59.68	380.5
76.45	379.96	86.85	379.64	113.29	379.13	160.89	379.53	208.49	379.83
213.72	379.76	299.47	378.35	316.98	378.23	318.71	378.22	329.78	378.17
368.25	377.93	390.64	378.07	435.47	377.88	439.78	377.87	533.99	377.63
545.81	377.58	565.72	377.85	608.9	378.45	614.17	378.52	631.53	378.8
688.29	379.82	698.96	379.99	717.62	380.26	719.83	380.29	756.2	380.49
771.05	380.48	773.21	380.48	773.9	380.48	777.73	380.48	779.01	380.48
786.55	380.49	847.02	380.5	858.15	380.26	863.78	380.14	869.08	380.03

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  884.82  379.72  893.26  379.94  897.27  380.04  908.96  380.35  913.65  380.59
  938.52  381.95  940.17  382.05  946.69  382.29  955.29  382.84   973.8  383.97
  977.43  384.19  978.48  384.26  990.67  385.27 1017.17  387.45 1035.57  387.95

Manning's n Values          num=      11
     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val
       0    .035  565.72    .064   608.9    .041  719.83    .047  773.21    .067
  777.73    .067  847.02    .064  868.06    .064  908.96    .067  977.43    .067
 1035.57    .067

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
        847.02  908.96            38.08   39.08    41.5              .1       .3
Ineffective Flow     num=       1
   Sta L   Sta R    Elev  Permanent
888        F

CROSS SECTION           RIVER: Canada Gobernado
REACH: Middle              RS: 3883.652

INPUT
Description: Manual Input for Manning's N Values
Station Elevation Data      num=      33
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  389.95    14.7  388.01   43.86  384.63   58.42  381.47   61.75  380.61
   89.86  379.53  117.21  378.85  215.71  379.57  309.84  377.98   341.2   377.8
  381.01  377.47  404.17  377.62  450.56  377.35  564.72  376.95  585.32   377.3
     630  378.07  635.45  378.16  712.14  379.69  742.48  380.21  744.77  380.25
   782.4  380.49  797.76  380.49     800  380.49     806  380.49   813.8   380.5
  876.37  380.53  915.33  379.76  942.36   380.3   975.4  381.09  984.54  381.36
 1020.08  383.46 1063.34  386.97 1083.92  387.42

Manning's n Values          num=       5
     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val
       0    .035  585.32     .07     630    .035  744.77     .05     800     .07

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
        876.37  942.36           178.65  183.85     189              .1       .3
Ineffective Flow     num=       1
   Sta L   Sta R    Elev  Permanent
888        F

CROSS SECTION           RIVER: Canada Gobernado
REACH: Middle              RS: 3699.802

INPUT
Description:
Station Elevation Data      num=      33
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  389.81   26.38  384.13   37.24   382.2   53.61  380.37   67.88  378.55
   89.66  378.41  105.07  377.89  219.88   374.9  270.09  373.95  356.21  373.46
  408.56   372.9  418.84  372.76  421.06  372.78  423.63  372.78  435.72   372.8
   454.1  372.87  569.58  373.23  619.13  373.83  673.05     374  674.78     374
  701.55  374.09  725.83  373.86  739.29  373.74  741.48  373.76   761.3  374.34
  774.18  374.73  819.61  378.38  825.53  378.81  830.87  379.43  833.85  380.42
  853.01  387.07  857.35  387.91  865.11  389.37

Manning's n Values          num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0    .035  674.78     .05   761.3     .07

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
        701.55   761.3            198.4   201.4   207.1              .1       .3
Ineffective Flow     num=       1
   Sta L   Sta R    Elev  Permanent
888        F

CROSS SECTION           RIVER: Canada Gobernado
REACH: Middle              RS: 3498.424

INPUT
Description:
Station Elevation Data      num=      35
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  383.13   35.92  376.78   43.75  375.98   58.46  374.48  100.66  373.32
  107.26  372.99  129.51  373.14  183.27  374.19  286.82  373.94  445.77  373.32
  503.82  373.11  611.74  373.06  685.17  374.12  686.05  374.14  707.14  374.44
  718.56  374.87   726.4   374.1  731.52  373.62  744.37  369.39  746.07  368.72
  748.52  368.44  758.18   367.5  762.47  368.96  774.08  372.92  776.44  373.73
  777.15  373.75  787.74  374.47  804.23  377.11  815.35  379.88  843.87  381.07
  845.51  381.25  846.37  381.29  847.17   381.3  847.32   381.3  878.42  383.24

Manning's n Values          num=       2
     Sta   n Val     Sta   n Val
       0    .035  685.17     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
        718.56  787.74           211.35  211.45   215.2              .1       .3

CROSS SECTION           RIVER: Canada Gobernado
REACH: Middle              RS: 3286.975

INPUT
Description:
Station Elevation Data      num=      41
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  382.23    1.13  382.09   10.39  381.36   65.87  377.16   75.07  376.08
   80.45  375.45   90.23  373.98  103.72   370.1  111.41  368.18  138.72  367.73
  141.75  367.66  148.64  368.08  190.69  371.39  203.52  372.13  247.98  373.62
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391.53	373.41	418.63	373.42	455.63	373.33	524.87	373.97	599.9	373.99
622.93	374.52	691.86	374.06	695.94	374.03	697.16	374.02	697.28	374.02
698.42	373.87	702.55	373.63	741.11	373.11	756.07	368.96	765.07	367.61
784.5	367.08	786.41	366.97	787.22	367.05	789.32	367.59	804.94	372.08
810.1	373.78	821.59	375.99	833.61	378.3	839.94	379.59	851.47	380.87
882.48	384.3								

Manning's n Values num= 2

Sta	n Val	Sta	n Val
0	.035	697.16	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
741.11	810.1	93.39	93.81	91.77	.1	.3

CROSS SECTION RIVER: Canada Gobernado
REACH: Middle RS: 3193.163

INPUT
Description:
Station Elevation Data num= 44

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	382.42	11.12	380.92	32.62	379.3	48.95	378.23	80.43	372.63
96.93	369.66	99.94	369.11	107.39	368.47	117.15	367.47	124.2	367.29
157.81	367.74	191.03	369.76	260.65	371.97	291.13	373.06	384.69	371.82
391.63	371.66	468.56	371.05	563.78	371.2	572.23	371.18	586.27	371.7
649.99	373.15	688.3	374.11	692.62	374.22	712.5	374.72	726.38	374.68
733.21	375.05	738.39	374.33	740.8	373.9	756.42	367.21	757.19	366.85
757.39	366.8	758.1	366.75	765.97	366.3	770.7	365.89	772.27	366.03
781.06	367.16	784.35	367.55	804.22	375.02	811.59	377.8	815.92	379.13
817.3	379.55	818.1	379.8	829.49	381.01	865.78	385.79		

Manning's n Values num= 2

Sta	n Val	Sta	n Val
0	.035	692.62	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
733.21	804.22	99.93	100.29	97.53	.1	.3

CROSS SECTION RIVER: Canada Gobernado
REACH: Middle RS: 3092.876

INPUT
Description:
Station Elevation Data num= 45

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	385.61	1.11	385.31	6.76	383.58	34.94	377.14	47.85	374.06
55.69	372.53	66.4	369.56	77.76	367.29	105.7	367.46	201.22	370.51
258.35	371.9	371.01	369.43	444.03	367.78	453.47	367.71	465.36	367.73
541.75	367.58	564.63	368.44	592.29	368.38	600.3	368.78	636.68	369.64
640.84	369.74	647.6	369.9	654.79	370.3	658.87	370.47	684.03	368.68
686.17	368.12	689.17	367.36	705.2	366.53	717.85	365.92	718.97	366.07
729.64	367.34	732.67	367.66	737	369.37	739.48	370.59	746.39	373.45
769.01	379.82	770.61	380.26	771.57	380.55	771.89	380.59	772.41	380.59
802.28	384.14	806.4	384.66	807.27	384.81	809.25	385.32	832.27	389.7

Manning's n Values num= 2

Sta	n Val	Sta	n Val
0	.035	640.84	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
658.87	739.48	100.86	102.03	95.28	.1	.3

CROSS SECTION RIVER: Canada Gobernado
REACH: Middle RS: 2990.847

INPUT
Description:
Station Elevation Data num= 38

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	384.06	26.78	375.42	30.5	374.11	55.41	369.77	64.45	368.11
68.75	367.92	87.2	367.07	155.41	367.72	159.12	367.81	250.35	370.02
345.66	367.93	440.12	367.25	478.09	366.95	506.42	366.74	632.82	366.95
636.49	366.96	685.33	367.04	705.21	367.18	728.98	367.03	736.02	367.35

Manning's n Values num= 2

Sta	n Val	Sta	n Val
0	.035	632.82	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
705.21	736.02	101.13	101.73	108.3	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888		F	

CROSS SECTION RIVER: Canada Gobernado
REACH: Middle RS: 2889.112

INPUT
Description:
Station Elevation Data num= 36

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	384.78	5.51	383.73	11.94	381.98	32.3	377.42	46.1	375.14
65.27	372.07	65.79	372	66.05	371.97	98.26	367.75	118.96	366.92
134.52	366.53	134.9	366.52	219.5	367.44	278.51	368.35	327.2	368.29

469.88	367.27	500.82	367.03	620.66	367.23	688.76	367.25	694.5	367.25
769.02	367.27	798.48	367.04	815.87	367.31	819.37	367.85	829.33	369.08
847.39	370.8	851.38	371.04	854.56	371.23	866.1	371.01	888.5	371.64
898.14	372.05	901.08	372.14	920.13	374.89	924.05	375.93	936.41	380.04
956.61	384.51								

Manning's n Values num= 2

Sta	n Val	Sta	n Val
0	.035	688.76	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
769.02	815.87	99.45	99.45	100.05	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: Canada Gobernado
REACH: Middle RS: 2789.662

INPUT
Description:
Station Elevation Data num= 34

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	383.75	14.96	381.06	17.31	380.55	53.73	376.99	74.27	374.81
81.09	373.75	95.17	370.79	99.11	370.02	99.59	369.89	110.61	368.45
125.86	367.37	160.51	366.19	242.37	367.45	458.48	367.2	485.5	367.29
501.37	367.33	521.79	367.31	735.91	367.37	737.87	367.37	794.69	367.39
828.13	367.05	856.9	367.27	862.55	367.35	865.26	367.47	881.88	370.44
889.38	371.52	905.42	373.82	931.37	374.27	934.55	374.55	941.81	376.03
943.42	376.29	957.67	378.48	967.79	381.36	983.83	384.36		

Manning's n Values num= 2

Sta	n Val	Sta	n Val
0	.035	737.87	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
794.69	865.26	35.45	35.52	36.33	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: Canada Gobernado
REACH: Middle RS: 2754.14*

INPUT
Description:
Station Elevation Data num= 64

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	383.74	1.81	383.41	14.89	381.16	17.23	380.7	28.5	379.38
53.49	376.34	67.06	374.61	73.93	373.75	80.72	372.68	94.74	369.96
96.71	369.59	98.66	369.32	99.14	369.23	110.11	368.17	125.29	367.3
142.46	366.75	153.2	366.38	154.75	366.33	159.78	366.24	169.45	366.39
208.01	366.77	241.27	367.15	456.4	367.2	483.3	367.29	489.42	367.3
499.09	367.33	519.42	367.34	656.24	367.5	732.57	367.48	734.52	367.48
765.5	367.48	767.55	367.47	791.08	367.47	816.41	366.96	826.26	366.76
832.2	366.64	835.12	366.58	838.17	366.64	842.19	366.74	856.9	366.97
860.39	367.02	864.03	367.2	869.7	367.51	872.43	367.72	887.37	370.9
888.07	371.05	888.94	371.15	889.45	371.22	897.14	372.07	913.57	373.88
914.01	373.89	938.51	374.18	940.16	374.35	942.4	374.68	943.42	374.84
950.86	376.52	952.5	376.85	955.77	377.49	967.1	379.05	967.45	379.13
973.02	380.5	977.47	381.63	979.17	381.95	993.91	384.55		

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	734.52	.045	767.55	.04	791.08	.05	872.43	.05
993.91	.05								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
791.08	872.43	35.45	35.52	36.33	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: Canada Gobernado
REACH: Middle RS: 2718.62*

INPUT
Description:
Station Elevation Data num= 64

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	383.74	1.8	383.4	14.82	381.26	17.15	380.84	28.37	379.31
53.24	375.68	66.76	373.67	73.6	372.69	80.35	371.61	94.31	369.12
96.27	368.78	98.21	368.62	98.69	368.56	109.61	367.88	124.72	367.24
141.81	366.72	152.5	366.35	154.05	366.3	159.05	366.29	168.67	366.44
207.06	366.61	240.17	366.85	454.32	367.2	481.09	367.28	487.19	367.3
496.82	367.33	517.05	367.36	653.25	367.66	729.23	367.6	731.17	367.6
762.01	367.57	764.05	367.57	787.48	367.55	818.89	366.73	831.11	366.4
838.49	366.2	842.1	366.1	845.17	366.2	849.21	366.38	863.99	366.72
867.5	366.79	871.15	367.13	876.86	367.68	879.59	367.96	894.9	371.73
895.61	371.9	896.5	371.96	897.03	372	904.9	372.62	921.72	373.94
922.18	373.96	947.26	374.11	948.95	374.43	951.25	374.9	952.28	375.12
959.9	377.02	961.59	377.41	964.94	378.19	976.54	379.63	976.9	379.69
982.59	380.88	987.16	381.9	988.9	382.23	1003.98	384.74		

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	731.17	.04	764.05	.045	787.48	.05	879.59	.05
1003.98	.05								

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
787.48 879.59 35.45 35.52 36.33 .1 .3
Ineffective Flow num= 1
Sta L Sta R Elev Permanent
888 F

CROSS SECTION RIVER: Canada Gobernado
REACH: Middle RS: 2683.108

INPUT
Description:
Station Elevation Data num= 35

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	383.73	1.79	383.39	28.24	379.24	66.45	372.74	95.83	367.97
141.16	366.69	151.8	366.32	153.34	366.27	167.9	366.49	206.11	366.45
484.96	367.3	650.26	367.81	758.52	367.67	760.55	367.66	783.87	367.63
821.38	366.5	835.97	366.04	844.77	365.76	849.09	365.63	852.17	365.76
856.23	366.02	871.08	366.47	874.61	366.57	886.76	368.21	902.42	372.56
903.15	372.75	904.06	372.76	930.34	374.02	956.01	374.05	960.09	375.12
974.1	378.9	986.34	380.24	992.17	381.26	998.62	382.51	1014.06	384.93

Manning's n Values num= 2

Sta	n Val	Sta	n Val
0	.035	760.55	.05

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
783.87 886.76 39.43 39.25 39.59 .1 .3
Ineffective Flow num= 1
Sta L Sta R Elev Permanent
888 F

CROSS SECTION RIVER: Canada Gobernado
REACH: Middle RS: 2643.86*

INPUT
Description:
Station Elevation Data num= 75

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	383.67	1.88	383.36	24.62	380.2	29.59	379.52	69.63	373.66
70.69	373.51	83.96	371.67	92.22	370.41	100.41	369.28	100.93	369.26
103.06	369.2	146.15	367.95	147.91	367.89	159.06	367.4	160.67	367.33
175.93	367.24	180.38	367.16	215.97	366.49	238.26	366.14	272.93	365.66
279.92	365.56	288.25	365.46	314.56	365.64	315.86	365.64	318.21	365.67
351.95	366.23	383.59	366.73	399.63	366.82	483.21	367.18	498.16	367.13
508.15	367.14	641.09	367.22	681.36	367.36	724.41	367.37	738.69	367.38
744.24	367.37	760.35	367.31	794.79	367.14	796.92	367.12	821.36	367.01
823.06	366.96	856.15	366.02	869.68	365.62	872.71	365.54	877.85	365.38
881.85	365.27	885.17	365.38	887.85	365.5	889.54	365.59	905.52	365.96
909.32	366.04	916.53	366.77	918.71	367.03	918.74	367.03	922.39	367.46
937.51	371.12	938.22	371.28	939.09	371.3	945.14	371.61	948.93	371.87
964.47	373.2	979.88	373.92	989.25	374.44	991.63	375.09	993.09	375.44
993.19	375.46	1006.72	378.77	1018.53	380.08	1024.16	381.02	1025.8	381.31
1029.33	381.96	1030.39	382.18	1031.11	382.31	1041.15	384.05	1045.3	384.78

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	796.92	.047	821.36	.05	922.39	.047	1045.3	.047

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
821.36 922.39 39.43 39.25 39.59 .1 .3
Ineffective Flow num= 1
Sta L Sta R Elev Permanent
888 F

CROSS SECTION RIVER: Canada Gobernado
REACH: Middle RS: 2604.61*

INPUT
Description:
Station Elevation Data num= 75

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	383.61	1.96	383.33	25.74	380.41	30.94	[illegible]	[illegible]	[illegible]
368.01	365.62	401.1	366.52	417.87	366.66	505.26	367.13	520.89	367
531.34	366.98	670.35	366.74	712.45	366.91	757.47	366.98	772.4	367.01
778.21	367.01	795.05	366.9	831.07	366.61	833.29	366.59	858.84	366.38
860.41	366.34	890.92	365.55	903.4	365.21	906.19	365.13	910.92	365.01
914.62	364.91	918.17	364.99	921.04	365.09	922.85	365.15	939.96	365.44
944.02	365.51	951.75	366.06	954.08	366.31	954.12	366.31	958.02	366.71
972.6	369.68	973.28	369.81	974.13	369.83	979.95	370.16	983.61	370.5
998.59	372.38	1013.45	373.8	1022.49	374.83	1024.78	375.48	1026.19	375.78
1026.29	375.8	1039.33	378.63	1050.73	379.93	1056.15	380.77	1057.73	381.04
1061.14	381.61	1062.16	381.85	1062.85	381.99	1072.54	383.84	1076.53	384.63

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	833.29	.044	858.84	.05	958.02	.044	1076.53	.044

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
858.84 958.02 39.43 39.25 39.59 .1 .3
Ineffective Flow num= 1
Sta L Sta R Elev Permanent
888 F

CROSS SECTION RIVER: Canada Gobernado
REACH: Middle RS: 2565.36*

INPUT
Description:
Station Elevation Data num= 75

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	383.54	2.05	383.3	26.86	380.62	32.29	380.08	75.98	375.51
77.14	375.39	91.63	373.96	100.63	372.74	109.58	371.89	110.14	371.86
112.47	371.79	159.49	370.39	161.41	370.28	173.58	369.55	175.34	369.45
191.99	368.74	196.85	368.51	235.68	366.56	260.01	365.38	297.85	363.74
305.47	363.42	314.56	363.07	343.27	363.43	344.69	363.44	347.25	363.53
384.07	365	418.61	366.32	436.11	366.5	527.31	367.08	543.63	366.86
554.53	366.82	699.61	366.26	743.55	366.46	790.53	366.59	806.11	366.65
812.18	366.65	829.76	366.49	867.34	366.08	869.66	366.05	896.33	365.76
897.76	365.72	925.69	365.07	937.11	364.79	939.66	364.73	944	364.63
947.38	364.55	951.17	364.61	954.22	364.67	956.15	364.72	974.39	364.93
978.73	364.98	986.97	365.35	989.46	365.58	989.49	365.58	993.66	365.96
1007.69	368.23	1008.35	368.34	1009.16	368.37	1014.77	368.7	1018.29	369.13
1032.72	371.57	1047.03	373.69	1055.73	375.23	1057.94	375.87	1059.29	376.12
1059.39	376.14	1071.95	378.5	1082.92	379.77	1088.15	380.53	1089.66	380.76
1092.95	381.27	1093.93	381.52	1094.59	381.67	1103.92	383.63	1107.77	384.47

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	869.66	.041	896.33	.05	993.66	.041	1107.77	.041

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
896.33	993.66	39.43	39.25	39.59	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: Canada Gobernado
REACH: Middle RS: 2526.11*

INPUT
Description:
Station Elevation Data num= 75

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	383.48	2.13	383.27	27.99	380.84	33.64	380.36	79.16	376.43
80.36	376.33	95.46	375.11	104.84	373.9	114.16	373.2	114.74	373.17
117.18	373.09	166.16	371.6	168.16	371.47	180.84	370.63	182.67	370.51
200.02	369.49	205.08	369.19	245.54	366.6	270.89	365	310.3	362.78
318.24	362.35	327.71	361.87	357.62	362.33	359.1	362.34	361.78	362.45
400.14	364.39	436.11	366.11	454.35	366.34	549.37	367.04	566.36	366.73
577.73	366.66	728.87	365.79	774.65	366.01	823.59	366.21	839.83	366.28
846.14	366.29	864.46	366.09	903.61	365.55	906.03	365.51	933.81	365.13
935.12	365.11	960.46	364.59	970.83	364.38	973.14	364.33	977.08	364.25
980.15	364.19	984.16	364.22	987.41	364.26	989.46	364.28	1008.83	364.42
1013.44	364.45	1022.18	364.65	1024.83	364.86	1024.87	364.86	1029.29	365.21
1042.78	366.79	1043.41	366.86	1044.2	366.91	1049.59	367.25	1052.98	367.75
1066.85	370.75	1080.6	373.57	1088.97	375.62	1091.09	376.27	1092.4	376.47
1092.49	376.48	1104.56	378.36	1115.11	379.61	1120.14	380.28	1121.6	380.49
1124.75	380.93	1125.7	381.19	1126.34	381.36	1135.31	383.43	1139	384.32

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	906.03	.038	933.81	.05	1029.29	.038	1139	.038

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
933.81	1029.29	39.43	39.25	39.59	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: Canada Gobernado
REACH: Middle RS: 2486.871

INPUT
Description:
Station Elevation Data num= 45

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	383.42	29.11	381.05	83.59	377.27	99.29	376.26	109.05	375.07
119.35	374.47	121.88	374.39	172.83	372.82	213.31	369.86	281.76	364.62
322.76	361.82	331.02	361.28	340.87	360.67	371.98	361.23	373.52	361.24
376.3	361.38	416.2	363.77	453.62	365.9	472.59	366.18	571.42	366.99
589.1	366.59	758.13	365.31	856.65	365.82	873.54	365.92	880.11	365.93
899.16	365.68	971.3	364.51	972.47	364.49	1006.62	363.93	1012.91	363.83
1020.6	363.84	1057.4	363.94	1060.2	364.14	1060.24	364.14	1064.92	364.46
1084.41	365.8	1087.66	366.38	1114.18	373.45	1124.25	376.66	1125.5	376.81
1153.53	380.21	1156.56	380.59	1158.08	381.04	1166.69	383.22	1170.24	384.17

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.035	971.3	.05	1064.92	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
971.3	1064.92	194.4	194.45	192.85	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: Canada Gobernado
REACH: Middle RS: 2292.400

INPUT
Description:

Station Elevation Data num= 43

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	383.99	.8	383.83	19.66	380.38	37.64	377.61	49.29	374.9
97.49	368.87	103.94	368.27	111.23	367.81	117.02	367.35	151.9	364.43
165.13	363.54	174.27	362.54	186.25	361.33	193.86	360.89	226.47	361.1
275.33	361.22	310.02	362.68	378.16	366.22	410.38	366.5	470.3	365.08
530.56	363.42	607.88	363.43	640.21	363.65	785.41	364.5	887.85	364.67
894.31	364.68	902.83	364.69	928.18	364.36	939.32	364.7	953.57	365.61
958.96	365.95	964.16	366.28	997.66	368.05	1007.73	369.32	1022.08	372.01
1027.26	373.67	1032.03	376.53	1039.34	380.03	1060.22	383.36	1060.88	383.47
1066.29	383.99	1071.35	384.66	1077.49	385.05				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.035	894.31	.05	958.96	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
902.83	939.32	36.09	35.65	35.39	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: Canada Gobernado
REACH: Middle RS: 2256.75*

INPUT
Description:
Station Elevation Data num= 86

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	384.07	.79	383.92	5.07	383.14	19.33	380.57	20.06	380.46
37.01	377.37	37.43	377.26	45.81	375.11	48.46	374.5	65.53	371.71
82.7	369.43	95.85	367.68	102.2	367	103.29	366.91	106.04	366.69
108.16	366.57	109.36	366.51	115.06	366.15	118.45	365.92	149.35	363.79
162.36	363.07	171.35	362.27	183.13	361.29	190.61	360.94	197.35	360.97
218.93	361.29	222.67	361.33	257.46	361.58	270.71	361.67	304.82	363.01
332.88	364.33	371.82	365.97	373.52	365.98	381.43	366.03	403.5	366.05
457.97	364.68	462.41	364.59	521.66	363.29	597.68	363.33	600.04	363.35
629.47	363.52	771.18	364.24	772.23	364.24	836.55	364.23	872.96	364.19
879.31	364.18	882.17	364.18	887.68	364.17	906.18	363.93	915.04	363.68
918.19	363.59	919.22	363.56	920.91	363.51	924.98	363.39	931.78	363.77
933.69	363.88	936.21	364.15	940.42	365.05	942.87	365.5	948.76	365.97
952.54	366.15	955.05	366.22	961.23	366.41	962.17	366.49	966.29	366.8
969.05	367.01	975.22	367.45	983.11	367.88	1013.14	369.47	1013.33	369.48
1021.55	370.15	1026.64	370.58	1044.05	372.69	1045.61	372.89	1052.46	374.29
1058.76	376.65	1060.59	377.2	1068.43	379.57	1090.86	382.04	1096.03	382.64
109[illegible].9	382.75	1104.05	383.3	1107.75	383.67	1110.74	383.99	1113.96	384.21
1118.86	384.54								

Manning's n Values num= 9

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	82.7	.032	879.31	.044	882.17	.026	887.68	.035
923.78	.035	936.21	.035	962.17	.035	1118.86	.035		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
887.68	936.21	36.09	35.65	35.39	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: Canada Gobernado
REACH: Middle RS: 2221.10*

INPUT
Description:
Station Elevation Data num= 86

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	384.15	.77	384	4.98	383.24	19	380.77	19.72	380.66
36.38	377.12	36.8	377.01	45.02	374.69	47.64	374.1	64.41	370.68
81.29	368.31	94.22	366.49	100.45	365.74	101.53	365.63	104.23	365.37
106.32	365.26	107.5	365.21	113.09	364.94	116.43	364.77	146.8	363.16
159.59	362.61	168.42	362	180	361.26	187.36	360.98	193.98	361
215.2	361.51	218.87	361.57	253.07	361.98	266.09	362.13	299.62	363.34
327.2	364.5	365.47	365.71	367.15	365.72	374.92	365.76	396.61	365.61
930.56	363.13	933.1	363.59	938.33	365.2	941.38	365.98	948.71	366.63
953.41	366.81	956.53	366.84	964.22	366.92	965.39	367.02	970.5	367.44
973.93	367.74	981.62	368.38	991.42	368.92	1028.77	370.9	1029	370.9
1039.22	371.46	1045.55	371.83	1067.21	373.59	1069.14	373.76	1077.66	374.91
1085.5	376.76	1087.77	377.2	1097.51	379.12	1125.41	381.35	1131.83	381.92
1132.92	382.02	1141.81	382.61	1146.41	382.97	1150.13	383.33	1154.14	383.61
1160.22	384.03								

Manning's n Values num= 9

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	81.29	.029	864.3	.038	867.12	.032	872.54	.035
917.59	.035	933.1	.035	965.39	.035	1160.22	.035		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
872.54	933.1	36.09	35.65	35.39	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: Canada Gobernado
REACH: Middle RS: 2185.45*

INPUT
Description:
Station Elevation Data num= 86

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	384.23	.76	384.09	4.89	383.35	18.67	380.96	19.37	380.85
35.75	376.88	36.16	376.77	44.24	374.26	46.81	373.7	63.3	369.66
79.88	367.19	92.58	365.3	98.71	364.47	99.76	364.34	102.42	364.04
104.47	363.95	105.63	363.92	111.13	363.74	114.41	363.63	144.26	362.52
156.82	362.14	165.5	361.72	176.88	361.22	184.1	361.03	190.61	361.03
211.46	361.73	215.07	361.8	248.68	362.38	261.47	362.58	294.42	363.67
321.52	364.67	359.13	365.46	360.78	365.46	368.42	365.48	389.73	365.16
442.34	363.66	446.63	363.62	503.86	363.04	577.29	363.14	579.57	363.15
607.99	363.26	744.87	363.73	745.88	363.73	808.01	363.48	843.17	363.23
849.3	363.18	852.06	363.16	857.39	363.13	887.74	362.72	902.26	362.14
907.44	361.92	909.12	361.85	911.89	361.73	918.57	361.44	925.49	362.17
927.43	362.39	930	363.04	936.25	365.35	939.89	366.47	948.66	367.29
954.27	367.46	958.01	367.45	967.2	367.43	968.6	367.56	974.72	368.09
978.82	368.47	988.01	369.31	999.73	369.95	1044.39	372.32	1044.67	372.33
1056.9	372.77	1064.47	373.09	1090.36	374.5	1092.67	374.64	1102.85	375.53
1112.23	376.88	1114.95	377.2	1126.6	378.66	1159.95	380.66	1167.64	381.2
1168.94	381.3	1179.57	381.92	1185.08	382.28	1189.52	382.66	1194.31	383.01
1201.59	383.51								

Manning's n Values num= 9

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	79.88	.026	849.3	.032	852.06	.038	857.39	.035
911.4	.035	930	.035	968.6	.035	1201.59	.035		

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
857.39 930 36.09 35.65 35.39 .1 .3
Ineffective Flow num= 1
Sta L Sta R Elev Permanent
888 F

CROSS SECTION · RIVER: Canada Gobernado
REACH: Middle RS: 2149.80*

INPUT
Description:
Station Elevation Data num= 86

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	384.31	.75	384.17	4.81	383.45	18.34	381.16	19.03	381.05
35.11	376.64	35.52	376.52	43.46	373.84	45.98	373.3	62.18	368.64
78.47	366.08	90.95	364.11	96.97	363.21	98	363.06	100.61	362.71
102.63	362.63	103.77	362.62	109.17	362.54	112.39	362.48	141.71	361.88
154.05	361.67	162.58	361.45	173.75	361.18	180.85	361.07	187.25	361.07
207.73	361.95	211.27	362.03	244.28	362.77	256.85	363.04	289.22	364
315.84	364.84	352.78	365.21	354.4	365.21	361.91	365.2	382.84	364.72
434.52	363.15	438.74	363.14	494.96	362.91	567.09	363.05	569.33	363.06
597.25	363.13	731.71	363.47	732.71	363.47	793.73	363.1	828.27	362.75
834.3	362.68	837.01	362.66	842.25	362.61	878.51	362.12	895.88	361.37
902.07	361.09	904.07	360.99	907.39	360.84	915.36	360.46	922.35	361.38
924.3	361.64	926.89	362.48	934.16	365.49	938.41	366.95	948.6	367.95
955.14	368.12	959.49	368.07	970.19	367.94	971.81	368.09	978.93	368.74
983.71	369.21	994.4	370.23	1008.04	370.99	1060.02	373.75	1060.34	373.76
1074.57	374.09	1083.38	374.35	1113.51	375.4	1116.2	375.51	1128.05	376.14
1138.96	376.99	1142.13	377.21	1155.69	378.2	1194.5	379.96	1203.45	380.48
1204.96	380.57	1217.33	381.23	1223.74	381.58	1228.91	381.99	1234.49	382.4
1242.95	383								

Manning's n Values num= 9

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	78.47	.023	834.3	.026	837.01	.044	842.25	.035
905.21	.035	926.89	.035	971.81	.035	1242.95	.035		

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
842.25 926.89 36.09 35.65 35.39 .1 .3
Ineffective Flow num= 1
Sta L Sta R Elev Permanent
888 F

CROSS SECTION RIVER: Canada Gobernado
REACH: Middle RS: 2114.162

INPUT
Description:
Station Elevation Data num= 49

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	384.39	4.72	383.56	18.69	381.24	34.88	376.27	42.68	373.42
45.16	372.9	61.06	367.62	77.06	364.96	96.24	361.77	98.8	361.38
100.78	361.32	110.37	361.34	183.88	361.1	203.99	362.17	239.89	363.17
310.16	365.01	348.03	364.95	355.4	364.93	426.71	362.64	559.09	362.96
718.55	363.22	779.46	362.72	821.96	362.15	827.1	362.09	869.29	361.52
889.49	360.6	896.69	360.26	899.02	360.14	902.88	359.95	912.16	359.49
919.2	360.58	921.17	360.9	923.78	361.93	932.08	365.64	936.92	367.43
948.55	368.61	956.01	368.78	973.17	368.45	983.15	369.39	1000.79	371.16
1016.35	372.03	1075.64	375.18	1092.24	375.4	1136.66	376.3	1169.31	377.21
1229.05	379.27	1262.4	380.89	1274.66	381.8	1284.32	382.49		

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	77.06	.02	821.96	.05	899.02	.035

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
827.1 923.78 38.93 38.51 38.6 .1 .3
Ineffective Flow num= 1
Sta L Sta R Elev Permanent

888 F

CROSS SECTION RIVER: Canada Gobernado
REACH: Middle RS: 2075.65*

INPUT
Description:
Station Elevation Data num= 82

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	384.16	4.79	383.34	18.98	381.04	25.36	379.27	35.41	376.47
39.84	375.02	43.33	373.89	45.85	373.4	61.99	368.61	62.94	368.46
78.24	366	78.65	365.94	97.71	362.78	100.31	362.37	102.32	362.26
112.06	361.99	122.01	361.67	134.48	361.29	152.24	361.12	156.39	361.08
166.24	360.99	186.69	361	188.48	361.08	207.1	361.92	238.96	362.69
243.55	362.8	253.16	363.01	314.9	364.33	353.34	364.27	360.77	364.26
360.83	364.26	432.13	362.41	433.23	362.38	520.79	362.57	567.63	362.68
606.46	362.75	623.14	362.77	729.52	362.93	781.07	362.59	791.36	362.51
834.51	361.98	839.73	361.92	859.23	361.68	866.97	361.58	883.09	361.38
896.17	360.88	903.84	360.59	911.24	360.3	913.64	360.19	917.6	360.03
927.14	359.63	931.41	360.12	935.73	360.62	938.11	360.9	938.13	360.91
941.32	361.79	948.84	364.91	953.23	366.42	963.78	367.44	970.54	367.61
978.34	367.5	984.88	367.4	986.1	367.39	995.15	368.19	1011.15	369.69
1025.26	370.45	1029	370.64	1030.3	370.7	1031.69	370.77	1079.03	373.31
1087.1	373.45	1094.08	373.61	1098.9	373.74	1127.89	374.58	1134.36	374.76
1146.6	375.17	1163.97	376.01	1209.74	378.51	1218.15	378.99	1248.39	381.09
1259.51	382.13	1268.27	382.92						

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	78.24	.022	122.01	.032	623.14	.028	834.51	.053
839.73	.038	857.55	.05	915.3	.038	941.32	.035	978.34	.035
1268.27	.035								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
839.73	941.32	38.93	38.51	38.6	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: Canada Gobernado
REACH: Middle RS: 2037.14*

INPUT
Description:
Station Elevation Data num= 82

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	383.92	4.86	383.12	19.26	380.85	25.74	379.23	35.95	376.67
40.44	375.36	43.98	374.36	46.54	373.89	62.92	369.6	63.88	369.45
79.41	367.05	79.83	366.99	99.18	363.78	101.82	363.37	103.86	363.21
113.74	362.65	123.85	362.04	136.5	361.32	154.53	361.03	158.74	360.97
168.74	360.81	189.5	360.9	191.31	360.97	210.22	361.67	242.55	362.34
247.22	362.43	256.97	362.6	319.63	363.65	358.66	363.6	366.2	363.58
366.25	363.58	438.63	362.15	439.74	362.12	528.62	362.28	576.16	362.4
615.58	362.47	632.51	362.5	740.49	362.64	792.82	362.38	803.27	362.3
847.06	361.81	852.36	361.76	872.38	361.53	880.33	361.44	896.88	361.25
910.32	360.82	918.2	360.58	925.8	360.33	928.25	360.25	932.33	360.11
942.12	359.78	947.15	360.22	952.26	360.66	955.06	360.91	955.09	360.91
958.85	361.66	965.6	364.18	969.54	365.41	979.01	366.27	985.08	366.43
992.07	366.38	997.94	366.33	999.04	366.32	1007.16	366.98	1021.51	368.23
1034.17	368.86	1037.53	369.02	1038.69	369.08	1039.94	369.14	1082.42	371.45
1089.66	371.6	1095.93	371.81	1100.25	371.98	1126.26	373.01	1132.07	373.21
1143.05	373.66	1158.64	374.81	1199.7	378.07	1207.25	378.7	1234.38	381.29
1244.36	382.45	1252.22	383.35						

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	79.41	.025	123.85	.03	632.51	.037	847.06	.057
852.36	.04	871.04	.05	931.58	.04	958.85	.035	992.07	.035
1252.22	.035								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
852.36	958.85	38.93	38.51	38.6	.1	.3

Ineffective Flow num= 1

REACH: Middle RS: 1998.63*

INPUT
Description:
Station Elevation Data num= 82

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	383.68	4.94	382.9	19.55	380.65	26.13	379.19	36.48	376.86
41.04	375.71	44.64	374.83	47.23	374.39	63.86	370.58	64.83	370.44
80.59	368.09	81.01	368.03	100.65	364.79	103.33	364.36	105.4	364.15
115.43	363.3	125.68	362.41	138.52	361.34	156.82	360.95	161.09	360.86
171.24	360.63	192.3	360.8	194.15	360.86	213.33	361.42	246.15	361.99
250.88	362.06	260.78	362.19	324.37	362.96	363.97	362.92	371.62	362.91
371.68	362.91	445.13	361.88	446.26	361.87	536.45	362	584.7	362.12
624.71	362.2	641.88	362.22	751.47	362.36	804.57	362.17	815.17	362.09
859.61	361.64	864.99	361.59	885.54	361.38	893.69	361.29	910.68	361.11
924.47	360.76	932.55	360.57	940.35	360.37	942.87	360.3	947.05	360.19
957.1	359.92	962.9	360.31	968.78	360.7	972.02	360.92	972.05	360.92
976.39	361.52	982.37	363.46	985.85	364.4	994.23	365.1	999.61	365.26
1005.81	365.26	1011	365.26	1011.97	365.26	1019.16	365.78	1031.87	366.76
1043.09	367.28	1046.06	367.41	1047.09	367.46	1048.2	367.51	1085.81	369.58
1092.22	369.75	1097.77	370.02	1101.6	370.22	1124.63	371.44	1129.77	371.67

1139.5	372.15	1153.3	373.61	1189.66	377.63	1196.35	378.42	1220.38	381.49
1229.21	382.78	1236.17	383.78						

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	80.59	.027	125.68	.027	641.88	.045	859.61	.06
864.99	.043	884.53	.05	947.86	.043	976.39	.035	1005.81	.035
1236.17	.035								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
864.99	976.39	38.93	38.51	38.6	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: Canada Gobernado
REACH: Middle RS: 1960.12*

INPUT
Description:
Station Elevation Data num= 82

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	383.45	5.01	382.68	19.83	380.45	26.51	379.16	37.01	377.06
41.64	376.05	45.29	375.3	47.92	374.88	64.79	371.57	65.78	371.43
81.77	369.14	82.19	369.08	102.12	365.79	104.83	365.36	106.94	365.1
117.11	363.96	127.52	362.78	140.54	361.36	159.11	360.86	163.45	360.75
173.74	360.46	195.11	360.7	196.98	360.75	216.45	361.18	249.74	361.63
254.54	361.69	264.58	361.79	329.1	362.28	369.29	362.24	377.05	362.23
377.11	362.23	451.63	361.62	452.77	361.61	544.28	361.72	593.24	361.84
633.83	361.93	651.26	361.95	762.44	362.07	816.31	361.96	827.07	361.88
872.17	361.47	877.62	361.42	898.69	361.22	907.06	361.14	924.47	360.98
938.62	360.71	946.9	360.56	954.9	360.41	957.49	360.35	961.77	360.27
972.08	360.07	978.65	360.4	985.31	360.74	988.98	360.93	989.01	360.93
993.92	361.38	999.13	362.73	1002.16	363.39	1009.46	363.93	1014.14	364.09
1019.54	364.14	1024.06	364.19	1024.91	364.19	1031.17	364.58	1042.24	365.29
1052	365.69	1054.58	365.8	1055.48	365.84	1056.45	365.88	1089.2	367.71
1094.78	367.91	1099.61	368.22	1102.94	368.46	1123	369.87	1127.48	370.13
1135.94	370.64	1147.96	372.41	1179.63	377.19	1185.44	378.14	1206.37	381.69
1214.06	383.11	1220.12	384.21						

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	81.77	.03	127.52	.025	651.26	.053	872.17	.063
877.62	.045	898.02	.05	964.14	.045	993.92	.035	1019.54	.035
1220.12	.035								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
877.62	993.92	38.93	38.51	38.6	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: Canada Gobernado
REACH: Middle RS: 1921.61*

INPUT
Description:
Station Elevation Data num= 82

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	383.22	5.08	382.46	20.12	380.26	26.89	379.12	37.54	377.26
42.24	376.4	45.94	375.77	48.61	375.38	65.72	372.56	66.72	372.42
82.94	370.18	83.38	370.12	103.59	366.8	106.34	366.35	108.47	366.04
118.8	364.61	129.35	363.14	142.57	361.39	161.4	360.77	165.8	360.63
176.24	360.28	197.92	360.6	199.82	360.64	219.56	360.93	253.34	361.28
258.21	361.31	268.39	361.38	333.84	361.6	374.6	361.56	382.47	361.56
382.54	361.56	458.13	361.35	459.29	361.35	552.12	361.43	601.78	361.56
642.95	361.65	660.63	361.67	773.41	361.78	828.06	361.75	838.97	361.67
884.72	361.3	890.25	361.26	911.85	361.07	920.42	361	938.27	360.84
952.76	360.65	961.26	360.54	969.45	360.44	972.1	360.41	976.5	360.35
987.06	360.21	994.4	360.5	1001.84	360.78	1005.93	360.93	1005.98	360.93
1011.46	361.25	1015.89	362	1018.47	362.38	1024.69	362.76	1028.67	362.91
1033.27	363.03	1037.12	363.12	1037.84	363.13	1043.17	363.37	1052.6	363.83
1060.91	364.11	1063.11	364.18	1063.88	364.22	1064.7	364.24	1092.58	365.84
1097.34	366.06	1101.45	366.43	1104.29	366.69	1121.37	368.3	1125.18	368.58
1132.39	369.13	1142.63	371.21	1169.59	376.75	1174.54	377.85	1192.36	381.89
1198.91	383.43	1204.07	384.64						

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	82.94	.032	129.35	.023	660.63	.062	884.72	.067
890.25	.047	911.51	.05	980.41	.047	1011.46	.035	1033.27	.035
1204.07	.035								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
890.25	1011.46	38.93	38.51	38.6	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: Canada Gobernado
REACH: Middle RS: 1883.106

INPUT
Description: Manual Input for Manning's N Values
Station Elevation Data num= 38

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	382.98	27.27	379.08	42.84	376.74	67.67	373.41	84.56	371.17
131.19	363.51	144.59	361.41	163.69	360.68	168.15	360.52	178.74	360.1

202.65	360.53	256.93	360.93	272.2	360.97	387.9	360.88	464.63	361.09
559.95	361.15	652.07	361.38	670	361.4	839.81	361.54	902.88	361.09
925	360.92	933.78	360.85	966.91	360.59	1002.04	360.36	1010.15	360.59
1022.89	360.94	1028.99	361.11	1047	361.91	1050.18	362.05	1071.64	362.57
1072.27	362.6	1072.95	362.61	1099.9	364.21	1105.64	364.93	1119.74	366.73
1128.84	367.62	1159.55	376.31	1188.02	385.07				

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	131.19	.02	670	.07	925	.05	1047	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
902.88	1028.99	45.57	44.68	43.77	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888		F	

CROSS SECTION RIVER: Canada Gobernado
REACH: Middle RS: 1838.42*

INPUT
Description:
Station Elevation Data num= 71

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	383.51	8.56	381.51	24.13	377.99	26.68	377.39	28.14	377.03
41.91	374.4	47.52	373.41	53.34	372.32	58	371.77	66.2	370.81
82.72	368.89	84.7	368.61	100.86	366.52	128.34	362.98	141.45	361.36
160.14	360.88	164.5	360.77	174.86	360.49	198.25	360.96	204.97	361.04
220.62	361.22	251.35	361.33	266.29	361.33	308.48	361.2	310.68	361.18
330.96	361.13	379.48	361	454.54	361.02	547.8	360.87	555.31	360.87
583.65	360.87	584.43	360.87	624.76	360.96	637.92	361.01	655.46	361.06
660.53	361.07	700.32	361.15	821.58	361.42	831.79	361.38	833.79	361.37
837.37	361.35	883.28	361.12	902.89	360.97	910.67	360.91	940.04	360.68
971.18	360.47	979.69	360.68	993.06	361	997.65	361.12	999.46	361.15
1018.49	362.3	1021.85	362.5	1024.61	362.62	1044.52	363.54	1045.19	363.58
1045.8	363.61	1045.91	363.61	1059.94	364.74	1074.39	365.77	1080.45	366.5
1095.35	368.33	1096.47	368.45	1104.97	369.25	1119.53	372.68	1121.94	373.28
1137.42	376.92	1149.31	379.94	1151.49	380.5	1155.72	381.61	1159.76	382.69
1167.5	384.76								

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.032	128.34	.02	583.65	.03	655.46	.07	833.79	.066
883.28	.047	903.66	.047	996.19	.035	999.46	.035	1018.49	.035
1167.5	.035								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
883.28	999.46	45.57	44.68	43.77	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888		F	

CROSS SECTION RIVER: Canada Gobernado
REACH: Middle RS: 1793.75*

INPUT
Description:
Station Elevation Data num= 71

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	384.03	8.37	381.29	23.6	376.53	26.09	375.69	27.51	375.21
40.98	372.06	46.46	370.84	52.16	369.47	56.71	369.01	64.73	368.21
80.89	366.61	82.82	366.38	98.62	364.92	125.49	362.44	138.31	361.32
156.58	361.08	160.85	361.03	170.98	360.89	193.85	361.39	200.42	361.49
215.73	361.75	245.78	361.73	260.38	361.68	301.63	361.45	303.79	361.43
323.62	361.34	371.06	361.12	444.46	360.94	535.64	360.6	542.99	360.58
570.7	360.5	571.46	360.5	610.9	360.58	623.76	360.64	640.91	360.71
645.88	360.73	684.79	360.87	803.35	361.3	813.34	361.29	815.29	361.28
818.79	361.27	863.68	361.15	880.78	361.02	887.57	360.96	913.17	360.76
940.32	360.58	949.23	360.77	963.23	361.07	968.03	361.17	969.93	361.2
989.98	362.68	993.52	362.94	996.43	363.13	1017.41	364.51	1018.11	364.57
1018.75	364.61	1018.87	364.61	1033.65	366.07	1048.87	367.32	1055.26	368.07
1070.96	369.94	1072.14	370.06	1081.09	370.88	1096.44	373.83	1098.97	374.39
1115.28	377.53	1127.81	380.11	1130.11	380.58	1134.56	381.58	1138.82	382.57

0	.029	125.49	.02	570.7	.04	640.91	.07	815.29	.062
863.68	.044	882.32	.044	966.94	.035	969.93	.035	989.98	.035
1146.98	.035								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
863.68	969.93	45.57	44.68	43.77	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888		F	

CROSS SECTION RIVER: Canada Gobernado
REACH: Middle RS: 1749.07*

INPUT
Description:
Station Elevation Data num= 71

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	384.56	8.18	381.07	23.06	375.06	25.49	374	26.89	373.38
40.05	369.72	45.41	368.27	50.98	366.62	55.42	366.25	63.26	365.61
79.05	364.33	80.94	364.15	96.39	363.32	122.65	361.91	135.17	361.27
153.03	361.28	157.2	361.28	167.1	361.28	189.45	361.82	195.88	361.95

210.83	362.27	240.2	362.14	254.47	362.04	294.79	361.71	296.9	361.68
316.28	361.56	362.64	361.24	434.37	360.87	523.49	360.32	530.67	360.28
557.75	360.13	558.49	360.13	597.03	360.2	609.61	360.27	626.37	360.37
631.22	360.39	669.25	360.58	785.12	361.18	794.88	361.2	796.79	361.2
800.21	361.2	844.09	361.18	858.67	361.07	864.46	361.02	886.3	360.85
909.47	360.68	918.77	360.86	933.39	361.13	938.41	361.22	940.39	361.24
961.47	363.07	965.19	363.39	968.25	363.64	990.29	365.48	991.03	365.55
991.7	365.6	991.83	365.62	1007.36	367.41	1023.36	368.88	1030.07	369.64
1046.57	371.54	1047.81	371.67	1057.22	372.51	1073.35	374.99	1076.01	375.5
1093.15	378.14	1106.31	380.28	1108.73	380.67	1113.41	381.56	1117.88	382.45
1126.45	384.13								

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.026	122.65	.02	557.75	.05	626.37	.07	796.79	.058
844.09	.041	860.98	.041	937.69	.035	940.39	.035	961.47	.035
1126.45	.035								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
844.09	940.39	45.57	44.68	43.77	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: Canada Gobernado
REACH: Middle RS: 1704.40*

INPUT
Description:
Station Elevation Data num= 71

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	385.08	7.99	380.85	22.53	373.6	24.9	372.3	26.26	371.56
39.12	367.39	44.35	365.71	49.79	363.76	54.14	363.48	61.79	363
77.22	362.05	79.06	361.92	94.15	361.71	119.8	361.37	132.04	361.23
149.48	361.48	153.55	361.54	163.22	361.67	185.06	362.25	191.33	362.4
205.94	362.8	234.62	362.54	248.57	362.4	287.94	361.97	290	361.92
308.93	361.77	354.22	361.36	424.29	360.79	511.33	360.04	518.35	359.99
544.8	359.76	545.53	359.75	583.17	359.81	595.45	359.91	611.83	360.02
616.57	360.06	653.71	360.3	766.89	361.06	776.43	361.11	778.29	361.11
781.63	361.12	824.49	361.21	836.56	361.12	841.35	361.08	859.43	360.93
878.61	360.79	888.31	360.95	903.56	361.19	908.8	361.28	910.86	361.29
932.95	363.46	936.85	363.84	940.06	364.14	963.18	366.45	963.95	366.53
964.66	366.6	964.78	366.62	981.07	368.75	997.84	370.43	1004.88	371.21
1022.18	373.14	1023.48	373.28	1033.34	374.15	1050.25	376.14	1053.04	376.62
1071.01	378.75	1084.82	380.44	1087.35	380.75	1092.25	381.53	1096.95	382.33
1105.93	383.81								

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.023	119.8	.02	544.8	.06	611.83	.07	778.29	.054
824.49	.038	839.64	.038	908.43	.035	910.86	.035	932.95	.035
1105.93	.035								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
824.49	910.86	45.57	44.68	43.77	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: Canada Gobernado
REACH: Middle RS: 1659.726

INPUT
Description:
Station Elevation Data num= 38

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	385.61	7.8	380.63	21.99	372.14	25.64	369.73	43.3	363.14
48.61	360.91	52.85	360.72	77.18	359.69	91.91	360.11	186.78	362.86
201.04	363.32	281.1	362.23	283.11	362.17	301.59	361.98	506.03	359.69
531.85	359.39	532.56	359.38	569.31	359.43	601.91	359.72	638.17	360.01
757.97	361.02	759.79	361.03	763.05	361.05	804.89	361.24	847.75	360.9
879.18	361.33	881.33	361.33	911.88	364.65	937.61	367.6	954.78	370.09
999.15	374.89	1027.16	377.3	1030.08	377.73	1063.32	380.61	1065.97	380.84
1071.1	381.5	1076.01	382.21	1085.41	383.5				

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.02	531.85	.07	759.79	.05	879.18	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
804.89	881.33	37.47	36.66	36.19	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: Canada Gobernado
REACH: Middle RS: 1623.06*

INPUT
Description:
Station Elevation Data num= 69

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	385.61	7.83	380.95	10.15	379.65	22.07	372.86	25.73	370.6
27.06	370.08	38.35	365.71	43.45	363.81	44.81	363.26	48.78	361.8
53.04	361.51	57.22	361.23	63.05	360.78	69.02	360.33	72.26	360.09
77.46	359.92	88.13	360.17	92.24	360.18	98.26	360.19	116.14	360.62
182.87	362.64	187.45	362.75	201.76	363.15	230.35	362.89	282.1	362.02
284.12	361.96	302.67	361.69	345.91	361.05	383.9	360.46	406.6	360.22

507.83	359.27	515.21	359.2	533.75	359.02	534.46	359.01	571.34	359.03
576.8	359.07	591.24	359.17	603.99	359.3	604.06	359.3	640.45	359.67
760.67	360.92	762.5	360.93	765.77	360.96	766.57	360.96	780.67	361.04
793.3	361.1	807.76	361.16	854.31	360.73	881.08	361.12	891.95	361.29
894.53	361.3	923.49	364.34	926.27	364.65	946.4	367.02	947.87	367.19
964.15	369.47	981.55	371.36	987.09	371.96	1006.2	374.15	1023.06	375.76
1032.75	376.69	1035.52	377.09	1036.17	377.16	1048.35	378.52	1067.02	380.61
1069.54	380.89	1074.4	381.61	1079.05	382.36	1087.96	383.74		

Manning's n Values num= 10

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.026	69.02	.044	533.75	.06	576.8	.03	762.5	.054
807.76	.038	879.4	.047	892.09	.035	894.53	.035	1087.96	.035

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
807.76 894.53 37.47 36.66 36.19 .1 .3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888			F

CROSS SECTION RIVER: Canada Gobernado
REACH: Middle RS: 1586.40*

INPUT
Description:
Station Elevation Data num= 69

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	385.62	7.86	381.28	10.18	380.05	22.15	373.58	25.82	371.46
27.15	370.92	38.48	366.37	43.61	364.49	44.97	363.95	48.96	362.69
53.23	362.29	57.42	361.91	63.28	361.27	69.26	360.62	72.52	360.27
77.73	360.14	88.44	360.34	92.57	360.24	98.61	360.1	116.55	360.44
183.52	362.54	188.11	362.64	202.47	362.97	231.16	362.84	283.1	361.8
285.13	361.74	303.74	361.4	347.14	360.59	385.27	359.85	408.05	359.61
509.64	358.85	517.04	358.79	535.64	358.65	536.36	358.64	573.37	358.64
578.85	358.66	593.34	358.73	606.13	358.88	606.2	358.88	642.72	359.33
763.38	360.81	765.21	360.83	768.49	360.87	769.29	360.88	783.44	360.96
796.11	361.02	810.63	361.08	860.87	360.55	892.06	361.04	904.73	361.24
907.73	361.27	935.09	364.03	937.72	364.3	956.75	366.63	958.14	366.78
973.52	368.85	989.96	370.65	995.2	371.21	1013.26	373.41	1029.19	375.1
1038.34	376.07	1040.96	376.46	1041.57	376.52	1053.08	378.14	1070.73	380.61
1073.1	380.95	1077.7	381.72	1082.09	382.51	1090.51	383.97		

Manning's n Values num= 10

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.032	69.26	.038	535.64	.05	578.85	.04	765.21	.058
810.63	.041	890.8	.044	905	.035	907.73	.035	1090.51	.035

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
810.63 907.73 37.47 36.66 36.19 .1 .3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888			F

CROSS SECTION RIVER: Canada Gobernado
REACH: Middle RS: 1549.73*

INPUT
Description:
Station Elevation Data num= 69

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	385.62	7.88	381.6	10.22	380.45	22.23	374.31	25.91	372.33
27.25	371.77	38.62	367.04	43.76	365.16	45.13	364.63	49.13	363.58
53.42	363.08	57.62	362.6	63.5	361.76	69.51	360.91	72.78	360.45
78.01	360.37	88.75	360.51	92.89	360.31	98.96	360.01	116.96	360.27
184.17	362.45	188.78	362.53	203.19	362.8	231.98	362.8	284.11	361.59
286.14	361.53	304.82	361.12	348.37	360.14	386.63	359.24	409.49	359.01
511.44	358.43	518.87	358.38	537.54	358.27	538.26	358.27	575.4	358.24
580.9	358.26	595.44	358.29	608.28	358.47	608.35	358.47	645	358.98
766.08	360.71	767.92	360.73	771.21	360.78	772.01	360.79	786.21	360.88
798.93	360.94	813.5	360.99	867.43	360.38	903.04	360.96	917.5	361.2
920.93	361.24	946.7	363.72	949.17	363.96	967.09	366.23	968.4	366.38
982.88	368.23	998.37	369.94	1003.3	370.47	1020.31	372.66	1035.31	374.45
1043.93	375.46	1046.4	375.82	1046.97	375.89	1057.81	377.76	1074.43	380.62

0	.038	69.51	.032	537.54	.04	580.9	.05	767.92	.062
813.5	.044	902.2	.041	917.91	.035	920.93	.035	1093.07	.035

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
813.5 920.93 37.47 36.66 36.19 .1 .3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888			F

CROSS SECTION RIVER: Canada Gobernado
REACH: Middle RS: 1513.07*

INPUT
Description:
Station Elevation Data num= 69

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	385.63	7.91	381.93	10.25	380.85	22.3	375.03	26.01	373.19
27.34	372.61	38.75	367.7	43.92	365.83	45.29	365.32	49.3	364.47
53.6	363.87	57.83	363.28	63.73	362.24	69.75	361.2	73.03	360.63
78.28	360.6	89.07	360.69	93.22	360.38	99.31	359.92	117.38	360.09
184.82	362.36	189.44	362.42	203.91	362.62	232.8	362.75	285.11	361.37

287.15	361.31	305.89	360.83	349.6	359.69	388	358.62	410.94	358.4
513.25	358.01	520.7	357.98	539.44	357.9	540.16	357.9	577.43	357.85
582.95	357.85	597.54	357.85	610.42	358.05	610.49	358.05	647.27	358.64
768.78	360.61	770.63	360.63	773.93	360.69	774.74	360.7	788.99	360.81
801.75	360.87	816.37	360.91	873.99	360.2	914.02	360.88	930.28	361.15
934.13	361.21	958.3	363.41	960.63	363.62	977.44	365.83	978.66	365.97
992.25	367.61	1006.78	369.22	1011.41	369.72	1027.36	371.92	1041.44	373.79
1049.53	374.85	1051.84	375.18	1052.38	375.25	1062.55	377.38	1078.14	380.62
1080.24	381.05	1084.29	381.94	1088.18	382.8	1095.62	384.44		

Manning's n Values num= 10

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.044	69.75	.026	539.44	.03	582.95	.06	770.63	.066
816.37	.047	913.6	.038	930.82	.035	934.13	.035	1095.62	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
816.37	934.13	37.47	36.66	36.19	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888		F	

CROSS SECTION RIVER: Canada Gobernado
REACH: Middle RS: 1476.413

INPUT
Description: Manual Input for Manning's N Values
Station Elevation Data num= 36

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	385.63	10.29	381.25	27.44	373.45	38.89	368.37	45.45	366.01
58.03	363.97	63.95	362.73	70	361.49	73.29	360.81	89.38	360.86
99.66	359.83	117.79	359.91	185.47	362.27	233.62	362.71	350.83	359.24
389.36	358.01	412.38	357.8	522.53	357.57	585	357.44	599.64	357.41
612.57	357.63	777.46	360.61	791.76	360.73	804.57	360.79	819.24	360.83
880.55	360.03	925	360.8	947.33	361.18	972.08	363.28	987.78	365.43
1015.19	368.51	1019.51	368.97	1047.56	373.13	1057.78	374.62	1067.28	377
1098.17	384.68								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	70	.02	585	.07	819.24	.05	925	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
819.24	947.33	184.65	188.8	191.6	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888		F	

CROSS SECTION RIVER: Canada Gobernado
REACH: Middle RS: 1287.613

INPUT
Description:
Station Elevation Data num= 47

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	378.72	.42	378.59	2.47	377.82	27.86	368.08	29.66	367.74
47.12	364.46	53.62	362.7	70.96	360.82	92.18	360.51	94.22	360.46
103.33	360.26	177.39	359.78	185.78	359.71	189.18	359.63	210.24	359.08
299.89	357.02	372.19	355.95	504.3	354.22	536.26	353.8	555.56	353.56
600.4	353.78	680.84	354.15	724.1	354.44	745.96	354.34	762.62	358.51
766.34	359.29	767.19	359.47	771.28	360.03	774.81	360.52	782.94	361.06
794.38	359.68	802.76	358.03	808.56	358.26	830.51	358.22	842.91	359.33
880.05	360.09	882.49	360.14	916.37	361.09	923.28	361.11	929.2	361.12
937.42	362.84	958.74	367.7	967.46	370.76	975.44	374.02	984.43	376.55
988.55	377.35	988.82	377.4						

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	29.66	.02	504.3	.07	771.28	.05	880.05	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
794.38	842.91	190.45	198.85	205.15	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888		F	

CROSS SECTION RIVER: Canada Gobernado
REACH: Middle RS: 1088.688

INPUT
Description:
Station Elevation Data num= 38

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	376.2	3.04	375.63	15.31	373.29	32.05	368.72	38.2	367.51
48.41	366.93	86.37	364.8	95.96	364.25	124.03	362.83	147.53	361.65
198.12	360.78	247.63	359.73	266.8	359.26	299.83	358.39	393.24	355.36
431.89	354.92	513.14	353.72	559.62	353.03	590.45	352.58	618.27	352.43
649.15	352.99	722.5	354.39	780.77	354.27	784.23	354.28	814.75	354.33
847.74	353.86	863.38	354.39	876.86	356.07	881.05	356.93	891.98	359.17
905.2	361.08	921.97	363.73	927.65	364.37	928.47	364.46	930.89	364.91
945.69	367.45	964.28	376.09	968.19	377.84				

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	48.41	.02	513.14	.07	784.23	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
814.75	863.38	1170.86	1088.69	1068.58	.1	.3

Ineffective Flow num= 1

Sta L Sta R Elev Permanent
888 F

Profile Output Table - Standard Table 1

Reach	River Sta	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
		(cfs)	(ft)	(ft)	(ft)	(ft)	(ft/ft)	(ft/s)	(sq ft)	(ft)	
Middle	4267.755	1720.00	378.17	381.73	380.76	381.77	0.001000	1.69	1050.84	698.49	0.20
Middle	4118.164	1720.00	379.52	381.27	381.03	381.41	0.006968	4.01	576.71	722.96	0.61
Middle	3883.652	1720.00	379.76	380.57	380.57	380.59	0.000260	0.21	1562.12	890.69	0.05
Middle	3699.802	1720.00	373.74	374.97	374.19	375.05	0.001833	1.29	771.46	559.98	0.22
Middle	3498.424	1720.00	367.50	373.93	373.93	374.33	0.009006	6.14	423.53	524.19	0.59
Middle	3286.975	1720.00	366.97	370.91	370.18	371.39	0.007404	4.83	313.57	135.43	0.52
Middle	3193.163	1720.00	365.89	369.87	369.55	370.50	0.012142	6.19	269.74	138.94	0.67
Middle	3092.876	1720.00	365.92	368.98		369.27	0.010502	4.65	395.68	357.42	0.59
Middle	2990.847	1720.00	367.03	368.77	367.91	368.84	0.001729	1.72	819.24	576.84	0.24
Middle	2889.112	1720.00	367.04	368.57	367.88	368.63	0.002218	1.76	839.81	733.18	0.26
Middle	2789.662	1720.00	367.05	368.34	367.79	368.40	0.002417	1.58	819.96	757.87	0.26
Middle	2683.108	1720.00	365.63	367.85	367.64	367.99	0.008031	3.13	580.54	784.01	0.49
Middle	2486.871	1720.00	363.83	364.93	364.52	365.18	0.002953	1.50	474.30	285.38	0.28
Middle	2292.400	1720.00	364.36	364.70	364.70	364.77	0.001212	0.32	787.31	655.20	0.14
Middle	2114.162	1720.00	359.49	363.06	362.60	363.27	0.002684	3.04	481.26	546.25	0.38
Middle	1883.106	1720.00	360.36	362.12	361.57	362.18	0.000902	1.09	945.83	912.96	0.16
Middle	1659.726	1720.00	360.90	361.31	361.25	361.48	0.005186	0.80	540.73	602.89	0.30
Middle	1476.413	1720.00	360.03	361.05	360.84	361.08	0.000158	0.27	1363.04	728.53	0.06
Middle	1287.613	1720.00	358.03	361.06	361.06	361.06	0.000018	0.23	3541.27	846.56	0.03
Middle	1088.688	1720.00	353.86	355.73	354.52	355.78	0.002001	1.83	885.98	492.13	0.25

HEC-RAS Version 3.0.1 Mar 2001
U.S. Army Corp of Engineers
Hydrologic Engineering Center
609 Second Street, Suite D
Davis, California 95616-4687
(916) 756-1104

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X     X  XXXXXX    XXXX        XXXX       XX      XXXX
X     X  X        X    X      X   X     X  X    X
X     X  X        X           X   X    X    X   X
XXXXXXX  XXXX     X       XXX XXXX     XXXXXX    XXXX
X     X  X        X            X  X    X    X        X
X     X  X        X    X       X   X   X    X        X
X     X  XXXXXX    XXXX        X    X  X    X   XXXXX
```

PROJECT DATA
Project Title: Project Model A
Project File : PMA.prj
Run Date and Time: 11/14/02 8:25:20 AM

Project in English units

Project Description:
FEC Alternative - Canada Gobernadora Crossing

PLAN DATA

Plan Title: Existing Flow/Proposed-Ultimate Geometry
Plan File : p:\2PDA0104\Hydr\LHS\Modeling\Model A\HecRas A\PMA.p03

Geometry Title: Proposed Conditions - Ultimate
Geometry File : p:\2PDA0104\Hydr\LHS\Modeling\Model A\HecRas A\PMA.g03

Flow Title : Existing Conditions
Flow File : p:\2PDA0104\Hydr\LHS\Modeling\Model A\HecRas A\PMA.f01

Plan Summary Information:
Number of: Cross Sections = 51 Mulitple Openings = 0
Culverts = 0 Inline Weirs = 0
Bridges = 0

Computational Information
Water surface calculation tolerance = 0.01
Critical depth calculaton tolerance = 0.01
Maximum number of interations = 20
Maximum difference tolerance = 0.3
Flow tolerance factor = 0.001

Computation Options
Critical depth computed only where necessary
Conveyance Calculation Method: At breaks in n values only
Friction Slope Method: Average Conveyance
Computational Flow Regime: Mixed Flow

FLOW DATA

Flow Title: Existing Conditions
Flow File : p:\2PDA0104\Hydr\LHS\Modeling\Model A\HecRas A\PMA.f01

Flow Data (cfs)

River	Reach	RS	Q2	Q5	Q10	Q25	Q50	Q100	Q100HC
Canada	GobernadoMiddle	4267.755	1	52	141	491	1097	1720	5804

Boundary Conditions

River	Reach	Profile	Upstream	Downstream
Canada	GobernadoMiddle	Q2	Normal S = .006	Normal S = .002
Canada	GobernadoMiddle	Q5	Normal S = .006	Normal S = .002
Canada	GobernadoMiddle	Q10	Normal S = .006	Normal S = .002
Canada	GobernadoMiddle	Q25	Normal S = .006	Normal S = .002
Canada	GobernadoMiddle	Q50	Normal S = .006	Normal S = .002
Canada	GobernadoMiddle	Q100	Normal S = .006	Normal S = .002
Canada	GobernadoMiddle	Q100HC	Normal S = .006	Normal S = .002

GEOMETRY DATA

Geometry Title: Proposed Conditions - Ultimate
Geometry File : p:\2PDA0104\Hydr\LHS\Modeling\Model A\HecRas A\PMA.g03

CROSS SECTION RIVER: Canada Gobernado
REACH: Middle RS: 4267.755

INPUT
Description:
Station Elevation Data num= 39

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	392.11	24.15	387.63	40.15	385.4	60.41	383.69	82.28	382.45
98.84	380.27	149.27	380.69	247.37	380.99	290.66	380.27	327.89	380.16
351.91	379.97	420.14	380.67	428.15	380.61	440.99	380.48	452.83	380.37
464.76	380.28	471.12	380.23	481.21	380.17	484.73	380.15	593.31	379.62
638.93	379.71	639.07	379.71	643.17	379.76	649.63	379.84	706.47	380.42
725.22	380.68	734.29	380.05	754.06	378.68	757.18	378.47	763.2	378.17
768.52	378.89	770.16	379.11	777.03	380.05	783.38	380.9	784.86	381.1
788.47	382.78	811.13	391.67	812.43	392.19	819.32	393.73		

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	639.07	.05	777.03	.035	811.13	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
725.22	783.38	37.27	37.4	39.85	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: Canada Gobernado
REACH: Middle RS: 4230.35*

INPUT
Description:
Station Elevation Data num= 66

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	391.58	6.09	390.14	14.4	388.06	21.64	386.32	23.94	385.94
24.5	385.87	33.22	384.7	39.81	384.02	59.89	382.77	64.9	382.57
81.57	381.91	97.99	380.34	136.57	380.73	147.99	380.8	181.42	380.88
245.24	380.82	269.06	380.44	270.53	380.42	288.16	380.22	325.07	380.19
348.89	380.09	373.3	380.31	416.53	380.68	424.47	380.64	437.2	380.55
448.94	380.48	453.27	380.46	460.77	380.4	467.07	380.35	477.08	380.29
480.57	380.27	536.06	379.96	588.21	379.84	593.3	379.86	633.44	379.9
633.58	379.9	637.64	379.94	644.05	380	656.92	380.09	660.17	380.11
700.4	380.41	718.99	380.6	727.7	380.06	729.72	379.94	735.16	379.61
740.27	379.3	746.68	378.92	749.68	378.76	755.46	378.51	760.09	379.12
761.52	379.3	761.61	379.32	764.53	379.7	767.5	380.1	773.03	380.82
774.51	381.16	774.68	381.2	778.69	383.08	782.87	384.83	787.64	386.31
793.47	388.01	794.62	388.35	798.79	389.6	803.85	391.11	805.3	391.54
812.95	392.95								

Manning's n Values num= 10

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	633.58	.046	660.17	.039	718.99	.035	737.35	.035
767.13	.035	773.03	.05	794.62	.05	803.85	.05	812.95	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
718.99	773.03	37.27	37.4	39.85	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: Canada Gobernado
REACH: Middle RS: 4192.95*

INPUT
Description:
Station Elevation Data num= 66

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	391.05	6.04	389.31	14.28	386.7	21.46	384.58	23.74	384.26
24.28	384.19	32.94	383.08	39.46	382.64	59.37	381.86	64.33	381.73
80.87	381.38	97.14	380.41	135.39	380.86	146.71	380.91	179.84	380.97
243.12	380.65	266.73	380.3	268.19	380.28	285.67	380.18	322.26	380.23
345.86	380.2	370.07	380.4	412.92	380.69	420.79	380.67	433.41	380.62
445.05	380.59	449.35	380.58	456.77	380.52	463.03	380.47	472.94	380.41
476.4	380.38	531.42	380.04	583.12	380.06	588.16	380.09	627.05	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
764.31	381.23	764.49	381.3	768.9	383.37	773.5	385.4	778.74	386.67
785.16	388.02	786.42	388.3	791.01	389.32	796.58	390.54	798.16	390.9
806.58	392.17								

Manning's n Values num= 10

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	628.09	.043	654.45	.043	712.76	.035	729.72	.035
757.23	.035	762.68	.05	786.42	.05	796.58	.05	806.58	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
712.76	762.68	37.27	37.4	39.85	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: Canada Gobernado
REACH: Middle RS: 4155.56*

INPUT
Description:
Station Elevation Data num= 66

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	390.52	5.98	388.48	14.15	385.34	21.27	382.84	23.53	382.57
24.07	382.51	32.65	381.46	39.12	381.26	58.85	380.94	63.77	380.9
80.16	380.84	96.29	380.48	134.2	380.99	145.42	381.02	178.27	381.06
240.99	380.48	264.4	380.15	265.84	380.13	283.17	380.13	319.44	380.26
342.84	380.32	366.83	380.48	409.31	380.7	417.12	380.7	429.63	380.7
441.16	380.7	445.42	380.7	452.78	380.64	458.98	380.6	468.81	380.52
472.24	380.5	526.77	380.12	578.02	380.29	583.02	380.31	622.46	380.29
622.6	380.29	626.59	380.29	632.89	380.31	645.53	380.32	648.73	380.32
688.26	380.38	706.53	380.42	714.52	380.09	716.37	380.01	721.36	379.8
726.05	379.61	731.93	379.41	734.68	379.33	739.98	379.18	743.24	379.57
744.24	379.69	744.3	379.7	746.36	379.94	748.45	380.19	752.34	380.65
754.11	381.31	754.31	381.39	759.12	383.67	764.14	385.98	769.85	387.04
776.85	388.03	778.23	388.24	783.23	389.04	789.3	389.98	791.03	390.25
800.21	391.38								

Manning's n Values num= 10

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	622.6	.039	648.73	.046	706.53	.035	722.09	.035
747.34	.035	752.34	.05	778.23	.05	789.3	.05	800.21	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
706.53	752.34	37.27	37.4	39.85	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: Canada Gobernado
REACH: Middle RS: 4118.164

INPUT
Description:
Station Elevation Data num= 32

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	389.99	5.93	387.65	14.03	383.98	21.08	381.1	23.86	380.83
32.36	379.84	63.21	380.06	133.02	381.12	176.7	381.15	262.07	380
263.5	379.99	363.6	380.57	441.49	380.82	522.13	380.2	577.88	380.54
639.84	380.44	643.01	380.43	700.3	380.34	709.7	380.05	714.46	379.9
718.94	379.76	732.24	379.52	735.65	379.89	737.27	380.06	741.99	380.57
743.91	381.39	754.77	386.55	760.96	387.4	768.54	388.04	770.03	388.19
775.45	388.76	793.84	390.6						

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	643.01	.05	714.46	.035	770.03	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
700.3	741.99	38.08	39.08	41.5	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: Canada Gobernado
REACH: Middle RS: 4079.07*

INPUT
Description:
Station Elevation Data num= 60

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	389.98	6.18	387.87	12.24	385.51	14.62	384.6	21.96	382.03
24.86	381.73	33.72	380.7	36.52	380.65	48.64	380.2	51.41	380.07
65.86	380.04	74.82	380.08	97.59	380.24	138.59	380.8	179.6	380.88
184.1	380.87	257.97	379.83	273.05	379.65	274.54	379.64	284.08	379.67
317.22	379.77	336.5	379.88	375.13	380.02	378.84	380.03	459.99	380.18
470.17	380.11	487.32	380.07	524.52	379.96	529.06	379.95	544.01	379.92
592.91	380.35	602.1	380.43	618.17	380.46	620.08	380.47	651.41	380.47
664.2	380.45	666.06	380.45	666.65	380.45	669.95	380.44	671.06	380.44
677.55	380.43	729.64	380.37	739.39	380.09	744.32	379.95	748.97	379.81
762.76	379.56	767.17	379.9	769.27	380.06	775.39	380.52	777.86	381.23
790.98	385.37	791.85	385.65	795.29	385.99	799.83	386.49	809.59	387.23
811.51	387.39	812.06	387.44	818.49	388.06	832.48	389.37	842.19	390.07

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	487.32	.041	524.52	.064	620.08	.038	666.06	.053
669.95	.053	729.64	.041	745.18	.041	775.39	.053	811.51	.053
842.19	.053								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
729.64	775.39	38.08	39.08	41.5	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: Canada Gobernado
REACH: Middle RS: 4039.99*

INPUT
Description:
Station Elevation Data num= 60

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	389.98	6.43	388.09	12.73	386.01	15.21	385.21	22.85	382.95
25.86	382.64	35.07	381.57	37.99	381.45	50.6	380.45	53.48	380.18
68.51	380.02	77.82	379.97	101.51	379.96	144.17	380.48	186.82	380.62
191.51	380.59	268.34	379.46	284.03	379.29	285.58	379.28	295.5	379.3
329.98	379.31	350.04	379.43	390.21	379.48	394.07	379.49	478.49	379.54
489.08	379.48	506.92	379.51	545.62	379.59	550.34	379.59	565.89	379.64
616.76	380.22	626.31	380.32	643.03	380.41	645.02	380.42	677.61	380.47

690.91	380.46	692.85	380.46	693.46	380.46	696.9	380.45	698.05	380.45
704.8	380.45	758.99	380.4	769.08	380.13	774.19	380	779	379.87
793.27	379.6	798.69	379.91	801.27	380.05	808.78	380.48	811.81	381.07
827.86	384.52	828.93	384.75	833.14	385.06	838.69	385.58	850.64	386.41
852.99	386.59	853.66	386.64	861.54	387.36	878.65	388.89	890.53	389.54

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	506.92	.047	545.62	.058	645.02	.04	692.85	.057
696.9	.057	758.99	.047	775.9	.047	808.78	.057	852.99	.057
890.53	.057								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
758.99	808.78	38.08	39.08	41.5	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888		F	

CROSS SECTION RIVER: Canada Gobernado
REACH: Middle RS: 4000.90*

INPUT
Description:
Station Elevation Data num= 60

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	389.97	6.68	388.31	13.22	386.51	15.79	385.83	23.73	383.88
26.86	383.54	36.43	382.43	39.45	382.24	52.55	380.71	55.55	380.29
71.16	380	80.83	379.86	105.44	379.69	149.74	380.17	194.04	380.36
198.91	380.31	278.72	379.09	295.01	378.94	296.62	378.93	306.93	378.92
342.74	378.85	363.57	378.98	405.3	378.95	409.31	378.95	496.99	378.91
507.99	378.85	526.52	378.96	566.71	379.21	571.62	379.24	587.77	379.36
640.6	380.09	650.53	380.21	667.89	380.36	669.95	380.38	703.8	380.48
717.62	380.47	719.64	380.47	720.27	380.46	723.84	380.46	725.03	380.46
732.05	380.46	788.33	380.43	798.77	380.18	804.05	380.04	809.02	379.92
823.78	379.64	830.22	379.92	833.27	380.05	842.17	380.43	845.76	380.91
864.75	383.66	866.01	383.85	870.99	384.14	877.56	384.66	891.69	385.6
894.47	385.79	895.27	385.85	904.58	386.66	924.82	388.41	938.88	389.01

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	526.52	.052	566.71	.053	669.95	.043	719.64	.06
723.84	.06	788.33	.052	806.62	.052	842.17	.06	894.47	.06
938.88	.06								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
788.33	842.17	38.08	39.08	41.5	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888		F	

CROSS SECTION RIVER: Canada Gobernado
REACH: Middle RS: 3961.82*

INPUT
Description:
Station Elevation Data num= 60

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	389.96	6.92	388.53	13.72	387.01	16.38	386.45	24.61	384.8
27.86	384.45	37.78	383.29	40.92	383.04	54.51	380.96	57.61	380.39
73.8	379.98	83.84	379.75	109.36	379.41	155.32	379.85	201.26	380.1
206.32	380.04	289.09	378.72	306	378.58	307.67	378.57	318.35	378.55
355.49	378.39	377.1	378.52	420.39	378.42	424.54	378.41	515.49	378.27
526.9	378.21	546.12	378.41	587.81	378.83	592.89	378.88	609.65	379.08
664.45	379.96	674.74	380.1	692.76	380.31	694.89	380.34	730	380.48
744.33	380.47	746.42	380.47	747.09	380.47	750.79	380.47	752.02	380.47
759.3	380.47	817.68	380.47	828.46	380.22	833.91	380.09	839.05	379.97
854.3	379.68	861.74	379.93	865.27	380.05	875.57	380.39	879.7	380.75
901.63	382.8	903.09	382.95	908.84	383.21	916.42	383.75	932.74	384.78
935.95	384.99	936.87	385.05	947.62	385.96	970.99	387.93	987.23	388.48

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	546.12	.058	587.81	.047	694.89	.045	746.42	.063

817.68	875.57	38.08	39.08	41.5	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888		F	

CROSS SECTION RIVER: Canada Gobernado
REACH: Middle RS: 3922.73*

INPUT
Description:
Station Elevation Data num= 60

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	389.96	7.17	388.75	14.21	387.51	16.97	387.06	25.5	385.73
28.86	385.35	39.14	384.16	42.39	383.83	56.46	381.22	59.68	380.5
76.45	379.96	86.85	379.64	113.29	379.13	160.89	379.53	208.49	379.83
213.72	379.76	299.47	378.35	316.98	378.23	318.71	378.22	329.78	378.17
368.25	377.93	390.64	378.07	435.47	377.88	439.78	377.87	533.99	377.63
545.81	377.58	565.72	377.85	608.9	378.45	614.17	378.52	631.53	378.8
688.29	379.82	698.96	379.99	717.62	380.26	719.83	380.29	756.2	380.49
771.05	380.48	773.21	380.48	773.9	380.48	777.73	380.48	779.01	380.48
786.55	380.49	847.02	380.5	858.15	380.26	863.78	380.14	869.08	380.03

884.82	379.72	893.26	379.94	897.27	380.04	908.96	380.35	913.65	380.59
938.52	381.95	940.17	382.05	946.69	382.29	955.29	382.84	973.8	383.97
977.43	384.19	978.48	384.26	990.67	385.27	1017.17	387.45	1035.57	387.95

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	565.72	.064	608.9	.041	719.83	.047	773.21	.067
777.73	.067	847.02	.064	868.06	.064	908.96	.067	977.43	.067
1035.57	.067								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
847.02	908.96	38.08	39.08	41.5	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888			F

CROSS SECTION RIVER: Canada Gobernado
REACH: Middle RS: 3883.652

INPUT
Description: Manual Input for Manning's N Values
Station Elevation Data num= 33

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	389.95	14.7	388.01	43.86	384.63	58.42	381.47	61.75	380.61
89.86	379.53	117.21	378.85	215.71	379.57	309.84	377.98	341.2	377.8
381.01	377.47	404.17	377.62	450.56	377.35	564.72	376.95	585.32	377.3
630	378.07	635.45	378.16	712.14	379.69	742.48	380.21	744.77	380.25
782.4	380.49	797.76	380.49	800	380.49	806	380.49	813.8	380.5
876.37	380.53	915.33	379.76	942.36	380.3	975.4	381.09	984.54	381.36
1020.08	383.46	1063.34	386.97	1083.92	387.42				

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	585.32	.07	630	.035	744.77	.05	800	.07

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
876.37	942.36	178.65	183.85	189	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888			F

CROSS SECTION RIVER: Canada Gobernado
REACH: Middle RS: 3699.802

INPUT
Description:
Station Elevation Data num= 33

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	389.81	26.38	384.13	37.24	382.2	53.61	380.37	67.88	378.55
89.66	378.41	105.07	377.89	219.88	374.9	270.09	373.95	356.21	373.46
408.56	372.9	418.84	372.76	421.06	372.78	423.63	372.78	435.72	372.8
454.1	372.87	569.58	373.23	619.13	373.83	673.05	374	674.78	374
701.55	374.09	725.83	373.86	739.29	373.74	741.48	373.76	761.3	374.34
774.18	374.73	819.61	378.38	825.53	378.81	830.87	379.43	833.85	380.42
853.01	387.07	857.35	387.91	865.11	389.37				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.035	674.78	.05	761.3	.07

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
701.55	761.3	198.4	201.4	207.1	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888			F

CROSS SECTION RIVER: Canada Gobernado
REACH: Middle RS: 3498.424

INPUT
Description:
Station Elevation Data num= 35

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	383.13	35.92	376.78	43.75	375.98	58.46	374.48	100.66	373.32
107.26	372.99	129.51	373.14	183.27	374.19	286.82	373.94	445.77	373.32
503.82	373.11	611.74	373.06	685.17	374.12	686.05	374.14	707.14	374.44
718.56	374.87	726.4	374.1	731.52	373.62	744.37	369.39	746.07	368.72
748.52	368.44	758.18	367.5	762.47	368.96	774.08	372.92	776.44	373.73
777.15	373.75	787.74	374.47	804.23	377.11	815.35	379.88	843.87	381.07
845.51	381.25	846.37	381.29	847.17	381.3	847.32	381.3	878.42	383.24

Manning's n Values num= 2

Sta	n Val	Sta	n Val
0	.035	685.17	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
718.56	787.74	211.35	211.45	215.2	.1	.3

CROSS SECTION RIVER: Canada Gobernado
REACH: Middle RS: 3286.975

INPUT
Description: CS Modified, Mult. Block Obstruc.
Station Elevation Data num= 41

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	382.23	1.13	382.09	10.39	381.36	65.87	377.16	75.07	376.08
80.45	375.45	90.23	373.98	103.72	370.1	111.41	368.18	138.72	367.73
141.75	367.66	148.64	368.08	190.69	371.39	203.52	372.13	247.98	373.62

391.53	373.41	418.63	373.42	455.63	373.33	524.87	373.97	599.9	373.99
622.93	374.52	691.86	374.06	695.94	374.03	697.16	374.02	697.28	374.02
698.42	373.87	702.55	373.63	741.11	373.11	756.07	368.96	765.07	367.61
784.5	367.08	786.41	366.97	787.22	367.05	789.32	367.59	804.94	372.08
810.1	373.78	821.59	375.99	833.61	378.3	839.94	379.59	851.47	380.87
882.48	384.3								

Manning's n Values num= 2

Sta	n Val	Sta	n Val
0	.035	697.16	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
741.11	810.1	93.39	93.81	91.77	.1	.3

Blocked Obstructions num= 1

Sta L	Sta R	Elev
854.5	865.5	400.69

CROSS SECTION RIVER: Canada Gobernado
REACH: Middle RS: 3193.163

INPUT
Description: CS Modified, Mult. Block Obstruc.
Station Elevation Data num= 44

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	382.42	11.12	380.92	32.62	379.3	48.95	378.23	80.43	372.63
96.93	369.66	99.94	369.11	107.39	368.47	117.15	367.47	124.2	367.29
157.81	367.74	191.03	369.76	260.65	371.97	291.13	373.06	384.69	371.82
391.63	371.66	468.56	371.05	563.78	371.2	572.23	371.18	586.27	371.7
649.99	373.15	688.3	374.11	692.62	374.22	712.5	374.72	726.38	374.68
733.21	375.05	738.39	374.33	740.8	373.9	756.42	367.21	757.19	366.85
757.39	366.8	758.1	366.75	765.97	366.3	770.7	365.89	772.27	366.03
781.06	367.16	784.35	367.55	804.22	375.02	811.59	377.8	815.92	379.13
817.3	379.55	818.1	379.8	829.49	381.01	865.78	385.79		

Manning's n Values num= 2

Sta	n Val	Sta	n Val
0	.035	692.62	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
733.21	804.22	99.93	100.29	97.53	.1	.3

Blocked Obstructions num= 1

Sta L	Sta R	Elev
694.5	705.5	400.69

CROSS SECTION RIVER: Canada Gobernado
REACH: Middle RS: 3092.876

INPUT
Description: CS Modified, Mult. Block Obstruc.
Station Elevation Data num= 45

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	385.61	1.11	385.31	6.76	383.58	34.94	377.14	47.85	374.06
55.69	372.53	66.4	369.56	77.76	367.29	105.7	367.46	201.22	370.51
258.35	371.9	371.01	369.43	444.03	367.78	453.47	367.71	465.36	367.73
541.75	367.58	564.63	368.44	592.29	368.38	600.3	368.78	636.68	369.64
640.84	369.74	647.6	369.9	654.79	370.3	658.87	370.47	684.03	368.68
686.17	368.12	689.17	367.36	705.2	366.53	717.85	365.92	718.97	366.07
729.64	367.34	732.67	367.66	737	369.37	739.48	370.59	746.39	373.45
769.01	379.82	770.61	380.26	771.57	380.55	771.89	380.59	772.41	380.59
802.28	384.14	806.4	384.66	807.27	384.81	809.25	385.32	832.27	389.7

Manning's n Values num= 2

Sta	n Val	Sta	n Val
0	.035	640.84	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
658.87	739.48	100.86	102.03	95.28	.1	.3

Blocked Obstructions num= 1

Sta L	Sta R	Elev
694.5	705.5	397.7

CROSS SECTION RIVER: Canada Gobernado
REACH: Middle RS: 2990.847

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	384.06	26.78	375.42	30.5	374.11	55.41	369.77	64.45	368.11
68.75	367.92	87.2	367.07	155.41	367.72	159.12	367.81	250.35	370.02
345.66	367.93	440.12	367.25	478.09	366.95	506.42	366.74	632.82	366.95
636.49	366.96	685.33	367.04	705.21	367.18	728.98	367.03	736.02	367.35
741.96	368.05	752.27	369.85	774.48	373.71	774.58	373.73	774.73	373.73
775.33	373.77	778.65	374	798.41	375.37	810.35	375.95	831.22	375.51
837.93	375.64	847.89	376.14	852.56	376.69	873.39	379.58	886.54	380.18
898.19	380.83	904.6	381.92	917.14	383.98				

Manning's n Values num= 2

Sta	n Val	Sta	n Val
0	.035	632.82	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
705.21	736.02	101.13	101.73	108.3	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888		F	

Blocked Obstructions num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev

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   534.5   545.5  394.71   734.5   745.5   397.7

CROSS SECTION           RIVER: Canada Gobernado
REACH: Middle              RS: 2889.112

INPUT
Description: CS Modified, Mult. Block Obstruc.
Station Elevation Data     num=       36
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  384.78    5.51  383.73   11.94  381.98    32.3  377.42    46.1  375.14
   65.27  372.07   65.79     372   66.05  371.97   98.26  367.75  118.96  366.92
  134.52  366.53   134.9  366.52   219.5  367.44  278.51  368.35   327.2  368.29
  469.88  367.27  500.82  367.03  620.66  367.23  688.76  367.25   694.5  367.25
  769.02  367.27  798.48  367.04  815.87  367.31  819.37  367.85  829.33  369.08
  847.39   370.8  851.38  371.04  854.56  371.23   866.1  371.01   888.5  371.64
  898.14  372.05  901.08  372.14  920.13  374.89  924.05  375.93  936.41  380.04
  956.61  384.51

Manning's n Values         num=        2
     Sta   n Val     Sta   n Val
       0    .035  688.76     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
        769.02  815.87             99.45   99.45  100.05            .1       .3
Ineffective Flow     num=        1
   Sta L   Sta R    Elev  Permanent
888        F
Blocked Obstructions     num=        2
   Sta L   Sta R    Elev   Sta L   Sta R    Elev
   424.5   435.5  391.72   634.5   645.5  394.71

CROSS SECTION           RIVER: Canada Gobernado
REACH: Middle              RS: 2789.662

INPUT
Description: CS Modified, Mult. Block Obstruc., 2:1 Slope, Stations 240-340
Station Elevation Data     num=       36
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  383.75   14.96  381.06   17.31  380.55   53.73  376.99   74.27  374.81
   81.09  373.75   95.17  370.79   99.11  370.02   99.59  369.89  110.61  368.45
  125.86  367.37  160.51  366.19  242.37  367.45  292.37  392.35  342.37  367.45
  458.48   367.2   485.5  367.29  501.37  367.33  521.79  367.31  735.91  367.37
  737.87  367.37  794.69  367.39  828.13  367.05   856.9  367.27  862.55  367.35
  865.26  367.47  881.88  370.44  889.38  371.52  905.42  373.82  931.37  374.27
  934.55  374.55  941.81  376.03  943.42  376.29  957.67  378.48  967.79  381.36
  983.83  384.36

Manning's n Values         num=        2
     Sta   n Val     Sta   n Val
       0    .035  737.87     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
        794.69  865.26             35.45   35.52   36.33            .1       .3
Ineffective Flow     num=        1
   Sta L   Sta R    Elev  Permanent
888        F
Blocked Obstructions     num=        2
   Sta L   Sta R    Elev   Sta L   Sta R    Elev
    2.53  291.14  392.42   514.5   525.5  391.72

CROSS SECTION           RIVER: Canada Gobernado
REACH: Middle              RS: 2754.14*

INPUT
Description:
Station Elevation Data     num=       67
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  383.74    1.81  383.41   14.89  381.16   17.23   380.7    28.5  379.38
   53.49  376.34   67.06  374.61   73.93  373.75   80.72  372.68   94.74  369.96
   96.71  369.59   98.66  369.32   99.14  369.23  110.11  368.17  125.29   367.3
  142.46  366.75   153.2  366.38  154.75  366.33  159.78  366.24  169.45  366.39
  241.27  378.99  290.55  403.57  291.04  403.65  340.82  378.83  411.65  367.03
   456.4  367.12   483.3  367.27  489.42   367.3  499.09  367.33  519.42  367.34
  656.24   367.5  732.57  367.48  734.52  367.48   765.5  367.48  767.55  367.47
  791.08  367.47  816.41  366.96  826.26  366.76   832.2  366.64  835.12  366.58
  838.17  366.64  842.19  366.74   856.9  366.97  860.39  367.02  864.03   367.2
   869.7  367.51  872.43  367.72  887.37   370.9  888.07  371.05  888.94  371.15
  889.45  371.22  897.14  372.07  913.57  373.88  914.01  373.89  938.51  374.18
  940.16  374.35   942.4  374.68  943.42  374.84  950.86  376.52   952.5  376.85
  955.77  377.49   967.1  379.05  967.45  379.13  973.02   380.5  977.47  381.63
  979.17  381.95  993.91  384.55

Manning's n Values         num=        6
     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val
       0    .035  734.52    .045  767.55     .04  791.08     .05  872.43     .05
  993.91     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
        791.08  872.43             35.45   35.52   36.33            .1       .3
Ineffective Flow     num=        1
   Sta L   Sta R    Elev  Permanent
888        F
Blocked Obstructions     num=        2
   Sta L   Sta R    Elev   Sta L   Sta R    Elev
-14.5166  291.31403.7967   534.5   545.5  391.72

CROSS SECTION           RIVER: Canada Gobernado
REACH: Middle              RS: 2718.62*
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INPUT
Description:
Station Elevation Data num= 67

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	383.74	1.8	383.4	14.82	381.26	17.15	380.84	28.37	379.31
53.24	375.68	66.76	373.67	73.6	372.69	80.35	371.61	94.31	369.12
96.27	368.78	98.21	368.62	98.69	368.56	109.61	367.88	124.72	367.24
141.81	366.72	152.5	366.35	154.05	366.3	159.05	366.29	168.67	366.44
240.17	390.53	289.22	415.03	289.72	414.95	339.26	390.21	409.78	366.76
454.32	367.04	481.09	367.25	487.19	367.3	496.82	367.33	517.05	367.36
653.25	367.66	729.23	367.6	731.17	367.6	762.01	367.57	764.05	367.57
787.48	367.55	818.89	366.73	831.11	366.4	838.49	366.2	842.1	366.1
845.17	366.2	849.21	366.38	863.99	366.72	867.5	366.79	871.15	367.13
876.86	367.68	879.59	367.96	894.9	371.73	895.61	371.9	896.5	371.96
897.03	372	904.9	372.62	921.72	373.94	922.18	373.96	947.26	374.11
948.95	374.43	951.25	374.9	952.28	375.12	959.9	377.02	961.59	377.41
964.94	378.19	976.54	379.63	976.9	379.69	982.59	380.88	987.16	381.9
988.9	382.23	1003.98	384.74						

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	731.17	.04	764.05	.045	787.48	.05	879.59	.05
1003.98	.05								

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
787.48 879.59 35.45 35.52 36.33 .1 .3
Ineffective Flow num= 1
Sta L Sta R Elev Permanent
888 F
Blocked Obstructions num= 2
Sta L Sta R Elev Sta L Sta R Elev
-31.5633 291.48415.1733 554.5 565.5 391.72

CROSS SECTION RIVER: Canada Gobernado
REACH: Middle RS: 2683.108

INPUT
Description: CS Modified, Mult. Block Obstruc., 2:1 Slope, Stations 170-410
Station Elevation Data num= 36

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	383.73	1.79	383.39	28.24	379.24	66.45	372.74	95.83	367.97
141.16	366.69	151.8	366.32	153.34	366.27	167.9	366.49	287.9	426.49
407.9	366.49	484.96	367.3	650.26	367.81	758.52	367.67	760.55	367.66
783.87	367.63	821.38	366.5	835.97	366.04	844.77	365.76	849.09	365.63
852.17	365.76	856.23	366.02	871.08	366.47	874.61	366.57	886.76	368.21
902.42	372.56	903.15	372.75	904.06	372.76	930.34	374.02	956.01	374.05
960.09	375.12	974.1	378.9	986.34	380.24	992.17	381.26	998.62	382.51
1014.06	384.93								

Manning's n Values num= 2

Sta	n Val	Sta	n Val
0	.035	760.55	.05

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
783.87 886.76 39.43 39.25 39.59 .1 .3
Ineffective Flow num= 1
Sta L Sta R Elev Permanent
888 F
Blocked Obstructions num= 2
Sta L Sta R Elev Sta L Sta R Elev
-48.61 291.65 426.55 574.5 585.5 391.72

CROSS SECTION RIVER: Canada Gobernado
REACH: Middle RS: 2643.86*

INPUT
Description:
Station Elevation Data num= 67

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	383.67	1.88	383.36	24.62	380.2	29.59	379.52	69.63	373.66
70.69	373.51	83.96	371.67	92.22	370.41	100.41	369.28	100.93	369.26
103.06	369.2	146.15	367.95	147.91	367.89	159.06	367.4	160.67	367.33
872.71	365.54	877.85	365.38	881.85	365.27	885.17	365.38	887.85	365.5
889.54	365.59	905.52	365.96	909.32	366.04	916.53	366.77	918.71	367.03
918.74	367.03	922.39	367.46	937.51	371.12	938.22	371.28	939.09	371.3
945.14	371.61	948.93	371.87	964.47	373.2	979.88	373.92	989.25	374.44
991.63	375.09	993.09	375.44	993.19	375.46	1006.72	378.77	1018.53	380.08
1024.16	381.02	1025.8	381.31	1029.33	381.96	1030.39	382.18	1031.11	382.31
1041.15	384.05	1045.3	384.78						

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	796.92	.047	821.36	.05	922.39	.047	1045.3	.047

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
821.36 922.39 39.43 39.25 39.59 .1 .3
Ineffective Flow num= 1
Sta L Sta R Elev Permanent
888 F
Blocked Obstructions num= 1
Sta L Sta R Elev
0 301.67 421.57

CROSS SECTION RIVER: Canada Gobernado
REACH: Middle RS: 2604.61*

INPUT
Description:
Station Elevation Data num= 67

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	383.61	1.96	383.33	25.74	380.41	30.94	379.8	72.81	374.59
73.91	374.45	87.79	372.82	96.42	371.57	105	370.58	105.53	370.56
107.77	370.5	152.82	369.17	154.66	369.08	166.32	368.47	168.01	368.39
183.96	367.99	188.61	369.11	221.05	377.03	315.44	416.65	397.9	406.1
446.91	392.68	531.34	393.17	583.58	393.26	670.35	366.74	712.45	366.91
757.47	366.98	772.4	367.01	778.21	367.01	795.05	366.9	831.07	366.61
833.29	366.59	858.84	366.38	860.41	366.34	890.92	365.55	903.4	365.21
906.19	365.13	910.92	365.01	914.62	364.91	918.17	364.99	921.04	365.09
922.85	365.15	939.96	365.44	944.02	365.51	951.75	366.06	954.08	366.31
954.12	366.31	958.02	366.71	972.6	369.68	973.28	369.81	974.13	369.83
979.95	370.16	983.61	370.5	998.59	372.38	1013.45	373.8	1022.49	374.83
1024.78	375.48	1026.19	375.78	1026.29	375.8	1039.33	378.63	1050.73	379.93
1056.15	380.77	1057.73	381.04	1061.14	381.61	1062.16	381.85	1062.85	381.99
1072.54	383.84	1076.53	384.63						

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	833.29	.044	858.84	.05	958.02	.044	1076.53	.044

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
858.84	958.02	39.43	39.25	39.59	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

Blocked Obstructions num= 1

Sta L	Sta R	Elev
0	315.44	416.65

CROSS SECTION RIVER: Canada Gobernado
REACH: Middle RS: 2565.36*

INPUT
Description:
Station Elevation Data num= 67

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	383.54	2.05	383.3	26.86	380.62	32.29	380.08	75.98	375.51
77.14	375.39	91.63	373.96	100.63	372.74	109.58	371.89	110.14	371.86
112.47	371.79	159.49	370.39	161.41	370.28	173.58	369.55	175.34	369.45
191.99	368.74	196.85	369.36	230.7	373.84	329.2	411.73	415.27	414.73
466.42	405.78	554.53	406.1	609.06	406.16	699.61	366.26	743.55	366.46
790.53	366.59	806.11	366.65	812.18	366.65	829.76	366.49	867.34	366.08
869.66	366.05	896.33	365.76	897.76	365.72	925.69	365.07	937.11	364.79
939.66	364.73	944	364.63	947.38	364.55	951.17	364.61	954.22	364.67
956.15	364.72	974.39	364.93	978.73	364.98	986.97	365.35	989.46	365.58
989.49	365.58	993.66	365.96	1007.69	368.23	1008.35	368.34	1009.16	368.37
1014.77	368.7	1018.29	369.13	1032.72	371.57	1047.03	373.69	1055.73	375.23
1057.94	375.87	1059.29	376.12	1059.39	376.14	1071.95	378.5	1082.92	379.77
1088.15	380.53	1089.66	380.76	1092.95	381.27	1093.93	381.52	1094.59	381.67
1103.92	383.63	1107.77	384.47						

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	869.66	.041	896.33	.05	993.66	.041	1107.77	.041

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
896.33	993.66	39.43	39.25	39.59	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

Blocked Obstructions num= 1

Sta L	Sta R	Elev
0	415.27	414.73

CROSS SECTION RIVER: Canada Gobernado
REACH: Middle RS: 2526.11*

INPUT
Description:
Station Elevation Data num= 67

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	383.48	2.13	383.27	27.99	380.84	33.64	380.36	79.16	376.43
80.36	376.33	95.46	375.11	104.84	373.9	114.16	373.2	114.74	373.17
117.18	373.09	166.16	371.6	168.16	371.47	180.84	370.63	182.67	370.51
200.02	369.49	205.08	369.61	240.35	370.64	342.97	406.81	432.63	423.35
485.93	418.87	577.73	419.04	634.53	419.07	728.87	365.79	774.65	366.01
823.59	366.21	839.83	366.28	846.14	366.29	864.46	366.09	903.61	365.55
906.03	365.51	933.81	365.13	935.12	365.11	960.46	364.59	970.83	364.38
973.14	364.33	977.08	364.25	980.15	364.19	984.16	364.22	987.41	364.26
989.46	364.28	1008.83	364.42	1013.44	364.45	1022.18	364.65	1024.83	364.86
1024.87	364.86	1029.29	365.21	1042.78	366.79	1043.41	366.86	1044.2	366.91
1049.59	367.25	1052.98	367.75	1066.85	370.75	1080.6	373.57	1088.97	375.62
1091.09	376.27	1092.4	376.47	1092.49	376.48	1104.56	378.36	1115.11	379.61
1120.14	380.28	1121.6	380.49	1124.75	380.93	1125.7	381.19	1126.34	381.36
1135.31	383.43	1139	384.32						

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	906.03	.038	933.81	.05	1029.29	.038	1139	.038

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
933.81	1029.29	39.43	39.25	39.59	.1	.3

```
Ineffective Flow      num=        1
   Sta L   Sta R    Elev  Permanent
888        F
Blocked Obstructions      num=        1
   Sta L   Sta R    Elev
       0  432.63  423.35

CROSS SECTION           RIVER: Canada Gobernado
REACH: Middle              RS: 2486.871

INPUT
Description: CS Modified 2:1 Slope, Stations 250-800
Station Elevation Data     num=       36
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  383.42   29.11  381.05   83.59  377.27   99.29  376.26  109.05  375.07
  119.35  374.47  121.88  374.39  172.83  372.82  213.31  369.86     250  367.45
     450  431.97     660  431.97  758.13  365.31  856.65  365.82  873.54  365.92
  880.11  365.93  899.16  365.68   971.3  364.51  972.47  364.49 1006.62  363.93
 1012.91  363.83  1020.6  363.84  1057.4  363.94  1060.2  364.14 1060.24  364.14
 1064.92  364.46 1084.41   365.8 1087.66  366.38 1114.18  373.45 1124.25  376.66
  1125.5  376.81 1153.53  380.21 1156.56  380.59 1158.08  381.04 1166.69  383.22
 1170.24  384.17

Manning's n Values         num=        3
     Sta   n Val     Sta   n Val     Sta   n Val
       0    .035   971.3     .05 1064.92    .035

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         971.3 1064.92             194.4  194.45  192.85              .1       .3
Ineffective Flow      num=        1
   Sta L   Sta R    Elev  Permanent
888        F
Blocked Obstructions      num=        1
   Sta L   Sta R    Elev
 -124.56  449.62  431.97

CROSS SECTION           RIVER: Canada Gobernado
REACH: Middle              RS: 2292.400

INPUT
Description: CS Modified 2:1 Slope, Station 610
Station Elevation Data     num=       24
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  458.45     420  458.45     610  363.45  640.21  363.65  785.41   364.5
  887.85  364.67  894.31  364.68  902.83  364.69  928.18  364.36  939.32   364.7
  953.57  365.61  958.96  365.95  964.16  366.28  997.66  368.05 1007.73  369.32
 1022.08  372.01 1027.26  373.67 1032.03  376.53 1039.34  380.03 1060.22  383.36
 1060.88  383.47 1066.29  383.99 1071.35  384.66 1077.49  385.05

Manning's n Values         num=        3
     Sta   n Val     Sta   n Val     Sta   n Val
       0    .035  894.31     .05  958.96    .035

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         902.83  939.32              36.09   35.65   35.39              .1       .3
Ineffective Flow      num=        1
   Sta L   Sta R    Elev  Permanent
888        F

CROSS SECTION           RIVER: Canada Gobernado
REACH: Middle              RS: 2256.75*

INPUT
Description:
Station Elevation Data     num=       52
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0   460.3  246.85   460.3  412.95  444.82  472.23  415.19  599.77  363.35
  600.04  363.35  629.47  363.52  771.18  364.24  772.23  364.24  836.55  364.23
  872.96  364.19  879.31  364.18  882.17  364.18  887.68  364.17  906.18  363.93
  915.04  363.68  918.19  363.59  919.22  363.56  920.91  363.51  924.98  363.39
  931.78  363.77  933.69  363.88  936.21  364.15  940.42  365.05  942.87   365.5
  948.76  365.97  952.54  366.15  955.05  366.22  961.23  366.41  962.17  366.49
  966.29   366.8  969.05  367.01  975.22  367.45  983.11  367.88 1013.14  369.47

Manning's n Values         num=        9
     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val
       0    .035  472.23    .032  879.31    .044  882.17    .026  887.68    .035
  923.78    .035  936.21    .035  962.17    .035 1118.86    .035

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         887.68  936.21              36.09   35.65   35.39              .1       .3
Ineffective Flow      num=        1
   Sta L   Sta R    Elev  Permanent
888        F

CROSS SECTION           RIVER: Canada Gobernado
REACH: Middle              RS: 2221.10*

INPUT
Description:
Station Elevation Data     num=       52
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  462.15  242.64  462.15  405.91   431.2  464.17  402.06  589.53  363.25
   589.8  363.26  618.73  363.39  758.02  363.98  759.06  363.98  822.28  363.85
```

858.06	363.71	864.3	363.68	867.12	363.67	872.54	363.65	896.96	363.32
908.65	362.91	912.82	362.76	914.17	362.7	916.4	362.62	921.77	362.41
928.64	362.97	930.56	363.13	933.1	363.59	938.33	365.2	941.38	365.98
948.71	366.63	953.41	366.81	956.53	366.84	964.22	366.92	965.39	367.02
970.5	367.44	973.93	367.74	981.62	368.38	991.42	368.92	1028.77	370.9
1029	370.9	1039.22	371.46	1045.55	371.83	1067.21	373.59	1069.14	373.76
1077.66	374.91	1085.5	376.76	1087.77	377.2	1097.51	379.12	1125.41	381.35
1131.83	381.92	1132.92	382.02	1141.81	382.61	1146.41	382.97	1150.13	383.33
1154.14	383.61	1160.22	384.03						

Manning's n Values num= 9

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	464.17	.029	864.3	.038	867.12	.032	872.54	.035
917.59	.035	933.1	.035	965.39	.035	1160.22	.035		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
872.54	933.1	36.09	35.65	35.39	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888		F	

CROSS SECTION RIVER: Canada Gobernado
REACH: Middle RS: 2185.45*

INPUT
Description:
Station Elevation Data num= 52

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	464	238.42	464	398.86	417.57	456.11	388.94	579.3	363.16
579.57	363.16	607.99	363.26	744.87	363.73	745.88	363.73	808.01	363.48
843.17	363.23	849.3	363.18	852.06	363.16	857.39	363.13	887.74	362.72
902.26	362.14	907.44	361.92	909.12	361.85	911.89	361.73	918.57	361.44
925.49	362.17	927.43	362.39	930	363.04	936.25	365.35	939.89	366.47
948.66	367.29	954.27	367.46	958.01	367.45	967.2	367.43	968.6	367.56
974.72	368.09	978.82	368.47	988.01	369.31	999.73	369.95	1044.39	372.32
1044.67	372.33	1056.9	372.77	1064.47	373.09	1090.36	374.5	1092.67	374.64
1102.85	375.53	1112.23	376.88	1114.95	377.2	1126.6	378.66	1159.95	380.66
1167.64	381.2	1168.94	381.3	1179.57	381.92	1185.08	382.28	1189.52	382.66
1194.31	383.01	1201.59	383.51						

Manning's n Values num= 9

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	456.11	.026	849.3	.032	852.06	.038	857.39	.035
911.4	.035	930	.035	968.6	.035	1201.59	.035		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
857.39	930	36.09	35.65	35.39	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888		F	

CROSS SECTION RIVER: Canada Gobernado
REACH: Middle RS: 2149.80*

INPUT
Description:
Station Elevation Data num= 52

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	465.85	234.21	465.85	391.82	403.94	448.06	375.82	569.07	363.06
569.33	363.06	597.25	363.13	731.71	363.47	732.71	363.47	793.73	363.1
828.27	362.75	834.3	362.68	837.01	362.66	842.25	362.61	878.51	362.12
895.88	361.37	902.07	361.09	904.07	360.99	907.39	360.84	915.36	360.46
922.35	361.38	924.3	361.64	926.89	362.48	934.16	365.49	938.41	366.95
948.6	367.95	955.14	368.12	959.49	368.07	970.19	367.94	971.81	368.09
978.93	368.74	983.71	369.21	994.4	370.23	1008.04	370.99	1060.02	373.75
1060.34	373.76	1074.57	374.09	1083.38	374.35	1113.51	375.4	1116.2	375.51
1128.05	376.14	1138.96	376.99	1142.13	377.21	1155.69	378.2	1194.5	379.96
1203.45	380.48	1204.96	380.57	1217.33	381.23	1223.74	381.58	1228.91	381.99
1234.49	382.4	1242.95	383						

Manning's n Values num= 9

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	448.06	.023	834.3	.026	837.01	.044	842.25	.035
905.21	.035	926.89	.035	971.81	.035	1242.95	.035		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
842.25	926.89	36.09	35.65	35.39	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888		F	

CROSS SECTION RIVER: Canada Gobernado
REACH: Middle RS: 2114.162

INPUT
Description: CS Modified 2:1 Slope, Station 440
Station Elevation Data num= 33

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	467.7	230	467.7	440	362.7	559.09	362.96	718.55	363.22
779.46	362.72	821.96	362.15	827.1	362.09	869.29	361.52	889.49	360.6
896.69	360.26	899.02	360.14	902.88	359.95	912.16	359.49	919.2	360.58
921.17	360.9	923.78	361.93	932.08	365.64	936.92	367.43	948.55	368.61
956.01	368.78	973.17	368.45	983.15	369.39	1000.79	371.16	1016.35	372.03
1075.64	375.18	1092.24	375.4	1136.66	376.3	1169.31	377.21	1229.05	379.27
1262.4	380.89	1274.66	381.8	1284.32	382.49				

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val

0	.035	440	.02	821.96	.05	899.02	.035

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
827.1 923.78 38.93 38.51 38.6 .1 .3
Ineffective Flow num= 1
Sta L Sta R Elev Permanent
888 F

CROSS SECTION RIVER: Canada Gobernado
REACH: Middle RS: 2075.65*

INPUT
Description:
Station Elevation Data num= 55

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	468.23	167.41	468.23	233.51	462.31	372.02	393.06	432.13	368.42
446.72	362.43	520.79	362.57	567.63	362.68	606.46	362.75	623.14	362.77
729.52	362.93	781.07	362.59	791.36	362.51	834.51	361.98	839.73	361.92
859.23	361.68	866.97	361.58	883.09	361.38	896.17	360.88	903.84	360.59
911.24	360.3	913.64	360.19	917.6	360.03	927.14	359.63	931.41	360.12
935.73	360.62	938.11	360.9	938.13	360.91	941.32	361.79	948.84	364.91
953.23	366.42	963.78	367.44	970.54	367.61	978.34	367.5	984.88	367.4
986.1	367.39	995.15	368.19	1011.15	369.69	1025.26	370.45	1029	370.64
1030.3	370.7	1031.69	370.77	1079.03	373.31	1087.1	373.45	1094.08	373.61
1098.9	373.74	1127.89	374.58	1134.36	374.76	1146.6	375.17	1163.97	376.01
1209.74	378.51	1218.15	378.99	1248.39	381.09	1259.51	382.13	1268.27	382.92

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	372.02	.032	446.72	.02	623.14	.028	834.51	.053
839.73	.038	857.55	.05	915.3	.038	941.32	.035	978.34	.035
1268.27	.035								

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
839.73 941.32 38.93 38.51 38.6 .1 .3
Ineffective Flow num= 1
Sta L Sta R Elev Permanent
888 F

CROSS SECTION RIVER: Canada Gobernado
REACH: Middle RS: 2037.14*

INPUT
Description:
Station Elevation Data num= 55

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	468.77	169.93	468.77	237.02	456.92	377.62	386.62	438.63	366.95
453.44	362.17	528.62	362.29	576.16	362.4	615.58	362.47	632.51	362.5
740.49	362.64	792.82	362.38	803.27	362.3	847.06	361.81	852.36	361.76
872.38	361.53	880.33	361.44	896.88	361.25	910.32	360.82	918.2	360.58
925.8	360.33	928.25	360.25	932.33	360.11	942.12	359.78	947.15	360.22
952.26	360.66	955.06	360.91	955.09	360.91	958.85	361.66	965.6	364.18
969.54	365.41	979.01	366.27	985.08	366.43	992.07	366.38	997.94	366.33
999.04	366.32	1007.16	366.98	1021.51	368.23	1034.17	368.86	1037.53	369.02
1038.69	369.08	1039.94	369.14	1082.42	371.45	1089.66	371.6	1095.93	371.81
1100.25	371.98	1126.26	373.01	1132.07	373.21	1143.05	373.66	1158.64	374.81
1199.7	378.07	1207.25	378.7	1234.38	381.29	1244.36	382.45	1252.22	383.35

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	377.62	.03	453.44	.02	632.51	.037	847.06	.057
852.36	.04	871.04	.05	931.58	.04	958.85	.035	992.07	.035
1252.22	.035								

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
852.36 958.85 38.93 38.51 38.6 .1 .3
Ineffective Flow num= 1
Sta L Sta R Elev Permanent
888 F

CROSS SECTION RIVER: Canada Gobernado
REACH: Middle RS: 1998.63*

0	469.3	172.45	469.3	240.54	451.53	383.21	380.19	445.13	365.49
460.16	361.9	536.45	362	584.7	362.12	624.71	362.2	641.88	362.22
751.47	362.36	804.57	362.17	815.17	362.09	859.61	361.64	864.99	361.59
885.54	361.38	893.69	361.29	910.68	361.11	924.47	360.76	932.55	360.57
940.35	360.37	942.87	360.3	947.05	360.19	957.1	359.92	962.9	360.31
968.78	360.7	972.02	360.92	972.05	360.92	976.39	361.52	982.37	363.46
985.85	364.4	994.23	365.1	999.61	365.26	1005.81	365.26	1011	365.26
1011.97	365.26	1019.16	365.78	1031.87	366.76	1043.09	367.28	1046.06	367.41
1047.09	367.46	1048.2	367.51	1085.81	369.58	1092.22	369.75	1097.77	370.02
1101.6	370.22	1124.63	371.44	1129.77	371.67	1139.5	372.15	1153.3	373.61
1189.66	377.63	1196.35	378.42	1220.38	381.49	1229.21	382.78	1236.17	383.78

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	383.21	.027	460.16	.02	641.88	.045	859.61	.06
864.99	.043	884.53	.05	947.86	.043	976.39	.035	1005.81	.035
1236.17	.035								

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
864.99 976.39 38.93 38.51 38.6 .1 .3
Ineffective Flow num= 1

```
   Sta L   Sta R    Elev  Permanent
888        F

CROSS SECTION           RIVER: Canada Gobernado
REACH: Middle              RS: 1960.12*

INPUT
Description:
Station Elevation Data    num=      55
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  469.83  174.96  469.83  244.05  446.14  388.81  373.76  451.63  364.02
  466.88  361.63  544.28  361.72  593.24  361.84  633.83  361.93  651.26  361.95
  762.44  362.07  816.31  361.96  827.07  361.88  872.17  361.47  877.62  361.42
  898.69  361.22  907.06  361.14  924.47  360.98  938.62  360.71   946.9  360.56
   954.9  360.41  957.49  360.35  961.77  360.27  972.08  360.07  978.65   360.4
  985.31  360.74  988.98  360.93  989.01  360.93  993.92  361.38  999.13  362.73
 1002.16  363.39 1009.46  363.93 1014.14  364.09 1019.54  364.14 1024.06  364.19
 1024.91  364.19 1031.17  364.58 1042.24  365.29    1052  365.69 1054.58   365.8
 1055.48  365.84 1056.45  365.88  1089.2  367.71 1094.78  367.91 1099.61  368.22
 1102.94  368.46    1123  369.87 1127.48  370.13 1135.94  370.64 1147.96  372.41
 1179.63  377.19 1185.44  378.14 1206.37  381.69 1214.06  383.11 1220.12  384.21

Manning's n Values        num=      11
     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val
       0    .035  388.81    .025  466.88     .02  651.26    .053  872.17    .063
  877.62    .045  898.02     .05  964.14    .045  993.92    .035 1019.54    .035
 1220.12    .035

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
        877.62  993.92             38.93   38.51    38.6              .1       .3
Ineffective Flow     num=       1
   Sta L   Sta R    Elev  Permanent
888        F

CROSS SECTION           RIVER: Canada Gobernado
REACH: Middle              RS: 1921.61*

INPUT
Description:
Station Elevation Data    num=      55
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  470.37  177.48  470.37  247.56  440.75   394.4  367.33  458.13  362.56
  473.59  361.37  552.12  361.43  601.78  361.56  642.95  361.65  660.63  361.67
  773.41  361.78  828.06  361.75  838.97  361.67  884.72   361.3  890.25  361.26
  911.85  361.07  920.42     361  938.27  360.84  952.76  360.65  961.26  360.54
  969.45  360.44   972.1  360.41   976.5  360.35  987.06  360.21   994.4   360.5
 1001.84  360.78 1005.93  360.93 1005.98  360.93 1011.46  361.25 1015.89     362
 1018.47  362.38 1024.69  362.76 1028.67  362.91 1033.27  363.03 1037.12  363.12
 1037.84  363.13 1043.17  363.37  1052.6  363.83 1060.91  364.11 1063.11  364.18
 1063.88  364.22  1064.7  364.24 1092.58  365.84 1097.34  366.06 1101.45  366.43
 1104.29  366.69 1121.37   368.3 1125.18  368.58 1132.39  369.13 1142.63  371.21
 1169.59  376.75 1174.54  377.85 1192.36  381.89 1198.91  383.43 1204.07  384.64

Manning's n Values        num=      11
     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val
       0    .035   394.4    .023  473.59     .02  660.63    .062  884.72    .067
  890.25    .047  911.51     .05  980.41    .047 1011.46    .035 1033.27    .035
 1204.07    .035

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
        890.25 1011.46             38.93   38.51    38.6              .1       .3
Ineffective Flow     num=       1
   Sta L   Sta R    Elev  Permanent
888        F

CROSS SECTION           RIVER: Canada Gobernado
REACH: Middle              RS: 1883.106

INPUT
Description: CS Modified 2:1 Slope, Station 400 and Manual Input for Manning's
             N Values
Station Elevation Data    num=      27
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0   470.9     180   470.9     400   360.9  464.63  361.09  559.95  361.15
  652.07  361.38     670   361.4  839.81  361.54  902.88  361.09     925  360.92
  933.78  360.85  966.91  360.59 1002.04  360.36 1010.15  360.59 1022.89  360.94
 1028.99  361.11    1047  361.91 1050.18  362.05 1071.64  362.57 1072.27   362.6
 1072.95  362.61  1099.9  364.21 1105.64  364.93 1119.74  366.73 1128.84  367.62
 1159.55  376.31 1188.02  385.07

Manning's n Values        num=       5
     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val
       0    .035     400     .02     670     .07     925     .05    1047    .035

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
        902.88 1028.99             45.57   44.68   43.77              .1       .3
Ineffective Flow     num=       1
   Sta L   Sta R    Elev  Permanent
888        F

CROSS SECTION           RIVER: Canada Gobernado
REACH: Middle              RS: 1838.42*

INPUT
Description:
Station Elevation Data    num=      53
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  458.72  109.74  448.72  176.09  449.12  204.97  437.48  220.62  431.18
```

308.48	395.04	310.68	394.12	330.96	385.79	391.32	360.99	454.54	361.02
547.8	360.87	555.31	360.87	583.65	360.87	584.43	360.87	624.76	360.96
637.92	361.01	655.46	361.06	660.53	361.07	700.32	361.15	821.58	361.42
831.79	361.38	833.79	361.37	837.37	361.35	883.28	361.12	902.89	360.97
910.67	360.91	940.04	360.68	971.18	360.47	979.69	360.68	993.06	361
997.65	361.12	999.46	361.15	1018.49	362.3	1021.85	362.5	1024.61	362.62
1044.52	363.54	1045.19	363.58	1045.8	363.61	1045.91	363.61	1059.94	364.74
1074.39	365.77	1080.45	366.5	1095.35	368.33	1096.47	368.45	1104.97	369.25
1119.53	372.68	1121.94	373.28	1137.42	376.92	1149.31	379.94	1151.49	380.5
1155.72	381.61	1159.76	382.69	1167.5	384.76				

Manning's n Values num= 12

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	109.74	.032	391.32	.02	583.65	.03	655.46	.07
833.79	.066	883.28	.047	903.66	.047	996.19	.035	999.46	.035
1018.49	.035	1167.5	.035						

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
883.28 999.46 45.57 44.68 43.77 .1 .3
Ineffective Flow num= 1
Sta L Sta R Elev Permanent
888 F

CROSS SECTION RIVER: Canada Gobernado
REACH: Middle RS: 1793.75*

INPUT
Description:
Station Elevation Data num= 53

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	446.54	107.3	426.54	172.19	427.34	200.42	418.83	215.73	414.21
301.63	386.84	303.79	386.13	323.62	379.84	382.64	361.09	444.46	360.94
535.64	360.6	542.99	360.58	570.7	360.5	571.46	360.5	610.9	360.58
623.76	360.64	640.91	360.71	645.88	360.73	684.79	360.87	803.35	361.3
813.34	361.29	815.29	361.28	818.79	361.27	863.68	361.15	880.78	361.02
887.57	360.96	913.17	360.76	940.32	360.58	949.23	360.77	963.23	361.07
968.03	361.17	969.93	361.2	989.98	362.68	993.52	362.94	996.43	363.13
1017.41	364.51	1018.11	364.57	1018.75	364.61	1018.87	364.61	1033.65	366.07
1048.87	367.32	1055.26	368.07	1070.96	369.94	1072.14	370.06	1081.09	370.88
1096.44	373.83	1098.97	374.39	1115.28	377.53	1127.81	380.11	1130.11	380.58
1134.56	381.58	1138.82	382.57	1146.98	384.44				

Manning's n Values num= 12

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	107.3	.029	382.64	.02	570.7	.04	640.91	.07
815.29	.062	863.68	.044	882.32	.044	966.94	.035	969.93	.035
989.98	.035	1146.98	.035						

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
863.68 969.93 45.57 44.68 43.77 .1 .3
Ineffective Flow num= 1
Sta L Sta R Elev Permanent
888 F

CROSS SECTION RIVER: Canada Gobernado
REACH: Middle RS: 1749.07*

INPUT
Description:
Station Elevation Data num= 53

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	434.36	104.87	404.36	168.28	405.56	195.88	400.17	210.83	397.25
294.79	378.63	296.9	378.15	316.28	373.89	373.95	361.18	434.37	360.87
523.49	360.32	530.67	360.28	557.75	360.13	558.49	360.13	597.03	360.2
609.61	360.27	626.37	360.37	631.22	360.39	669.25	360.58	785.12	361.18
794.88	361.2	796.79	361.2	800.21	361.2	844.09	361.18	858.67	361.07
864.46	361.02	886.3	360.85	909.47	360.68	918.77	360.86	933.39	361.13
938.41	361.22	940.39	361.24	961.47	363.07	965.19	363.39	968.25	363.64
990.29	365.48	991.03	365.55	991.7	365.6	991.83	365.62	1007.36	367.41
1023.36	368.88	1030.07	369.64	1046.57	371.54	1047.81	371.67	1057.22	372.51
1073.35	374.99	1076.01	375.5	1093.15	378.14	1106.31	380.28	1108.73	380.67
1113.41	381.56	1117.88	382.45	1126.45	384.13				

961.47 .035 1126.45 .035

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
844.09 940.39 45.57 44.68 43.77 .1 .3
Ineffective Flow num= 1
Sta L Sta R Elev Permanent
888 F

CROSS SECTION RIVER: Canada Gobernado
REACH: Middle RS: 1704.40*

INPUT
Description:
Station Elevation Data num= 53

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	422.18	102.43	382.18	164.37	383.77	191.33	381.52	205.94	380.28
287.94	370.43	290	370.16	308.93	367.93	365.27	361.27	424.29	360.79
511.33	360.04	518.35	359.99	544.8	359.76	545.53	359.75	583.17	359.81
595.45	359.91	611.83	360.02	616.57	360.06	653.71	360.3	766.89	361.06
776.43	361.11	778.29	361.11	781.63	361.12	824.49	361.21	836.56	361.12
841.35	361.08	859.43	360.93	878.61	360.79	888.31	360.95	903.56	361.19

908.8	361.28	910.86	361.29	932.95	363.46	936.85	363.84	940.06	364.14
963.18	366.45	963.95	366.53	964.66	366.6	964.78	366.62	981.07	368.75
997.84	370.43	1004.88	371.21	1022.18	373.14	1023.48	373.28	1033.34	374.15
1050.25	376.14	1053.04	376.62	1071.01	378.75	1084.82	380.44	1087.35	380.75
1092.25	381.53	1096.95	382.33	1105.93	383.81				

Manning's n Values num= 12

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	102.43	.023	365.27	.02	544.8	.06	611.83	.07
778.29	.054	824.49	.038	839.64	.038	908.43	.035	910.86	.035
932.95	.035	1105.93	.035						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
824.49	910.86	45.57	44.68	43.77	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: Canada Gobernado
REACH: Middle RS: 1659.726

INPUT
Description: CS Modified 2:1 Slope, Station 100
Station Elevation Data num= 31

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	410	100	360	186.78	362.86	201.04	363.32	281.1	362.23
283.11	362.17	301.59	361.98	506.03	359.69	531.85	359.39	532.56	359.38
569.31	359.43	601.91	359.72	638.17	360.01	757.97	361.02	759.79	361.03
763.05	361.05	804.89	361.24	847.75	360.9	879.18	361.33	881.33	361.33
911.88	364.65	937.61	367.6	954.78	370.09	999.15	374.89	1027.16	377.3
1030.08	377.73	1063.32	380.61	1065.97	380.84	1071.1	381.5	1076.01	382.21
1085.41	383.5								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	100	.02	531.85	.07	759.79	.05	879.18	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
804.89	881.33	37.47	36.66	36.19	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: Canada Gobernado
REACH: Middle RS: 1623.06*

INPUT
Description:
Station Elevation Data num= 62

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	405.13	10.15	400.21	27.06	391.91	38.35	386.39	44.81	383.34
57.22	377.99	63.05	375.41	69.02	372.79	72.26	371.36	88.13	365.05
98.26	360.8	100.36	359.97	116.14	360.4	182.87	362.62	187.45	362.75
201.76	363.15	230.35	362.89	282.1	362.02	284.12	361.96	302.67	361.69
345.91	361.05	383.9	360.46	406.6	360.22	507.83	359.27	515.21	359.2
533.75	359.02	534.46	359.01	571.34	359.03	576.8	359.07	591.24	359.17
603.99	359.3	604.06	359.3	640.45	359.67	760.67	360.92	762.5	360.93
765.77	360.96	766.57	360.96	780.67	361.04	793.3	361.1	807.76	361.16
854.31	360.73	881.08	361.12	891.95	361.29	894.53	361.3	923.49	364.34
926.27	364.65	946.4	367.02	947.87	367.19	964.15	369.47	981.55	371.36
987.09	371.96	1006.2	374.15	1023.06	375.76	1032.75	376.69	1035.52	377.09
1036.17	377.16	1048.35	378.52	1067.02	380.61	1069.54	380.89	1074.4	381.61
1079.05	382.36	1087.96	383.74						

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.038	69.02	.044	100.36	.02	533.75	.06	576.8	.03
762.5	.054	807.76	.038	879.4	.047	892.09	.035	894.53	.035
1087.96	.035								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
807.76	894.53	37.47	36.66	36.19	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: Canada Gobernado
REACH: Middle RS: 1586.40*

INPUT
Description:
Station Elevation Data num= 62

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	400.25	10.18	395.47	27.15	387.29	38.48	381.89	44.97	379.01
57.42	374.48	63.28	372.24	69.26	369.96	72.52	368.72	88.44	364
98.61	360.56	100.71	359.94	116.55	360.27	183.52	362.53	188.11	362.64
202.47	362.97	231.16	362.84	283.1	361.8	285.13	361.74	303.74	361.4
347.14	360.59	385.27	359.85	408.05	359.61	509.64	358.85	517.04	358.79
535.64	358.65	536.36	358.64	573.37	358.64	578.85	358.66	593.34	358.73
606.13	358.88	606.2	358.88	642.72	359.33	763.38	360.81	765.21	360.83
768.49	360.87	769.29	360.88	783.44	360.96	796.11	361.02	810.63	361.08
860.87	360.55	892.06	361.04	904.73	361.24	907.73	361.27	935.09	364.03
937.72	364.3	956.75	366.63	958.14	366.78	973.52	368.85	989.96	370.65
995.2	371.21	1013.26	373.41	1029.19	375.1	1038.34	376.07	1040.96	376.46
1041.57	376.52	1053.08	378.14	1070.73	380.61	1073.1	380.95	1077.7	381.72
1082.09	382.51	1090.51	383.97						

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.041	69.26	.038	100.71	.02	535.64	.05	578.85	.04
765.21	.058	810.63	.041	890.8	.044	905	.035	907.73	.035
1090.51	.035								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
810.63	907.73	37.47	36.66	36.19	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: Canada Gobernado
REACH: Middle RS: 1549.73*

INPUT
Description:
Station Elevation Data num= 62

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	395.38	10.22	390.73	27.25	382.68	38.62	377.38	45.13	374.68
57.62	370.98	63.5	369.07	69.51	367.14	72.78	366.08	88.75	362.95
98.96	360.32	101.07	359.9	116.96	360.15	184.17	362.45	188.78	362.53
203.19	362.8	231.98	362.8	284.11	361.59	286.14	361.53	304.82	361.12
348.37	360.14	386.63	359.24	409.49	359.01	511.44	358.43	518.87	358.38
537.54	358.27	538.26	358.27	575.4	358.24	580.9	358.26	595.44	358.29
608.28	358.47	608.35	358.47	645	358.98	766.08	360.71	767.92	360.73
771.21	360.78	772.01	360.79	786.21	360.88	798.93	360.94	813.5	360.99
867.43	360.38	903.04	360.96	917.5	361.2	920.93	361.24	946.7	363.72
949.17	363.96	967.09	366.23	968.4	366.38	982.88	368.23	998.37	369.94
1003.3	370.47	1020.31	372.66	1035.31	374.45	1043.93	375.46	1046.4	375.82
1046.97	375.89	1057.81	377.76	1074.43	380.62	1076.67	381	1081	381.83
1085.14	382.66	1093.07	384.21						

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.044	69.51	.032	101.07	.02	537.54	.04	580.9	.05
767.92	.062	813.5	.044	902.2	.041	917.91	.035	920.93	.035
1093.07	.035								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
813.5	920.93	37.47	36.66	36.19	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: Canada Gobernado
REACH: Middle RS: 1513.07*

INPUT
Description:
Station Elevation Data num= 62

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	390.5	10.25	385.99	27.34	378.06	38.75	372.88	45.29	370.34
57.83	367.47	63.73	365.9	69.75	364.31	73.03	363.45	89.07	361.91
99.31	360.07	101.43	359.87	117.38	360.03	184.82	362.36	189.44	362.42
203.91	362.62	232.8	362.75	285.11	361.37	287.15	361.31	305.89	360.83
349.6	359.69	388	358.62	410.94	358.4	513.25	358.01	520.7	357.98
539.44	357.9	540.16	357.9	577.43	357.85	582.95	357.85	597.54	357.85
610.42	358.05	610.49	358.05	647.27	358.64	768.78	360.61	770.63	360.63
773.93	360.69	774.74	360.7	788.99	360.81	801.75	360.87	816.37	360.91
873.99	360.2	914.02	360.88	930.28	361.15	934.13	361.21	958.3	363.41
960.63	363.62	977.44	365.83	978.66	365.97	992.25	367.61	1006.78	369.22
1011.41	369.72	1027.36	371.92	1041.44	373.79	1049.53	374.85	1051.84	375.18
1052.38	375.25	1062.55	377.38	1078.14	380.62	1080.24	381.05	1084.29	381.94
1088.18	382.8	1095.62	384.44						

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.047	69.75	.026	101.43	.02	539.44	.03	582.95	.06
770.63	.066	816.37	.047	913.6	.038	930.82	.035	934.13	.035
1095.62	.035								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
816.37	934.13	37.47	36.66	36.19	.1	.3

CROSS SECTION RIVER: Canada Gobernado
REACH: Middle RS: 1476.413

INPUT
Description: Manual Input for Manning's N Values
Station Elevation Data num= 36

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	385.63	10.29	381.25	27.44	373.45	38.89	368.37	45.45	366.01
58.03	363.97	63.95	362.73	70	361.49	73.29	360.81	89.38	360.86
99.66	359.83	117.79	359.91	185.47	362.27	233.62	362.71	350.83	359.24
389.36	358.01	412.38	357.8	522.53	357.57	585	357.44	599.64	357.41
612.57	357.63	777.46	360.61	791.76	360.73	804.57	360.79	819.24	360.83
880.55	360.03	925	360.8	947.33	361.18	972.08	363.28	987.78	365.43
1015.19	368.51	1019.51	368.97	1047.56	373.13	1057.78	374.62	1067.28	377
1098.17	384.68								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	70	.02	585	.07	819.24	.05	925	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.

819.24 947.33 184.65 188.8 191.6 .1 .3
Ineffective Flow num= 1
Sta L Sta R Elev Permanent
888 F

CROSS SECTION RIVER: Canada Gobernado
REACH: Middle RS: 1287.613

INPUT
Description:
Station Elevation Data num= 47

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	378.72	.42	378.59	2.47	377.82	27.86	368.08	29.66	367.74
47.12	364.46	53.62	362.7	70.96	360.82	92.18	360.51	94.22	360.46
103.33	360.26	177.39	359.78	185.78	359.71	189.18	359.63	210.24	359.08
299.89	357.02	372.19	355.95	504.3	354.22	536.26	353.8	555.56	353.56
600.4	353.78	680.84	354.15	724.1	354.44	745.96	354.34	762.62	358.51
766.34	359.29	767.19	359.47	771.28	360.03	774.81	360.52	782.94	361.06
794.38	359.68	802.76	358.03	808.56	358.26	830.51	358.22	842.91	359.33
880.05	360.09	882.49	360.14	916.37	361.09	923.28	361.11	929.2	361.12
937.42	362.84	958.74	367.7	967.46	370.76	975.44	374.02	984.43	376.55
988.55	377.35	988.82	377.4						

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	29.66	.02	504.3	.07	771.28	.05	880.05	.035

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
794.38 842.91 190.45 198.85 205.15 .1 .3
Ineffective Flow num= 1
Sta L Sta R Elev Permanent
888 F

CROSS SECTION RIVER: Canada Gobernado
REACH: Middle RS: 1088.688

INPUT
Description:
Station Elevation Data num= 38

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	376.2	3.04	375.63	15.31	373.29	32.05	368.72	38.2	367.51
48.41	366.93	86.37	364.8	95.96	364.25	124.03	362.83	147.53	361.65
198.12	360.78	247.63	359.73	266.8	359.26	299.83	358.39	393.24	355.36
431.89	354.92	513.14	353.72	559.62	353.03	590.45	352.58	618.27	352.43
649.15	352.99	722.5	354.39	780.77	354.27	784.23	354.28	814.75	354.33
847.74	353.86	863.38	354.39	876.86	356.07	881.05	356.93	891.98	359.17
905.2	361.08	921.97	363.73	927.65	364.37	928.47	364.46	930.89	364.91
945.69	367.45	964.28	376.09	968.19	377.84				

Manning's n Values num= 4

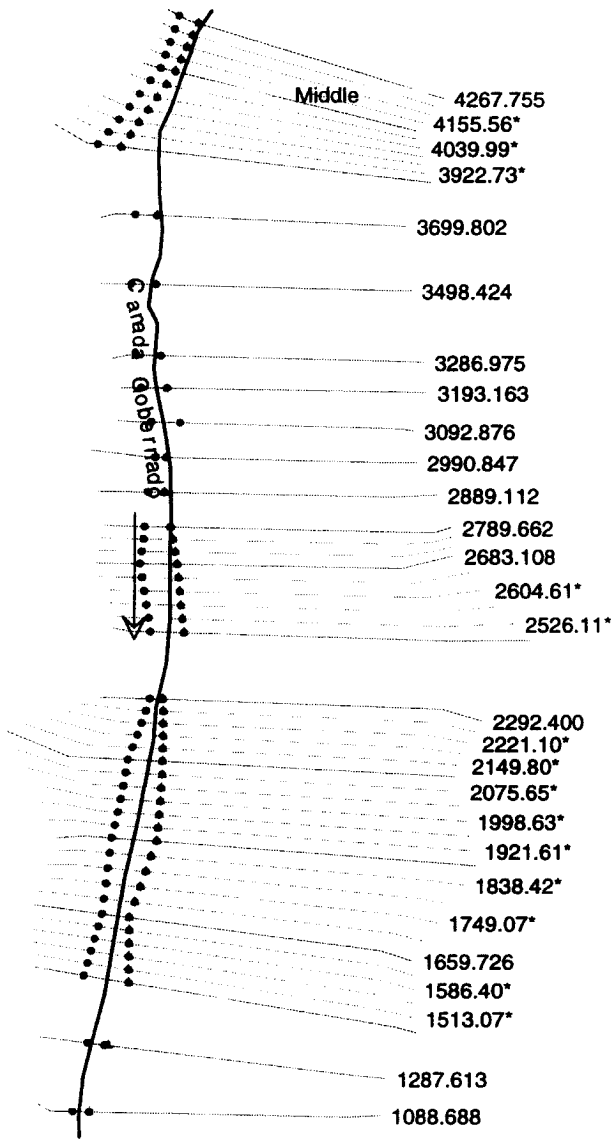
Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	48.41	.02	513.14	.07	784.23	.05

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
814.75 863.38 1170.86 1088.69 1068.58 .1 .3
Ineffective Flow num= 1
Sta L Sta R Elev Permanent
888 F

Profile Output Table - Standard Table 1

Reach	River Sta	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
		(cfs)	(ft)	(ft)	(ft)	(ft)	(ft/ft)	(ft/s)	(sq ft)	(ft)	
Middle	4267.755	1720.00	378.17	381.73	380.76	381.77	0.001000	1.69	1050.84	698.49	0.20
Middle	4118.164	1720.00	379.52	381.27	381.03	381.41	0.006968	4.01	576.71	722.96	0.61
Middle	3883.652	1720.00	379.76	380.57	380.57	380.59	0.000260	0.21	1562.12	890.69	0.05
Middle	3699.802	1720.00	373.74	374.97	374.19	375.05	0.001833	1.29	771.46	559.98	0.22
Middle	3498.424	1720.00	367.50	373.93	373.93	374.33	0.009006	6.14	423.53	524.19	0.59
Middle	3286.975	1720.00	366.97	370.91	370.18	371.39	0.007357	4.82	314.28	135.56	0.52
Middle	3193.163	1720.00	365.89	369.83	369.55	370.49	0.012760	6.30	264.69	137.41	0.68
Middle	3092.876	1720.00	365.92	369.22		369.44	0.006947	3.57	460.14	380.34	0.45
Middle	2990.847	1720.00	367.03	369.15	367.93	369.19	0.000907	1.38	1002.52	591.63	0.17
Middle	2889.112	1720.00	367.04	369.08	367.89	369.11	0.000697	1.21	1176.67	719.16	0.15
Middle	2789.662	1720.00	367.05	368.95	368.03	369.02	0.001425	1.63	846.36	523.21	0.22
Middle	2683.108	1720.00	365.63	368.63	368.04	368.75	0.003270	2.72	636.12	473.68	0.34
Middle	2486.871	1720.00	363.83	366.69	366.07	366.85	0.003605	3.42	544.68	332.73	0.37
Middle	2292.400	1720.00	364.36	365.39	365.22	365.73	0.010224	2.73	379.64	344.06	0.52
Middle	2114.162	1720.00	359.49	363.07	363.34	363.82	0.015827	7.39	266.50	377.94	0.92
Middle	1883.106	1720.00	360.36	362.25	361.78	362.36	0.002441	1.89	699.16	661.30	0.27
Middle	1659.726	1720.00	360.90	361.25	361.25	361.48	0.008727	0.88	458.34	547.21	

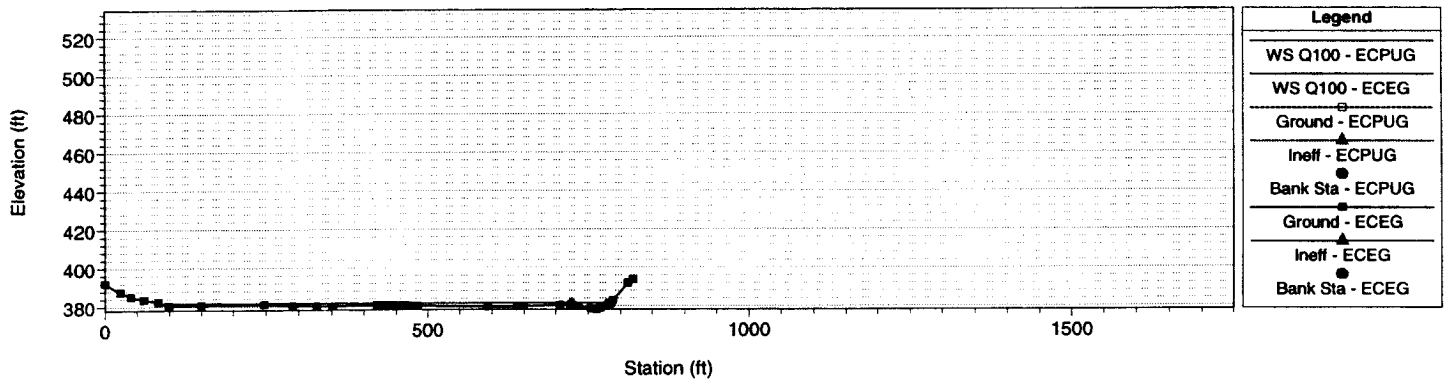
0.37										
Middle	1476.413	1720.00	360.03	361.05	360.84	361.08	0.000158	0.27	1363.04	728.56
0.06										
Middle	1287.613	1720.00	358.03	361.06	361.06	361.06	0.000018	0.23	3541.27	846.56
0.03										
Middle	1088.688	1720.00	353.86	355.73	354.52	355.78	0.002001	1.83	885.98	492.13
0.25										



1 in Horiz. = 1200 ft 1 in Vert. = 600 ft

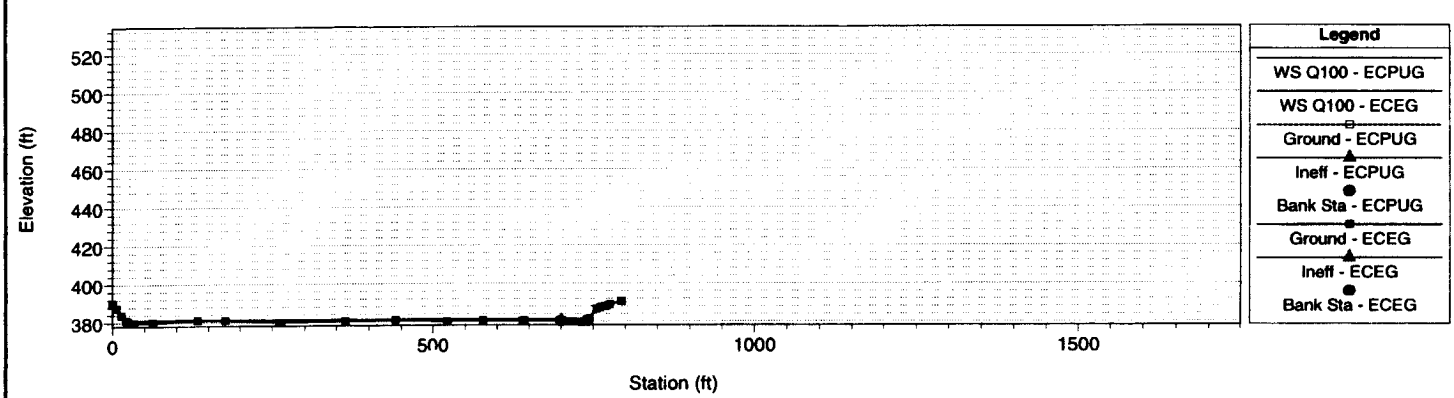
Project Model A

RS = 4267.755 FEC Alternative - Canada Gobernadora Crossing



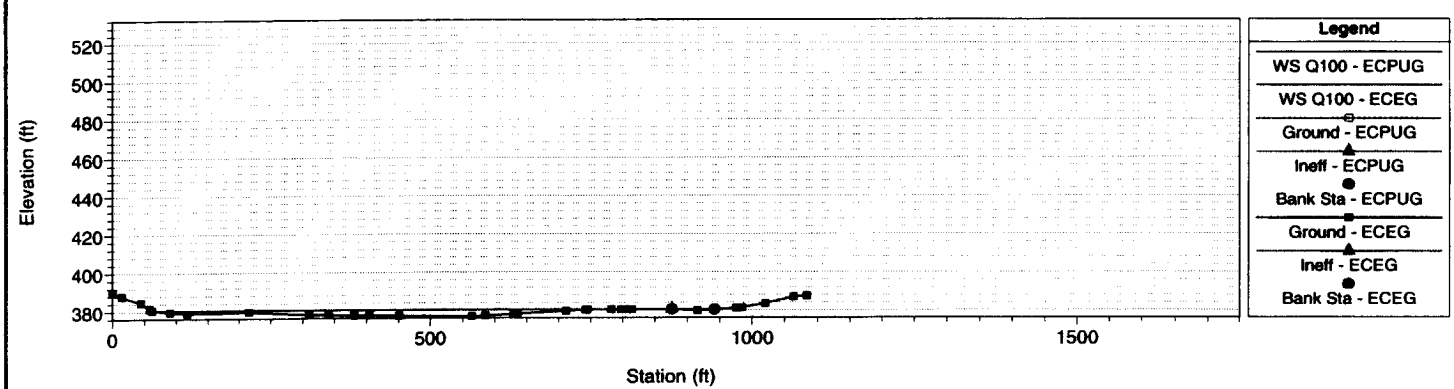
Project Model A

RS = 4118.164 FEC Alternative - Canada Gobernadora Crossing



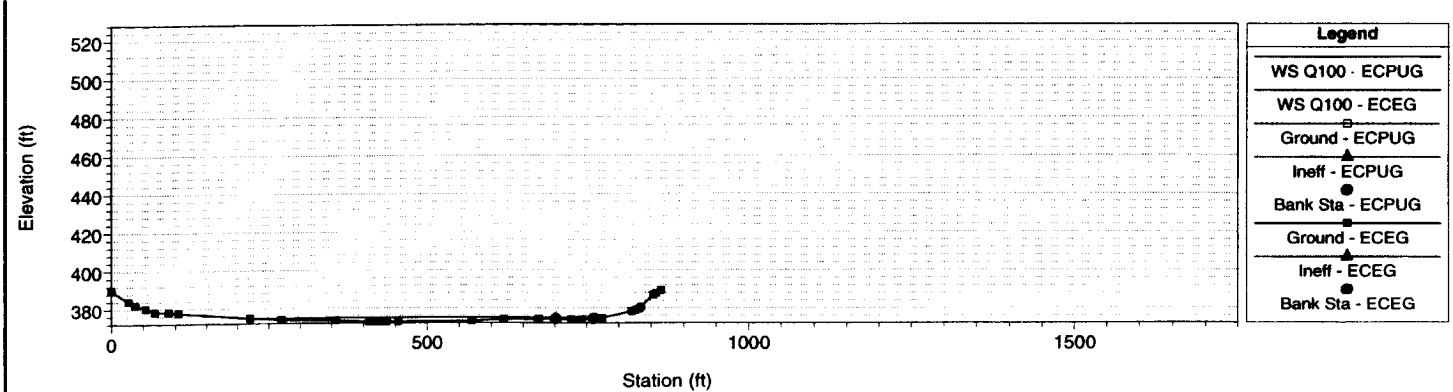
Project Model A

RS = 3883.652 FEC Alternative - Canada Gobernadora Crossing



Project Model A

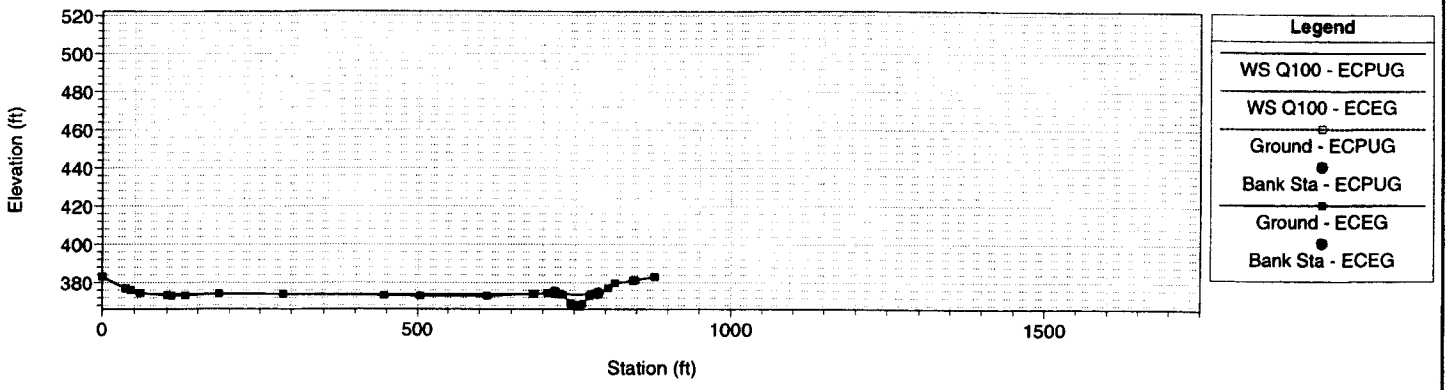
RS = 3699.802 FEC Alternative - Canada Gobernadora Crossing



1 in Horiz. = 300 ft 1 in Vert. = 100 ft

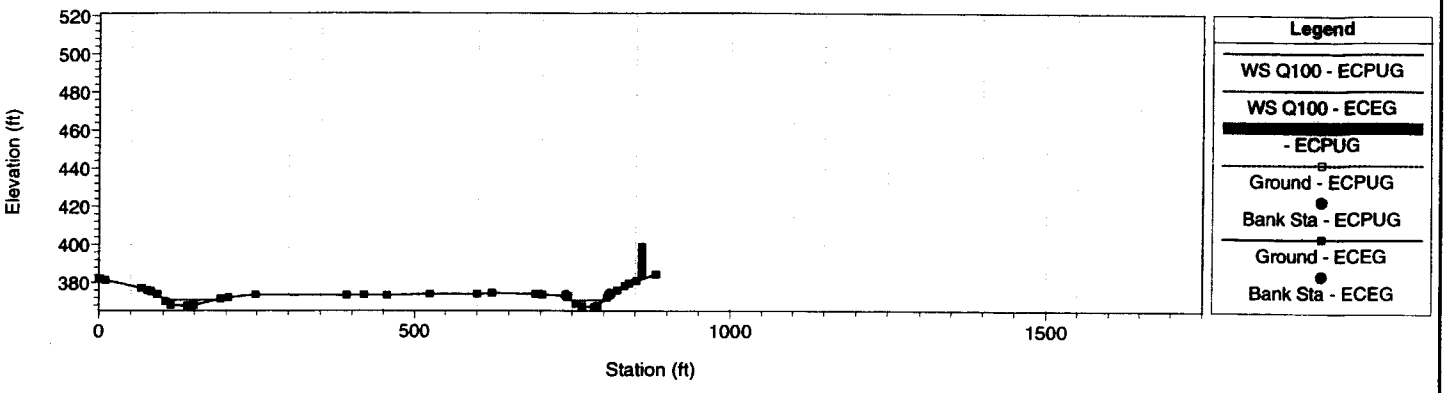
Project Model A

RS = 3498.424 FEC Alternative - Canada Gobernadora Crossing



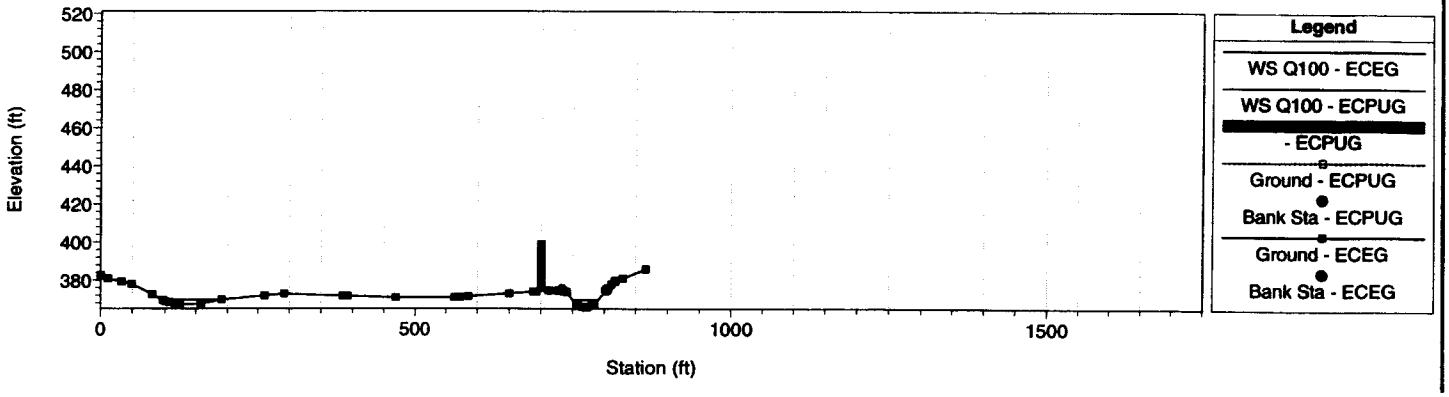
Project Model A

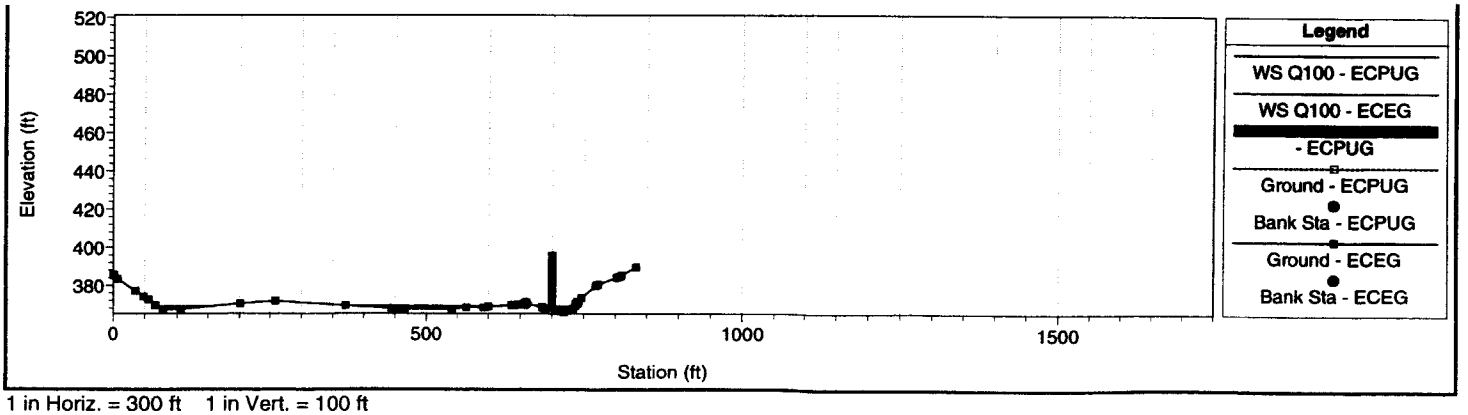
RS = 3286.975 FEC Alternative - Canada Gobernadora Crossing



Project Model A

RS = 3193.163 FEC Alternative - Canada Gobernadora Crossing

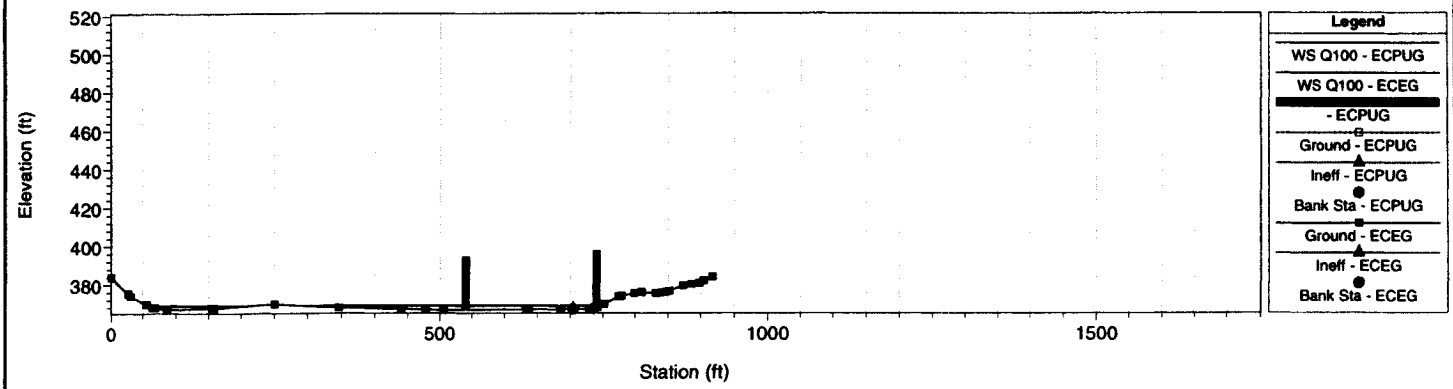




1 in Horiz. = 300 ft 1 in Vert. = 100 ft

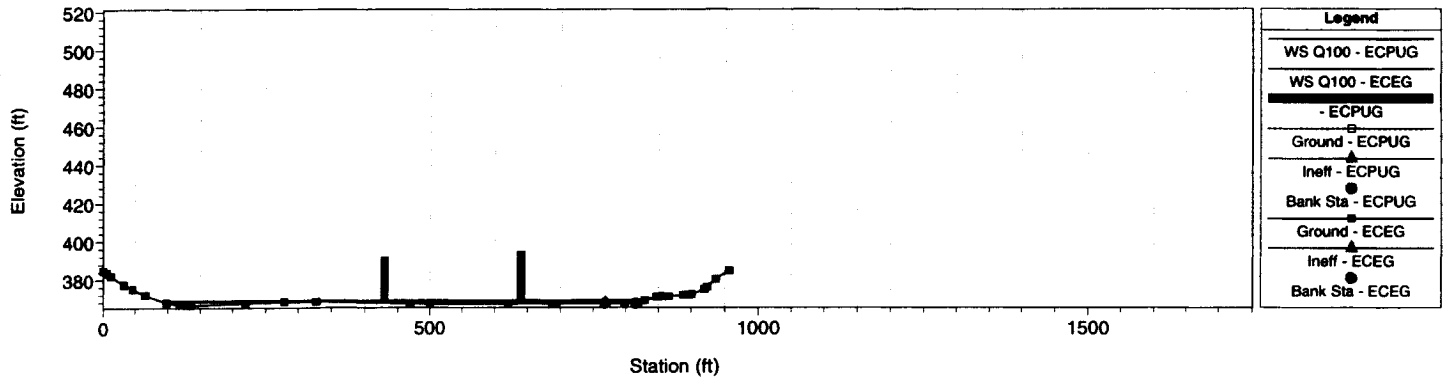
Project Model A

RS = 2990.847 FEC Alternative - Canada Gobernadora Crossing



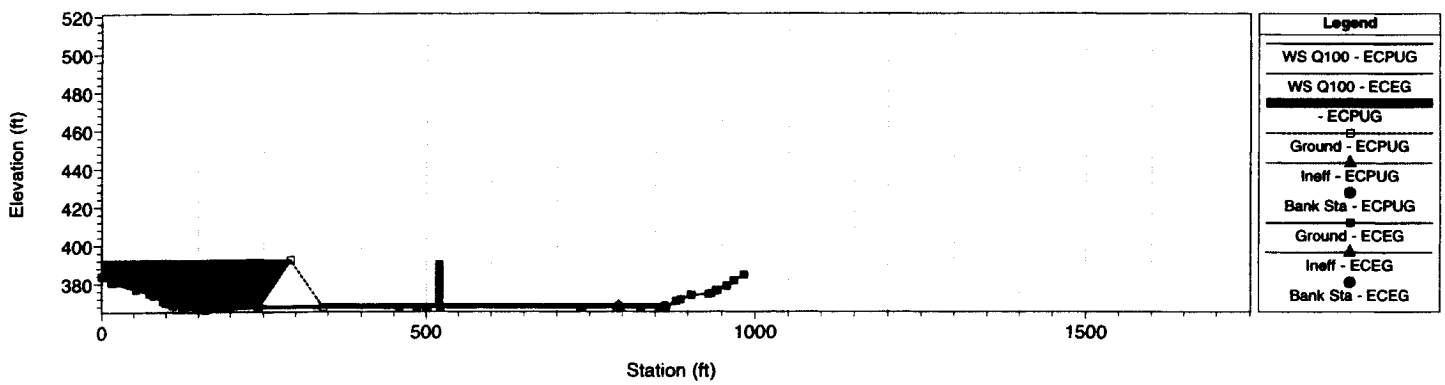
Project Model A

RS = 2889.112 FEC Alternative - Canada Gobernadora Crossing



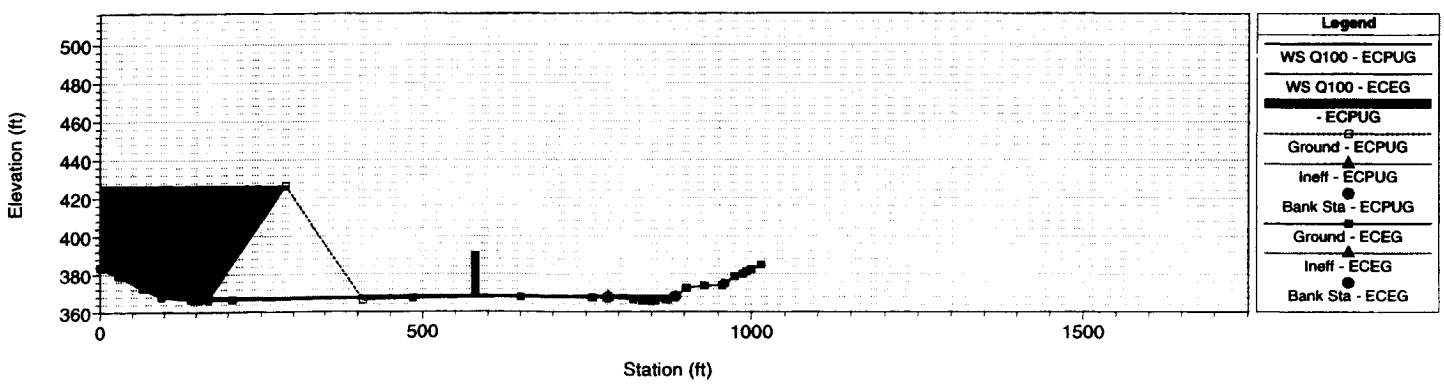
Project Model A

RS = 2789.662 FEC Alternative - Canada Gobernadora Crossing



Project Model A

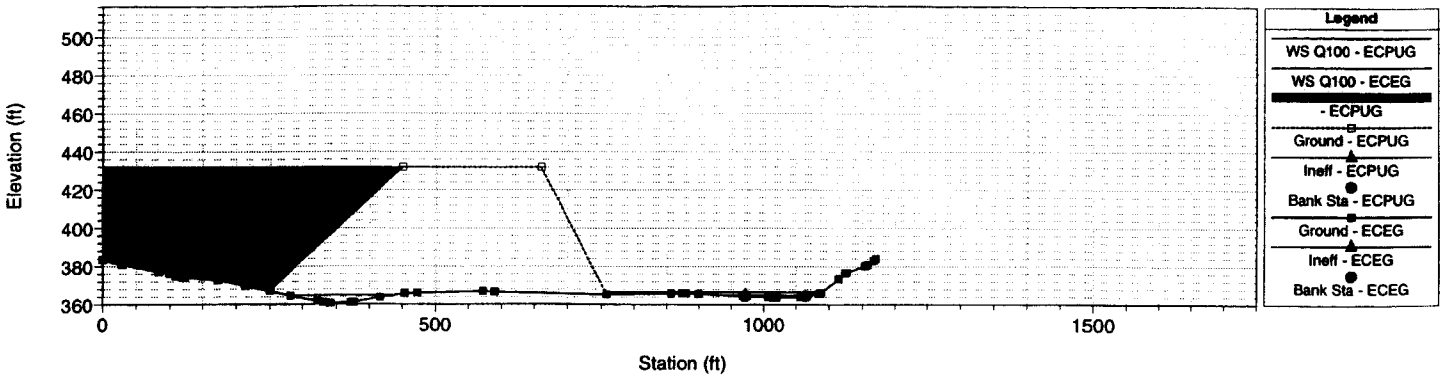
RS = 2683.108 FEC Alternative - Canada Gobernadora Crossing



1 in Horiz. = 300 ft 1 in Vert. = 100 ft

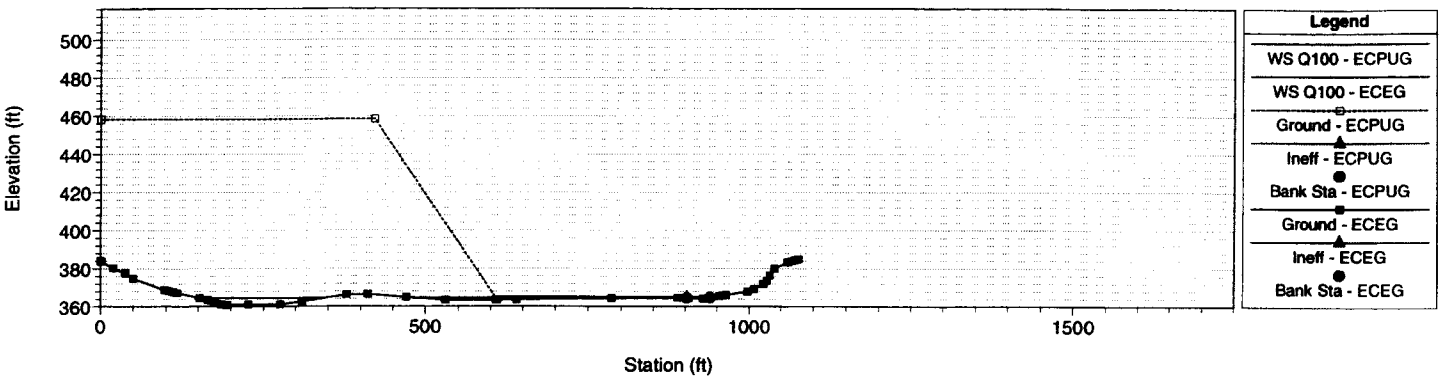
Project Model A

RS = 2486.871 FEC Alternative - Canada Gobernadora Crossing



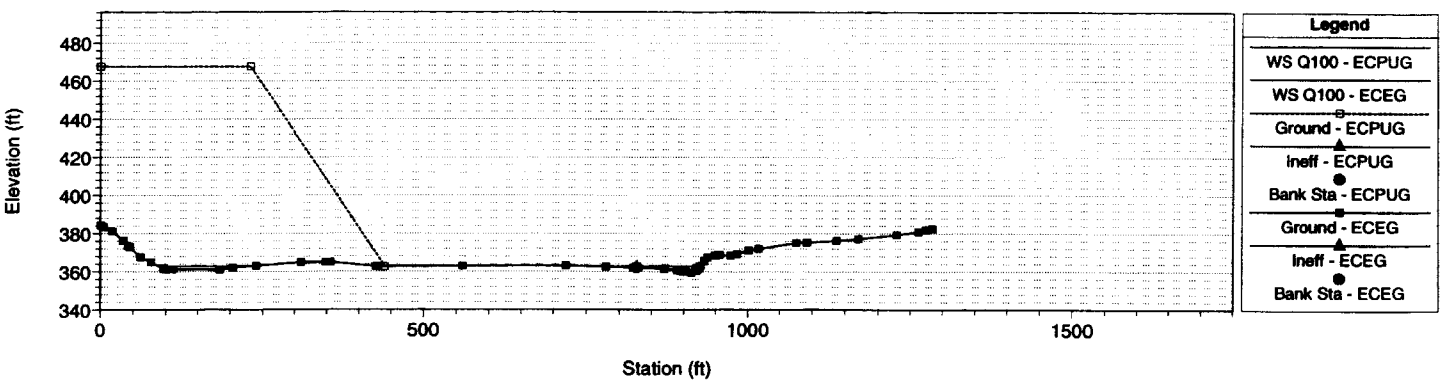
Project Model A

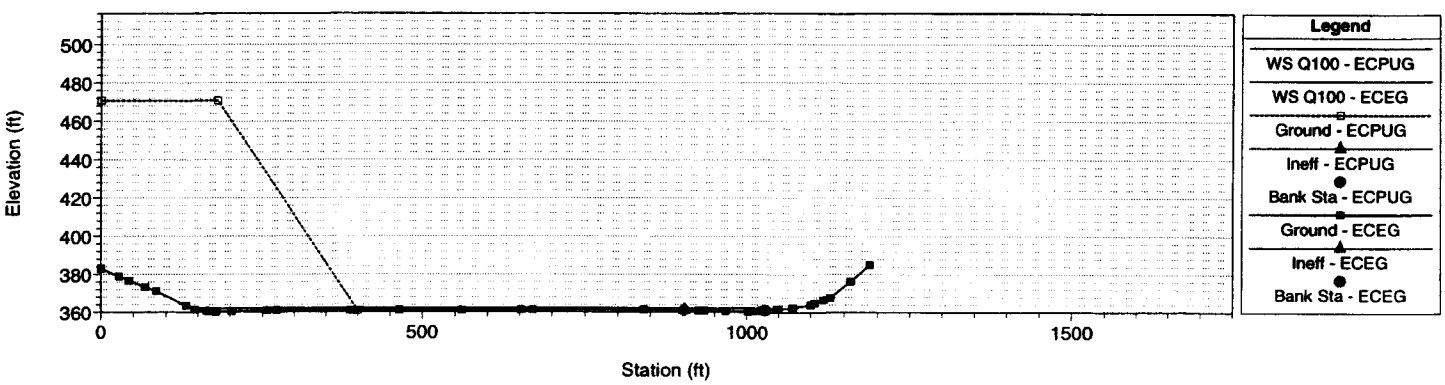
RS = 2292.400 FEC Alternative - Canada Gobernadora Crossing



Project Model A

RS = 2114.162 FEC Alternative - Canada Gobernadora Crossing

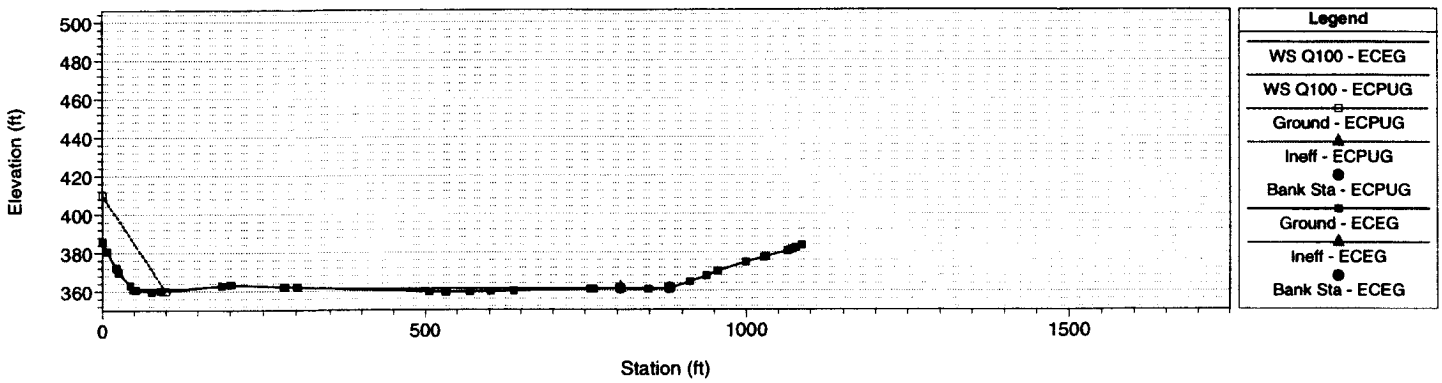




1 in Horiz. = 300 ft 1 in Vert. = 100 ft

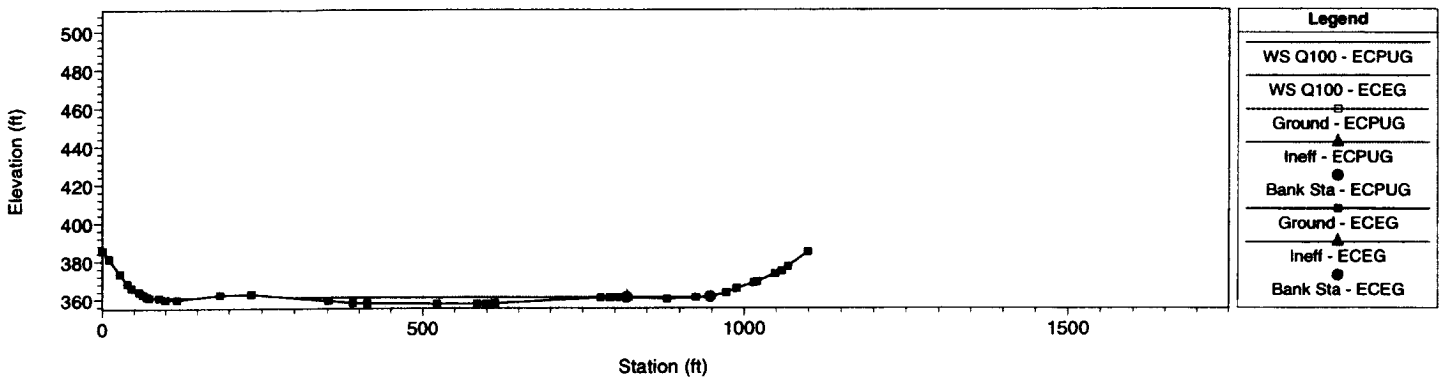
Project Model A

RS = 1659.726 FEC Alternative - Canada Gobernadora Crossing



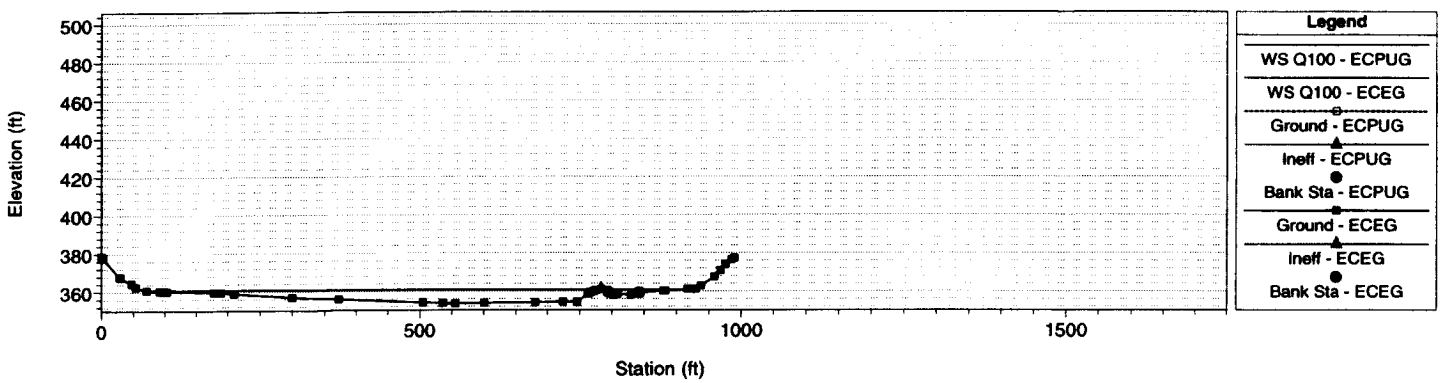
Project Model A

RS = 1476.413 FEC Alternative - Canada Gobernadora Crossing



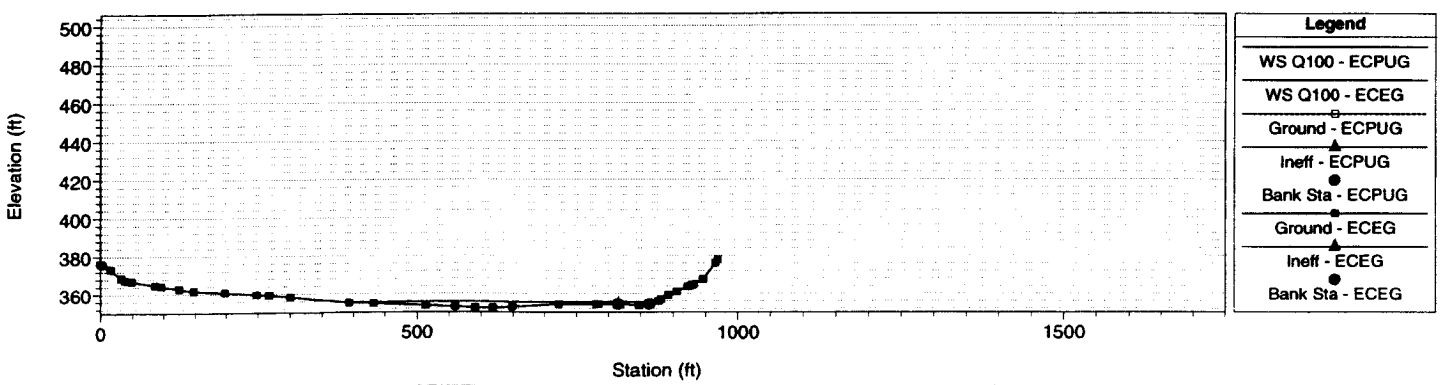
Project Model A

RS = 1287.613 FEC Alternative - Canada Gobernadora Crossing

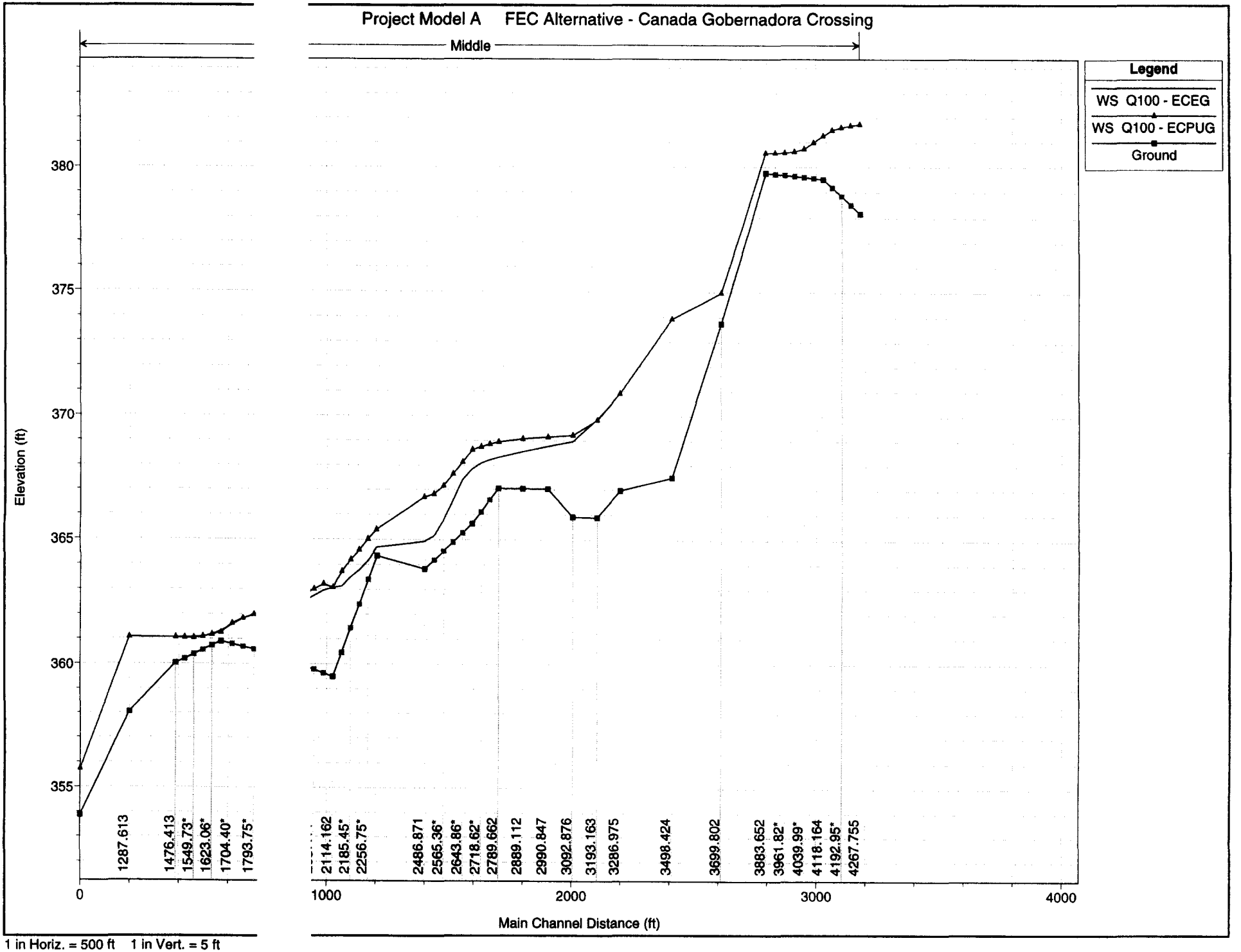


Project Model A

RS = 1088.688 FEC Alternative - Canada Gobernadora Crossing



1 in Horiz. = 300 ft 1 in Vert. = 100 ft



1 in Horiz. = 500 ft 1 in Vert. = 5 ft

APPENDIX C
HYDRAULIC MODEL INPUT & RESULTS
FEC ALTERNATIVE AT SAN JUAN CREEK
(MODEL "B")

Appendix C. **Hydraulic Model Input & Results**

FEC Alternative at San Juan Creek (Model B)

- Model Report
- Project geometry, plan view
- Cross Sections comparing 100-yr existing and project geometries and water surface elevations
- Geometry and water surface elevation profile

Cross sections associated with the proposed bridge structures include:

1151	(3778)
1124	(3689)
493	(1619)
439	(1442)

HEC-RAS Version 3.0.1 Mar 2001
U.S. Army Corp of Engineers
Hydrologic Engineering Center
609 Second Street, Suite D
Davis, California 95616-4687
(916) 756-1104

```
X     X  XXXXXX    XXXX        XXXX       XX      XXXX
X     X  X        X    X       X   X     X  X    X
X     X  X        X            X   X    X    X   X
XXXXXXX  XXXX     X       XXX  XXXX     XXXXXX    XXXX
X     X  X        X            X  X     X    X        X
X     X  X        X    X       X   X    X    X        X
X     X  XXXXXX    XXXX        X    X   X    X   XXXXX
```

PROJECT DATA
Project Title: Project Model B
Project File : PMB.prj
Run Date and Time: 2/20/03 10:41:04 AM

Project in English units

Project Description:
FEC Alternative - San Juan Creek Crossing

PLAN DATA

Plan Title: Existing Flow/Existing Geometry
Plan File : p:\2PDA0104\Hydr\LHS\Modeling\Model B\HecRas B\PMB.p01

Geometry Title: Existing Conditions
Geometry File : p:\2PDA0104\Hydr\LHS\Modeling\Model B\HecRas B\PMB.g01

Flow Title : Existing Conditions
Flow File : p:\2PDA0104\Hydr\LHS\Modeling\Model B\HecRas B\PMB.f01

Plan Summary Information:
Number of: Cross Sections = 57 Multiple Openings = 0
Culverts = 0 Inline Weirs = 0
Bridges = 0

Computational Information
Water surface calculation tolerance = 0.01
Critical depth calculaton tolerance = 0.01
Maximum number of interations = 20
Maximum difference tolerance = 0.3
Flow tolerance factor = 0.001

Computation Options
Critical depth computed only where necessary
Conveyance Calculation Method: At breaks in n values only
Friction Slope Method: Average Conveyance
Computational Flow Regime: Mixed Flow

FLOW DATA

Flow Title: Existing Conditions
Flow File : p:\2PDA0104\Hydr\LHS\Modeling\Model B\HecRas B\PMB.f01

Flow Data (cfs)

River	Reach	RS	Q2	Q5	Q10	Q25	Q50	Q100	Q100HC
San Juan Creek	Upper	4656.846	364	2357	4842	12433	19411	30694	76640

Boundary Conditions

River	Reach	Profile	Upstream	Downstream
San Juan Creek	Upper	Q2	Normal S = .001	Normal S = .001
San Juan Creek	Upper	Q5	Normal S = .001	Normal S = .001
San Juan Creek	Upper	Q10	Normal S = .001	Normal S = .001
San Juan Creek	Upper	Q25	Normal S = .001	Normal S = .001
San Juan Creek	Upper	Q50	Normal S = .001	Normal S = .001
San Juan Creek	Upper	Q100	Normal S = .001	Normal S = .001
San Juan Creek	Upper	Q100HC	Normal S = .001	Normal S = .001

GEOMETRY DATA

Geometry Title: Existing Conditions
Geometry File : p:\2PDA0104\Hydr\LHS\Modeling\Model B\HecRas B\PMB.g01

CROSS SECTION RIVER: San Juan Creek
REACH: Upper RS: 4656.846

INPUT
Description:
Station Elevation Data num= 48

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	341.2	93.49	340.05	129.55	339.92	171.61	338.27	184.02	337.8
258.03	334.99	266.83	334.61	285.71	333.81	302.62	332.61	325.36	329.15
331.24	328.04	334.49	327.43	341.67	324.82	357.69	320.99	365.98	318.76
392.38	311.74	400.46	309.58	411.07	308.63	414.85	308.32	487.81	308.93
491.41	308.94	500.99	308.96	507.2	308.86	524.46	308.36	526.3	308.3
539.52	307.91	555.74	307.52	560.57	307.58	575.13	307.62	634.09	307.97
637.99	308.27	643.24	310.97	644.08	311.33	645	311.72	659.94	318.13
666.67	320.18	676.8	321.33	680.07	321.68	682.4	321.98	721.38	322.07
759.02	323.4	785.65	325.38	810.69	328.51	835.59	331.22	837.3	331.5
862.4	335.48	893.64	337.77	920.11	341.24				

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.02	184.02	.035	266.83	.02	331.24	.05	524.46	.035
644.08	.07	837.3	.035						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
392.38	645	187	200.95	202.2	.1	.3

CROSS SECTION RIVER: San Juan Creek
REACH: Upper RS: 4455.918

INPUT
Description:
Station Elevation Data num= 59

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	341.21	1.03	341.14	48.11	341.01	125.08	340.81	218.84	340.56
228.14	340.58	250.11	339.9	328.86	337.24	352.02	335.72	365.62	334.76
386.11	333.31	395.22	332.31	423.35	327.46	435.63	325.34	436.82	325.15
437.01	325.13	449.29	323.38	450.85	324.05	457.53	326.89	458.31	326.9
467.3	323.35	474.64	319.26	482.36	315.1	494.22	311.97	503.4	309.61
507.43	308.55	507.55	308.54	508	308.54	509.18	308.54	581.15	308.48
615.76	308.45	615.78	308.45	622.99	308.14	657.16	307.74	663.67	308.41
670.65	310.73	672.55	311.48	680.39	314.54	699.02	316.34	712.79	316.67
721.62	317.31	726.14	317.64	760.11	320.61	763.13	320.88	776.16	320.95
777.7	320.95	786.82	321.01	851.99	321.92	859.51	322.26	899.51	323.26
899.83	323.26	928.2	326.43	928.27	326.46	937.72	329.23	937.88	329.34
942.92	332.39	957.68	341.35	961.49	341.68	962.16	341.68		

Manning's n Values num= 9

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	48.11	.02	125.08	.035	365.62	.02	423.35	.05
615.78	.035	721.62	.02	760.11	.07	942.92	.035		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
494.22	672.55	223.3	218.1	206	.1	.3

CROSS SECTION RIVER: San Juan Creek
REACH: Upper RS: 4237.798

INPUT
Description:
Station Elevation Data num= 67

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	341.18	6.08	340.99	12.8	340.87	29.02	340.9	103.31	340.53
156.85	340.26	225.16	339.71	257.67	339.09	271.56	338.71	321.36	336.24
328.72	335.9	334.79	335.63	345.91	333.98	359.73	332.84	372.11	329.75
385.07	328.68	398.94	327.52	407.64	327.84	434.01	325.46	441.36	324.67
447.8	323.17	457.17	320.86	464.77	312.83	465.84	311.65	466.37	311.35
468.66	309.8	470.49	308.56	477.18	308.52	484.65	308.01	544.73	306.69
545.54	306.67	545.64	306.68	546.23	306.8	554.87	308.65	556.94	310.05
561.19	312.93	570.34	319.52	572.15	319.94	576.53	321.57	586.82	321.8
593.8	321.39	600.04	321.49	618.97	321.03	622.5	320.95	635.71	321.77
645.83	321.95	654.56	321.44	661.57	319.97	670.75	317.3	675.4	316.62
685.62	314.77	698.66	314.18	716.64	314.76	753.13	316.34	760.75	316.72
766.25	317.01	807.71	319.73	829.41	321.16	863.4	322.99	888.81	326.62

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.07	103.31	.035	328.72	.02	385.07	.035	760.75	.02
807.71	.07	939.2	.035						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
468.66	556.94	218.3	207.95	195.2	.1	.3

CROSS SECTION RIVER: San Juan Creek
REACH: Upper RS: 4029.826

INPUT
Description: Manual Entry for Manning's N Distribution
Station Elevation Data num= 67

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	341.19	6.03	341.17	88.09	340.53	131.38	339.96	176.13	338.4
220.4	337.11	281.94	335.2	341.84	334.45	350	334.3	361.59	334.08
383.24	334.58	411.15	332.92	437.55	331.15	448.22	329.88	450.91	329.62
454.81	328.21	456.36	327.7	460.72	324.74	464.73	321.87	466.25	321.36
473.76	320.64	482.46	319.78	489.63	319.2	504.21	317.96	515.09	316.95
519.42	316.54	523	315.7	539.26	309.4	541.12	308.51	541.54	308.39
541.86	308.34	542.99	308.27	572.53	305.97	577.44	306.43	587.88	307.6

590.08	308.32	594.42	311.16	594.58	311.26	597.26	313.78	603.64	321.07
606.49	321.07	628.97	322.08	690.85	320.68	702.53	320.48	727.95	319.77
733.4	319.6	762.74	321.05	764.12	321.04	769.57	320.87	788.97	320.07
835.41	320.74	860	320.61	882.52	320.49	905	321.37	924.2	322.12
947.79	323.78	960.18	325.47	977.25	327.7	984.39	329.11	991.03	331.16
999.74	334.7	1008.31	335.78	1020	336.69	1031.46	337.58	1048.95	338.17
1056.9	339.2	1086.69	341.18						

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	88.09	.02	350	.035	860	.02	905	.07
1020	.035								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
542.99	590.08	277.92	252.3	228.6	.1	.3

CROSS SECTION RIVER: San Juan Creek
REACH: Upper RS: 3777.506

INPUT
Description:
Station Elevation Data num= 71

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	341.22	104.43	338.57	125.14	338.45	143.06	338.24	166.3	337.88
280.49	337.01	325.3	336.73	463.95	334.52	685.67	334.69	719.29	334.3
730.81	334.07	736.63	333.82	773.88	331.9	820.36	329.51	831.73	328.89
838.37	328.64	852.06	328.11	871.84	328.07	891.99	328.42	915.35	327.66
922.13	326.78	942.32	321.08	946.4	319.91	954.01	317.71	964.72	313.08
971.8	307.18	976.43	303.06	980.59	301.81	983.42	301	998.88	301.31
1000.85	301.4	1001.23	301.56	1008.1	304.95	1012.41	307.64	1018.95	312.06
1031.36	320.45	1035.16	321.45	1037.83	322.29	1057.51	321.66	1071.75	321.48
1078.59	321.22	1093.06	320.9	1149.29	321.23	1193.69	321.77	1218.65	321.74
1263.28	320.51	1301.63	320.16	1305.93	320.18	1328.18	320.3	1354.3	319.9
1356.57	319.86	1365.06	320.31	1368.19	320.68	1378.41	322.06	1379.5	322.36
1386.32	324.92	1394.37	327.84	1397.15	328.55	1404.84	330.54	1413.5	331.9
1424.48	334.28	1437.65	335.06	1451.03	335.5	1457.23	335.7	1466.01	336.32
1494.16	337.28	1531.44	337.78	1565.15	339.6	1585.31	340.65	1607.23	341.09
1612.26	341.26								

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	773.88	.02	838.37	.035	1305.93	.02	1354.3	.07
1451.03	.035								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
971.8	1012.4[illegible]		90	88.68	88.38	.1	.3

CROSS SECTION RIVER: San Juan Creek
REACH: Upper RS: 3688.827

INPUT
Description:
Station Elevation Data num= 61

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	341.24	4.25	341.2	88.82	338.47	162.13	337.12	238.04	336.54
343.16	335.9	427.23	334.56	621.14	334.71	691.38	335.01	711.54	334.61
749.31	333.89	771.83	333.26	798.75	332.51	802.54	332.21	807.68	331.96
836.15	330.45	884.81	327.86	899.48	325.3	916.88	322.98	931	320.13
931.02	320.12	940.38	318.48	952.89	313.21	954.49	312.46	956.69	310.63
965.48	303.9	967.39	303.74	975.09	301.39	979.29	301.7	990.3	301.58
996.19	304.01	1011.42	311.72	1015.3	313.58	1017.02	314.47	1018.95	315.18
1033.67	317.57	1040.9	320.33	1049.89	320.5	1072.53	321.89	1091.75	321.62
1109.41	321.83	1266.63	321.65	1276.2	321.38	1302.46	320.82	1319.41	320.45
1334.62	320.18	1342.76	320.04	1367.89	322.17	1412.93	333.57	1415.28	334.15
1415.82	334.22	1426.44	334.92	1431.1	335.26	1445.41	336.33	1448.64	336.57
1450.68	336.58	1458.8	336.68	1523.98	337.14	1546.8	337.72	1585.64	340.13
1607.98	341.26								

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	771.83	.02	836.15	.035	1302.46	.02	1334.62	.07
1431.1	.035								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
965.48	996.19	239.7	244.68	248.16	.1	.3

CROSS SECTION RIVER: San Juan Creek
REACH: Upper RS: 3444.123

INPUT
Description:
Station Elevation Data num= 72

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	341.26	29.63	340.48	70.28	339.46	120.07	338.58	215.55	335.81
360.8	334.73	380.53	334.58	469.87	335.17	621.66	335.79	660.63	335.01
747.53	332	749.95	331.95	779.66	331.3	790.16	330.54	799.94	329.75
813.5	328.65	818.21	328.38	822.66	327.78	840.68	325.94	860.32	322.97
867.94	321.66	871.07	321.43	874.62	321.2	899.5	320.15	920.2	319.16
931.35	318.53	944.93	316.89	945.2	316.86	954.91	315.75	956.12	315.61
957.05	315.21	964.94	309.94	974.43	301.81	980.44	296.33	982.4	295.75
984.7	295.17	987.39	295.62	997.9	298.94	1005.36	302.54	1015.73	308.17
1021.59	311.22	1028.1	314.6	1045.43	320.21	1048.32	320.99	1050.68	321.49
1072.16	321.51	1092.74	321.56	1095.76	321.52	1107.22	321.56	1136.4	321.18
1138.66	321.3	1173.26	321.56	1247.45	321.39	1272.39	321.23	1283.24	321.18
1333.24	320.91	1339.55	320.88	1345.51	320.85	1351.85	321.43	1375.75	327.04
1393.33	331.12	1399.9	332.31	1408.65	333.9	1412.95	334.45	1426.86	335
1466.5	336.42	1479.63	336.6	1587.8	336.97	1601.25	337.3	1641.01	338.8
1651.44	339.77	1666.54	341.58						

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	749.95	.02	799.94	.035	1283.24	.02	1333.24	.07
1399.9	.035								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
974.43	1005.36	19.91	18.5	16.67	.1	.3

CROSS SECTION RIVER: San Juan Creek
REACH: Upper RS: 3425.62*

INPUT
Description:
Station Elevation Data num= 144

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	341.26	29.45	340.45	69.86	339.37	85.81	339.05	119.35	338.38
145.77	337.58	214.26	335.71	253.38	335.42	300.21	335.08	358.64	334.7
378.26	334.57	467.06	335.15	535.11	335.43	576.02	335.55	617.95	335.62
620.72	335.57	651.68	334.94	656.68	334.83	672.55	334.26	689.7	333.63
701.44	333.2	714.09	332.62	728.43	331.99	733.53	331.68	740.02	331.35
743.06	331.19	745.47	331.09	752.05	330.82	775	330.22	785.44	329.47
795.16	328.69	801.7	328.16	807.73	327.68	808.64	327.6	809.47	327.54
813.32	327.28	817.74	326.67	822.75	326.12	830.71	325.12	835.66	324.47
839.29	323.84	842.85	323.31	855.18	321.57	859.12	320.94	862.75	320.35
865.86	320.12	869.39	319.9	885.51	319.2	887.75	319.11	894.12	318.84
914.7	317.87	918.44	317.67	925.78	317.25	930.22	316.74	939.28	315.73
939.55	315.7	945.39	315.08	946.6	314.94	949.2	314.62	950.41	314.47
951.33	314.09	951.54	313.96	954.48	312.11	959.17	309.08	968.61	301.37
971.45	298.99	975.05	296.15	976.04	295.89	977.16	295.59	979.62	295.02
982.2	295.46	989.57	297.73	992.26	298.58	999.4	301.96	1009.8	307.78
1015.33	310.77	1015.67	310.95	1018.45	312.45	1020.81	313.73	1022.2	314.43
1023.8	314.96	1028.36	316.48	1029.23	316.76	1032.18	317.63	1039.58	319.79
1042.47	320.5	1044.84	320.95	1066.38	320.95	1087.01	320.97	1090.04	320.93
1091.87	320.93	1101.53	321.08	1106.12	321.07	1130.79	321.04	1133.06	321.17
1134.81	321.2	1145.3	321.39	1155.69	321.45	1167.75	321.54	1182.4	321.51
1236.27	321.32	1242.14	321.3	1257.01	321.19	1267.15	321.13	1278.03	321.09
1299.39	320.98	1315.59	320.9	1319.65	320.92	1328.16	320.93	1330.96	320.94
1333.84	320.94	1334.45	320.95	1334.49	320.95	1340.47	321.03	1342.26	321.21
1346.82	321.68	1367.29	326.41	1370.01	327.04	1370.79	327.21	1372.13	327.51
1378.3	328.89	1388.42	331.14	1395	332.31	1403.78	333.86	1405.39	334.07
1408.09	334.4	1422.04	334.99	1426.74	335.17	1461.78	336.44	1464.53	336.49
1474.95	336.67	1498.99	336.87	1527.35	336.96	1542.04	337	1583.41	337.09
1596.9	337.38	1622.56	338.24	1631.78	338.66	1636.76	338.85	1647.22	339.77
1649.95	340.08	1657.46	341	1662.19	341.54	1662.36	341.57		

Manning's n Values num= 16

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	620.72	.034	689.7	.021	745.47	.021	795.16	.035
968.61	.02	999.4	.02	1236.27	.02	1278.03	.02	1299.39	.023
1328.16	.068	1330.96	.052	1378.3	.067	1395	.035	1662.36	.038
1662.36	.038								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
968.61	999.4	19.91	18.5	16.67	.1	.3

CROSS SECTION RIVER: San Juan Creek
REACH: Upper RS: 3407.13*

INPUT
Description:
Station Elevation Data num= 144

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	341.27	29.28	340.41	69.44	339.28	85.29	338.93	118.64	338.18
144.9	337.34	212.97	335.62	251.86	335.33	298.4	334.99	356.49	334.68
375.98	334.57	464.25	335.12	531.89	335.41	572.55	335.49	614.23	335.46
616.99	335.4	647.76	334.76	652.73	334.64	668.51	334.07	685.55	333.4
697.22	332.95	709.79	332.24	724.05	331.48	729.12	331.03	735.57	330.6
738.6	330.38	740.99	330.23	747.53	329.83	770.34	329.14	780.72	328.39
790.38	327.63	796.88	327.11	802.87	326.64	803.78	326.55	804.6	326.49
808.43	326.18	812.83	325.56	817.8	324.98	825.71	323.79	830.63	323.01
834.25	322.29	837.78	321.78	850.04	320.17	853.95	319.58	857.57	319.04
860.66	318.82	864.17	318.6	880.19	317.89	882.41	317.8	888.75	317.54
977.01	295.29	984.04	297.41	986.62	298.22	993.44	301.39	1003.86	307.4
1009.41	310.5	1009.76	310.69	1012.54	312.24	1014.91	313.57	1016.3	314.27
1017.91	314.81	1022.48	316.37	1023.35	316.66	1026.3	317.43	1033.72	319.37
1036.63	320.01	1039	320.41	1060.6	320.38	1081.29	320.38	1084.33	320.34
1086.16	320.34	1095.85	320.59	1100.44	320.65	1125.19	320.89	1127.46	321.04
1129.21	321.09	1139.74	321.38	1150.15	321.44	1162.24	321.52	1176.93	321.5
1230.94	321.24	1236.83	321.21	1251.74	321.08	1261.91	321.03	1272.82	320.99
1294.23	320.9	1310.48	320.83	1314.55	320.88	1323.09	320.95	1325.89	320.97
1328.78	321	1329.4	321.02	1329.43	321.02	1335.42	321.21	1337.22	321.41
1341.8	321.92	1362.32	326.59	1365.04	327.22	1365.83	327.39	1367.17	327.67
1373.35	328.99	1383.5	331.16	1390.11	332.3	1398.9	333.83	1400.52	334.03
1403.23	334.35	1417.21	334.97	1421.93	335.17	1457.07	336.46	1459.82	336.52
1470.27	336.74	1494.37	337.07	1522.8	337.14	1537.54	337.16	1579.02	337.22
1592.54	337.47	1618.28	338.22	1627.52	338.72	1632.52	338.91	1643	339.77
1645.74	340.06	1653.27	341	1658.01	341.53	1658.19	341.55		

Manning's n Values num= 16

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	616.99	.032	685.55	.023	740.99	.023	790.38	.035
962.78	.02	993.44	.02	1230.94	.02	1272.82	.02	1294.23	.025
1323.09	.066	1325.89	.054	1373.35	.064	1390.11	.035	1658.19	.041

1658.19 .041

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
962.78	993.44	19.91	18.5	16.67	.1	.3

CROSS SECTION RIVER: San Juan Creek
REACH: Upper RS: 3388.64*

INPUT
Description:
Station Elevation Data num= 144

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	341.27	29.1	340.38	69.02	339.18	84.78	338.8	117.92	337.98
144.02	337.11	211.69	335.52	250.34	335.24	296.6	334.9	354.33	334.65
373.71	334.56	461.45	335.1	528.67	335.38	569.09	335.42	610.52	335.29
613.26	335.23	643.84	334.59	648.79	334.46	664.46	333.87	681.41	333.18
693	332.7	705.5	331.85	719.67	330.96	724.71	330.38	731.12	329.84
734.13	329.57	736.51	329.38	743.01	328.84	765.68	328.06	776	327.32
785.6	326.57	792.07	326.06	798.01	325.59	798.92	325.5	799.74	325.43
803.54	325.09	807.91	324.44	812.86	323.84	820.72	322.45	825.61	321.54
829.2	320.74	832.71	320.24	844.9	318.76	848.79	318.23	852.38	317.72
855.45	317.51	858.94	317.3	874.87	316.58	877.07	316.5	883.38	316.23
903.7	315.3	907.4	315.11	914.65	314.69	919.04	314.23	927.99	313.4
928.26	313.38	934.03	312.88	935.22	312.71	937.79	312.36	938.98	312.2
939.89	311.86	940.1	311.75	943	310.13	947.64	307.37	956.96	300.5
960.19	298.2	964.28	295.79	965.41	295.54	966.67	295.27	969.47	294.73
971.81	295.13	978.52	297.1	980.97	297.87	987.48	300.81	997.93	307.01
1003.49	310.23	1003.84	310.42	1006.63	312.03	1009.01	313.42	1010.4	314.1
1012.01	314.66	1016.59	316.27	1017.47	316.56	1020.43	317.24	1027.87	318.95
1030.78	319.51	1033.16	319.87	1054.82	319.82	1075.56	319.79	1078.61	319.75
1080.45	319.75	1090.16	320.11	1094.77	320.22	1119.58	320.75	1121.86	320.91
1123.61	320.97	1134.17	321.38	1144.61	321.42	1156.74	321.5	1171.46	321.49
1225.62	321.15	1231.53	321.11	1246.47	320.98	1256.67	320.93	1267.61	320.9
1289.08	320.82	1305.37	320.76	1309.45	320.84	1318.01	320.97	1320.82	321.01
1323.72	321.06	1324.34	321.1	1324.37	321.1	1330.38	321.4	1332.18	321.61
1336.77	322.17	1357.35	326.77	1360.08	327.4	1360.86	327.56	1362.21	327.83
1368.41	329.1	1378.59	331.19	1385.21	332.3	1394.03	333.79	1395.65	334
1398.37	334.3	1412.39	334.96	1417.12	335.17	1452.35	336.49	1455.11	336.55
1465.59	336.81	1489.75	337.26	1518.26	337.33	1533.04	337.33	1574.63	337.34
1588.19	337.55	1613.99	338.2	1623.26	338.77	1628.27	338.96	1638.79	339.77
1641.53	340.04	1649.08	341	1653.83	341.51	1654.01	341.54		

Manning's n Values num= 16

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	613.26	.031	681.41	.024	736.51	.024	785.6	.035
956.96	.02	987.48	.02	1225.62	.02	1267.61	.02	1289.08	.028
1318.01	.065	1320.82	.055	1368.41	.06	1385.21	.035	1654.01	.045
1654.01	.045								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
956.96	987.48	19.91	18.5	16.67	.1	.3

CROSS SECTION RIVER: San Juan Creek
REACH: Upper RS: 3370.14*

INPUT
Description:
Station Elevation Data num= 144

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	341.27	28.92	340.34	68.6	339.09	84.26	338.68	117.2	337.78
143.14	336.87	210.4	335.43	248.81	335.14	294.79	334.81	352.18	334.62
371.43	334.56	458.64	335.08	525.46	335.36	565.63	335.36	606.8	335.13
609.53	335.07	639.92	334.42	644.84	334.28	660.42	333.68	677.26	332.95
688.79	332.45	701.21	331.46	715.29	330.44	720.3	329.73	726.67	329.09
729.66	328.76	732.02	328.52	738.49	327.86	761.02	326.98	771.27	326.25
780.82	325.51	787.25	325.01	793.16	324.55	794.06	324.45	794.87	324.37
798.65	323.99	803	323.33	807.91	322.69	815.73	321.12	820.59	320.08
824.16	319.19	827.65	318.71	839.76	317.36	843.62	316.88	847.19	316.41
850.25	316.21	853.71	316	869.54	315.27	871.74	315.19	878	314.93
898.21	314.02	901.88	313.83	909.09	313.41	913.44	312.98	922.34	312.24
922.61	312.22	928.34	311.77	929.53	311.6	932.09	311.23	933.27	311.06
934.17	310.74	934.38	310.64	937.26	309.15	941.88	306.51	951.14	300.06
954.56	297.8	958.89	295.61	960.09	295.37	961.42	295.11	964.39	294.58
966.62	294.96	973	296.78	975.33	297.51	981.52	300.23	992	306.63
997.58	309.95	997.92	310.16	1000.72	311.82	1003.1	313.26	1004.5	313.93
1006.12	314.5	1010.71	316.16	1011.58	316.45	1014.56	317.05	1022.02	318.54
1024.94	319.02	1027.33	319.33	1049.04	319.25	1069.84	319.2	1072.89	319.16
1074.73	319.16	1084.48	319.62	1089.1	319.79	1113.97	320.61	1116.25	320.78
1118.02	320.86	1128.6	321.38	1139.07	321.4	1151.23	321.48	1165.99	321.48
1220.3	321.07	1226.22	321.02	1241.2	320.87	1251.43	320.83	1262.39	320.8
1283.93	320.74	1300.26	320.68	1304.36	320.8	1312.93	320.99	1315.75	321.05
1318.66	321.11	1319.28	321.17	1319.31	321.17	1325.34	321.58	1327.14	321.81
1331.75	322.41	1352.38	326.96	1355.12	327.58	1355.9	327.73	1357.26	327.99
1363.47	329.21	1373.67	331.21	1380.31	332.3	1389.16	333.75	1390.78	333.96
1393.5	334.25	1407.56	334.94	1412.31	335.17	1447.63	336.51	1450.4	336.57
1460.9	336.89	1485.14	337.45	1513.72	337.51	1528.54	337.5	1570.24	337.47
1583.84	337.64	1609.71	338.18	1619	338.82	1624.03	339.01	1634.57	339.77
1637.31	340.02	1644.89	341	1649.65	341.49	1649.83	341.53		

Manning's n Values num= 16

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	609.53	.03	677.26	.025	732.02	.025	780.82	.035
951.14	.02	981.52	.02	1220.3	.02	1262.39	.02	1283.93	.031
1312.93	.063	1315.75	.057	1363.47	.057	1380.31	.035	1649.83	.048
1649.83	.048								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
951.14	981.52	19.91	18.5	16.67	.1	.3

CROSS SECTION RIVER: San Juan Creek
REACH: Upper RS: 3351.65*

INPUT
Description:
Station Elevation Data num= 144

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	341.28	28.74	340.31	68.18	339	83.74	338.55	116.48	337.57
142.27	336.64	209.11	335.33	247.29	335.05	292.99	334.72	350.02	334.6
369.16	334.55	455.83	335.05	522.24	335.34	562.17	335.3	603.09	334.96
605.8	334.9	636.01	334.24	640.89	334.09	656.38	333.49	673.12	332.72
684.57	332.2	696.92	331.08	710.91	329.93	715.89	329.08	722.22	328.34
725.2	327.95	727.54	327.66	733.97	326.87	756.37	325.9	766.55	325.17
776.04	324.45	782.43	323.96	788.3	323.5	789.19	323.4	790.01	323.31
793.76	322.89	798.08	322.22	802.97	321.55	810.73	319.79	815.56	318.61
819.11	317.64	822.58	317.17	834.62	315.96	838.46	315.53	842.01	315.1
845.04	314.9	848.49	314.7	864.22	313.95	866.4	313.88	872.63	313.62
892.71	312.73	896.36	312.55	903.52	312.13	907.85	311.72	916.7	311.08
916.96	311.06	922.66	310.67	923.84	310.49	926.38	310.1	927.55	309.92
928.46	309.63	928.66	309.53	931.53	308.16	936.11	305.65	945.32	299.63
948.93	297.4	953.51	295.44	954.77	295.2	956.18	294.95	959.31	294.44
961.43	294.8	967.48	296.46	969.69	297.15	975.56	299.66	986.07	306.24
991.66	309.68	992	309.89	994.81	311.62	997.2	313.11	998.6	313.76
1000.22	314.35	1004.83	316.05	1005.7	316.35	1008.69	316.85	1016.17	318.12
1019.09	318.53	1021.49	318.79	1043.26	318.69	1064.11	318.61	1067.17	318.57
1069.02	318.57	1078.79	319.14	1083.42	319.37	1108.36	320.46	1110.65	320.65
1112.42	320.74	1123.03	321.37	1133.53	321.38	1145.72	321.46	1160.52	321.46
1214.97	320.98	1220.91	320.93	1235.94	320.77	1246.19	320.73	1257.18	320.71
1278.77	320.65	1295.15	320.61	1299.26	320.76	1307.86	321.01	1310.68	321.09
1313.6	321.17	1314.22	321.24	1314.25	321.24	1320.29	321.76	1322.1	322.01
1326.72	322.66	1347.41	327.14	1350.15	327.76	1350.94	327.91	1352.3	328.15
1358.53	329.32	1368.76	331.23	1375.42	332.29	1384.29	333.71	1385.91	333.93
1388.64	334.2	1402.74	334.93	1407.5	335.16	1442.92	336.53	1445.69	336.6
1456.22	336.96	1480.52	337.64	1509.18	337.69	1524.04	337.67	1565.85	337.59
1579.48	337.72	1605.43	338.15	1614.74	338.87	1619.78	339.06	1630.35	339.77
1633.1	340	1640.7	341	1645.48	341.48	1645.65	341.52		

Manning's n Values num= 16

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	605.8	.028	673.12	.027	727.54	.027	776.04	.035
945.32	.02	975.56	.02	1214.97	.02	1257.18	.02	1278.77	.034
1307.86	.061	1310.68	.059	1358.53	.054	1375.42	.035	1645.65	.051
1645.65	.051								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
945.32	975.56	19.91	18.5	16.67	.1	.3

CROSS SECTION RIVER: San Juan Creek
REACH: Upper RS: 3333.16*

INPUT
Description:
Station Elevation Data num= 144

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	341.28	28.57	340.27	67.76	338.91	83.23	338.43	115.77	337.37
141.39	336.41	207.82	335.24	245.77	334.96	291.18	334.63	347.86	334.57
366.89	334.55	453.02	335.03	519.02	335.32	558.7	335.23	599.37	334.79
602.07	334.73	632.09	334.07	636.94	333.91	652.33	333.29	668.97	332.5
680.35	331.95	692.62	330.69	706.53	329.41	711.48	328.43	717.77	327.58
720.73	327.14	723.06	326.8	729.44	325.88	751.71	324.82	761.83	324.1
771.26	323.39	777.61	322.91	783.45	322.46	784.33	322.35	785.14	322.25
788.87	321.79	793.17	321.11	798.02	320.41	805.74	318.46	810.54	317.14
814.07	316.09	817.51	315.64	829.47	314.56	833.29	314.17	836.82	313.79
839.84	313.6	843.26	313.4	858.9	312.64	861.06	312.57	867.25	312.32
887.21	311.44	890.84	311.27	897.96	310.85	902.26	310.47	911.05	309.92
911.31	309.9	916.98	309.56	918.15	309.37	920.67	308.97	921.84	308.79
922.74	308.51	922.94	308.43	925.79	307.17	930.34	304.79	939.49	299.19
943.3	297.01	948.12	295.26	949.45	295.03	950.93	294.79	954.24	294.29
956.24	294.64	961.96	296.14	964.05	296.79	969.59	299.08	980.13	305.86
985.74	309.41	986.09	309.63	988.9	311.41	991.3	312.95	992.7	313.6
994.33	314.2	998.95	315.95	999.82	316.25	1002.81	316.66	1010.31	317.7
1013.25	318.04	1015.65	318.25	1037.48	318.13	1058.39	318.02	1061.46	317.99
1308.54	321.23	1309.16	321.31	1309.19	321.31	1315.25	321.94	1317.06	322.21
1321.69	322.9	1342.44	327.33	1345.19	327.94	1345.98	328.08	1347.34	328.32
1353.59	329.43	1363.84	331.25	1370.52	332.29	1379.41	333.68	1381.04	333.89
1383.78	334.15	1397.92	334.91	1402.69	335.16	1438.2	336.55	1440.98	336.63
1451.54	337.03	1475.9	337.83	1504.64	337.88	1519.54	337.83	1561.46	337.72
1575.13	337.81	1601.14	338.13	1610.48	338.93	1615.53	339.12	1626.13	339.77
1628.89	339.98	1636.51	341	1641.3	341.46	1641.48	341.5		

Manning's n Values num= 16

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	602.07	.027	668.97	.028	723.06	.028	771.26	.035
939.49	.02	969.59	.02	1209.65	.02	1251.97	.02	1273.62	.036
1302.78	.059	1305.61	.061	1353.59	.051	1370.52	.035	1641.48	.054
1641.48	.054								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
939.49	969.59	19.91	18.5	16.67	.1	.3

CROSS SECTION RIVER: San Juan Creek
REACH: Upper RS: 3314.66*

INPUT
Description:
Station Elevation Data num= 144

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	341.29	28.39	340.24	67.34	338.82	82.71	338.3	115.05	337.17
140.52	336.17	206.53	335.14	244.24	334.86	289.38	334.54	345.71	334.54
364.61	334.54	450.22	335.01	515.81	335.3	555.24	335.17	595.66	334.63
598.34	334.57	628.17	333.89	633	333.72	648.29	333.1	664.82	332.27
676.14	331.7	688.33	330.31	702.16	328.9	707.07	327.78	713.32	326.83
716.26	326.33	718.58	325.95	724.92	324.9	747.05	323.74	757.11	323.03
766.48	322.33	772.79	321.86	778.59	321.42	779.47	321.3	780.27	321.19
783.99	320.69	788.25	319.99	793.07	319.26	800.75	317.13	805.52	315.68
809.02	314.55	812.45	314.1	824.33	313.15	828.13	312.82	831.64	312.48
834.63	312.29	838.04	312.1	853.57	311.33	855.73	311.26	861.88	311.01
881.71	310.16	885.31	309.99	892.39	309.57	896.67	309.21	905.4	308.75
905.66	308.74	911.29	308.46	912.46	308.26	914.97	307.84	916.13	307.65
917.02	307.39	917.22	307.32	920.05	306.19	924.58	303.93	933.67	298.76
937.67	296.61	942.73	295.08	944.13	294.86	945.69	294.63	949.16	294.15
951.04	294.47	956.44	295.82	958.41	296.43	963.63	298.51	974.2	305.47
979.82	309.14	980.17	309.36	982.99	311.2	985.39	312.8	986.8	313.43
988.43	314.04	993.06	315.84	993.94	316.14	996.94	316.46	1004.46	317.28
1007.4	317.54	1009.81	317.71	1031.7	317.56	1052.66	317.43	1055.74	317.4
1057.6	317.39	1067.42	318.17	1072.08	318.52	1097.15	320.18	1099.45	320.38
1101.23	320.52	1111.89	321.37	1122.45	321.35	1134.7	321.41	1149.58	321.44
1204.32	320.82	1210.3	320.75	1225.4	320.55	1235.71	320.53	1246.76	320.52
1268.47	320.49	1284.93	320.46	1289.06	320.68	1297.71	321.05	1300.55	321.17
1303.47	321.29	1304.1	321.38	1304.13	321.39	1310.21	322.13	1312.02	322.41
1316.67	323.15	1337.46	327.51	1340.23	328.13	1341.02	328.25	1342.38	328.48
1348.65	329.54	1358.93	331.28	1365.62	332.29	1374.54	333.64	1376.17	333.85
1378.92	334.1	1393.09	334.9	1397.87	335.16	1433.48	336.57	1436.27	336.66
1446.86	337.1	1471.29	338.02	1500.1	338.06	1515.03	338	1557.07	337.84
1570.78	337.89	1596.86	338.11	1606.22	338.98	1611.29	339.17	1621.91	339.77
1624.68	339.96	1632.32	341	1637.12	341.45	1637.3	341.49		

Manning's n Values num= 16

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	598.34	.025	664.82	.03	718.58	.03	766.48	.035
933.67	.02	963.63	.02	1204.32	.02	1246.76	.02	1268.47	.039
1297.71	.057	1300.55	.063	1348.65	.048	1365.62	.035	1637.3	.057
1637.3	.057								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
933.67	963.63	19.91	18.5	16.67	.1	.3

CROSS SECTION RIVER: San Juan Creek
REACH: Upper RS: 3296.17*

INPUT
Description:
Station Elevation Data num= 144

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	341.29	28.21	340.2	66.92	338.73	82.2	338.18	114.33	336.97
139.64	335.94	205.25	335.05	242.72	334.77	287.57	334.45	343.55	334.52
362.34	334.54	447.41	334.98	512.59	335.28	551.78	335.1	591.94	334.46
594.6	334.4	624.25	333.72	629.05	333.54	644.25	332.9	660.68	332.04
671.92	331.45	684.04	329.92	697.78	328.38	702.66	327.13	708.88	326.07
711.79	325.52	714.1	325.09	720.4	323.91	742.39	322.66	752.39	321.95
761.7	321.27	767.97	320.8	773.74	320.37	774.61	320.25	775.41	320.14
779.1	319.6	783.33	318.88	788.13	318.12	795.75	315.8	800.49	314.21
803.98	313	807.38	312.57	819.19	311.75	822.96	311.47	826.45	311.16
829.43	310.99	832.81	310.79	848.25	310.02	850.39	309.95	856.5	309.71
876.21	308.87	879.79	308.71	886.83	308.29	891.08	307.96	899.76	307.59
900.02	307.58	905.61	307.35	906.77	307.15	909.26	306.71	910.41	306.51
911.3	306.28	911.5	306.21	914.31	305.2	918.81	303.08	927.85	298.32
932.04	296.21	937.35	294.9	938.81	294.69	940.45	294.47	944.08	294
945.85	294.31	950.91	295.5	952.77	296.08	957.67	297.93	968.27	305.09
973.9	308.87	974.25	309.1	977.08	310.99	979.49	312.64	980.9	313.26
982.54	313.89	987.18	315.73	988.06	316.04	991.07	316.27	998.61	316.86
1001.56	317.05	1003.97	317.17	1025.91	317	1046.94	316.84	1050.02	316.81
1051.89	316.79	1061.73	317.69	1066.4	318.09	1091.54	320.03	1093.85	320.25
1095.63	320.4	1106.33	321.36	1116.91	321.33	1129.2	321.39	1144.12	321.43
1199	320.73	1204.99	320.66	1220.13	320.45	1230.47	320.44	1241.55	320.43
1263.31	320.41	1279.82	320.39	1283.96	320.64	1292.63	321.06	1295.48	321.2
1298.41	321.35	1299.04	321.45	1299.07	321.46	1305.16	322.31	1306.99	322.61
1311.64	323.39	1332.49	327.7	1335.26	328.31	1336.06	328.43	1337.42	328.64
1343.7	329.64	1354.02	331.3	1360.73	332.29	1369.67	333.6	1371.31	333.82
1374.06	334.05	1388.27	334.88	1393.06	335.16	1428.76	336.6	1431.56	336.69
1442.18	337.17	1466.67	338.22	1495.56	338.24	1510.53	338.17	1552.68	337.96
1566.42	337.97	1592.57	338.09	1601.96	339.03	1607.04	339.22	1617.7	339.77
1620.47	339.94	1628.13	341.01	1632.94	341.43	1633.12	341.48		

Manning's n Values num= 16

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	594.6	.024	660.68	.031	714.1	.031	761.7	.035
927.85	.02	957.67	.02	1199	.02	1241.55	.02	1263.31	.042
1292.63	.055	1295.48	.065	1343.7	.045	1360.73	.035	1633.12	.06
1633.12	.06								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
927.85	957.67	19.91	18.5	16.67	.1	.3

CROSS SECTION RIVER: San Juan Creek
REACH: Upper RS: 3277.68*

INPUT
Description:
Station Elevation Data num= 144

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev

0	341.29	28.04	340.17	66.5	338.63	81.68	338.05	113.61	336.77
138.76	335.71	203.96	334.95	241.2	334.68	285.77	334.36	341.4	334.49
360.07	334.53	444.6	334.96	509.37	335.25	548.32	335.04	588.23	334.29
590.87	334.23	620.34	333.55	625.1	333.36	640.21	332.71	656.53	331.81
667.7	331.2	679.75	329.53	693.4	327.86	698.25	326.48	704.43	325.32
707.33	324.71	709.62	324.23	715.88	322.92	737.73	321.58	747.67	320.88
756.92	320.21	763.15	319.75	768.88	319.33	769.75	319.19	770.54	319.08
774.21	318.5	778.42	317.77	783.18	316.98	790.76	314.46	795.47	312.74
798.93	311.45	802.31	311.03	814.05	310.35	817.8	310.12	821.26	309.85
824.22	309.68	827.58	309.49	842.93	308.7	845.05	308.65	851.13	308.4
870.71	307.58	874.27	307.43	881.26	307.01	885.48	306.71	894.11	306.43
894.37	306.42	899.93	306.25	901.08	306.04	903.56	305.58	904.7	305.38
905.58	305.16	905.78	305.1	908.58	304.21	913.05	302.22	922.03	297.88
926.41	295.81	931.96	294.72	933.49	294.52	935.2	294.31	939	293.85
940.66	294.14	945.39	295.19	947.12	295.72	951.71	297.35	962.33	304.7
967.99	308.59	968.34	308.83	971.17	310.79	973.59	312.49	975	313.09
976.64	313.74	981.3	315.62	982.18	315.94	985.2	316.08	992.75	316.44
995.71	316.56	998.13	316.63	1020.13	316.43	1041.21	316.25	1044.31	316.22
1046.17	316.2	1056.04	317.2	1060.73	317.66	1085.93	319.89	1088.25	320.12
1090.03	320.29	1100.76	321.36	1111.37	321.31	1123.69	321.37	1138.65	321.41
1193.68	320.65	1199.68	320.56	1214.87	320.34	1225.22	320.34	1236.34	320.33
1258.16	320.32	1274.71	320.32	1278.86	320.6	1287.55	321.08	1290.41	321.24
1293.35	321.4	1293.98	321.53	1294.02	321.53	1300.12	322.49	1301.95	322.81
1306.61	323.64	1327.52	327.88	1330.3	328.49	1331.09	328.6	1332.47	328.8
1338.76	329.75	1349.1	331.32	1355.83	332.28	1364.79	333.56	1366.44	333.78
1369.2	333.99	1383.45	334.87	1388.25	335.16	1424.05	336.62	1426.85	336.72
1437.5	337.24	1462.05	338.41	1491.02	338.42	1506.03	338.34	1548.29	338.09
1562.07	338.06	1588.29	338.06	1597.7	339.08	1602.79	339.27	1613.48	339.78
1616.26	339.92	1623.94	341.01	1628.77	341.41	1628.94	341.47		

Manning's n Values num= 16

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	590.87	.023	656.53	.032	709.62	.032	756.92	.035
922.03	.02	951.71	.02	1193.68	.02	1236.34	.02	1258.16	.045
1287.55	.054	1290.41	.066	1338.76	.041	1355.83	.035	1628.94	.064
1628.94	.064								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
922.03	951.71	19.91	18.5	16.67	.1	.3

CROSS SECTION RIVER: San Juan Creek
REACH: Upper RS: 3259.18*

INPUT
Description:
Station Elevation Data num= 144

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	341.3	27.86	340.13	66.08	338.54	81.17	337.93	112.9	336.57
137.89	335.47	202.67	334.86	239.67	334.58	283.96	334.27	339.24	334.46
357.79	334.53	441.79	334.94	506.16	335.23	544.85	334.97	584.51	334.13
587.14	334.07	616.42	333.37	621.15	333.17	636.16	332.51	652.39	331.59
663.49	330.95	675.45	329.15	689.02	327.35	693.84	325.83	699.98	324.56
702.86	323.9	705.14	323.37	711.36	321.94	733.07	320.5	742.94	319.8
752.14	319.15	758.33	318.7	764.03	318.28	764.89	318.14	765.68	318.02
769.32	317.4	773.5	316.66	778.24	315.83	785.76	313.13	790.45	311.28
793.89	309.9	797.25	309.5	808.91	308.95	812.63	308.76	816.08	308.54
819.02	308.38	822.36	308.19	837.6	307.39	839.72	307.34	845.75	307.09
865.21	306.3	868.75	306.15	875.7	305.73	879.89	305.45	888.47	305.27
888.72	305.26	894.24	305.14	895.39	304.92	897.85	304.46	898.99	304.24
899.86	304.05	900.06	304	902.84	303.23	907.28	301.36	916.2	297.45
920.78	295.42	926.58	294.54	928.17	294.35	929.96	294.15	933.93	2 93.71
935.47	293.98	939.87	294.87	941.48	295.36	945.75	296.78	956.4	304.32
962.07	308.32	962.42	308.57	965.26	310.58	967.68	312.33	969.1	312.93
970.75	313.58	975.41	315.52	976.3	315.83	979.32	315.88	986.9	316.03
989.87	316.07	992.29	316.09	1014.35	315.87	1035.49	315.66	1038.59	315.63
1040.46	315.61	1050.36	316.72	1055.05	317.24	1080.33	319.75	1082.65	319.99
1084.44	320.17	1095.19	321.35	1105.83	321.3	1118.18	321.35	1133.18	321.4
1188.35	320.56	1194.37	320.47	1209.6	320.24	1219.98	320.24	1231.13	320.24
1253	320.24	1269.6	320.24	1273.76	320.56	1282.48	321.1	1285.34	321.28
1288.29	321.46	1288.92	321.6	1288.96	321.6	1295.08	322.67	1296.91	323.01
1301.59	323.88	1322.55	328.07	1325.33	328.67	1326.13	328.78	1327.51	328.96
1333.82	329.86	1344.19	331.34	1350.93	332.28	1359.92	333.53	1361.57	333.75
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Manning's n Values num= 16

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	587.14	.021	652.39	.034	705.14	.034	752.14	.035
916.2	.02	945.75	.02	1188.35	.02	1231.13	.02	1253	.047
1282.48	.052	1285.34	.068	1333.82	.038	1350.93	.035	1624.77	.067
1624.77	.067								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
916.2	945.75	19.91	18.5	16.67	.1	.3

CROSS SECTION RIVER: San Juan Creek
REACH: Upper RS: 3240.694

INPUT
Description:
Station Elevation Data num= 77

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	341.3	80.65	337.8	137.01	335.24	238.15	334.49	282.16	334.18
502.94	335.21	541.39	334.91	583.41	333.9	612.5	333.2	632.12	332.32
648.24	331.36	659.27	330.7	671.16	328.76	684.64	326.83	689.43	325.18
695.53	323.81	706.84	320.95	753.51	317.65	759.17	317.24	760.81	316.96

773.29	314.69	780.77	311.8	788.84	308.35	792.18	307.96	807.47	307.41
832.28	306.08	834.38	306.03	863.23	304.87	874.3	304.2	888.56	304.04
889.7	303.81	894.34	302.89	897.1	302.24	910.38	297.01	915.15	295.02
922.85	294.18	928.85	293.56	934.35	294.55	939.79	296.2	956.15	308.05
959.35	310.37	961.78	312.18	964.85	313.43	969.53	315.41	970.42	315.73
973.45	315.69	1034.75	315.02	1049.38	316.81	1078.84	320.06	1089.62	321.35
1100.29	321.28	1127.71	321.39	1183.03	320.48	1204.33	320.13	1247.85	320.16
1264.49	320.17	1268.66	320.52	1280.27	321.32	1283.23	321.52	1283.86	321.67
1291.87	323.21	1317.58	328.25	1320.37	328.85	1322.55	329.12	1328.88	329.97
1356.7	333.71	1378.63	335.16	1417.43	336.78	1452.82	338.79	1481.94	338.79
1497.03	338.67	1579.72	338.02	1589.18	339.19	1607.84	339.88	1615.56	341.01
1620.41	341.38	1620.59	341.44						

Manning's n Values num= 8

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	583.41	.02	648.24	.035	1183.03	.02	1247.85	.05
1280.27	.07	1328.88	.035	1620.59	.07				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
910.38	939.79	17.16	17.02	17.06	.1	.3

CROSS SECTION RIVER: San Juan Creek
REACH: Upper RS: 3223.66*

INPUT
Description:
Station Elevation Data num= 148

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	340.64	79.11	337.44	134.39	335.1	148.71	335	180.48	334.76
183.62	334.74	197.6	334.64	233.59	334.36	276.76	334.05	320.36	334.2
362.88	334.29	364.82	334.29	402.2	334.46	422.33	334.49	432.37	334.49
460.49	334.47	480.09	334.14	493.32	333.9	495.68	333.83	515.69	333.48
523.5	333.39	531.03	333.33	548.66	332.93	558.81	332.71	572.25	332.37
579.51	332.19	597.65	331.69	600.78	331.58	602.2	331.5	612.08	330.92
619.02	330.3	620.02	330.19	622.98	329.84	627.98	329.42	635.83	328.78
646.65	327.89	649.5	327.39	653.2	326.79	658.32	325.97	669.06	324.45
671.54	324.12	672.23	323.9	676.24	322.67	681.46	321.63	682.22	321.48
693.31	318.99	694.21	318.94	696.03	318.83	698.08	318.78	712.88	318.31
716.87	318.17	721.26	317.91	739.09	316.79	744.64	316.43	746.25	316.18
752.98	315.07	758.49	314.14	765.83	311.53	773.74	308.41	777.02	308.06
792.02	307.54	796.29	307.33	798.74	307.19	816.35	306.22	818.41	306.16
843.3	305.09	846.71	304.92	857.57	304.19	858.31	304.17	868.8	303.93
871.56	303.87	872.67	303.65	877.22	302.76	878.27	302.53	879.93	302.08
884.29	300.3	892.96	296.78	897.72	294.72	902.59	293.97	905	293.73
905.4	293.69	911.39	293.09	915.69	294.04	916.85	294.29	922.25	296.04
937.52	306.96	937.82	307.17	940.86	309 35	943.17	311.04	946.09	312.25
950.55	314.16	951.39	314.47	954.27	314.51	957.11	314.56	969.21	314.67
970.49	314.68	978.07	314.71	1012.59	314.55	1026.51	316.24	1036.48	317.34
1047.19	318.55	1054.54	319.36	1056.11	319.55	1064.79	320.55	1074.94	320.51
1101.03	320.66	1153.66	319.96	1172.91	319.7	1173.92	319.69	1215.32	319.75
1231.15	319.77	1235.12	320.09	1236.16	320.16	1246.16	320.84	1248.98	321.03
1249.58	321.16	1257.2	322.57	1271.24	325.22	1280.92	327.02	1281.66	327.16
1284.31	327.7	1286.39	327.95	1292.41	328.72	1318.87	332.1	1339.74	333.43
1345.74	333.67	1360.9	334.34	1375.12	334.91	1376.65	334.97	1384.14	335.38
1410.32	336.81	1438.02	336.84	1452.38	336.75	1475.52	336.6	1479.39	336.57
1480.28	336.57	1503.89	336.6	1503.97	336.6	1507.99	336.68	1514.38	336.81
1531.04	337.11	1537.92	338.09	1540.04	338.38	1546.18	338.71	1557.79	339.22
1565.14	340.3	1569.75	340.67	1569.92	340.73				

Manning's n Values num= 16

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	364.82	.034	432.37	.021	572.25	.021	635.83	.035
892.96	.02	922.25	.02	1153.66	.02	1215.32	.047	1246.16	.065
1280.92	.02	1292.41	.034	1384.14	.023	1507.99	.049	1569.92	.067
1569.92	.067								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
892.96	922.25	17.16	17.02	17.06	.1	.3

CROSS SECTION RIVER: San Juan Creek
REACH: Upper RS: 3206.64*

INPUT
Description:
Station Elevation Data num= 148

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	339.97	77.56	337.08	131.77	334.97	145.81	334.86	176.96	334.64
180.04	334.62	193.74	334.52	229.04	334.24	271.36	333.91	314.11	334.01
355.8	333.98	357.7	333.99	394.36	334.15	414.09	334.11	423.94	334.05
451.5	333.89	470.72	333.14	483.69	332.58	486.01	332.46	505.63	331.92
513.29	331.82	520.67	331.76	537.96	331.37	547.91	331.19	561.08	330.84
568.2	330.65	585.99	330.1	589.06	329.96	590.45	329.87	600.14	329.16
606.94	328.23	607.93	328.06	610.83	327.53	615.73	327.01	623.43	326.2
634.04	325.08	636.83	324.55	640.45	323.97	645.47	323.18	656.01	321.7
658.44	321.41	659.11	321.22	663.04	320.15	668.16	319.28	668.91	319.15
679.79	317.03	680.66	317	682.45	316.91	684.46	316.95	698.97	317.09
702.88	317.08	707.19	316.88	724.67	315.92	730.11	315.61	731.69	315.4
738.29	314.42	743.69	313.59	750.89	311.26	758.65	308.48	761.86	308.16
776.56	307.68	780.76	307.48	783.16	307.34	800.43	306.35	802.44	306.29
826.84	305.16	830.19	304.97	840.84	304.18	841.57	304.16	851.84	303.8
854.55	303.7	855.65	303.49	860.11	302.64	861.13	302.41	862.76	301.93
867.03	300.11	875.54	296.54	880.29	294.42	885.15	293.45	887.55	293.24
887.96	293.2	893.93	292.61	898.2	293.74	899.35	294.03	904.72	295.89
919.21	306.1	919.48	306.3	922.37	308.33	924.57	309.9	927.34	311.07
931.56	312.9	932.36	313.2	935.1	313.33	937.79	313.47	949.27	313.82
950.49	313.85	957.68	314.01	990.43	314.09	1003.64	315.68	1013.1	316.72
1023.27	317.89	1030.23	318.66	1031.72	318.83	1039.96	319.75	1049.59	319.74
1074.35	319.94	1124.28	319.44	1142.56	319.26	1143.51	319.25	1182.79	319.34

1197.81	319.37	1201.58	319.65	1202.57	319.71	1212.06	320.36	1214.73	320.53
1215.3	320.66	1222.53	321.94	1235.85	324.34	1245.03	325.95	1245.74	326.07
1248.25	326.56	1250.22	326.77	1255.94	327.46	1281.05	330.5	1300.84	331.69
1306.54	331.91	1320.93	332.6	1334.41	333.11	1335.87	333.16	1342.98	333.54
1367.81	334.84	1394.1	334.89	1407.72	334.82	1429.68	334.71	1433.36	334.7
1434.2	334.7	1456.6	334.96	1456.67	334.96	1460.49	335.16	1466.55	335.47
1482.36	336.21	1488.89	337.27	1490.9	337.57	1496.73	337.99	1507.74	338.55
1514.71	339.59	1519.09	339.96	1519.25	340.02				

Manning's n Values num= 16

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	357.7	.032	423.94	.023	561.08	.023	623.43	.035
875.54	.02	904.72	.02	1124.28	.02	1182.79	.044	1212.06	.06
1245.03	.02	1255.94	.032	1342.98	.026	1460.49	.047	1519.25	.063
1519.25	.063								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
875.54	904.72	17.16	17.02	17.06	.1	.3

CROSS SECTION RIVER: San Juan Creek
REACH: Upper RS: 3189.62*

INPUT
Description:
Station Elevation Data num= 148

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	339.31	76.02	336.72	129.14	334.83	142.91	334.73	173.44	334.51
176.46	334.49	189.89	334.39	224.48	334.11	265.96	333.78	307.86	333.82
348.72	333.68	350.58	333.68	386.51	333.84	405.85	333.73	415.5	333.62
442.52	333.31	461.36	332.14	474.07	331.27	476.34	331.1	495.57	330.37
503.08	330.24	510.31	330.18	527.25	329.82	537.01	329.67	549.92	329.31
556.9	329.11	574.33	328.51	577.34	328.34	578.7	328.23	588.19	327.41
594.86	326.17	595.83	325.94	598.67	325.23	603.48	324.6	611.02	323.62
621.42	322.27	624.15	321.71	627.71	321.15	632.63	320.39	642.96	318.96
645.33	318.7	646	318.53	649.85	317.64	654.87	316.93	655.6	316.82
666.26	315.08	667.12	315.05	668.87	314.98	670.84	315.12	685.06	315.86
688.89	316	693.11	315.86	710.25	315.06	715.59	314.8	717.13	314.61
723.6	313.78	728.89	313.04	735.95	310.99	743.55	308.54	746.7	308.25
761.11	307.81	765.22	307.63	767.58	307.49	784.5	306.49	786.48	306.41
810.39	305.24	813.67	305.02	824.11	304.17	824.82	304.14	834.89	303.66
837.55	303.53	838.62	303.33	842.99	302.51	844	302.3	845.6	301.77
849.78	299.91	858.11	296.31	862.86	294.12	867.71	292.94	870.11	292.75
870.51	292.71	876.48	292.14	880.71	293.44	881.86	293.76	887.18	295.73
900.89	305.24	901.15	305.42	903.88	307.3	905.96	308.76	908.58	309.89
912.58	311.65	913.34	311.94	915.92	312.16	918.47	312.37	929.33	312.97
930.48	313.02	937.29	313.31	960.28	313.62	980.77	315.11	989.72	316.09
999.34	317.23	1005.93	317.96	1007.34	318.12	1015.13	318.94	1024.25	318.96
1047.66	319.21	1094.91	318.92	1112.2	318.82	1113.1	318.81	1150.26	318.92
1164.47	318.96	1168.04	319.22	1168.97	319.27	1177.95	319.87	1180.48	320.04
1181.02	320.15	1187.86	321.3	1200.47	323.45	1209.15	324.87	1209.81	324.98
1212.2	325.41	1214.06	325.6	1219.46	326.21	1243.22	328.89	1261.95	329.96
1267.34	330.15	1280.95	330.85	1293.71	331.3	1295.09	331.35	1301.81	331.69
1325.31	332.86	1350.18	332.94	1363.07	332.9	1383.84	332.83	1387.32	332.82
1388.12	332.84	1409.31	333.32	1409.38	333.32	1412.99	333.63	1418.73	334.13
1433.68	335.3	1439.86	336.45	1441.76	336.76	1447.28	337.27	1457.7	337.89
1464.29	338.88	1468.43	339.26	1468.59	339.3				

Manning's n Values num= 16

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	350.58	.031	415.5	.024	549.92	.024	611.02	.035
858.11	.02	887.18	.02	1094.91	.02	1150.26	.041	1177.95	.055
1209.15	.02	1219.46	.031	1301.81	.029	1412.99	.045	1468.59	.06
1468.59	.06								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
858.11	887.18	17.16	17.02	17.06	.1	.3

CROSS SECTION RIVER: San Juan Creek
REACH: Upper RS: 3172.59*

INPUT
Description:
Station Elevation Data num= 148

433.54	332.73	451.99	331.14	464.44	329.96	466.67	329.73	485.51	328.82
492.86	328.67	499.95	328.6	516.55	328.27	526.11	328.15	538.75	327.78
545.59	327.58	562.67	326.93	565.61	326.72	566.96	326.6	576.25	325.65
582.78	324.1	583.73	323.81	586.52	322.92	591.22	322.18	598.62	321.04
608.8	319.47	611.48	318.87	614.97	318.33	619.78	317.6	629.9	316.22
632.23	315.99	632.88	315.84	636.66	315.13	641.57	314.57	642.29	314.49
652.73	313.12	653.58	313.11	655.29	313.06	657.22	313.3	671.15	314.63
674.91	314.91	679.04	314.83	695.83	314.19	701.06	313.99	702.57	313.83
708.91	313.14	714.1	312.49	721	310.72	728.46	308.6	731.54	308.35
745.66	307.94	749.69	307.78	751.99	307.63	768.57	306.62	770.51	306.54
793.94	305.32	797.15	305.07	807.37	304.16	808.08	304.12	817.94	303.52
820.54	303.36	821.6	303.17	825.88	302.39	826.86	302.18	828.43	301.62
832.53	299.72	840.69	296.07	845.42	293.82	850.26	292.42	852.66	292.26
853.06	292.22	859.02	291.67	863.23	293.14	864.36	293.5	869.64	295.57
882.57	304.38	882.82	304.55	885.39	306.28	887.35	307.63	889.82	308.7
893.59	310.39	894.31	310.68	896.75	310.98	899.15	311.28	909.4	312.12
910.48	312.2	916.89	312.61	946.12	313.16	957.9	314.55	966.34	315.47
975.41	316.57	981.62	317.25	982.96	317.41	990.31	318.14	998.9	318.19
1020.98	318.49	1065.53	318.41	1081.84	318.38	1082.69	318.37	1117.74	318.51
1131.14	318.56	1134.49	318.78	1135.38	318.83	1143.84	319.39	1146.23	319.55
1146.74	319.64	1153.19	320.66	1165.08	322.57	1173.27	323.8	1173.89	323.89

1176.14	324.26	1177.89	324.43	1182.99	324.96	1205.4	327.29	1223.06	328.22
1228.14	328.4	1240.97	329.11	1253.01	329.5	1254.31	329.55	1260.65	329.84
1282.81	330.88	1306.26	330.99	1318.41	330.97	1338	330.95	1341.28	330.94
1342.04	330.97	1362.02	331.68	1362.08	331.68	1365.49	332.11	1370.9	332.78
1385	334.39	1390.82	335.62	1392.62	335.95	1397.82	336.55	1407.65	337.23
1413.87	338.17	1417.77	338.55	1417.92	338.59				

Manning's n Values num= 16

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	343.47	.029	407.06	.026	538.75	.026	598.62	.035
840.69	.02	869.64	.02	1065.53	.02	1117.74	.038	1143.84	.05
1173.27	.02	1182.99	.029	1260.65	.032	1365.49	.044	1417.92	.056
1417.92	.056								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
840.69	869.64	17.16	17.02	17.06	.1	.3

CROSS SECTION RIVER: San Juan Creek
REACH: Upper RS: 3155.57*

INPUT
Description:
Station Elevation Data num= 148

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	337.98	72.93	336	123.9	334.56	137.11	334.46	166.4	334.25
169.29	334.24	182.18	334.15	215.36	333.86	255.16	333.52	295.36	333.43
334.56	333.07	336.35	333.07	370.82	333.22	389.37	332.96	398.63	332.75
424.55	332.15	442.62	330.13	454.82	328.65	456.99	328.37	475.45	327.26
482.65	327.09	489.59	327.03	505.84	326.72	515.2	326.62	527.59	326.25
534.28	326.04	551.01	325.34	553.89	325.09	555.21	324.97	564.31	323.89
570.71	322.03	571.64	321.68	574.36	320.62	578.97	319.77	586.21	318.46
596.19	316.66	598.81	316.03	602.22	315.51	606.94	314.82	616.85	313.48
619.13	313.28	619.77	313.16	623.46	312.61	628.28	312.22	628.98	312.16
639.21	311.16	640.03	311.16	641.71	311.14	643.6	311.47	657.24	313.4
660.92	313.83	664.97	313.8	681.41	313.33	686.53	313.18	688.01	313.05
694.21	312.49	699.3	311.94	706.06	310.45	713.36	308.67	716.38	308.45
730.21	308.07	734.15	307.93	736.41	307.78	752.64	306.76	754.54	306.67
777.49	305.39	780.63	305.13	790.64	304.15	791.33	304.11	800.99	303.39
803.54	303.2	804.57	303.01	808.76	302.26	809.73	302.07	811.26	301.46
815.27	299.53	823.27	295.84	827.99	293.52	832.82	291.9	835.22	291.77
835.62	291.73	841.56	291.19	845.74	292.84	846.86	293.24	852.1	295.42
864.25	303.52	864.48	303.67	866.91	305.26	868.74	306.49	871.07	307.52
874.61	309.14	875.28	309.42	877.57	309.8	879.83	310.18	889.46	311.26
890.47	311.37	896.5	311.9	923.96	312.69	935.03	313.98	942.96	314.84
951.48	315.91	957.32	316.55	958.57	316.7	965.48	317.34	973.55	317.42
994.3	317.76	1036.16	317.89	1051.48	317.93	1052.28	317.93	1085.21	318.1
1097.8	318.16	1100.95	318.35	1101.78	318.39	1109.74	318.91	1111.98	319.05
1112.45	319.14	1118.52	320.02	1129.69	321.69	1137.38	322.72	1137.97	322.8
1140.08	323.11	1141.73	323.26	1146.52	323.71	1167.57	325.68	1184.16	326.49
1188.94	326.64	1201	327.36	1212.3	327.7	1213.52	327.74	1219.48	328
1240.3	328.91	1262.34	329.04	1273.76	329.05	1292.16	329.06	1295.25	329.07
1295.95	329.1	1314.73	330.04	1314.79	330.04	1317.99	330.58	1323.07	331.44
1336.32	333.48	1341.79	334.8	1343.48	335.14	1348.37	335.83	1357.6	336.57
1363.44	337.45	1367.11	337.84	1367.25	337.88				

Manning's n Values num= 16

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	336.35	.027	398.63	.027	527.59	.027	586.21	.035
823.27	.02	852.1	.02	1036.16	.02	1085.21	.035	1109.74	.045
1137.38	.02	1146.52	.027	1219.48	.035	1317.99	.043	1367.25	.052
1367.25	.052								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
823.27	852.1	17.16	17.02	17.06	.1	.3

CROSS SECTION RIVER: San Juan Creek
REACH: Upper RS: 3138.54*

INPUT
Description:
Station Elevation Data num= 148

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	337.32	71.39	335.64	121.28	334.42	134.21	334.33	162.88	334.12
165.71	334.12	178.32	334.02	210.81	333.73	249.76	333.38	289.11	333.24
327.48	332.77	329.23	332.77	362.97	332.91	381.13	332.58	390.19	332.32
415.57	331.57	433.26	329.13	445.19	327.33	447.32	327	465.39	325.71
472.44	325.52	479.23	325.45	495.14	325.17	504.3	325.1	516.42	324.71
522.98	324.5	539.35	323.75	542.17	323.47	543.46	323.33	552.37	322.13
558.63	319.97	559.54	319.55	562.21	318.32	566.72	317.35	573.81	315.88
583.57	313.85	586.14	313.19	589.48	312.68	594.1	312.03	603.79	310.73
606.03	310.57	606.65	310.47	610.27	310.1	614.98	309.87	615.67	309.84
625.68	309.2	626.49	309.22	628.13	309.21	629.98	309.64	643.33	312.18
646.94	312.74	650.9	312.78	666.99	312.46	672	312.36	673.45	312.27
679.52	311.85	684.5	311.39	691.12	310.18	698.26	308.73	701.22	308.55
714.75	308.21	718.61	308.08	720.83	307.93	736.72	306.89	738.57	306.8
761.03	305.47	764.11	305.18	773.91	304.14	774.58	304.09	784.04	303.25
786.53	303.03	787.54	302.85	791.65	302.14	792.59	301.96	794.09	301.31
798.02	299.33	805.85	295.61	810.56	293.22	815.38	291.39	817.77	291.28
818.17	291.25	824.1	290.72	828.25	292.55	829.36	292.98	834.57	295.26
845.93	302.66	846.15	302.8	848.42	304.24	850.14	305.35	852.31	306.34
855.62	307.88	856.25	308.15	858.4	308.62	860.51	309.09	869.52	310.41
870.47	310.55	876.11	311.2	901.8	312.22	912.16	313.41	919.58	314.22
927.55	315.25	933.02	315.85	934.19	315.99	940.65	316.54	948.2	316.65
967.62	317.04	1006.78	317.37	1021.12	317.49	1021.87	317.49	1052.68	317.69
1064.46	317.76	1067.41	317.92	1068.19	317.95	1075.63	318.43	1077.73	318.56
1078.17	318.63	1083.84	319.39	1094.3	320.8	1101.5	321.65	1102.05	321.71
1104.02	321.97	1105.57	322.08	1110.05	322.45	1129.74	324.07	1145.27	324.75
1149.74	324.89	1161.02	325.62	1171.6	325.89	1172.74	325.93	1178.32	326.15

1197.8	326.93	1218.42	327.09	1229.1	327.12	1246.33	327.18	1249.21	327.19
1249.87	327.23	1267.44	328.4	1267.5	328.4	1270.49	329.05	1275.25	330.1
1287.65	332.58	1292.76	333.98	1294.34	334.33	1298.91	335.11	1307.55	335.9
1313.02	336.74	1316.45	337.13	1316.58	337.17				

Manning's n Values num= 16

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	329.23	.026	390.19	.029	516.42	.029	573.81	.035
805.85	.02	834.57	.02	1006.78	.02	1052.68	.032	1075.63	.04
1101.5	.02	1110.05	.026	1178.32	.038	1270.49	.041	1316.58	.049
1316.58	.049								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
805.85	834.57	17.16	17.02	17.06	.1	.3

CROSS SECTION RIVER: San Juan Creek
REACH: Upper RS: 3121.52*

INPUT
Description:
Station Elevation Data num= 148

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	336.66	69.85	335.28	118.66	334.28	131.3	334.19	159.35	333.99
162.13	333.99	174.47	333.9	206.25	333.6	244.36	333.25	282.86	333.05
320.4	332.46	322.11	332.46	355.12	332.6	372.89	332.2	381.76	331.88
406.58	330.99	423.89	328.13	435.57	326.02	437.65	325.64	455.32	324.15
462.22	323.94	468.87	323.87	484.43	323.62	493.4	323.58	505.26	323.18
511.67	322.97	527.69	322.16	530.45	321.85	531.71	321.7	540.43	320.37
546.55	317.9	547.44	317.42	550.05	316.01	554.47	314.94	561.4	313.3
570.95	311.04	573.47	310.36	576.73	309.86	581.25	309.24	590.74	307.99
592.93	307.86	593.54	307.79	597.07	307.59	601.69	307.52	602.36	307.51
612.15	307.24	612.94	307.27	614.55	307.29	616.36	307.81	629.43	310.95
632.95	311.66	636.83	311.75	652.57	311.6	657.47	311.55	658.89	311.49
664.83	311.2	669.7	310.84	676.18	309.91	683.17	308.8	686.06	308.65
699.3	308.34	703.08	308.23	705.24	308.08	720.79	307.03	722.61	306.93
744.58	305.55	747.59	305.23	757.18	304.14	757.84	304.07	767.09	303.11
769.53	302.86	770.52	302.69	774.53	302.01	775.46	301.84	776.92	301.15
780.77	299.14	788.43	295.37	793.13	292.92	797.94	290.87	800.33	290.79
800.73	290.76	806.64	290.25	810.76	292.25	811.87	292.72	817.03	295.1
827.61	301.79	827.82	301.92	829.93	303.21	831.53	304.21	833.55	305.16
836.64	306.63	837.23	306.89	839.22	307.45	841.19	307.99	849.58	309.56
850.46	309.72	855.72	310.5	879.64	311.76	889.29	312.85	896.2	313.59
903.62	314.59	908.71	315.15	909.8	315.28	915.82	315.74	922.86	315.87
940.94	316.31	977.41	316.85	990.76	317.05	991.45	317.05	1020.15	317.27
1031.12	317.36	1033.87	317.48	1034.59	317.51	1041.53	317.94	1043.48	318.07
1043.89	318.12	1049.17	318.75	1058.91	319.92	1065.61	320.57	1066.13	320.62
1067.96	320.82	1069.4	320.91	1073.58	321.2	1091.92	322.47	1106.38	323.02
1110.54	323.13	1121.05	323.87	1130.9	324.09	1131.96	324.12	1137.15	324.31
1155.3	324.95	1174.5	325.14	1184.45	325.2	1200.49	325.3	1203.17	325.32
1203.79	325.36	1220.15	326.75	1220.2	326.75	1222.99	327.53	1227.42	328.75
1238.97	331.67	1243.73	333.16	1245.2	333.52	1249.46	334.39	1257.51	335.24
1262.6	336.03	1265.8	336.43	1265.91	336.46				

Manning's n Values num= 16

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	322.11	.024	381.76	.031	505.26	.031	561.4	.035
788.43	.02	817.03	.02	977.41	.02	1020.15	.029	1041.53	.035
1065.61	.02	1073.58	.024	1137.15	.041	1222.99	.039	1265.91	.045
1265.91	.045								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
788.43	817.03	17.16	17.02	17.06	.1	.3

CROSS SECTION RIVER: San Juan Creek
REACH: Upper RS: 3104.50*

INPUT
Description:
Station Elevation Data num= 148

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	336	68.3	334.92	116.03	334.15	128.4	334.06	155.83	333.87
158.55	333.87	170.61	333.78	201.69	333.48	238.96	333.12	276.61	332.86
313.32	332.16	315	332.16	347.27	332.28	364.65	331.81	373.32	331.45
558.34	308.23	560.79	307.52	563.99	307.04	568.41	306.45	577.69	305.25
579.82	305.16	580.42	305.1	583.88	305.07	588.39	305.16	589.05	305.18
598.63	305 29	599.4	305.33	600.97	305.37	602.74	305.99	615.52	309.72
618.96	310.57	622.75	310.72	638.15	310.74	642.94	310.74	644.33	310.71
650.14	310.56	654.9	310.29	661.24	309.64	668.07	308.86	670.9	308.75
683.85	308.47	687.54	308.38	689.66	308.22	704.86	307.17	706.64	307.05
728.13	305.63	731.07	305.28	740.45	304.13	741.09	304.05	750.14	302.97
752.52	302.69	753.49	302.53	757.42	301.88	758.32	301.73	759.76	301
763.52	298.95	771	295.14	775.7	292.62	780.5	290.35	782.88	290.3
783.28	290.27	789.19	289.78	793.27	291.95	794.37	292.45	799.49	294.94
809.3	300.93	809.48	301.04	811.44	302.19	812.92	303.07	814.8	303.98
817.66	305.38	818.2	305.63	820.05	306.27	821.87	306.9	829.64	308.71
830.46	308.89	835.32	309.8	857.48	311.29	866.42	312.28	872.82	312.97
879.7	313.93	884.41	314.45	885.42	314.56	890.99	314.94	897.51	315.1
914.25	315.58	948.04	316.33	960.4	316.61	961.04	316.61	987.62	316.86
997.78	316.96	1000.33	317.05	1001	317.07	1007.42	317.46	1009.23	317.57
1009.61	317.62	1014.5	318.11	1023.52	319.04	1029.73	319.5	1030.2	319.53
1031.91	319.67	1033.24	319.74	1037.1	319.95	1054.09	320.86	1067.49	321.28
1071.34	321.37	1081.07	322.13	1090.2	322.29	1091.18	322.31	1095.99	322.46
1112.79	322.98	1130.57	323.19	1139.79	323.28	1154.65	323.42	1157.13	323.44
1157.71	323.5	1172.86	325.11	1172.91	325.11	1175.49	326	1179.59	327.41

1190.29	330.76	1194.7	332.33	1196.06	332.71	1200.01	333.67	1207.46	334.58
1212.17	335.32	1215.14	335.72	1215.25	335.74				

Manning's n Values num= 16

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	315	.023	373.32	.032	494.09	.032	549	.035
771	.02	799.49	.02	948.04	.02	987.62	.026	1007.42	.03
1029.73	.02	1037.1	.023	1095.99	.044	1175.49	.038	1215.25	.042
1215.25	.042								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
771	799.49	17.16	17.02	17.06	.1	.3

CROSS SECTION RIVER: San Juan Creek
REACH: Upper RS: 3087.47*

INPUT
Description:
Station Elevation Data num= 148

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	335.33	66.76	334.56	113.41	334.01	125.5	333.92	152.31	333.74
154.96	333.74	166.76	333.65	197.13	333.35	233.56	332.99	270.36	332.67
306.24	331.85	307.88	331.85	339.43	331.97	356.41	331.43	364.89	331.01
388.61	329.83	405.16	326.12	416.32	323.4	418.31	322.91	435.2	321.04
441.79	320.79	448.14	320.72	463.02	320.51	471.59	320.54	482.93	320.12
489.06	319.9	504.37	318.99	507.01	318.61	508.21	318.43	516.54	316.85
522.4	313.77	523.25	313.17	525.74	311.4	529.96	310.11	536.59	308.14
545.72	305.42	548.12	304.68	551.24	304.22	555.56	303.66	564.63	302.5
566.72	302.45	567.31	302.42	570.69	302.56	575.1	302.81	575.74	302.85
585.1	303.33	585.85	303.38	587.39	303.44	589.12	304.16	601.61	308.5
604.98	309.49	608.68	309.7	623.73	309.87	628.42	309.93	629.77	309.92
635.45	309.91	640.1	309.74	646.3	309.37	652.98	308.92	655.74	308.84
668.4	308.61	672.01	308.53	674.07	308.37	688.93	307.3	690.67	307.18
711.67	305.7	714.55	305.33	723.72	304.12	724.35	304.04	733.19	302.84
735.52	302.52	736.46	302.37	740.3	301.76	741.19	301.61	742.59	300.84
746.26	298.75	753.58	294.9	758.27	292.32	763.06	289.84	765.44	289.81
765.83	289.78	771.73	289.3	775.78	291.65	776.87	292.19	781.96	294.79
790.98	300.07	791.15	300.17	792.95	301.17	794.32	301.93	796.04	302.8
798.67	304.12	799.17	304.37	800.87	305.09	802.55	305.8	809.7	307.86
810.45	308.07	814.93	309.09	835.33	310.82	843.55	311.72	849.44	312.34
855.77	313.27	860.11	313.75	861.03	313.85	866.16	314.13	872.16	314.33
887.57	314.86	918.66	315.81	930.04	316.16	930.63	316.17	955.09	316.45
964.44	316.55	966.79	316.62	967.4	316.63	973.31	316.98	974.98	317.08
975.33	317.11	979.83	317.47	988.13	318.15	993.84	318.42	994.28	318.45
995.85	318.52	997.07	318.57	1000.63	318.69	1016.27	319.25	1028.59	319.55
1032.11	319.62	1041.1	320.38	1049.49	320.48	1050.4	320.5	1054.82	320.62
1070.29	321	1086.65	321.24	1095.14	321.35	1108.81	321.53	1111.1	321.57
1111.62	321.63	1125.57	323.47	1125.61	323.47	1127.99	324.48	1131.77	326.06
1141.61	329.85	1145.67	331.51	1146.93	331.9	1150.55	332.95	1157.41	333.91
1161.75	334.61	1164.48	335.01	1164.58	335.03				

Manning's n Values num= 16

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	307.88	.021	364.89	.034	482.93	.034	536.59	.035
753.58	.02	781.96	.02	918.66	.02	955.09	.023	973.31	.025
993.84	.02	1000.63	.021	1054.82	.047	1127.99	.036	1164.58	.038
1164.58	.038								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
753.58	781.96	17.16	17.02	17.06	.1	.3

CROSS SECTION RIVER: San Juan Creek
REACH: Upper RS: 3070.453

INPUT
Description:
Station Elevation Data num= 76

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	334.67	122.6	333.79	148.79	333.61	151.38	333.62	162.9	333.53
264.11	332.48	299.16	331.55	300.76	331.55	331.58	331.66	348.17	331.05
356.45	330.58	379.63	329.25	395.79	325.12	408.64	321.54	425.14	319.49
431.58	319.22	452.32	318.96	460.69	319.02	477.75	318.36	492.71	317.4
496.46	316.8	504.6	315.09	510.32	311.7	513.59	309.1	517.71	307.7
535.45	301.84	538.5	301.4	551.58	299.76	554.19	299.73	561.8	300.46
572.31	301.44	573.81	301.52	575.5	302.33	587.7	307.27	590.99	308.4
594.61	308.67	620.76	309.27	656.47	308.68	658.49	308.52	695.22	305.78
707.6	304.02	716.24	302.7	724.05	301.5	729.01	298.56	736.16	294.67
745.62	289.32	747.99	289.32	754.27	288.83	758.29	291.35	764.42	294.63
772.66	299.21	783.23	304.71	789.76	307.01	790.45	307.24	794.54	308.39
826.06	311.72	831.84	312.61	836.65	313.14	899.68	315.72	933.81	316.19
952.74	317.27	957.96	317.35	992.94	317.86	1001.12	318.64	1008.79	318.68
1013.66	318.77	1062.97	319.65	1065.06	319.69	1065.54	319.76	1078.28	321.83
1078.32	321.83	1080.49	322.95	1083.94	324.72	1096.64	330.69	1101.1	332.23
1113.91	334.32								

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	300.76	.02	356.45	.035	957.96	.02	1013.66	.05
1080.49	.035								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
736.16	764.42	156.15	150.03	143.28	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888		F	

CROSS SECTION RIVER: San Juan Creek
REACH: Upper RS: 2920.457

INPUT
Description:
Station Elevation Data num= 79

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	327.99	22.04	327.45	31.08	326.82	39.79	325.96	41.94	325.8
62.15	324.34	80.18	320.87	81.99	320.42	87.85	318.1	115.27	306.48
125.88	302.49	145.43	293.3	151	291.45	157.56	289.28	164.84	287.78
177.91	286.38	197.61	284.62	238.1	282.92	245.82	282.9	260.91	282.57
287.69	282.31	305.82	283.13	309.71	283.32	326.14	285.96	350.13	289.26
360.72	292.54	366.94	294.46	368.84	294.99	369.61	295.18	371.29	295.69
389.48	300.05	392.2	300.68	392.54	300.77	392.99	300.87	409.51	302.9
418.52	303.62	434.19	304.38	452.73	303.96	486.91	303.32	523.77	302.98
553.15	303.51	567.67	302.06	571.84	301.93	572.64	301.68	575.47	300.49
582.12	297.7	584.45	295.5	590.42	291.13	593.19	288.95	598.25	287.62
608.06	287.38	611.82	286.89	618.94	287.3	626	287.77	631.11	288.34
633.23	290.08	635.17	291.16	639.8	296.81	642.69	300.03	646.34	303.08
646.77	303.44	651.05	306.88	667.37	311.6	676.78	313.48	690.88	314.7
690.93	314.71	691	314.71	720.46	315.24	771.77	315.14	777.28	315.13
787.35	315.65	803.73	316.28	813.71	317.99	820.38	319.14	823.26	319.78
825.08	320.43	831.8	324.36	838.02	328.22	838.88	328.47		

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.02	41.94	.035	151	.05	360.72	.035	771.77	.02
813.71	.05								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
590.42	635.17	160.12	168.28	173.88	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Juan Creek
REACH: Upper RS: 2752.174

INPUT
Description:
Station Elevation Data num= 73

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	321.29	6.27	320.33	26.21	311.56	30.16	309.95	35.67	307.78
67.31	296.08	68.93	295.3	76.45	291.42	81.01	289.06	85.34	287.61
100.15	282.18	111.25	281.77	128.58	281.15	129.09	281.14	137.56	281.15
142.83	280.91	204.86	280.87	214.99	280.78	235.05	281.71	283.02	282.41
292.29	282.62	296.39	282.7	334.19	284.26	382.23	286.8	385.35	286.96
394.87	287.4	415.97	288.85	439.53	292.84	460.86	297.96	470.85	301.23
478.7	301.69	500.76	303.72	555.59	303.24	573.16	303.08	583.43	302.96
584.28	302.9	586.68	302.87	594.58	302.53	600.59	302.27	602.06	301.95
609.68	297.98	615.16	292.87	617.86	291.06	619.4	289.27	621.23	288.45
624.1	287.6	641.11	287.44	653.42	287.46	657.96	287.85	661.04	288.65
665.76	290.82	671.13	295.21	677.16	301.15	682.07	303.4	689.76	306.93
693.98	308.22	698.57	310.19	712.77	315.04	723.07	315.4	730.49	315.22
735.28	315.1	749.12	315	772.96	317.4	786.78	318.8	789.27	319.06
792.13	319.71	810.25	321.22	817.52	321.82	821.71	322.36	835.92	325.48
846.64	328.07	847.52	328.15	849.4	328.28				

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	76.45	.05	382.23	.035	730.49	.02	772.96	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
617.86	665.76	29.22	41.66	51.58	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Juan Creek
REACH: Upper RS: 2710.51*

INPUT
Description:
Station Elevation Data num= 155

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
96.35	284.26	103.26	282.18	104.29	282.15	109.27	281.95	114.71	281.78
119.7	281.63	132.58	281.2	133.1	281.19	141.84	281.15	147.27	280.93
154.32	280.89	197.78	280.88	211.23	280.88	221.67	280.82	242.36	281.61
247.47	281.67	289.78	282.38	291.82	282.42	301.37	282.63	305.6	282.72
344.58	284.19	352.71	284.57	352.91	284.58	372.85	285.58	394.11	286.63
397.33	286.79	407.14	287.23	418.96	287.96	428.9	288.55	436.02	289.55
452.04	291.94	453.19	292.09	462.37	293.83	466.09	294.65	471.07	295.65
471.65	295.8	475.18	296.75	479.68	298.28	485.48	299.99	488.37	300.21
493.58	300.58	496.68	300.88	500.17	301.2	516.32	302.67	544.48	302.93
549.92	302.95	552.44	303.01	554.73	303.03	569.55	303.14	572.71	303.2
572.86	303.19	580.23	303.05	590.1	302.94	590.97	302.94	601.56	302.93
602.44	302.89	604.91	302.88	609.07	302.77	609.79	302.74	610.24	302.72
613.06	302.55	617.41	302.3	618.57	302.18	619.26	302.11	620.77	301.74
621.12	301.57	621.46	301.41	626.04	299.06	628.63	297.73	632.01	294.87
633.9	293.2	634.28	292.86	634.83	292.49	637.06	290.87	638.55	289.27
640.32	288.44	640.44	288.4	643.1	287.69	645.51	287.63	659.55	287.3
673.42	287.35	674.03	287.39	675.32	287.47	678.54	287.69	679.79	287.94
680.73	288.16	682.01	288.46	682.7	288.73	686.74	290.29	687.32	290.61
692.23	294.65	697.75	300.02	702.24	302.24	709.26	305.72	709.27	305.72
713.13	307.1	717.33	309.06	719.83	310.03	722.56	311.14	729.92	313.79
730.31	313.93	730.34	313.94	741.77	314.44	743.04	314.44	744.67	314.44

750.02	314.35	752.82	314.3	755.34	314.24	766.62	314.14	770.73	314.09
770.88	314.1	797.24	315.94	812.61	317.01	815.38	317.21	818.3	317.69
818.56	317.74	819.29	317.78	828.25	318.32	832.6	318.57	838.07	319.01
838.71	319.05	843.46	319.35	846.79	319.6	850.01	319.95	851.45	320.12
857.11	321.19	862.65	322.32	865.99	323.08	867.25	323.41	868.49	323.74
872.2	324.88	878.18	326.65	879.17	326.87	880.15	326.97	882.24	327.16

Manning's n Values num= 16

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	72.75	.038	78.83	.05	372.85	.047	394.11	.035
500.17	.038	554.73	.047	637.06	.025	673.42	.05	679.79	.047
687.32	.02	722.56	.02	752.82	.025	766.62	.025	812.61	.05
882.24	.05								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
637.06	687.32	29.22	41.66	51.58	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Juan Creek
REACH: Upper RS: 2668.85*

INPUT
Description:
Station Elevation Data num= 155

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	321.29	6.66	320.37	7.34	320.16	22.55	314.39	27.84	312.34
28.83	311.97	32.03	310.47	32.43	310.29	37.89	307.93	61.01	298.28
63.39	297.38	71.49	294.31	73.21	293.54	74.78	292.81	74.95	292.74
78.81	291.1	81.2	290.03	86.05	287.86	89.88	286.59	90.64	286.38
99.25	283.88	106.38	282.18	107.44	282.15	112.56	281.94	118.17	281.8
123.31	281.67	136.57	281.25	137.11	281.24	146.11	281.16	151.71	280.94
158.97	280.87	203.74	280.88	217.59	280.89	228.35	280.85	249.66	281.5
254.93	281.56	298.51	282.39	300.61	282.42	310.46	282.65	314.81	282.74
354.96	284.12	363.34	284.47	363.55	284.48	384.09	285.44	405.99	286.47
409.3	286.62	419.42	287.05	431.59	287.74	441.83	288.25	449.17	289.08
465.67	291.22	466.85	291.34	476.31	292.68	480.14	293.46	485.27	294.3
485.87	294.45	489.51	295.54	494.14	297.17	500.12	298.75	503.09	299.03
508.46	299.47	511.65	299.8	515.24	300.12	531.89	301.62	560.89	302.38
566.49	302.47	569.09	302.61	571.45	302.67	586.72	303.01	589.98	303.15
590.13	303.15	597.72	302.93	607.89	302.8	608.79	302.8	619.7	302.9
620.6	302.87	623.15	302.89	627.43	302.84	628.17	302.81	628.63	302.79
631.54	302.57	636.03	302.25	637.22	302.06	637.92	301.95	639.48	301.53
639.84	301.37	640.19	301.21	644.92	298.83	647.58	297.48	651.06	294.8
653.01	293.18	653.4	292.85	653.97	292.46	656.27	290.69	657.71	289.26
659.42	288.44	659.53	288.4	662.1	287.77	664.43	287.69	678	287.17
693.42	287.24	694.1	287.27	695.54	287.34	699.11	287.53	700.51	287.74
701.55	287.96	702.97	288.27	703.74	288.52	708.24	290	708.89	290.41
713.34	294.09	718.34	298.89	722.41	301.08	728.77	304.51	728.78	304.52
732.28	305.97	736.09	307.93	738.36	308.94	740.83	310.13	747.5	312.69
747.86	312.83	747.89	312.83	760.46	313.48	761.86	313.5	763.66	313.54
769.54	313.48	772.63	313.45	775.41	313.39	787.82	313.25	792.35	313.19
792.51	313.19	821.53	314.47	838.44	315.22	841.49	315.36	844.71	315.73
844.99	315.76	845.79	315.79	855.65	316.2	860.45	316.37	866.46	316.84
867.17	316.87	872.39	317.13	876.06	317.38	879.61	317.71	881.19	317.89
887.42	318.9	893.52	320.06	897.2	320.93	898.58	321.33	899.94	321.74
904.03	323.21	910.62	325.44	911.71	325.66	912.78	325.79	915.08	326.04

Manning's n Values num= 15

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	74.95	.04	81.2	.05	384.09	.045	405.99	.035
515.24	.04	571.45	.045	656.27	.03	693.42	.05	700.51	.045
708.89	.02	747.5	.02	787.82	.03	838.44	.05	915.08	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
656.27	708.89	29.22	41.66	51.58	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Juan Creek
REACH: Upper RS: 2627.20*

INPUT
Description:
Station Elevation Data num= 154

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	321.29	6.85	320.39	7.56	320.21	23.21	314.71	28.65	312.72
29.68	312.36	32.97	310.74	33.38	310.54	39	308.01	62.79	297.56
65.25	296.62	73.59	293.43	75.36	292.66	76.97	291.94	77.14	291.87
81.11	290.36	83.58	289.33	88.56	287.26	92.51	285.96	93.3	285.77
102.16	283.49	109.49	282.19	110.58	282.16	115.86	281.93	121.62	281.81
126.92	281.71	140.57	281.3	141.13	281.28	150.39	281.16	156.15	280.96
163.62	280.85	209.7	280.87	223.96	280.9	235.04	280.89	256.97	281.4
262.39	281.45	307.25	282.39	309.41	282.43	319.54	282.66	324.03	282.76
365.35	284.05	373.97	284.37	374.19	284.37	395.33	285.3	417.87	286.3
421.28	286.45	431.69	286.88	444.22	287.52	454.76	287.95	462.31	288.61
479.29	290.51	480.51	290.59	490.25	291.54	494.19	292.26	499.47	292.94
500.09	293.11	503.83	294.32	508.6	296.06	514.75	297.51	517.82	297.85
523.33	298.36	526.62	298.72	530.32	299.04	547.45	300.56	577.3	301.84
583.07	301.98	585.74	302.21	588.18	302.3	603.89	302.88	607.24	303.11
607.39	303.1	615.21	302.81	625.68	302.65	626.6	302.67	637.83	302.87
638.76	302.86	641.38	302.9	645.79	302.92	646.56	302.89	647.03	302.85
650.02	302.6	654.64	302.2	655.86	301.94	656.59	301.79	658.2	301.32
658.56	301.17	658.92	301.01	663.79	298.61	666.53	297.22	670.11	294.74
672.12	293.17	672.52	292.84	673.1	292.43	675.47	290.5	676.86	289.26
678.51	288.43	678.62	288.39	681.1	287.86	683.35	287.74	696.44	287.04

713.42	287.13	714.17	287.15	715.75	287.21	719.69	287.38	721.23	287.54
722.37	287.77	723.94	288.08	724.79	288.32	729.74	289.71	730.45	290.2
734.44	293.53	738.93	297.77	742.58	299.93	748.28	303.31	751.43	304.85
754.84	306.8	756.88	307.84	759.09	309.12	765.08	311.59	765.4	311.73
765.43	311.73	779.16	312.52	780.69	312.57	782.65	312.64	789.07	312.61
792.44	312.59	795.47	312.53	809.02	312.36	813.96	312.28	814.14	312.28
845.81	313.01	864.27	313.44	867.6	313.52	871.11	313.76	871.42	313.79
872.29	313.8	883.06	314.08	888.29	314.18	894.86	314.67	895.62	314.7
901.33	314.91	905.34	315.16	909.2	315.47	910.93	315.65	917.74	316.6
924.39	317.8	928.4	318.78	929.92	319.26	931.4	319.73	935.86	321.54
943.05	324.24	944.24	324.46	945.41	324.61	947.92	324.91		

Manning's n Values num= 15

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	77.14	.043	83.58	.05	395.33	.043	417.87	.035
530.32	.043	588.18	.043	675.47	.035	713.42	.05	722.37	.043
730.45	.02	779.16	.02	809.02	.035	864.27	.05	947.92	.05

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
675.47 730.45 29.22 41.66 51.58 .1 .3
Ineffective Flow num= 1
Sta L Sta R Elev Permanent
888 F

CROSS SECTION RIVER: San Juan Creek
REACH: Upper RS: 2585.54*

INPUT
Description:
Station Elevation Data num= 154

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	321.29	7.05	320.41	7.77	320.26	23.87	315.03	29.47	313.11
30.52	312.76	33.91	311	34.33	310.78	40.1	308.08	64.58	296.83
67.1	295.86	75.68	292.55	77.5	291.78	79.15	291.07	79.33	291.01
83.42	289.61	85.95	288.64	91.08	286.67	95.14	285.32	95.95	285.15
105.06	283.11	112.6	282.19	113.72	282.16	119.15	281.91	125.08	281.83
130.52	281.75	144.57	281.34	145.14	281.33	154.66	281.16	160.59	280.98
168.28	280.84	215.67	280.87	230.33	280.92	241.72	280.92	264.27	281.3
269.85	281.34	315.98	282.39	318.21	282.44	328.63	282.68	333.24	282.78
375.74	283.98	384.61	284.27	384.82	284.27	406.57	285.17	429.75	286.13
433.26	286.28	443.96	286.7	456.85	287.3	467.68	287.65	475.45	288.14
492.92	289.8	494.17	289.84	504.18	290.39	508.24	291.07	513.67	291.59
514.31	291.77	518.15	293.11	523.06	294.96	529.39	296.27	532.54	296.67
538.21	297.25	541.6	297.64	545.4	297.97	563.02	299.51	593.72	301.29
599.65	301.5	602.4	301.81	604.9	301.94	621.05	302.76	624.5	303.06
624.66	303.05	632.7	302.69	643.46	302.5	644.42	302.53	655.96	302.83
656.92	302.84	659.62	302.91	664.15	302.99	664.94	302.96	665.42	302.92
668.5	302.62	673.25	302.15	674.51	301.83	675.26	301.63	676.91	301.12
677.28	300.97	677.65	300.81	682.66	298.38	685.48	296.97	689.16	294.68
691.22	293.15	691.64	292.83	692.24	292.4	694.67	290.31	696.01	289.25
697.6	288.43	697.71	288.38	700.1	287.95	702.26	287.8	714.88	286.9
733.43	287.02	734.24	287.04	735.97	287.08	740.26	287.22	741.95	287.34
743.2	287.57	744.9	287.89	745.83	288.11	751.23	289.41	752.01	289.99
755.55	292.97	759.51	296.64	762.74	298.77	767.8	302.1	770.58	303.72
773.6	305.67	775.4	306.75	777.36	308.11	782.66	310.48	782.94	310.62
782.98	310.63	797.86	311.56	799.51	311.64	801.64	311.74	808.6	311.74
812.25	311.74	815.54	311.68	830.22	311.48	835.57	311.37	835.76	311.37
870.09	311.54	890.1	311.65	893.71	311.67	897.51	311.8	897.85	311.81
898.79	311.81	910.46	311.96	916.13	311.98	923.25	312.5	924.08	312.53
930.27	312.68	934.61	312.94	938.8	313.23	940.67	313.42	948.05	314.31
955.26	315.54	959.61	316.63	961.25	317.18	962.86	317.73	967.69	319.86
975.48	323.03	976.77	323.25	978.04	323.43	980.77	323.79		

Manning's n Values num= 14

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	79.33	.045	85.95	.05	406.57	.04	429.75	.035
545.4	.045	604.9	.04	694.67	.04	733.43	.05	743.2	.04
752.01	.02	797.86	.02	830.22	.04	890.1	.05		

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
694.67 752.01 29.22 41.66 51.58 .1 .3
Ineffective Flow num= 1
Sta L Sta R Elev Permanent

INPUT
Description:
Station Elevation Data num= 154

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	321.29	7.24	320.43	7.99	320.32	24.53	315.35	30.28	313.5
31.37	313.15	34.85	311.26	35.28	311.03	41.21	308.16	66.36	296.11
68.96	295.1	77.77	291.66	79.64	290.91	81.34	290.21	81.53	290.15
85.72	288.87	88.33	287.94	93.6	286.07	97.77	284.69	98.6	284.54
107.97	282.73	115.71	282.19	116.87	282.17	122.45	281.9	128.54	281.84
134.13	281.78	148.56	281.39	149.15	281.38	158.94	281.16	165.03	280.99
172.93	280.82	221.63	280.87	236.7	280.93	248.4	280.96	271.58	281.2
277.31	281.23	324.72	282.4	327	282.45	337.71	282.69	342.45	282.8
386.12	283.91	395.24	284.16	395.46	284.16	417.81	285.04	441.63	285.97
445.23	286.11	456.23	286.53	469.48	287.07	480.61	287.35	488.6	287.67
506.54	289.08	507.83	289.09	518.12	289.25	522.29	289.87	527.87	290.23
528.52	290.42	532.48	291.9	537.52	293.85	544.02	295.03	547.26	295.49
553.09	296.15	556.57	296.55	560.47	296.89	578.58	298.46	610.13	300.74
616.22	301.01	619.05	301.41	621.62	301.57	638.22	302.63	641.77	303.02
641.93	303.01	650.19	302.57	661.25	302.36	662.23	302.39	674.1	302.8
675.08	302.83	677.85	302.93	682.51	303.07	683.32	303.04	683.82	302.99

686.98	302.64	691.86	302.1	693.15	301.71	693.92	301.47	695.62	300.91
696.01	300.76	696.39	300.62	701.53	298.16	704.43	296.72	708.21	294.62
710.33	293.14	710.76	292.82	711.37	292.38	713.88	290.13	715.16	289.25
716.7	288.42	716.8	288.37	719.1	288.04	721.18	287.85	733.33	286.77
753.43	286.9	754.31	286.92	756.18	286.94	760.84	287.06	762.66	287.14
764.02	287.38	765.87	287.71	766.88	287.91	772.73	289.12	773.58	289.79
776.65	292.4	780.1	295.51	782.91	297.61	787.31	300.9	789.73	302.6
792.36	304.54	793.93	305.65	795.63	307.11	800.24	309.38	800.49	309.52
800.52	309.52	816.55	310.6	818.34	310.7	820.63	310.84	828.13	310.87
832.06	310.88	835.6	310.82	851.42	310.59	857.19	310.46	857.39	310.46
894.37	310.08	915.93	309.86	919.81	309.82	923.92	309.83	924.28	309.84
925.3	309.83	937.87	309.84	943.98	309.79	951.65	310.34	952.54	310.35
959.2	310.46	963.88	310.72	968.39	310.99	970.42	311.18	978.36	312.02
986.13	313.29	990.81	314.48	992.58	315.11	994.31	315.72	999.52	318.19
1007.92	321.83	1009.3	322.05	1010.68	322.25	1013.61	322.67		

Manning's n Values num= 16

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	81.53	.047	88.33	.05	417.81	.038	441.63	.035
560.47	.047	621.62	.038	713.88	.045	754.31	.05	764.02	.038
773.58	.02	816.55	.02	857.19	.045	894.37	.045	915.93	.05
1013.61	.05								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
713.88	773.58	29.22	41.66	51.58	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Juan Creek
REACH: Upper RS: 2502.231

INPUT
Description:
Station Elevation Data num= 88

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	321.29	8.2	320.37	25.19	315.67	32.21	313.55	36.23	311.27
68.15	295.38	70.81	294.34	83.53	289.34	83.72	289.29	88.03	288.13
100.4	284.06	110.87	282.35	120.01	282.17	125.74	281.89	137.74	281.82
177.58	280.8	227.59	280.87	284.77	281.12	333.45	282.4	405.87	284.06
406.1	284.06	429.05	284.9	482.11	286.85	501.74	287.2	520.17	288.37
532.06	288.1	536.34	288.68	542.07	288.88	542.74	289.08	551.98	292.74
561.98	294.31	571.54	295.47	575.55	295.81	626.54	300.19	632.8	300.53
635.7	301.01	638.34	301.21	655.39	302.5	659.03	302.97	667.68	302.45
679.04	302.21	700.87	303.14	701.7	303.11	702.21	303.06	710.47	302.05
711.8	301.59	714.73	300.56	715.12	300.42	720.4	297.93	727.26	294.56
729.44	293.12	730.51	292.35	733.08	289.94	735.89	288.36	740.1	287.91
751.77	286.63	774.38	286.8	776.4	286.81	783.38	286.94	784.84	287.18
787.92	287.7	794.23	288.83	795.14	289.58	806.82	299.69	812.45	304.56
813.9	306.1	817.82	308.28	818.03	308.41	818.07	308.42	837.16	309.77
839.62	309.94	851.87	310.03	872.62	309.7	879.02	309.55	950.32	307.87
951.8	307.84	965.27	307.72	971.82	307.59	980.04	308.17	988.14	308.24
997.99	308.75	1008.67	309.73	1017	311.03	1022.02	312.33	1025.77	313.72
1031.35	316.52	1040.35	320.62	1046.45	321.55				

Manning's n Values num= 9

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	83.72	.05	429.05	.035	575.55	.05	638.34	.035
774.38	.05	784.84	.035	837.16	.02	879.02	.05		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
733.08	795.14	45.42	45.32	47.38	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Juan Creek
REACH: Upper RS: 2456.91*

INPUT
Description:
Station Elevation Data num= 129

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	321.37	1.88	321.16	4.37	320.9	12.99	319.99	23.36	317.16
27.09	316.11	29.78	315.17	36.71	312.6	40.68	310.24	45.09	307.88
52.95	303.61	55.93	302	66.13	297.12	70.89	294.97	72.23	294.35
74.86	293.38	87.43	288.68	87.61	288.63	91.76	287.51	91.87	287.49
98.35	285.53	103.93	283.84	104.1	283.79	114.44	282.16	122.62	281.99
124.87	281.88	127.74	281.75	138.47	281.66	161.06	281.08	166.63	280.92
174.1	280.75	217.3	280.82	266.68	281.05	308.73	282.13	376.84	283.66
377.05	283.66	398.64	284.4	442.86	286.03	459.21	286.32	473.49	286.91
488.05	287.55	510.5	287.97	534.44	288.16	588.85	288.39	617.15	288.5
651.97	288.28	666.29	287.19	675.44	286.79	689.48	286.39	695.36	286.21
708	285.77	719.08	285.84	729.22	285.91	731.88	285.93	741.07	286.11
742.99	286.32	747.05	286.78	755.35	287.79	756.55	288.42	759.34	288.4
764.42	288.41	776.57	288.43	776.7	288.48	776.71	288.48	776.76	288.51
780.06	289.92	784.98	292.04	798.27	297.87	798.72	298.07	804.59	300.62
805.14	300.89	805.73	301.18	806.32	301.45	808.73	302.52	811.42	303.96
811.79	304.08	815.19	305.12	818.7	306.09	818.89	306.14	819.09	306.2
819.17	306.21	828.23	306.74	831.08	307.11	833.05	307.38	834.83	307.64
836.41	307.87	838.19	307.99	843.96	308.45	845.59	308.73	847.37	309.04
849.86	309.28	851.89	309.55	853.19	309.68	854.63	309.81	857.02	309.9
861.91	309.84	868.91	309.87	885.77	309.59	889.04	309.54	895.26	309.4
929.69	308.62	964.46	307.82	965.89	307.8	966.3	307.79	978.97	307.66
985.32	307.54	993.3	308	1001.16	308.04	1010.72	308.44	1015.89	308.95
1020.63	309.43	1020.91	309.45	1024.33	309.99	1028.85	310.88	1031.27	311.57
1033.64	312.25	1037.21	313.63	1042.54	316.28	1049.27	319.38	1051.12	320.14
1056.93	321.02	1058.27	321.08	1060.29	321.16	1061.82	321.13	1064.42	321.02

1064.48	321.03	1064.51	321.03	1068.62	321.18	1078.96	321.55

Manning's n Values num= 16

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	36.71	.041	74.86	.053	217.3	.064	376.84	.038
534.44	.05	588.85	.038	666.29	.047	741.07	.035	756.55	.025
819.17	.05	861.91	.047	964.46	.032	978.97	.025	1020.63	.053
1051.12	.067								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
651.97	756.55	45.42	45.32	47.38	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Juan Creek
REACH: Upper RS: 2411.59*

INPUT
Description:
Station Elevation Data num= 127

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	321.45	2.58	321.16	5.98	320.81	17.77	319.61	28.02	316.86
31.71	315.8	34.36	314.67	41.22	311.65	45.14	309.21	49.49	306.71
57.26	302.14	60.2	300.41	70.28	295.79	74.99	293.89	76.3	293.33
78.9	292.41	91.32	288.02	91.51	287.97	95.61	286.87	95.71	286.84
102.11	285.09	107.63	283.57	107.79	283.53	118.01	281.96	125.22	281.81
127.21	281.72	129.74	281.6	139.21	281.51	159.12	280.98	164.03	280.83
170.63	280.7	207	280.78	248.59	280.97	284	281.85	347.81	283.25
348.01	283.25	368.23	283.9	403.6	285.2	416.69	285.44	428.98	286.22
436.9	286.04	439.76	286.42	443.58	286.56	570.92	287.26	596.69	286.01
610.78	285.67	633.83	285.43	643.48	285.29	664.23	284.91	674.59	284.97
684.06	285.01	687.36	285.06	698.76	285.28	701.14	285.46	706.17	285.87
716.47	286.74	717.96	287.26	723.54	287.21	733.7	287.23	758	287.28
758.19	287.32	758.21	287.32	758.28	287.34	763.1	288.64	770.29	290.58
789.72	296.05	790.38	296.24	798.96	298.61	799.75	298.89	800.62	299.2
801.49	299.45	805	300.48	808.94	301.83	809.48	301.95	814.45	303.02
819.58	303.89	819.87	303.94	820.15	304	820.26	304.01	833.52	304.71
837.68	305.35	840.56	305.81	843.15	306.25	845.47	306.65	848.06	306.84
856.5	307.54	858.88	308.03	861.49	308.6	865.13	308.96	868.1	309.43
869.99	309.65	872.1	309.85	874.41	309.87	879.16	309.7	885.94	309.7
902.3	309.43	905.47	309.38	911.49	309.25	944.88	308.52	978.59	307.78
979.98	307.75	980.38	307.75	992.66	307.61	998.82	307.49	1006.56	307.83
1014.18	307.84	1023.45	308.13	1028.37	308.66	1032.88	309.15	1033.14	309.18
1036.4	309.69	1040.7	310.73	1043	311.45	1045.26	312.17	1048.66	313.53
1053.72	316.05	1060.13	319.02	1061.89	319.67	1067.42	320.5	1070.09	320.61
1074.13	320.77	1077.2	320.71	1082.38	320.5	1082.52	320.51	1082.57	320.51
1090.78	320.81	1111.48	321.56						

Manning's n Values num= 13

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	31.71	.047	70.28	.057	207	.058	347.81	.04
570.92	.045	687.36	.035	717.96	.03	798.96	.05	845.47	.045
978.59	.03	1040.7	.057	1077.2	.063				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
570.92	717.96	45.42	45.32	47.38	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Juan Creek
REACH: Upper RS: 2366.27*

INPUT
Description:
Station Elevation Data num= 128

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	321.53	3.27	321.16	7.59	320.73	22.56	319.23	32.68	316.55
36.33	315.49	38.95	314.18	45.72	310.71	49.59	308.19	53.89	305.55
61.57	300.66	64.47	298.82	74.43	294.46	79.08	292.81	80.38	292.3
82.95	291.45	95.22	287.36	95.4	287.31	99.45	286.22	99.56	286.2
105.88	284.65	111.33	283.3	111.49	283.26	121.59	281.77	127.83	281.63
527.09	284.84	546.12	284.55	578.18	284.46	591.6	284.37	620.47	284.05
630.09	284.09	638.91	284.12	642.84	284.18	656.45	284.45	659.29	284.61
665.3	284.95	677.6	285.7	679.37	286.1	687.74	286.03	702.98	286.06
739.43	286.12	739.68	286.16	739.7	286.16	739.8	286.18	746.14	287.36
755.6	289.13	781.17	294.24	782.04	294.41	793.33	296.6	794.37	296.89
795.52	297.22	796.66	297.46	801.28	298.45	806.46	299.69	807.17	299.82
813.71	300.91	820.47	301.7	820.84	301.74	821.22	301.79	821.36	301.8
838.8	302.69	844.28	303.58	848.06	304.23	851.48	304.87	854.53	305.44
857.94	305.69	869.04	306.63	872.18	307.34	875.61	308.15	880.4	308.65
884.3	309.31	886.79	309.62	889.56	309.89	891.81	309.83	896.41	309.56
902.98	309.54	918.82	309.27	921.89	309.22	927.73	309.1	960.07	308.42
992.73	307.73	994.08	307.71	994.46	307.7	1006.36	307.55	1012.33	307.44
1019.82	307.67	1027.21	307.64	1036.19	307.83	1040.85	308.37	1045.13	308.87
1045.38	308.9	1048.47	309.39	1052.55	310.57	1054.73	311.34	1056.87	312.09
1060.1	313.44	1064.91	315.81	1070.99	318.65	1072.65	319.19	1077.91	319.97
1081.92	320.14	1087.97	320.38	1092.57	320.28	1100.35	319.97	1100.55	319.99
1100.63	319.99	1112.95	320.44	1143.99	321.57				

Manning's n Values num= 14

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	32.68	.053	61.57	.06	157.19	.053	318.78	.043

389.33	.05	489.84	.043	642.84	.035	781.17	.05	838.8	.043
960.07	.027	992.73	.035	1060.1	.06	1112.95	.06		

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
489.84 679.37 45.42 45.32 47.38 .1 .3
Ineffective Flow num= 1
Sta L Sta R Elev Permanent
888 F

CROSS SECTION RIVER: San Juan Creek
REACH: Upper RS: 2320.95*

INPUT
Description:
Station Elevation Data num= 128

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	321.61	3.96	321.16	9.2	320.65	27.35	318.85	37.35	316.25
40.94	315.17	43.53	313.68	50.22	309.76	54.05	307.16	58.3	304.38
65.87	299.18	68.75	297.22	78.58	293.12	83.17	291.72	84.46	291.28
86.99	290.49	99.11	286.7	99.29	286.65	103.29	285.57	103.4	285.55
109.64	284.2	115.02	283.02	115.18	282.99	125.16	281.58	130.43	281.45
131.89	281.39	133.74	281.31	140.67	281.2	155.25	280.79	158.85	280.64
163.67	280.61	186.41	280.68	212.41	280.83	234.55	281.31	289.74	282.44
289.92	282.44	307.41	282.91	325.1	283.56	331.64	283.67	337.78	284.06
341.75	283.97	343.17	284.17	345.08	284.23	345.31	284.3	408.75	284.59
457.48	283.67	481.47	283.44	522.52	283.5	539.72	283.45	576.7	283.2
585.6	283.21	593.75	283.23	598.32	283.31	614.14	283.61	617.44	283.75
624.42	284.04	638.72	284.66	640.78	284.94	651.94	284.85	672.27	284.89
720.87	284.97	721.17	285	721.2	285	721.32	285.02	729.18	286.08
740.92	287.67	772.61	292.42	773.7	292.58	787.7	294.59	788.99	294.89
790.41	295.23	791.83	295.47	797.56	296.41	803.98	297.56	804.86	297.68
812.97	298.8	821.35	299.5	821.81	299.54	822.28	299.58	822.46	299.6
844.08	300.66	850.87	301.82	855.57	302.66	859.81	303.49	863.59	304.23
867.82	304.54	881.59	305.71	885.47	306.64	889.72	307.7	895.67	308.34
900.51	309.2	903.59	309.59	907.03	309.93	909.2	309.8	913.66	309.43
920.01	309.37	935.34	309.11	938.32	309.06	943.96	308.95	975.26	308.32
1006.86	307.69	1008.17	307.66	1008.54	307.66	1020.05	307.49	1025.83	307.39
1033.08	307.5	1040.23	307.44	1048.92	307.52	1053.33	308.08	1057.38	308.59
1057.62	308.63	1060.54	309.08	1064.4	310.42	1066.46	311.22	1068.49	312.01
1071.55	313.35	1076.09	315.58	1081.84	318.29	1083.42	318.72	1088.39	319.45
1093.74	319.66	1101.81	319.99	1107.94	319.86	1118.32	319.45	1118.59	319.47
1118.69	319.47	1135.12	320.07	1176.5	321.57				

Manning's n Values num= 15

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	27.35	.058	50.22	.063	125.16	.047	234.55	.045
325.1	.05	408.75	.045	593.75	.035	640.78	.04	772.61	.05
821.35	.04	975.26	.025	1006.86	.04	1081.84	.063	1135.12	.057

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
408.75 640.78 45.42 45.32 47.38 .1 .3
Ineffective Flow num= 1
Sta L Sta R Elev Permanent
888 F

CROSS SECTION RIVER: San Juan Creek
REACH: Upper RS: 2275.63*

INPUT
Description:
Station Elevation Data num= 128

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	321.69	4.66	321.16	10.81	320.56	32.13	318.47	42.01	315.94
45.56	314.86	48.12	313.18	54.72	308.81	58.5	306.13	62.7	303.21
70.18	297.71	73.02	295.63	82.73	291.79	87.27	290.64	88.54	290.25
91.04	289.52	103.01	286.04	103.18	285.99	107.14	284.93	107.24	284.91
113.41	283.76	118.72	282.75	118.88	282.73	128.73	281.38	133.04	281.27
134.23	281.22	135.74	281.17	141.4	281.04	153.32	280.7	156.25	280.55
160.2	280.56	176.12	280.64	194.33	280.75	209.82	281.03	260.71	282.04
260.87	282.04	277	282.41	285.84	282.73	289.11	282.79	292.19	282.99
294.17	282.94	294.88	283.04	295.84	283.07	295.95	283.11	327.67	283.25
387.88	282.49	416.81	282.32	466.87	282.53	487.84	282.53	532.93	282.34
541.1	282.34	548.59	282.33	553.8	282.43	571.83	282.78	575.6	282.89
583.55	283.12	599.84	283.61	602.19	283.78	616.14	283.66	641.55	283.71
702.3	283.82	702.66	283.84	702.69	283.84	702.84	283.85	712.22	284.8
726.23	286.22	764.06	290.6	765.36	290.75	782.07	292.58	783.61	292.89
785.31	293.25	786.99	293.47	793.83	294.37	801.5	295.42	802.55	295.55
812.23	296.7	822.23	297.31	822.78	297.34	823.34	297.38	823.55	297.39
849.37	298.64	857.47	300.05	863.07	301.09	868.13	302.11	872.65	303.02
877.69	303.39	894.13	304.8	898.77	305.95	903.84	307.25	910.94	308.02
916.71	309.08	920.4	309.56	924.5	309.97	926.6	309.76	930.9	309.29
937.05	309.21	951.87	308.95	954.74	308.9	960.2	308.8	990.45	308.22
1021	307.64	1022.26	307.62	1022.62	307.61	1033.75	307.44	1039.33	307.33
1046.34	307.33	1053.25	307.24	1061.65	307.21	1065.81	307.78	1069.63	308.32
1069.85	308.35	1072.61	308.78	1076.25	310.27	1078.2	311.11	1080.11	311.94
1082.99	313.26	1087.28	315.34	1092.7	317.93	1094.19	318.24	1098.88	318.92
1105.56	319.19	1115.65	319.6	1123.32	319.44	1136.28	318.92	1136.62	318.95
1136.75	318.95	1157.28	319.7	1209.02	321.57				

Manning's n Values num= 15

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	32.13	.064	103.01	.041	194.33	.047	260.71	.05
285.84	.047	327.67	.038	548.59	.035	602.19	.045	726.23	.05
801.5	.038	990.45	.022	1021	.045	1098.88	.067	1157.28	.053

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
327.67 602.19 45.42 45.32 47.38 .1 .3
Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888		F	

CROSS SECTION RIVER: San Juan Creek
REACH: Upper RS: 2230.316

INPUT
Description:
Station Elevation Data num= 77

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	321.77	5.35	321.16	12.42	320.48	36.92	318.09	46.67	315.64
50.18	314.55	67.1	302.04	74.49	296.23	77.29	294.04	86.88	290.46
91.36	289.56	110.98	284.28	117.17	283.32	122.42	282.48	132.3	281.19
136.57	281.06	151.38	280.6	153.66	280.46	156.72	280.51	185.1	280.76
246.59	281.91	318.28	281.32	352.15	281.2	411.22	281.57	435.96	281.61
489.16	281.48	496.61	281.46	503.43	281.44	563.6	282.62	580.34	282.48
610.83	282.54	683.73	282.67	684.15	282.68	684.19	282.68	684.36	282.69
695.26	283.52	711.54	284.76	757.02	288.92	776.44	290.57	778.23	290.89
780.2	291.27	782.16	291.48	800.24	293.42	811.49	294.59	823.75	295.14
854.65	296.61	864.07	298.29	870.58	299.52	876.46	300.73	881.71	301.81
887.57	302.24	906.67	303.89	912.06	305.25	917.96	306.8	926.21	307.71
932.92	308.96	937.2	309.53	941.97	310.01	948.15	309.15	968.39	308.79
1005.64	308.12	1036.7	307.57	1074.38	306.9	1078.29	307.49	1081.88	308.04
1084.68	308.48	1089.93	310.99	1103.56	317.57	1109.36	318.4	1117.38	318.72
1129.49	319.21	1138.69	319.02	1154.25	318.4	1154.66	318.43	1154.81	318.43
1179.45	319.33	1241.53	321.58						

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	12.42	.07	74.49	.035	136.57	.05	496.61	.035
695.26	.05	782.16	.035	968.39	.02	1005.64	.05	1117.38	.07
1179.45	.05								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
246.59	563.6	42.6	40.1	40.87	.1	.3

CROSS SECTION RIVER: San Juan Creek
REACH: Upper RS: 2190.21*

INPUT
Description:
Station Elevation Data num= 162

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	321.75	5.66	321.1	9.7	320.69	10.8	320.58	13.14	320.4
18.48	319.98	19.92	319.8	29.09	318.88	33.96	318.39	35.21	318.29
39.07	317.93	41.73	317.33	47.45	316.08	49.39	315.64	52.91	314.49
54.81	313.19	58.44	310.46	66.36	304.65	69.93	301.93	71.05	301.04
75.45	297.48	76.53	296.66	77.36	296.09	77.94	295.69	80.17	294.14
88.98	291.09	89.82	290.8	94.32	289.91	96.05	289.47	100.92	288.08
106.98	286.57	114.05	284.81	118.99	284.06	120.27	283.88	121.34	283.72
124.38	283.32	125.55	283.14	129.64	282.62	131.18	282.45	135.49	281.86
135.95	281.84	139.78	281.63	148.13	281.17	150.31	281.05	154.67	280.82
156.96	280.64	159.17	280.61	160.04	280.62	161.38	280.61	188.58	280.85
223.06	281.43	229.25	281.53	250.4	281.83	262.53	281.7	269.96	281.62
270.96	281.6	285.31	281.63	288.34	281.64	290.82	281.63	309.19	281.53
311.46	281.53	323.15	281.48	328.12	281.41	329.25	281.4	334.34	281.34
353.1	281.17	387.47	280.95	401.62	280.92	454.09	281.31	476.07	281.38
500.44	281.35	523.33	281.34	529.95	281.33	536	281.33	550.98	281.64
580.86	282.25	589.45	282.45	603.96	282.36	605.09	282.37	630.38	282.51
693.55	282.85	693.91	282.86	693.94	282.86	694.09	282.87	703.39	283.6
703.54	283.61	717.64	284.77	757.05	288.6	776.4	290.49	776.99	290.59
778.18	290.79	780.15	291.15	782.1	291.35	784.2	291.58	800.1	293.2
804.47	293.63	811.3	294.35	823.51	295	826.94	295.19	833.44	295.56
837.94	295.79	845.83	296.2	854.28	296.58	860.5	297.56	863.66	298.06
870.14	299.13	875.99	300.19	877.53	300.47	881.22	301.14	887.06	301.55
906.07	303.09	911.44	304.29	917.32	305.66	925.53	306.49	932.21	307.61
933.09	307.71	936.47	308.12	941.22	308.57	947.38	307.87	967.53	307.7
978.03	307.61	993.83	307.41	1003.99	307.38	1004.62	307.37	1014.65	307.26
1035.55	307.35	1036.65	307.35	1050.08	307.36	1052	307.35	1053.96	307.35
1066.35	307.3	1069.85	307.28	1071.77	307.33	1073.07	307.36	1076.96	308.01
1080.53	308.62	1083.32	309.1	1088.55	311.45	1091.06	312.59	1091.31	312.7
1091.72	312.87	1102.12	317.34	1107.9	318.14	1109.81	318.24	1110.23	318.25
1111.69	318.3	1116.42	318.46	1129.3	318.92	1135.32	318.84	1139.08	318.79

Manning's n Values num= 17

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.033	13.14	.065	39.07	.04	139.78	.053	154.67	.065
229.25	.037	334.34	.035	589.45	.048	693.55	.035	717.64	.048
804.47	.035	967.53	.033	993.83	.02	1035.55	.05	1109.81	.053
1129.3	.07	1194.97	.05						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
250.4	589.45	42.6	40.1	40.87	.1	.3

CROSS SECTION RIVER: San Juan Creek
REACH: Upper RS: 2150.11*

INPUT
Description:
Station Elevation Data num= 162

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	321.72	5.97	321.04	10.23	320.59	11.39	320.48	13.87	320.32
19.5	319.96	21.01	319.75	30.69	318.75	35.82	318.22	37.15	318.13
41.22	317.76	44.07	317.22	50.05	316.07	52.1	315.64	55.65	314.43
57.55	313.21	61.2	310.44	69.17	304.63	72.76	301.82	73.88	300.91

78.31	297.25	79.39	296.44	80.23	295.95	80.81	295.6	83.06	294.24
91.91	291.41	92.75	291.15	97.28	290.27	99.02	289.84	103.92	288.36
110.01	286.97	117.12	285.34	122.08	284.6	123.38	284.43	124.45	284.28
127.5	283.97	128.68	283.8	132.79	283.29	134.34	283.15	138.67	282.54
139.14	282.51	142.99	282.2	151.39	281.54	153.58	281.36	157.96	281.04
160.27	280.82	162.49	280.73	163.36	280.72	164.71	280.71	192.05	280.93
226.72	281.46	232.94	281.55	254.22	281.75	270.01	281.56	279.68	281.44
280.98	281.41	299.66	281.55	303.61	281.58	306.83	281.57	330.75	281.5
333.71	281.49	348.92	281.46	355.4	281.35	356.88	281.34	363.5	281.26
387.92	281.02	432.66	280.67	451.09	280.63	496.97	281.05	516.18	281.14
537.49	281.16	557.5	281.2	563.28	281.21	568.58	281.21	581.67	281.5
607.8	282.07	615.31	282.28	627.58	282.25	628.53	282.25	649.93	282.48
703.36	283.02	703.67	283.03	703.7	283.03	703.82	283.04	711.69	283.69
711.81	283.7	723.74	284.78	757.08	288.27	776.36	290.4	776.95	290.51
778.14	290.69	780.09	291.02	782.04	291.23	784.13	291.44	799.96	292.98
804.31	293.39	811.12	294.1	823.27	294.86	826.68	295.08	833.16	295.5
837.64	295.75	845.5	296.18	853.91	296.55	860.1	297.4	863.24	297.82
869.7	298.75	875.53	299.65	877.06	299.89	880.73	300.48	886.54	300.86
905.48	302.29	910.82	303.33	916.67	304.51	924.85	305.27	931.5	306.25
932.38	306.35	935.75	306.72	940.48	307.12	946.6	306.59	966.67	306.61
977.13	306.62	992.86	306.51	1002.97	306.62	1003.6	306.62	1013.58	306.57
1034.39	307.13	1035.5	307.16	1048.87	307.4	1050.78	307.43	1052.73	307.46
1065.07	307.58	1068.55	307.61	1070.46	307.74	1071.75	307.82	1075.63	308.54
1079.19	309.2	1081.96	309.72	1087.17	311.91	1089.67	312.97	1089.91	313.07
1090.32	313.22	1100.68	317.12	1106.43	317.87	1108.45	318.01	1108.91	318.01
1110.45	318.06	1115.46	318.21	1129.1	318.63	1135.49	318.58	1139.47	318.57
1156.99	318.3	1157.45	318.32	1157.62	318.32	1164.64	318.56	1185.37	319.24
1198.68	319.68	1203.6	319.79	1207.59	319.9	1215	320.16	1254.25	321.54
1254.42	321.54	1255.29	321.56						

Manning's n Values num= 17

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.031	13.87	.06	37.15	.045	142.99	.056	157.96	.06
232.94	.039	254.22	.035	615.31	.046	711.69	.035	757.08	.046
823.27	.035	977.13	.031	1002.97	.02	1034.39	.05	1129.1	.056
1139.47	.07	1198.68	.05						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
254.22	615.31	42.6	40.1	40.87	.1	.3

CROSS SECTION RIVER: San Juan Creek
REACH: Upper RS: 2110.00*

INPUT
Description:
Station Elevation Data num= 162

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	321.7	6.28	320.98	10.77	320.5	11.98	320.37	14.59	320.24
20.51	319.95	22.11	319.69	32.29	318.62	37.69	318.05	39.08	317.97
43.37	317.6	46.37	317.11	52.66	316.05	54.82	315.64	58.38	314.38
60.3	313.24	63.97	310.41	71.98	304.62	75.58	301.72	76.71	300.78
81.17	297.01	82.25	296.22	83.1	295.8	83.68	295.51	85.94	294.33
94.84	291.73	95.69	291.49	100.24	290.62	101.99	290.22	106.91	288.65
113.04	287.38	120.19	285.87	125.18	285.14	126.48	284.99	127.56	284.85
130.63	284.62	131.81	284.46	135.95	283.96	137.5	283.85	141.86	283.21
142.33	283.17	146.2	282.77	154.64	281.9	156.84	281.68	161.25	281.26
163.57	281	165.8	280.85	166.68	280.83	168.03	280.8	195.53	281.02
230.39	281.49	236.64	281.57	258.03	281.67	277.48	281.42	289.4	281.26
290.99	281.22	314.02	281.47	318.88	281.53	322.85	281.52	352.32	281.46
355.96	281.46	374.7	281.45	382.68	281.3	384.5	281.28	392.65	281.18
422.74	280.87	477.86	280.38	500.56	280.35	539.84	280.79	556.29	280.91
574.54	280.98	591.67	281.06	596.62	281.08	601.15	281.1	612.36	281.37
634.73	281.89	641.16	282.11	651.2	282.13	651.98	282.14	669.48	282.44
713.18	283.2	713.43	283.21	713.45	283.21	713.55	283.22	719.99	283.78
720.09	283.79	729.85	284.78	757.11	287.95	776.32	290.32	776.91	290.42
778.09	290.6	780.04	290.9	781.98	291.1	784.06	291.31	799.82	292.76
804.15	293.14	810.93	293.86	823.03	294.72	826.43	294.97	832.88	295.44
837.34	295.71	845.16	296.17	853.53	296.52	859.71	297.24	862.83	297.59
869.26	298.36	875.06	299.11	876.59	299.3	880.25	299.81	886.03	300.17
904.88	301.49	910.21	302.37	916.03	303.37	924.17	304.05	930.8	304.9
931.67	304.98	935.02	305.31	939.73	305.68	945.83	305.32	965.81	305.53
976.22	305.63	991.88	305.61	1001.96	305.86	1002.58	305.86	1012.52	305.88
1033.24	306.9	1034.34	306.96	1047.65	307.45	1049.55	307.5	1051.5	307.56
1063.78	307.86	1067.25	307.94	1069.15	308.15	1070.44	308.28	1074.3	309.06
1077.84	309.78	1080.6	310.34	1085.79	312.37	1088.28	313.34	1088.52	313.44
1088.93	313.57	1099.24	316.89	1104.97	317.61	1107.1	317.77	1107.58	317.77
1109.21	317.81	1114.51	317.95	1128.91	318.34	1135.65	318.32	1139.85	318.34
1158.36	318.24	1158.85	318.27	1159.03	318.27	1166.43	318.5	1188.33	319.2
1202.39	319.64	1207.59	319.72	1211.79	319.82	1219.62	320.09	1261.07	321.54
1261.25	321.54	1262.17	321.55						

Manning's n Values num= 18

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.029	14.59	.055	37.69	.05	146.2	.059	161.25	.055
236.64	.041	258.03	.035	634.73	.041	641.16	.044	757.11	.035
776.32	.044	845.16	.035	991.88	.029	1033.24	.033	1047.65	.05
1135.65	.059	1158.36	.07	1207.59	.05				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
258.03	641.16	42.6	40.1	40.87	.1	.3

CROSS SECTION RIVER: San Juan Creek
REACH: Upper RS: 2069.90*

INPUT
Description:
Station Elevation Data num= 162

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev

0	321.68	6.6	320.91	11.3	320.4	12.58	320.26	15.31	320.16
21.53	319.94	23.2	319.64	33.89	318.49	39.56	317.89	41.02	317.81
45.51	317.43	48.67	317	55.27	316.04	57.53	315.63	61.12	314.32
63.04	313.27	66.73	310.39	74.78	304.6	78.41	301.61	79.55	300.65
84.03	296.78	85.12	296	85.96	295.66	86.56	295.42	88.83	294.43
97.77	292.06	98.63	291.83	103.2	290.97	104.96	290.59	109.91	288.93
116.07	287.78	123.25	286.4	128.27	285.69	129.58	285.54	130.66	285.42
133.75	285.27	134.95	285.12	139.1	284.64	140.66	284.55	145.04	283.89
145.52	283.84	149.41	283.34	157.9	282.27	160.11	281.99	164.54	281.48
166.87	281.18	169.12	280.97	170	280.94	171.36	280.89	199	281.1
234.05	281.51	240.34	281.59	261.84	281.59	284.96	281.28	299.12	281.08
301.01	281.03	328.37	281.4	334.15	281.47	338.86	281.47	373.88	281.42
378.21	281.42	400.48	281.43	409.96	281.24	412.12	281.22	421.81	281.09
457.57	280.72	523.06	280.1	550.04	280.07	582.72	280.53	596.4	280.67
611.58	280.79	625.83	280.92	629.96	280.95	633.73	280.99	643.05	281.23
661.67	281.72	667.02	281.94	674.82	282.01	675.42	282.02	689.02	282.41
722.99	283.37	723.19	283.38	723.21	283.38	723.28	283.39	728.29	283.87
728.36	283.88	735.95	284.79	757.14	287.62	776.28	290.23	776.86	290.34
778.05	290.5	779.99	290.78	781.91	290.97	783.99	291.18	799.68	292.54
803.99	292.9	810.74	293.62	822.79	294.58	826.17	294.86	832.6	295.38
837.04	295.66	844.83	296.16	853.16	296.49	859.31	297.08	862.42	297.36
868.82	297.97	874.6	298.57	876.12	298.72	879.76	299.15	885.52	299.48
904.29	300.69	909.59	301.41	915.39	302.23	923.49	302.83	930.09	303.54
930.95	303.62	934.3	303.9	938.98	304.24	945.06	304.04	964.95	304.44
975.32	304.65	990.91	304.71	1000.94	305.11	1001.56	305.11	1011.46	305.2
1032.09	306.68	1033.18	306.76	1046.44	307.5	1048.33	307.58	1050.27	307.67
1062.5	308.13	1065.95	308.26	1067.85	308.56	1069.12	308.75	1072.97	309.58
1076.49	310.36	1079.25	310.96	1084.41	312.82	1086.89	313.72	1087.13	313.81
1087.53	313.92	1097.8	316.67	1103.5	317.35	1105.75	317.54	1106.26	317.53
1107.97	317.57	1113.55	317.7	1128.72	318.05	1135.82	318.06	1140.24	318.11
1159.73	318.19	1160.24	318.21	1160.43	318.22	1168.23	318.45	1191.3	319.15
1206.1	319.6	1211.57	319.66	1216	319.75	1224.24	320.03	1267.89	321.53
1268.08	321.53	1269.06	321.55						

Manning's n Values num= 19

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.026	12.58	.029	15.31	.05	39.56	.055	145.04	.061
164.54	.05	240.34	.044	261.84	.035	661.67	.044	667.02	.041
757.14	.035	783.99	.041	862.42	.035	1000.94	.026	1032.09	.02
1046.44	.037	1062.5	.05	1159.73	.07	1216	.05		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
261.84	667.02	42.6	40.1	40.87	.1	.3

CROSS SECTION RIVER: San Juan Creek
REACH: Upper RS: 2029.80*

INPUT
Description:
Station Elevation Data num= 162

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	321.66	6.91	320.85	11.83	320.3	13.17	320.15	16.03	320.08
22.55	319.93	24.3	319.58	35.49	318.36	41.43	317.72	42.96	317.65
47.66	317.27	50.97	316.88	57.88	316.02	60.25	315.63	63.85	314.26
65.79	313.3	69.5	310.36	77.59	304.59	81.24	301.5	82.38	300.52
86.88	296.54	87.98	295.78	88.83	295.52	89.43	295.34	91.71	294.53
100.71	292.38	101.56	292.18	106.16	291.32	107.93	290.96	112.91	289.22
119.1	288.18	126.32	286.93	131.37	286.23	132.68	286.1	133.77	285.99
136.88	285.93	138.08	285.78	142.25	285.31	143.83	285.25	148.23	284.56
148.7	284.5	152.62	283.91	161.15	282.64	163.38	282.3	167.83	281.7
170.17	281.36	172.43	281.08	173.32	281.05	174.69	280.98	202.48	281.19
237.71	281.54	244.04	281.6	265.65	281.51	292.43	281.14	308.84	280.9
311.03	280.84	342.72	281.32	349.41	281.42	354.88	281.42	395.44	281.38
400.45	281.39	426.26	281.42	437.24	281.19	439.74	281.16	450.97	281.01
492.39	280.58	568.26	279.82	599.51	279.79	625.59	280.27	636.51	280.44
648.63	280.6	660	280.78	663.29	280.83	666.3	280.88	673.75	281.1
688.6	281.54	692.87	281.77	698.44	281.9	698.87	281.91	708.57	282.38
732.81	283.55	732.95	283.56	732.96	283.56	733.02	283.57	736.58	283.97
736.64	283.97	742.05	284.8	757.17	287.3	776.24	290.15	776.82	290.25
778	290.4	779.94	290.66	781.85	290.85	783.92	291.05	799.55	292.31
803.84	292.66	810.55	293.37	822.55	294.44	825.92	294.74	832.31	295.32
836.73	295.62	844.49	296.15	852.79	296.46	858.91	296.91	862.01	297.13
868.38	297.58	874.13	298.03	875.64	298.14	879.27	298.48	885	299.79
904.29	300.69	909.59	301.41	915.39	302.23	923.49	302.83	930.09	303.54
930.95	303.62	934.3	303.9	938.98	304.24	945.06	304.04	964.95	304.44
975.32	304.65	990.91	304.71	1000.94	305.11	1001.56	305.11	1011.46	305.2
1032.09	306.68	1033.18	306.76	1046.44	307.5	1048.33	307.58	1050.27	307.67
1062.5	308.13	1065.95	308.26	1067.85	308.56	1069.12	308.75	1072.97	309.58
1076.49	310.36	1079.25	310.96	1084.41	312.82	1086.89	313.72	1087.13	313.81
1087.53	313.92	1097.8	316.67	1103.5	317.35	1105.75	317.54	1106.26	317.53
1107.97	317.57	1113.55	317.7	1128.72	318.05	1135.82	318.06	1140.24	318.11
1159.73	318.19	1160.24	318.21	1160.43	318.22	1168.23	318.45	1191.3	319.15
1206.1	319.6	1211.57	319.66	1216	319.75	1224.24	320.03	1267.89	321.53
1268.08	321.53	1269.06	321.55						
1061.21	308.41	1064.65	308.59	1066.54	308.97	1067.81	309.21	1071.63	310.11
1075.15	310.93	1077.89	311.58	1083.03	313.28	1085.49	314.1	1085.74	314.18
1086.14	314.26	1096.36	316.44	1102.04	317.09	1104.4	317.31	1104.93	317.3
1106.73	317.33	1112.59	317.44	1128.52	317.76	1135.98	317.81	1140.63	317.88
1161.1	318.14	1161.64	318.16	1161.84	318.16	1170.03	318.4	1194.26	319.11
1209.8	319.56	1215.55	319.59	1220.21	319.68	1228.87	319.97	1274.71	321.53
1274.92	321.53	1275.94	321.54						

Manning's n Values num= 20

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.024	13.17	.031	16.03	.045	41.43	.06	148.23	.064
163.38	.045	244.04	.046	265.65	.035	688.6	.046	692.87	.039
779.94	.035	810.55	.039	885	.035	1030.94	.024	1045.22	.02
1061.21	.041	1075.15	.05	1161.1	.064	1170.03	.07	1228.87	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
265.65	692.87	42.6	40.1	40.87	.1	.3

CROSS SECTION RIVER: San Juan Creek
REACH: Upper RS: 1989.70*

INPUT
Description:
Station Elevation Data num= 161

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	321.63	7.22	320.79	12.37	320.2	13.77	320.04	16.76	320
23.56	319.91	25.39	319.53	37.09	318.23	43.29	317.55	44.89	317.49
49.81	317.1	53.26	316.77	60.49	316.01	62.96	315.63	66.59	314.2
68.53	313.32	72.26	310.34	80.4	304.57	84.07	301.39	85.22	300.39
89.74	296.31	90.85	295.56	91.7	295.38	92.3	295.25	94.59	294.63
103.64	292.7	104.5	292.52	109.13	291.68	110.9	291.34	115.9	289.5
122.13	288.58	129.39	287.47	134.46	286.77	135.79	286.65	136.88	286.55
140	286.58	141.21	286.44	145.41	285.98	146.99	285.95	151.41	285.24
151.89	285.17	155.82	284.49	164.41	283	166.64	282.62	171.12	281.92
173.48	281.54	175.75	281.2	176.64	281.15	178.01	281.08	205.95	281.27
241.38	281.57	247.73	281.62	269.47	281.43	299.91	281	318.56	280.72
321.05	280.65	357.08	281.24	364.68	281.36	370.89	281.36	417.01	281.35
422.7	281.35	452.03	281.4	464.52	281.13	467.36	281.1	480.12	280.92
527.21	280.43	613.45	279.53	648.98	279.5	668.46	280.01	676.62	280.21
685.67	280.41	694.17	280.64	696.63	280.7	698.88	280.76	704.44	280.96
715.54	281.36	718.73	281.6	722.06	281.78	722.31	281.79	728.12	282.35
742.62	283.73	742.71	283.74	742.75	283.74	744.88	284.06	744.91	284.07
748.15	284.81	757.2	286.97	776.2	290.06	776.78	290.17	777.96	290.3
779.88	290.53	781.79	290.72	783.85	290.92	799.41	292.09	803.68	292.41
810.37	293.13	822.31	294.3	825.66	294.63	832.03	295.26	836.43	295.58
844.16	296.14	852.42	296.43	858.51	296.75	861.6	296.89	867.94	297.2
873.67	297.49	875.17	297.56	878.78	297.81	884.49	298.1	903.1	299.09
908.35	299.49	914.1	299.94	922.14	300.39	928.67	300.83	929.53	300.89
932.84	301.09	937.49	301.35	943.51	301.48	963.23	302.26	973.51	302.67
988.96	302.9	998.91	303.6	999.52	303.61	1009.33	303.83	1029.78	306.24
1030.87	306.37	1044.01	307.59	1045.88	307.73	1047.8	307.88	1059.93	308.69
1063.35	308.91	1065.23	309.38	1066.49	309.67	1070.3	310.63	1073.8	311.51
1076.53	312.2	1081.64	313.74	1084.1	314.48	1084.34	314.55	1084.74	314.61
1094.92	316.21	1100.57	316.82	1103.05	317.07	1103.61	317.06	1105.49	317.08
1111.63	317.19	1128.33	317.47	1136.15	317.55	1141.02	317.66	1162.47	318.09
1163.04	318.11	1163.24	318.11	1171.83	318.35	1197.22	319.06	1213.51	319.52
1219.54	319.53	1224.41	319.6	1233.49	319.9	1281.54	321.52	1281.75	321.52
1282.82	321.53								

Manning's n Values num= 19

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.022	13.77	.04	43.29	.065	151.41	.067	166.64	.04
247.73	.048	269.47	.035	715.54	.048	718.73	.037	803.68	.035
832.03	.037	903.1	.035	1029.78	.022	1059.93	.02	1070.3	.046
1094.92	.05	1163.04	.067	1197.22	.07	1233.49	.05		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
269.47	718.73	42.6	40.1	40.87	.1	.3

CROSS SECTION RIVER: San Juan Creek
REACH: Upper RS: 1949.598

INPUT
Description:
Station Elevation Data num= 94

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	321.61	12.9	320.1	14.36	319.93	24.58	319.9	26.49	319.47
38.69	318.1	45.16	317.38	46.83	317.33	55.56	316.66	63.1	315.99
65.68	315.63	71.28	313.35	75.03	310.31	83.21	304.56	88.05	300.26
92.6	296.07	93.71	295.34	95.17	295.16	106.57	293.02	113.87	291.71
118.9	289.79	125.16	288.98	137.56	287.31	139.99	287.12	143.13	287.23
148.56	286.65	150.15	286.65	155.08	285.83	167.66	283.37	169.91	282.93
179.06	281.32	181.34	281.17	245.04	281.6	251.43	281.64	273.28	281.35
307.38	280.86	328.28	280.54	331.07	280.46	371.43	281.16	379.95	281.31
386.91	281.31	438.57	281.31	444.95	281.32	477.81	281.39	491.8	281.08
494.98	281.04	509.28	280.84	658.65	279.25	698.45	279.22	722.72	280.22
735.13	280.83	742.47	281.18	744.58	281.43	745.76	281.68	753.18	284.15
757.23	286.65	776.74	290.08	779.83	290.41	783.78	290.79	803.52	292.17
825.41	294.52	831.75	295.2	836.13	295.54	843.82	296.13	858.11	296.59
874.7	296.98	928.82	299.52	972.6	301.68	987.99	302	997.89	302.84
1008.27	303.14	1029.71	306.17	1042.79	307.64	1044.66	307.81	1046.57	307.99
1058.64	308.97	1062.05	309.24	1063.92	309.79	1082.71	314.86	1082.95	314.92
1083.35	314.96	1099.11	316.56	1101.7	316.84	1102.28	316.82	1104.25	316.84
1136.31	317.29	1173.63	318.3	1217.22	319.48	1223.52	319.46	1228.62	319.53
1238.11	319.84	1288.36	321.52	1288.58	321.52	1289.7	321.52		

Manning's n Values num= 12

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.02	12.9	.035	38.69	.07	167.66	.035	245.04	.05
386.91	.035	735.13	.05	825.41	.035	1044.66	.02	1083.35	.05
1173.63	.07	1238.11	.05						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
273.28	744.58	407.52	330.72	271.52	.1	.3

CROSS SECTION RIVER: San Juan Creek
REACH: Upper RS: 1618.909

INPUT
Description:
Station Elevation Data num= 86

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	321.04	.66	320.75	7.54	318.4	14.42	314.48	17.17	313.8
33.66	310.51	42.75	308.65	43.83	308.43	44.62	308.37	70.23	306.67
82.45	304.38	89.2	302.85	91.61	301.86	93.7	300.7	99.63	295.7
116.2	283.54	123.16	281.68	129.53	281.08	151.09	281.79	156.45	281.97
179.13	282.58	183.94	282.7	200.58	283.12	220.01	283.31	262.77	281.96
273.28	281.63	275.57	281.55	305.53	280.42	315.16	280.07	324.3	279.94
327.24	279.9	354.73	279.68	544.18	278.19	551.17	278.23	640.67	280.06

660.49	279.9	672.68	279.82	684.64	280.62	694.53	281.22	704.72	282.18
720.37	285.94	722.61	286.49	731.94	288.76	745.06	290.8	756.2	294.13
763.1	295.07	764.12	295.21	831.9	298.72	873.2	301.14	895.61	301.84
910.94	301.33	914.93	301.35	918.57	302.06	923.48	303.12	932.82	306.36
934.83	307.06	939.29	308.13	981.53	307.99	995.11	308.03	1001.3	308.42
1011.97	307.87	1023.33	308.01	1028.2	310.03	1030.09	310.27	1032.5	310.11
1035.41	309.26	1040.7	307.4	1051.22	307.03	1066.31	305.93	1069.53	305.75
1081.12	306.98	1089.11	306.94	1096.98	306.42	1101.88	306.77	1110.59	308.04
1114.78	309.29	1116.76	310.22	1125.51	314.3	1135.22	315.24	1137.04	315.57
1137.99	315.58	1172.94	316.44	1187.42	316.74	1199.49	316.96	1238.7	318.47
1313.83	321.49								

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	183.94	.05	262.77	.035	354.73	.05	722.61	.035
932.82	.02	1116.76	.05						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
262.77	704.72	167.05	177.35	174.2	.1	.3

CROSS SECTION RIVER: San Juan Creek
REACH: Upper RS: 1441.576

INPUT
Description:
Station Elevation Data num= 74

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	324.38	14.09	317.02	18.82	314.55	22.15	314.07	26.08	313.83
38.83	312.06	60.72	309.38	70.47	308.18	85.71	306.3	96.35	305.32
112.33	303.89	122.95	302.17	152.14	294.69	159.4	292.85	169.8	289.69
188.96	282.77	208.58	280.28	220.97	279.64	260.55	279.22	267.78	279.07
303.15	278.34	335.43	278.08	366.43	277.83	369.58	277.8	451	278.57
484.31	278.88	519.87	279.22	521.49	279.24	547.95	279.04	586.18	278.67
715.66	277.92	744.79	279.05	759.05	279.4	773.6	281.02	782.68	282.35
788.64	284.67	789.24	284.83	806.35	289.42	821.85	293.28	830.23	295.57
836.86	296.22	859.71	296.95	869.19	297.25	873.8	297.4	883.91	297.74
909.58	298.15	935.32	299.42	958.37	300.35	980.5	301.24	1000.65	301.48
1013.61	301.64	1021.12	301.75	1042.93	302.07	1074.07	302.53	1112.21	303.95
1165.45	305.73	1192.5	307.74	1198.66	308.07	1203.02	308.3	1212.14	308.55
1217.22	308.97	1218.07	309.13	1225.95	311.28	1230.74	311.09	1234.56	311.73
1238.05	313.71	1240.05	314.14	1248.32	314.49	1254.85	315.16	1268.43	315.61
1319.97	317.33	1320.58	317.35	1321.28	317.4	1409.36	321.52		

Manning's n Values num= 13

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.02	14.09	.07	70.47	.035	267.78	.05	366.43	.035
451	.05	789.24	.035	859.71	.07	873.8	.035	958.37	.07
1000.65	.035	1042.93	.02	1268.43	.05				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
208.58	759.05	289.31	303.1	313.18	.1	.3

CROSS SECTION RIVER: San Juan Creek
REACH: Upper RS: 1138.496

INPUT
Description:
Station Elevation Data num= 70

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	315.33	10.7	311.25	16.26	309.51	17.9	308.83	21.15	308.33
30.93	307.42	87.15	301.39	108.75	295.64	109.65	295.42	112.12	294.78
122	292.59	155.89	285.07	164.62	282.84	199.16	280.1	209.49	279.11
218.31	278.82	258.02	278.08	260.93	278.01	262.72	277.89	287.39	277.92
291.6	277.69	294.16	278.34	298.53	279.43	303.94	279.04	306.32	279.04
309.83	277.96	313.34	277.55	318.51	275.63	321.79	275.54	328.75	275.35
338.89	275.08	340.55	275.03	347.94	274.96	352.45	275.05	397.67	275.9
447.34	275.79	513.26	275.65	515.12	275.67	575.5	276.36	637.12	278.02
648.17	278.32	671.23	281.8	683.2	282.15	699.03	282.34	719.58	287.86
722.38	288.64	735.04	289.98	736.17	290.01	771.06	293.58	786.71	295.01
827.11	294.99	959.44	297.53	968.63	298.02	973.82	298.43	988.93	298.9
1072.02	301.42	1083.29	301.85	1084.42	301.92	1125.12	303.91	1153.86	305.32
1161.04	305.7	1173.69	305.45	1210.43	306.86	1218.32	307.86	1246.59	308.56
1271.54	308.87	1286.24	310.02	1347.95	314.53	1354.61	314.8	1355.57	314.88

637.12	.035	1125.12	.02

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
258.02	637.12	203.2	206.75	210.65	.1	.3

CROSS SECTION RIVER: San Juan Creek
REACH: Upper RS: 931.764

INPUT
Description:
Station Elevation Data num= 92

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	315.72	3.25	314.42	3.45	314.34	3.61	314.3	21.66	308.49
51.68	304.92	59.84	304	70.38	303.05	82.94	302.07	108.63	300.08
150.29	297.08	163.74	295.71	169.96	294.81	182.38	291.32	207.66	283.89
228.48	277.77	233.54	276.27	250.38	274.17	260.84	273.48	271.47	273.74
307.2	274.61	318.84	276.46	327.01	278.64	329.05	279.19	333.58	280.77
339.37	282.2	354.06	289.11	364.1	293.84	365.17	294.26	369.87	295.35
371.37	295.65	372.44	295.74	376.99	295.26	381.35	294.79	385.62	292.97
390.14	291.03	390.93	290.66	402.83	284.76	403.02	284.66	413.5	280.5
416.98	279.14	423.22	276.95	425.6	276.6	432.04	275.44	437.35	274.42

438.89	273.95	440.02	273.85	446.67	273.63	447.9	273.59	497.62	274.48
545.01	275.32	561.99	275.62	579.4	275.84	588.47	276.32	616.54	277.61
663.49	279.83	687.83	280.98	700.99	281.59	724.88	285.89	742.25	288.71
749	289.01	757.94	289.86	784.18	290.14	792.09	290.96	816.83	293.91
832.46	295.19	845.36	295.19	872.75	295.29	924.25	295.69	936.52	296.37
959.69	299.84	965.23	300.67	969.39	301.61	974.19	302	983.39	301.83
984.6	301.81	1010.23	301.19	1030.78	301.64	1039.47	301.83	1064.33	302.59
1073.6	303.26	1090.41	306.58	1099.3	308.35	1102.28	308.71	1108.38	308.27
1118.28	307.23	1123.58	306.24	1150.03	306.8	1165.65	307.76	1171.1	309.01
1178.46	313.24	1184.81	317.1						

Manning's n Values num= 9

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.07	82.94	.035	402.83	.05	497.62	.035	545.01	.05
663.49	.035	959.69	.07	983.39	.035	1030.78	.02		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
228.48	616.54	224.3	216.45	217.05	.1	.3

CROSS SECTION RIVER: San Juan Creek
REACH: Upper RS: 715.294

INPUT
Description:
Station Elevation Data num= 81

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	316.96	4.59	314.95	21.77	310.7	24.89	310.03	34.08	310.12
74.77	309.86	93.08	308.98	99.18	308.9	111.54	308.49	134.77	308.47
135.98	308.32	139.5	307.29	147.74	304.9	153	303.65	177.28	299.57
196.44	296.16	209.74	294.66	228.76	293.93	237.24	293.07	271.71	289.46
272.08	289.35	275.98	288.16	282.42	284.17	288.75	280.06	293.25	277.33
295.71	276.01	297.9	275.53	311.69	275.75	325.21	275.69	332.85	275.82
342.54	275.79	397.22	275.65	399.82	275.62	401.04	275.61	446.39	275.6
505.43	275.59	551.53	275.71	579.24	277.22	629.46	279.69	679	282.27
688.77	282.79	693.92	283.31	700.62	283.95	725.2	286.25	741.76	287.88
742.99	287.94	774.99	289.12	805.46	290.25	875.04	294.09	879.3	294.35
887.06	294.29	914.48	294.85	931.38	295.2	936.61	295.15	965.3	295.61
971.66	295.87	990.34	297.58	1020.18	301	1025.31	301.8	1053.01	302.54
1089.37	305.23	1115.59	306.38	1155.31	307.21	1202.45	308.13	1245.71	307.61
1274.17	307.01	1286.48	307.02	1333.03	307.06	1377.59	306.45	1406.35	307.69
1446.86	309.32	1455.97	309.77	1457.11	309.9	1459.96	310.08	1491.11	312.28
1501.71	312.7	1523.68	313.59	1529.1	314.07	1533.48	314.36	1542.72	314.67
1549.97	315.46								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.07	139.5	.035	774.99	.05	914.48	.035	1286.48	.02

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
293.25	579.24	195.9	200.05	191.25	.1	.3

CROSS SECTION RIVER: San Juan Creek
REACH: Upper RS: 515.223

INPUT
Description:
Station Elevation Data num= 71

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	308.61	1.86	308.42	7.51	305.55	11.43	303.33	12.51	303.14
21.17	300.52	25.5	300.34	94.16	297.4	121.97	296.27	125.13	295.93
128.55	295.33	131.34	293.6	135.27	291.87	141.81	288.38	147.46	287.95
178.3	289.63	180.65	289.73	181.38	289.76	182.38	289.63	193.41	288.2
205.54	278.48	207.86	276.8	208.82	276.11	212.72	275.2	216.78	274.86
221.71	274.45	239.6	274.21	268.91	275.74	290.75	275.92	318.8	276.15
382.56	276.66	394.57	276.76	401.96	276.57	414.44	277.03	443.9	279.23
471.83	281.04	494.28	282.49	505.19	284.43	535.57	288.71	612.06	293.45
630.22	294.27	636.83	294.8	675.79	296.3	692.85	296.53	701.04	297.66
730.55	300.42	735.65	301.14	738.66	302.21	739.62	302.36	754.33	304.67
775.5	307.29	780.69	308.39	799.98	308.86	811.2	309.06	843.22	310.05
854.39	310.26	867.43	310.5	873.3	310.84	882.91	310.61	962.37	307.94
962.46	307.94	962.55	307.93	962.96	307.92	1023.28	304.39	1083.92	303.92
1085.49	303.91	1142.91	303.12	1229.01	304.73	1243.34	305.16	1252.01	305.87
1275.2	308.26								

Manning's n Values num= 9

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.07	25.5	.035	216.78	.05	318.8	.035	382.56	.05
471.83	.035	739.62	.05	854.39	.035	1083.92	.02		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
207.86	382.56	204.8	207.7	197.7	.1	.3

CROSS SECTION RIVER: San Juan Creek
REACH: Upper RS: 307.535

INPUT
Description:
Station Elevation Data num= 63

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	301.23	.4	300.92	6.76	298.99	7.8	298.81	30.4	294.27
35.42	294.17	57.94	293.8	62.96	293.82	123.1	296.69	126.05	296.94
129.2	296.94	154.2	295.64	156.67	295.46	157.94	294.76	163.27	290.83
175.14	282.24	190.07	277.01	190.43	276.89	190.81	276.74	191.13	276.69
200.87	275.64	202.13	275.5	207.45	274.93	221.92	275.55	288.75	274.43
291.26	274.39	299.97	274.24	305.32	274.05	323.18	274.04	364.03	273.76
378.63	274.33	401.74	275.15	429.12	276.12	475.21	279.53	502.18	281.64
512.3	282.44	571.65	293.06	580.27	294.69	590.6	296.96	602.61	298.95
621.05	302	624.86	302.69	640.92	305.26	662.59	308.31	675.2	308.36

695.63	308.2	703.05	307.04	714.63	305.24	729.6	302.07	736.12	301.46
753.26	301.08	770.57	300.7	810.78	300.4	910.67	300.61	980.25	300.98
1067.12	301.4	1122.81	301.67	1158.28	301.89	1166.38	302.14	1210.81	304.47
1211.71	304.55	1214.72	304.86	1255.44	308.62				

Manning's n Values num= 9

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	200.87	.05	288.75	.035	401.74	.05	502.18	.035
602.61	.05	703.05	.035	753.26	.05	1067.12	.02		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
221.92	401.74	205.4	195.45	188.3	.1	.3

CROSS SECTION RIVER: San Juan Creek
REACH: Upper RS: 112.108

INPUT
Description:
Station Elevation Data num= 61

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	310.44	5.01	306.36	15.74	299.18	21.57	296.52	24.15	295.85
41.27	293.91	47.61	293.42	51.87	292.92	81.25	290.37	81.37	290.34
81.64	290.23	89.03	287.58	93.4	284.32	103.59	277.32	108.59	275.34
117.11	274.59	128.15	273.94	132.75	274.14	136.48	274.3	144.9	274.67
188.79	275.65	220.69	275.66	223.32	275.51	254.34	273.76	266.22	273.09
275.33	272.7	304.53	272.37	336.46	271.93	349.86	272.54	392.03	274.14
409.43	274.84	433.42	275.79	438.04	275.81	462.01	280.55	470.36	282.04
483.87	283.82	522.85	288.95	533.5	290.6	540.97	291.75	597.04	301.48
612.31	304.63	629.61	308.29	636.48	308.14	645.16	307.04	658.22	305.39
664.69	304.37	672.72	303.05	681.09	302.66	710.69	300.89	726.06	300.37
732.01	300.39	771.69	300.57	781.63	300.61	966.04	301.54	1029.77	301.82
1081	302.05	1132.6	302.92	1166.38	303.63	1223.5	306.58	1225	306.66
1240.69	308.03								

Manning's n Values num= 10

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	136.48	.05	223.32	.035	409.43	.05	483.87	.035
533.5	.05	645.16	.035	732.01	.05	781.63	.035	1029.77	.02

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
254.34	392.03	35.14	112.11	87.83	.1	.3

Profile Output Table - Standard Table 1

Reach	River Sta	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
		(cfs)	(ft)	(ft)	(ft)	(ft)	(ft/ft)	(ft/s)	(sq ft)	(ft)	
Upper	4656.846	30694.00	307.52	329.17	316.14	329.56	0.000413	5.25	6933.26	49[illegible] 48	0.20
Upper	4455.918	30694.00	307.74	329.05		329.46	0.000517	5.74	6352.06	522.93	0.22
Upper	4237.798	30694.00	306.67	328.70		329.33	0.000576	7.71	5371.19	51[illegible] 95	0.30
Upper	4029.826	30694.00	305.97	328.28		329.15	0.001002	10.26	4700.63	52[illegible] 59	0.39
Upper	3777.506	30694.00	301.00	327.33		328.79	0.001473	13.07	3895.21	475.06	0.46
Upper	3688.827	30694.00	301.39	326.88		328.61	0.001838	15.15	3765.55	49[illegible] 09	0.54
Upper	3444.123	30694.00	295.17	326.75		328.13	0.001317	13.40	4243.92	54[illegible] .73	0.44
Upper	3240.694	30694.00	293.56	320.77		322.10	0.001242	12.91	3942.10	482.62	0.45
Upper	3070.453	30694.00	288.83	312.36	312.36	315.61	0.004217	19.81	2555.30	32[illegible] 00	0.76
Upper	2920.457	30694.00	286.89	303.52	303.52	304.08	0.000858	7.54	5216.28	464.59	0.34
Upper	2752.174	30694.00	287.44	303.16	302.97	303.37	0.000293	4.36	8360.74	56[illegible] 41	0.20
Upper	2502.231	30694.00	286.63	303.15	303.15	303.27	0.000150	3.02	11188.45	75 27	0.13
Upper	2230.316	30694.00	281.20	290.45		290.95	0.001661	[illegible]	[illegible]	[illegible]	
[illegible]							[illegible]	[illegible]	[illegible]	[illegible]	0.30
Upper	1441.576	30694.00	277.80	289.65		289.99	0.000841	4.75	6597.41	637.33	0.25
Upper	1138.496	30694.00	274.96	289.43		289.77	0.000631	4.82	6601.86	59 56	0.23
Upper	931.764	30694.00	273.48	289.12		289.60	0.000886	5.82	5635.26	520.25	0.29
Upper	715.294	30694.00	275.53	288.73		289.39	0.000858	6.86	4970.41	490.44	0.34
Upper	515.223	30694.00	274.21	287.36		288.97	0.004018	10.96	3114.34	33 49	0.57
Upper	307.535	30694.00	273.76	287.11		288.25	0.002066	9.39	3799.18	370.01	0.47
Upper	112.108	30694.00	271.93	287.13	280.81	287.85	0.001002	7.94	4788.59	41[illegible] 38	0.37

HEC-RAS Version 3.0.1 Mar 2001
U.S. Army Corp of Engineers
Hydrologic Engineering Center
609 Second Street, Suite D
Davis, California 95616-4687
(916) 756-1104

```
X     X  XXXXXX    XXXX        XXXX       XX      XXXX
X     X  X        X    X       X   X     X  X    X
X     X  X        X            X   X    X    X   X
XXXXXXX  XXXX     X       XXX  XXXX     XXXXXX    XXXX
X     X  X        X            X  X     X    X        X
X     X  X        X    X       X   X    X    X        X
X     X  XXXXXX    XXXX        X    X   X    X   XXXXX
```

PROJECT DATA
Project Title: Project Model B
Project File : PMB.prj
Run Date and Time: 2/20/03 10:45:13 AM

Project in English units

Project Description:
FEC Alternative - San Juan Creek Crossing

PLAN DATA

Plan Title: Existing Flow/Proposed-Ultimate Geometry
Plan File : p:\2PDA0104\Hydr\LHS\Modeling\Model B\HecRas B\PMB.p03

Geometry Title: Proposed Conditions - Ultimate
Geometry File : p:\2PDA0104\Hydr\LHS\Modeling\Model B\HecRas B\PMB.g03

Flow Title : Existing Conditions
Flow File : p:\2PDA0104\Hydr\LHS\Modeling\Model B\HecRas B\PMB.f01

Plan Summary Information:
Number of: Cross Sections = 57 Mulitple Openings = 0
Culverts = 0 Inline Weirs = 0
Bridges = 2

Computational Information
Water surface calculation tolerance = 0.01
Critical depth calculaton tolerance = 0.01
Maximum number of interations = 20
Maximum difference tolerance = 0.3
Flow tolerance factor = 0.001

Computation Options
Critical depth computed only where necessary
Conveyance Calculation Method: At breaks in n values only
Friction Slope Method: Average Conveyance
Computational Flow Regime: Mixed Flow

FLOW DATA

Flow Title: Existing Conditions
Flow File : p:\2PDA0104\Hydr\LHS\Modeling\Model B\HecRas B\PMB.f01

Flow Data (cfs)

River	Reach	RS	Q2	Q5	Q10	Q25	Q50	Q100	Q100HC
San Juan Creek	Upper	4656.846	364	2357	4842	12433	19411	30694	76640

Boundary Conditions

River	Reach	Profile	Upstream	Downstream
San Juan Creek	Upper	Q2	Normal S = .001	Normal S = .001
San Juan Creek	Upper	Q5	Normal S = .001	Normal S = .001
San Juan Creek	Upper	Q10	Normal S = .001	Normal S = .001
San Juan Creek	Upper	Q25	Normal S = .001	Normal S = .001
San Juan Creek	Upper	Q50	Normal S = .001	Normal S = .001
San Juan Creek	Upper	Q100	Normal S = .001	Normal S = .001
San Juan Creek	Upper	Q100HC	Normal S = .001	Normal S = .001

GEOMETRY DATA

Geometry Title: Proposed Conditions - Ultimate
Geometry File : p:\2PDA0104\Hydr\LHS\Modeling\Model B\HecRas B\PMB.g03

CROSS SECTION RIVER: San Juan Creek
REACH: Upper RS: 4656.846

INPUT
Description:
Station Elevation Data num= 48

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	341.2	93.49	340.05	129.55	339.92	171.61	338.27	184.02	337.8
258.03	334.99	266.83	334.61	285.71	333.81	302.62	332.61	325.36	329.15
331.24	328.04	334.49	327.43	341.67	324.82	357.69	320.99	365.98	318.76
392.38	311.74	400.46	309.58	411.07	308.63	414.85	308.32	487.81	308.93
491.41	308.94	500.99	308.96	507.2	308.86	524.46	308.36	526.3	308.3
539.52	307.91	555.74	307.52	560.57	307.58	575.13	307.62	634.09	307.97
637.99	308.27	643.24	310.97	644.08	311.33	645	311.72	659.94	318.13
666.67	320.18	676.8	321.33	680.07	321.68	682.4	321.98	721.38	322.07
759.02	323.4	785.65	325.38	810.69	328.51	835.59	331.22	837.3	331.5
862.4	335.48	893.64	337.77	920.11	341.24				

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.02	184.02	.035	266.83	.02	331.24	.05	524.46	.035
644.08	.07	837.3	.035						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
392.38	645	187	200.95	202.2	.1	.3

CROSS SECTION RIVER: San Juan Creek
REACH: Upper RS: 4455.918

INPUT
Description:
Station Elevation Data num= 59

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	341.21	1.03	341.14	48.11	341.01	125.08	340.81	218.84	340.56
228.14	340.58	250.11	339.9	328.86	337.24	352.02	335.72	365.62	334.76
386.11	333.31	395.22	332.31	423.35	327.46	435.63	325.34	436.82	325.15
437.01	325.13	449.29	323.38	450.85	324.05	457.53	326.89	458.31	326.9
467.3	323.35	474.64	319.26	482.36	315.1	494.22	311.97	503.4	309.61
507.43	308.55	507.55	308.54	508	308.54	509.18	308.54	581.15	308.48
615.76	308.45	615.78	308.45	622.99	308.14	657.16	307.74	663.67	308.41
670.65	310.73	672.55	311.48	680.39	314.54	699.02	316.34	712.79	316.67
721.62	317.31	726.14	317.64	760.11	320.61	763.13	320.88	776.16	320.95
777.7	320.95	786.82	321.01	851.99	321.92	859.51	322.26	899.51	323.26
899.83	323.26	928.2	326.43	928.27	326.46	937.72	329.23	937.88	329.34
942.92	332.39	957.68	341.35	961.49	341.68	962.16	341.68		

Manning's n Values num= 9

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	48.11	.02	125.08	.035	365.62	.02	423.35	.05
615.78	.035	721.62	.02	760.11	.07	942.92	.035		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
494.22	672.55	223.3	218.1	206	.1	.3

CROSS SECTION RIVER: San Juan Creek
REACH: Upper RS: 4237.798

INPUT
Description:
Station Elevation Data num= 67

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	341.18	6.08	340.99	12.8	340.87	29.02	340.9	103.31	340.53
156.85	340.26	225.16	339.71	257.67	339.09	271.56	338.71	321.36	336.24
328.72	335.9	334.79	335.63	345.91	333.98	359.73	332.84	372.11	329.75
385.07	328.68	398.94	327.52	407.64	327.84	434.01	325.46	441.36	324.67
447.8	323.17	457.17	320.86	464.77	312.83	465.84	311.65	466.37	311.35
468.66	309.8	470.49	308.56	477.18	308.52	484.65	308.01	544.73	306.69
545.54	306.67	545.64	306.68	546.23	306.8	554.87	308.65	556.94	310.05
561.19	312.93	570.34	319.52	572.15	319.94	576.53	321.57	586.82	321.8
593.8	321.39	600.04	321.49	618.97	321.03	622.5	320.95	635.71	321.77
645.83	321.95	654.56	321.44	661.57	319.97	670.75	317.3	675.4	316.62
685.62	314.77	698.66	314.18	716.64	314.76	753.13	316.34	760.75	316.72
766.25	317.01	807.71	319.73	829.41	321.16	863.4	322.99	888.81	326.62

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.07	103.31	.035	328.72	.02	385.07	.035	760.75	.02
807.71	.07	939.2	.035						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
468.66	556.94	218.3	207.95	195.2	.1	.3

CROSS SECTION RIVER: San Juan Creek
REACH: Upper RS: 4029.826

INPUT
Description: Manual Entry for Manning's N Distribution
Station Elevation Data num= 67

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	341.19	6.03	341.17	88.09	340.53	131.38	339.96	176.13	338.4
220.4	337.11	281.94	335.2	341.84	334.45	350	334.3	361.59	334.08
383.24	334.58	411.15	332.92	437.55	331.15	448.22	329.88	450.91	329.62
454.81	328.21	456.36	327.7	460.72	324.74	464.73	321.87	466.25	321.36
473.76	320.64	482.46	319.78	489.63	319.2	504.21	317.96	515.09	316.95
519.42	316.54	523	315.7	539.26	309.4	541.12	308.51	541.54	308.39
541.86	308.34	542.99	308.27	572.53	305.97	577.44	306.43	587.88	307.6

590.08	308.32	594.42	311.16	594.58	311.26	597.26	313.78	603.64	321.07
606.49	321.07	628.97	322.08	690.85	320.68	702.53	320.48	727.95	319.77
733.4	319.6	762.74	321.05	764.12	321.04	769.57	320.87	788.97	320.07
835.41	320.74	860	320.61	882.52	320.49	905	321.37	924.2	322.12
947.79	323.78	960.18	325.47	977.25	327.7	984.39	329.11	991.03	331.16
999.74	334.7	1008.31	335.78	1020	336.69	1031.46	337.58	1048.95	338.17
1056.9	339.2	1086.69	341.18						

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	88.09	.02	350	.035	860	.02	905	.07
1020	.035								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
542.99	590.08	277.92	252.3	228.6	.1	.3

CROSS SECTION RIVER: San Juan Creek
REACH: Upper RS: 3777.506

INPUT
Description:
Station Elevation Data num= 71

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	341.22	104.43	338.57	125.14	338.45	143.06	338.24	166.3	337.88
280.49	337.01	325.3	336.73	463.95	334.52	685.67	334.69	719.29	334.3
730.81	334.07	736.63	333.82	773.88	331.9	820.36	329.51	831.73	328.89
838.37	328.64	852.06	328.11	871.84	328.07	891.99	328.42	915.35	327.66
922.13	326.78	942.32	321.08	946.4	319.91	954.01	317.71	964.72	313.08
971.8	307.18	976.43	303.06	980.59	301.81	983.42	301	998.88	301.31
1000.85	301.4	1001.23	301.56	1008.1	304.95	1012.41	307.64	1018.95	312.06
1031.36	320.45	1035.16	321.45	1037.83	322.29	1057.51	321.66	1071.75	321.48
1078.59	321.22	1093.06	320.9	1149.29	321.23	1193.69	321.77	1218.65	321.74
1263.28	320.51	1301.63	320.16	1305.93	320.18	1328.18	320.3	1354.3	319.9
1356.57	319.86	1365.06	320.31	1368.19	320.68	1378.41	322.06	1379.5	322.36
1386.32	324.92	1394.37	327.84	1397.15	328.55	1404.84	330.54	1413.5	331.9
1424.48	334.28	1437.65	335.06	1451.03	335.5	1457.23	335.7	1466.01	336.32
1494.16	337.28	1531.44	337.78	1565.15	339.6	1585.31	340.65	1607.23	341.09
1612.26	341.26								

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	773.88	.02	838.37	.035	1305.93	.02	1354.3	.07
1451.03	.035								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
971.8	1012.41	90	88.68	88.38	.3	.5

BRIDGE RIVER: San Juan Creek
REACH: Upper RS: 3771

INPUT
Description:
Distance from Upstream XS = 3
Deck/Roadway Width = 82.25
Weir Coefficient = 2.6
Upstream Deck/Roadway Coordinates
num= 6

Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord
0	341.97	0	710	344.98	0	710	344.98	337.1
1405.53	347.93	340.06	1405.53	347.93	0	1800	349.6	0

Upstream Bridge Cross Section Data
Station Elevation Data num= 71

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	341.22	104.43	338.57	125.14	338.45	143.06	338.24	166.3	337.88
280.49	337.01	325.3	336.73	463.95	334.52	685.67	334.69	719.29	334.3
730.81	334.07	736.63	333.82	773.88	331.9	820.36	329.51	831.73	328.89
838.37	328.64	852.06	328.11	871.84	328.07	891.99	328.42	915.35	327.66
922.13	326.78	942.32	321.08	946.4	319.91	954.01	317.71	964.72	313.08
971.8	307.18	976.43	303.06	980.59	301.81	983.42	301	998.88	301.31
1000.85	301.4	1001.23	301.56	1008.1	304.95	1012.41	307.64	1018.95	312.06
1031.36	320.45	1035.16	321.45	1037.83	322.29	1057.51	321.66	1071.75	321.48
1078.59	321.22	1093.06	320.9	1149.29	321.23	1193.69	321.77	1218.65	321.74
1263.28	320.51	1301.63	320.16	1305.93	320.18	1328.18	320.3	1354.3	319.9
1356.57	319.86	1365.06	320.31	1368.19	320.68	1378.41	322.06	1379.5	322.36
1386.32	324.92	1394.37	327.84	1397.15	328.55	1404.84	330.54	1413.5	331.9
1424.48	334.28	1437.65	335.06	1451.03	335.5	1457.23	335.7	1466.01	336.32
1494.16	337.28	1531.44	337.78	1565.15	339.6	1585.31	340.65	1607.23	341.09
1612.26	341.26								

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	773.88	.02	838.37	.035	1305.93	.02	1354.3	.07
1451.03	.035								

Bank Sta: Left	Right	Coeff Contr.	Expan.
971.8	1012.41	.3	.5

Downstream Deck/Roadway Coordinates
num= 6

Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord
0	341.97	0	710	344.98	0	710	344.98	337.1
1405.53	347.93	340.06	1405.53	347.93	0	1800	349.6	0

Downstream Bridge Cross Section Data
Station Elevation Data num= 61

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	341.24	4.25	341.2	88.82	338.47	162.13	337.12	238.04	336.54

343.16	335.9	427.23	334.56	621.14	334.71	691.38	335.01	711.54	334.61
749.31	333.89	771.83	333.26	798.75	332.51	802.54	332.21	807.68	331.96
836.15	330.45	884.81	327.86	899.48	325.3	916.88	322.98	931	320.13
931.02	320.12	940.38	318.48	952.89	313.21	954.49	312.46	956.69	310.63
965.48	303.9	967.39	303.74	975.09	301.39	979.29	301.7	990.3	301.58
996.19	304.01	1011.42	311.72	1015.3	313.58	1017.02	314.47	1018.95	315.18
1033.67	317.57	1040.9	320.33	1049.89	320.5	1072.53	321.89	1091.75	321.62
1109.41	321.83	1266.63	321.65	1276.2	321.38	1302.46	320.82	1319.41	320.45
1334.62	320.18	1342.76	320.04	1367.89	322.17	1412.93	333.57	1415.28	334.15
1415.82	334.22	1426.44	334.92	1431.1	335.26	1445.41	336.33	1448.64	336.57
1450.68	336.58	1458.8	336.68	1523.98	337.14	1546.8	337.72	1585.64	340.13
1607.98	341.26								

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	771.83	.02	836.15	.035	1302.46	.02	1334.62	.07
1431.1	.035								

Bank Sta: Left	Right	Coeff Contr.	Expan.
965.48	996.19	.3	.5

Upstream Embankment side slope = 0 horiz. to 1.0 vertical
Downstream Embankment side slope = 0 horiz. to 1.0 vertical
Maximum allowable submergence for weir flow = .95
Elevation at which weir flow begins = 348
Energy head used in spillway design =
Spillway height used in design =
Weir crest shape = Broad Crested

Number of Piers = 3

Pier Data
Pier Station Upstream=860.9168 Downstream=860.9168
Upstream num= 2

Width	Elev	Width	Elev
9.499	0	9.499	445

Downstream num= 2

Width	Elev	Width	Elev
9.499	0	9.499	445

Pier Data
Pier Station Upstream=1057.765 Downstream=1057.765
Upstream num= 2

Width	Elev	Width	Elev
9.499	0	9.499	445

Downstream num= 2

Width	Elev	Width	Elev
9.499	0	9.499	445

Pier Data
Pier Station Upstream=1254.613 Downstream=1254.613
Upstream num= 2

Width	Elev	Width	Elev
9.5	0	9.5	445

Downstream num= 2

Width	Elev	Width	Elev
9.5	0	9.5	445

Number of Bridge Coefficient Sets = 1

Low Flow Methods and Data
Energy
Selected Low Flow Methods = Energy

High Flow Method
Energy Only

Additional Bridge Parameters
Add Friction component to Momentum
Do not add Weight component to Momentum
Class B flow critical depth computations use critical depth
inside the bridge at the upstream end
Criteria to check for pressure flow = Upstream energy grade line

E.G. US. (ft)	328.98	Element	Inside BR US	Inside BR DS
W.S. US. (ft)	327.65	E.G. Elev (ft)	328.89	328.70
Q Total (cfs)	30694.00	W.S. Elev (ft)	327.27	326.93
Q Bridge (cfs)	30694.00	Crit W.S. (ft)	325.55	325.52
Q Weir (cfs)		Max Chl Dpth (ft)	26.27	25.54
Weir Sta Lft (ft)		Vel Total (ft/s)	8.18	8.34
Weir Sta Rgt (ft)		Flow Area (sq ft)	3750.90	3681.54
Weir Submerg		Froude # Chl	0.49	0.54
Weir Max Depth (ft)		Specif Force (cu ft)	32109.25	31584.75
Min El Weir Flow (ft)	348.00	Hydr Depth (ft)	8.24	7.71
Min El Prs (ft)	340.06	W.P. Total (ft)	492.71	509.73
Delta EG (ft)	0.33	Conv. Total (cfs)	763000.1	712496.4
Delta WS (ft)	0.68	Top Width (ft)	455.42	477.53
BR Open Area (sq ft)	10552.16	Frctn Loss (ft)	0.14	0.01
BR Open Vel (ft/s)	8.34	C & E Loss (ft)	0.04	0.05
Coef of Q		Shear Total (lb/sq ft)	0.77	0.84
Br Sel Method	Energy only	Power Total (lb/ft s)	6.29	6.98

Warning: For the final momentum answer at the bridge, the upstream energy was computed lower than the energy inside of the bridge deck. This is not physically possible. Please review your

bridge data and results for reasonableness.

CROSS SECTION RIVER: San Juan Creek
REACH: Upper RS: 3688.827

INPUT
Description:
Station Elevation Data num= 61

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	341.24	4.25	341.2	88.82	338.47	162.13	337.12	238.04	336.54
343.16	335.9	427.23	334.56	621.14	334.71	691.38	335.01	711.54	334.61
749.31	333.89	771.83	333.26	798.75	332.51	802.54	332.21	807.68	331.96
836.15	330.45	884.81	327.86	899.48	325.3	916.88	322.98	931	320.13
931.02	320.12	940.38	318.48	952.89	313.21	954.49	312.46	956.69	310.63
965.48	303.9	967.39	303.74	975.09	301.39	979.29	301.7	990.3	301.58
996.19	304.01	1011.42	311.72	1015.3	313.58	1017.02	314.47	1018.95	315.18
1033.67	317.57	1040.9	320.33	1049.89	320.5	1072.53	321.89	1091.75	321.62
1109.41	321.83	1266.63	321.65	1276.2	321.38	1302.46	320.82	1319.41	320.45
1334.62	320.18	1342.76	320.04	1367.89	322.17	1412.93	333.57	1415.28	334.15
1415.82	334.22	1426.44	334.92	1431.1	335.26	1445.41	336.33	1448.64	336.57
1450.68	336.58	1458.8	336.68	1523.98	337.14	1546.8	337.72	1585.64	340.13
1607.98	341.26								

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	771.83	.02	836.15	.035	1302.46	.02	1334.62	.07
1431.1	.035								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
965.48	996.19	239.7	244.68	248.16	.3	.5

CROSS SECTION RIVER: San Juan Creek
REACH: Upper RS: 3444.123

INPUT
Description:
Station Elevation Data num= 72

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	341.26	29.63	340.48	70.28	339.46	120.07	338.58	215.55	335.81
360.8	334.73	380.53	334.58	469.87	335.17	621.66	335.79	660.63	335.01
747.53	332	749.95	331.95	779.66	331.3	790.16	330.54	799.94	329.75
813.5	328.65	818.21	328.38	822.66	327.78	840.68	325.94	860.32	322.97
867.94	321.66	871.07	321.43	874.62	321.2	899.5	320.15	920.2	319.16
931.35	318.53	944.93	316.89	945.2	316.86	954.91	315.75	956.12	315.61
957.05	315.21	964.94	309.94	974.43	301.81	980.44	296.33	982.4	295.75
984.7	295.17	987.39	295.62	997.9	298.94	1005.36	302.54	1015.73	308.17
1021.59	311.22	1028.1	314.6	1045.43	320.21	1048.32	320.99	1050.68	321.49
1072.16	321.51	1092.74	321.56	1095.76	321.52	1107.22	321.56	1136.4	321.18
1138.66	321.3	1173.26	321.56	1247.45	321.39	1272.39	321.23	1283.24	321.18
1333.24	320.91	1339.55	320.88	1345.51	320.85	1351.85	321.43	1375.75	327.04
1393.33	331.12	1399.9	332.31	1408.65	333.9	1412.95	334.45	1426.86	335
1466.5	336.42	1479.63	336.6	1587.8	336.97	1601.25	337.3	1641.01	338.8
1651.44	339.77	1666.54	341.58						

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	749.95	.02	799.94	.035	1283.24	.02	1333.24	.07
1399.9	.035								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
974.43	1005.36	19.91	18.5	16.67	.1	.3

CROSS SECTION RIVER: San Juan Creek
REACH: Upper RS: 3425.62*

INPUT
Description:
Station Elevation Data num= 144

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	341.26	29.45	340.45	69.86	339.37	85.81	339.05	119.35	338.38
145.77	337.58	214.26	335.71	253.38	335.42	300.21	335.08	358.64	334.7
378.26	334.57	467.06	335.15	535.11	335.43	576.02	335.55	617.95	335.62
620.72	335.57	651.68	334.94	656.68	334.83	672.55	334.26	689.7	333.63
701.44	333.2	714.09	332.62	728.43	331.99	733.53	331.68	740.02	331.35
743.06	331.19	745.47	331.09	752.05	330.82	775	330.22	785.44	329.47
795.16	328.69	801.7	328.16	807.73	327.68	808.64	327.6	809.47	327.54
813.32	327.28	817.74	326.67	822.75	326.12	830.71	325.12	835.66	324.47
839.29	323.84	842.85	323.31	855.18	321.57	859.12	320.94	862.75	320.35
865.86	320.12	869.39	319.9	885.51	319.2	887.75	319.11	894.12	318.84
914.7	317.87	918.44	317.67	925.78	317.25	930.22	316.74	939.28	315.73
939.55	315.7	945.39	315.08	946.6	314.94	949.2	314.62	950.41	314.47
951.33	314.09	951.54	313.96	954.48	312.11	959.17	309.08	968.61	301.37
971.45	298.99	975.05	296.15	976.04	295.89	977.16	295.59	979.62	295.02
982.2	295.46	989.57	297.73	992.26	298.58	999.4	301.96	1009.8	307.78
1015.33	310.77	1015.67	310.95	1018.45	312.45	1020.81	313.73	1022.2	314.43
1023.8	314.96	1028.36	316.48	1029.23	316.76	1032.18	317.63	1039.58	319.79
1042.47	320.5	1044.84	320.95	1066.38	320.95	1087.01	320.97	1090.04	320.93
1091.87	320.93	1101.53	321.08	1106.12	321.07	1130.79	321.04	1133.06	321.17
1134.81	321.2	1145.3	321.39	1155.69	321.45	1167.75	321.54	1182.4	321.51
1236.27	321.32	1242.14	321.3	1257.01	321.19	1267.15	321.13	1278.03	321.09
1299.39	320.98	1315.59	320.9	1319.65	320.92	1328.16	320.93	1330.96	320.94
1333.84	320.94	1334.45	320.95	1334.49	320.95	1340.47	321.03	1342.26	321.21
1346.82	321.68	1367.29	326.41	1370.01	327.04	1370.79	327.21	1372.13	327.51
1378.3	328.89	1388.42	331.14	1395	332.31	1403.78	333.86	1405.39	334.07
1408.09	334.4	1422.04	334.99	1426.74	335.17	1461.78	336.44	1464.53	336.49
1474.95	336.67	1498.99	336.87	1527.35	336.96	1542.04	337	1583.41	337.09
1596.9	337.38	1622.56	338.24	1631.78	338.66	1636.76	338.85	1647.22	339.77
1649.95	340.08	1657.46	341	1662.19	341.54	1662.36	341.57		

Manning's n Values num= 16

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	620.72	.034	689.7	.021	745.47	.021	795.16	.035
968.61	.02	999.4	.02	1236.27	.02	1278.03	.02	1299.39	.023
1328.16	.068	1330.96	.052	1378.3	.067	1395	.035	1662.36	.038
1662.36	.038								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
968.61	999.4	19.91	18.5	16.67	.1	.3

CROSS SECTION RIVER: San Juan Creek
REACH: Upper RS: 3407.13*

INPUT
Description:
Station Elevation Data num= 144

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	341.27	29.28	340.41	69.44	339.28	85.29	338.93	118.64	338.18
144.9	337.34	212.97	335.62	251.86	335.33	298.4	334.99	356.49	334.68
375.98	334.57	464.25	335.12	531.89	335.41	572.55	335.49	614.23	335.46
616.99	335.4	647.76	334.76	652.73	334.64	668.51	334.07	685.55	333.4
697.22	332.95	709.79	332.24	724.05	331.48	729.12	331.03	735.57	330.6
738.6	330.38	740.99	330.23	747.53	329.83	770.34	329.14	780.72	328.39
790.38	327.63	796.88	327.11	802.87	326.64	803.78	326.55	804.6	326.49
808.43	326.18	812.83	325.56	817.8	324.98	825.71	323.79	830.63	323.01
834.25	322.29	837.78	321.78	850.04	320.17	853.95	319.58	857.57	319.04
860.66	318.82	864.17	318.6	880.19	317.89	882.41	317.8	888.75	317.54
909.2	316.59	912.92	316.39	920.22	315.97	924.63	315.48	933.64	314.57
933.9	314.54	939.71	313.98	940.91	313.82	943.5	313.49	944.69	313.34
945.61	312.98	945.82	312.85	948.74	311.12	953.41	308.22	962.78	300.94
965.82	298.6	969.67	295.97	970.72	295.72	971.91	295.43	974.55	294.88
977.01	295.29	984.04	297.41	986.62	298.22	993.44	301.39	1003.86	307.4
1009.41	310.5	1009.76	310.69	1012.54	312.24	1014.91	313.57	1016.3	314.27
1017.91	314.81	1022.48	316.37	1023.35	316.66	1026.3	317.43	1033.72	319.37
1036.63	320.01	1039	320.41	1060.6	320.38	1081.29	320.38	1084.33	320.34
1086.16	320.34	1095.85	320.59	1100.44	320.65	1125.19	320.89	1127.46	321.04
1129.21	321.09	1139.74	321.38	1150.15	321.44	1162.24	321.52	1176.93	321.5
1230.94	321.24	1236.83	321.21	1251.74	321.08	1261.91	321.03	1272.82	320.99
1294.23	320.9	1310.48	320.83	1314.55	320.88	1323.09	320.95	1325.89	320.97
1328.78	321	1329.4	321.02	1329.43	321.02	1335.42	321.21	1337.22	321.41
1341.8	321.92	1362.32	326.59	1365.04	327.22	1365.83	327.39	1367.17	327.67
1373.35	328.99	1383.5	331.16	1390.11	332.3	1398.9	333.83	1400.52	334.03
1403.23	334.35	1417.21	334.97	1421.93	335.17	1457.07	336.46	1459.82	336.52
1470.27	336.74	1494.37	337.07	1522.8	337.14	1537.54	337.16	1579.02	337.22
1592.54	337.47	1618.28	338.22	1627.52	338.72	1632.52	338.91	1643	339.77
1645.74	340.06	1653.27	341	1658.01	341.53	1658.19	341.55		

Manning's n Values num= 16

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	616.99	.032	685.55	.023	740.99	.023	790.38	.035
962.78	.02	993.44	.02	1230.94	.02	1272.82	.02	1294.23	.025
1323.09	.066	1325.89	.054	1373.35	.064	1390.11	.035	1658.19	.041
1658.19	.041								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
962.78	993.44	19.91	18.5	16.67	.1	.3

CROSS SECTION RIVER: San Juan Creek
REACH: Upper RS: 3388.64*

INPUT
Description:
Station Elevation Data num= 144

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	341.27	29.1	340.38	69.02	339.18	84.78	338.8	117.92	337.98
144.02	337.11	211.69	335.52	250.34	335.24	296.6	334.9	354.33	334.65
373.71	334.56	461.45	335.1	528.67	335.38	569.09	335.42	610.52	335.29
613.26	335.23	643.84	334.59	648.79	334.46	664.46	333.87	681.41	333.18
693	332.7	705.5	331.85	719.67	330.96	724.71	330.38	731.12	329.84
734.13	329.57	736.51	329.38	743.01	328.84	765.68	328.06	776	327.32
785.6	326.57	792.07	326.06	798.01	325.59	798.92	325.5	799.74	325.43
803.54	325.09	807.91	324.44	812.86	323.84	820.72	322.45	825.61	321.54
939.89	311.86	940.1	311.75	943	310.13	947.64	307.37	956.96	300.5
960.19	298.2	964.28	295.79	965.41	295.54	966.67	295.27	969.47	294.73
971.81	295.13	978.52	297.1	980.97	297.87	987.48	300.81	997.93	307.01
1003.49	310.23	1003.84	310.42	1006.63	312.03	1009.01	313.42	1010.4	314.1
1012.01	314.66	1016.59	316.27	1017.47	316.56	1020.43	317.24	1027.87	318.95
1030.78	319.51	1033.16	319.87	1054.82	319.82	1075.56	319.79	1078.61	319.75
1080.45	319.75	1090.16	320.11	1094.77	320.22	1119.58	320.75	1121.86	320.91
1123.61	320.97	1134.17	321.38	1144.61	321.42	1156.74	321.5	1171.46	321.49
1225.62	321.15	1231.53	321.11	1246.47	320.98	1256.67	320.93	1267.61	320.9
1289.08	320.82	1305.37	320.76	1309.45	320.84	1318.01	320.97	1320.82	321.01
1323.72	321.06	1324.34	321.1	1324.37	321.1	1330.38	321.4	1332.18	321.61
1336.77	322.17	1357.35	326.77	1360.08	327.4	1360.86	327.56	1362.21	327.83
1368.41	329.1	1378.59	331.19	1385.21	332.3	1394.03	333.79	1395.65	334
1398.37	334.3	1412.39	334.96	1417.12	335.17	1452.35	336.49	1455.11	336.55
1465.59	336.81	1489.75	337.26	1518.26	337.33	1533.04	337.33	1574.63	337.34
1588.19	337.55	1613.99	338.2	1623.26	338.77	1628.27	338.96	1638.79	339.77
1641.53	340.04	1649.08	341	1653.83	341.51	1654.01	341.54		

Manning's n Values num= 16

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	613.26	.031	681.41	.024	736.51	.024	785.6	.035

956.96	.02	987.48	.02	1225.62	.02	1267.61	.02	1289.08	.028
1318.01	.065	1320.82	.055	1368.41	.06	1385.21	.035	1654.01	.045
1654.01	.045								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
956.96	987.48	19.91	18.5	16.67	.1	.3

CROSS SECTION RIVER: San Juan Creek
REACH: Upper RS: 3370.14*

INPUT
Description:
Station Elevation Data num= 144

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	341.27	28.92	340.34	68.6	339.09	84.26	338.68	117.2	337.78
143.14	336.87	210.4	335.43	248.81	335.14	294.79	334.81	352.18	334.62
371.43	334.56	458.64	335.08	525.46	335.36	565.63	335.36	606.8	335.13
609.53	335.07	639.92	334.42	644.84	334.28	660.42	333.68	677.26	332.95
688.79	332.45	701.21	331.46	715.29	330.44	720.3	329.73	726.67	329.09
729.66	328.76	732.02	328.52	738.49	327.86	761.02	326.98	771.27	326.25
780.82	325.51	787.25	325.01	793.16	324.55	794.06	324.45	794.87	324.37
798.65	323.99	803	323.33	807.91	322.69	815.73	321.12	820.59	320.08
824.16	319.19	827.65	318.71	839.76	317.36	843.62	316.88	847.19	316.41
850.25	316.21	853.71	316	869.54	315.27	871.74	315.19	878	314.93
898.21	314.02	901.88	313.83	909.09	313.41	913.44	312.98	922.34	312.24
922.61	312.22	928.34	311.77	929.53	311.6	932.09	311.23	933.27	311.06
934.17	310.74	934.38	310.64	937.26	309.15	941.88	306.51	951.14	300.06
954.56	297.8	958.89	295.61	960.09	295.37	961.42	295.11	964.39	294.58
966.62	294.96	973	296.78	975.33	297.51	981.52	300.23	992	306.63
997.58	309.95	997.92	310.16	1000.72	311.82	1003.1	313.26	1004.5	313.93
1006.12	314.5	1010.71	316.16	1011.58	316.45	1014.56	317.05	1022.02	318.54
1024.94	319.02	1027.33	319.33	1049.04	319.25	1069.84	319.2	1072.89	319.16
1074.73	319.16	1084.48	319.62	1089.1	319.79	1113.97	320.61	1116.25	320.78
1118.02	320.86	1128.6	321.38	1139.07	321.4	1151.23	321.48	1165.99	321.48
1220.3	321.07	1226.22	321.02	1241.2	320.87	1251.43	320.83	1262.39	320.8
1283.93	320.74	1300.26	320.68	1304.36	320.8	1312.93	320.99	1315.75	321.05
1318.66	321.11	1319.28	321.17	1319.31	321.17	1325.34	321.58	1327.14	321.81
1331.75	322.41	1352.38	326.96	1355.12	327.58	1355.9	327.73	1357.26	327.99
1363.47	329.21	1373.67	331.21	1380.31	332.3	1389.16	333.75	1390.78	333.96
1393.5	334.25	1407.56	334.94	1412.31	335.17	1447.63	336.51	1450.4	336.57
1460.9	336.89	1485.14	337.45	1513.72	337.51	1528.54	337.5	1570.24	337.47
1583.84	337.64	1609.71	338.18	1619	338.82	1624.03	339.01	1634.57	339.77
1637.31	340.02	1644.89	341	1649.65	341.49	1649.83	341.53		

Manning's n Values num= 16

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	609.53	.03	677.26	.025	732.02	.025	780.82	.035
951.14	.02	981.52	.02	1220.3	.02	1262.39	.02	1283.93	.031
1312.93	.063	1315.75	.057	1363.47	.057	1380.31	.035	1649.83	.048
1649.83	.048								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
951.14	981.52	19.91	18.5	16.67	.1	.3

CROSS SECTION RIVER: San Juan Creek
REACH: Upper RS: 3351.65*

INPUT
Description:
Station Elevation Data num= 144

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	341.28	28.74	340.31	68.18	339	83.74	338.55	116.48	337.57
142.27	336.64	209.11	335.33	247.29	335.05	292.99	334.72	350.02	334.6
369.16	334.55	455.83	335.05	522.24	335.34	562.17	335.3	603.09	334.96
605.8	334.9	636.01	334.24	640.89	334.09	656.38	333.49	673.12	332.72
684.57	332.2	696.92	331.08	710.91	329.93	715.89	329.08	722.22	328.34
725.2	327.95	727.54	327.66	733.97	326.87	756.37	325.9	766.55	325.17
776.04	324.45	782.43	323.96	788.3	323.5	789.19	323.4	790.01	323.31
793.76	322.89	798.08	322.22	802.97	321.55	810.73	319.79	815.56	318.61
819.11	317.64	822.58	317.17	834.62	315.96	838.46	315.53	842.01	315.1
845.04	314.9	848.49	314.7	864.22	313.95	866.4	313.88	872.63	313.62
892.71	312.73	896.36	312.55	903.52	312.13	907.85	311.72	916.7	311.08
916.96	311.06	922.66	310.67	923.84	310.49	926.38	310.1	927.55	309.92
928.46	309.63	928.66	309.53	931.53	308.16	936.11	305.65	945.32	299.63
948.93	297.4	953.51	295.44	954.77	295.2	956.18	294.95	959.31	294.44
961.43	294.8	967.48	296.46	969.69	297.15	975.56	299.66	986.07	306.24
991.66	309.68	992	309.89	994.81	311.62	997.2	313.11	998.6	313.76
1000.22	314.35	1004.83	316.05	1005.7	316.35	1008.69	316.85	1016.17	318.12
1019.09	318.53	1021.49	318.79	1043.26	318.69	1064.11	318.61	1067.17	318.57
1069.02	318.57	1078.79	319.14	1083.42	319.37	1108.36	320.46	1110.65	320.65
1112.42	320.74	1123.03	321.37	1133.53	321.38	1145.72	321.46	1160.52	321.46
1214.97	320.98	1220.91	320.93	1235.94	320.77	1246.19	320.73	1257.18	320.71
1278.77	320.65	1295.15	320.61	1299.26	320.76	1307.86	321.01	1310.68	321.09
1313.6	321.17	1314.22	321.24	1314.25	321.24	1320.29	321.76	1322.1	322.01
1326.72	322.66	1347.41	327.14	1350.15	327.76	1350.94	327.91	1352.3	328.15
1358.53	329.32	1368.76	331.23	1375.42	332.29	1384.29	333.71	1385.91	333.93
1388.64	334.2	1402.74	334.93	1407.5	335.16	1442.92	336.53	1445.69	336.6
1456.22	336.96	1480.52	337.64	1509.18	337.69	1524.04	337.67	1565.85	337.59
1579.48	337.72	1605.43	338.15	1614.74	338.87	1619.78	339.06	1630.35	339.77
1633.1	340	1640.7	341	1645.48	341.48	1645.65	341.52		

Manning's n Values num= 16

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	605.8	.028	673.12	.027	727.54	.027	776.04	.035
945.32	.02	975.56	.02	1214.97	.02	1257.18	.02	1278.77	.034
1307.86	.061	1310.68	.059	1358.53	.054	1375.42	.035	1645.65	.051
1645.65	.051								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
945.32	975.56	19.91	18.5	16.67	.1	.3

CROSS SECTION RIVER: San Juan Creek
REACH: Upper RS: 3333.16*

INPUT
Description:
Station Elevation Data num= 144

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	341.28	28.57	340.27	67.76	338.91	83.23	338.43	115.77	337.37
141.39	336.41	207.82	335.24	245.77	334.96	291.18	334.63	347.86	334.57
366.89	334.55	453.02	335.03	519.02	335.32	558.7	335.23	599.37	334.79
602.07	334.73	632.09	334.07	636.94	333.91	652.33	333.29	668.97	332.5
680.35	331.95	692.62	330.69	706.53	329.41	711.48	328.43	717.77	327.58
720.73	327.14	723.06	326.8	729.44	325.88	751.71	324.82	761.83	324.1
771.26	323.39	777.61	322.91	783.45	322.46	784.33	322.35	785.14	322.25
788.87	321.79	793.17	321.11	798.02	320.41	805.74	318.46	810.54	317.14
814.07	316.09	817.51	315.64	829.47	314.56	833.29	314.17	836.82	313.79
839.84	313.6	843.26	313.4	858.9	312.64	861.06	312.57	867.25	312.32
887.21	311.44	890.84	311.27	897.96	310.85	902.26	310.47	911.05	309.92
911.31	309.9	916.98	309.56	918.15	309.37	920.67	308.97	921.84	308.79
922.74	308.51	922.94	308.43	925.79	307.17	930.34	304.79	939.49	299.19
943.3	297.01	948.12	295.26	949.45	295.03	950.93	294.79	954.24	294.29
956.24	294.64	961.96	296.14	964.05	296.79	969.59	299.08	980.13	305.86
985.74	309.41	986.09	309.63	988.9	311.41	991.3	312.95	992.7	313.6
994.33	314.2	998.95	315.95	999.82	316.25	1002.81	316.66	1010.31	317.7
1013.25	318.04	1015.65	318.25	1037.48	318.13	1058.39	318.02	1061.46	317.99
1063.31	317.98	1073.1	318.65	1077.75	318.94	1102.76	320.32	1105.05	320.52
1106.82	320.63	1117.46	321.37	1127.99	321.37	1140.21	321.43	1155.05	321.45
1209.65	320.9	1215.6	320.84	1230.67	320.66	1240.95	320.63	1251.97	320.62
1273.62	320.57	1290.04	320.54	1294.16	320.72	1302.78	321.03	1305.61	321.13
1308.54	321.23	1309.16	321.31	1309.19	321.31	1315.25	321.94	1317.06	322.21
1321.69	322.9	1342.44	327.33	1345.19	327.94	1345.98	328.08	1347.34	328.32
1353.59	329.43	1363.84	331.25	1370.52	332.29	1379.41	333.68	1381.04	333.89
1383.78	334.15	1397.92	334.91	1402.69	335.16	1438.2	336.55	1440.98	336.63
1451.54	337.03	1475.9	337.83	1504.64	337.88	1519.54	337.83	1561.46	337.72
1575.13	337.81	1601.14	338.13	1610.48	338.93	1615.53	339.12	1626.13	339.77
1628.89	339.98	1636.51	341	1641.3	341.46	1641.48	341.5		

Manning's n Values num= 16

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	602.07	.027	668.97	.028	723.06	.028	771.26	.035
939.49	.02	969.59	.02	1209.65	.02	1251.97	.02	1273.62	.036
1302.78	.059	1305.61	.061	1353.59	.051	1370.52	.035	1641.48	.054
1641.48	.054								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
939.49	969.59	19.91	18.5	16.67	.1	.3

CROSS SECTION RIVER: San Juan Creek
REACH: Upper RS: 3314.66*

INPUT
Description:
Station Elevation Data num= 144

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	341.29	28.39	340.24	67.34	338.82	82.71	338.3	115.05	337.17
140.52	336.17	206.53	335.14	244.24	334.86	289.38	334.54	345.71	334.54
364.61	334.54	450.22	335.01	515.81	335.3	555.24	335.17	595.66	334.63
598.34	334.57	628.17	333.89	633	333.72	648.29	333.1	664.82	332.27
676.14	331.7	688.33	330.31	702.16	328.9	707.07	327.78	713.32	326.83
716.26	326.33	718.58	325.95	724.92	324.9	747.05	323.74	757.11	323.03
766.48	322.33	772.79	321.86	778.59	321.42	779.47	321.3	780.27	321.19
783.99	320.69	788.25	319.99	793.07	319.26	800.75	317.13	805.52	315.68
809.02	314.55	812.45	314.1	824.33	313.15	828.13	312.82	831.64	312.48
834.63	312.29	838.04	312.1	853.57	311.33	855.73	311.26	861.88	311.01
881.71	310.16	885.31	309.99	892.39	309.57	896.67	309.21	905.4	308.75
905.66	308.74	911.29	308.46	912.46	308.26	914.97	307.84	916.13	307.65
917.02	307.39	917.22	307.32	920.05	306.19	924.58	303.93	933.67	298.76
937.67	296.61	942.73	295.08	944.13	294.86	945.69	294.63	949.16	294.15
951.04	294.47	956.44	295.82	958.41	296.43	963.63	298.51	974.2	305.47
979.82	309.14	980.17	309.36	982.99	311.2	985.39	312.8	986.8	313.43
1204.32	320.82	1210.3	320.75	1225.4	320.55	1235.71	320.53	1246.76	320.52
1268.47	320.49	1284.93	320.46	1289.06	320.68	1297.71	321.05	1300.55	321.17
1303.47	321.29	1304.1	321.38	1304.13	321.39	1310.21	322.13	1312.02	322.41
1316.67	323.15	1337.46	327.51	1340.23	328.13	1341.02	328.25	1342.38	328.48
1348.65	329.54	1358.93	331.28	1365.62	332.29	1374.54	333.64	1376.17	333.85
1378.92	334.1	1393.09	334.9	1397.87	335.16	1433.48	336.57	1436.27	336.66
1446.86	337.1	1471.29	338.02	1500.1	338.06	1515.03	338	1557.07	337.84
1570.78	337.89	1596.86	338.11	1606.22	338.98	1611.29	339.17	1621.91	339.77
1624.68	339.96	1632.32	341	1637.12	341.45	1637.3	341.49		

Manning's n Values num= 16

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	598.34	.025	664.82	.03	718.58	.03	766.48	.035
933.67	.02	963.63	.02	1204.32	.02	1246.76	.02	1268.47	.039
1297.71	.057	1300.55	.063	1348.65	.048	1365.62	.035	1637.3	.057
1637.3	.057								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
933.67	963.63	19.91	18.5	16.67	.1	.3

CROSS SECTION RIVER: San Juan Creek

REACH: Upper RS: 3296.17*

INPUT
Description:
Station Elevation Data num= 144

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	341.29	28.21	340.2	66.92	338.73	82.2	338.18	114.33	336.97
139.64	335.94	205.25	335.05	242.72	334.77	287.57	334.45	343.55	334.52
362.34	334.54	447.41	334.98	512.59	335.28	551.78	335.1	591.94	334.46
594.6	334.4	624.25	333.72	629.05	333.54	644.25	332.9	660.68	332.04
671.92	331.45	684.04	329.92	697.78	328.38	702.66	327.13	708.88	326.07
711.79	325.52	714.1	325.09	720.4	323.91	742.39	322.66	752.39	321.95
761.7	321.27	767.97	320.8	773.74	320.37	774.61	320.25	775.41	320.14
779.1	319.6	783.33	318.88	788.13	318.12	795.75	315.8	800.49	314.21
803.98	313	807.38	312.57	819.19	311.75	822.96	311.47	826.45	311.16
829.43	310.99	832.81	310.79	848.25	310.02	850.39	309.95	856.5	309.71
876.21	308.87	879.79	308.71	886.83	308.29	891.08	307.96	899.76	307.59
900.02	307.58	905.61	307.35	906.77	307.15	909.26	306.71	910.41	306.51
911.3	306.28	911.5	306.21	914.31	305.2	918.81	303.08	927.85	298.32
932.04	296.21	937.35	294.9	938.81	294.69	940.45	294.47	944.08	294
945.85	294.31	950.91	295.5	952.77	296.08	957.67	297.93	968.27	305.09
973.9	308.87	974.25	309.1	977.08	310.99	979.49	312.64	980.9	313.26
982.54	313.89	987.18	315.73	988.06	316.04	991.07	316.27	998.61	316.86
1001.56	317.05	1003.97	317.17	1025.91	317	1046.94	316.84	1050.02	316.81
1051.89	316.79	1061.73	317.69	1066.4	318.09	1091.54	320.03	1093.85	320.25
1095.63	320.4	1106.33	321.36	1116.91	321.33	1129.2	321.39	1144.12	321.43
1199	320.73	1204.99	320.66	1220.13	320.45	1230.47	320.44	1241.55	320.43
1263.31	320.41	1279.82	320.39	1283.96	320.64	1292.63	321.06	1295.48	321.2
1298.41	321.35	1299.04	321.45	1299.07	321.46	1305.16	322.31	1306.99	322.61
1311.64	323.39	1332.49	327.7	1335.26	328.31	1336.06	328.43	1337.42	328.64
1343.7	329.64	1354.02	331.3	1360.73	332.29	1369.67	333.6	1371.31	333.82
1374.06	334.05	1388.27	334.88	1393.06	335.16	1428.76	336.6	1431.56	336.69
1442.18	337.17	1466.67	338.22	1495.56	338.24	1510.53	338.17	1552.68	337.96
1566.42	337.97	1592.57	338.09	1601.96	339.03	1607.04	339.22	1617.7	339.77
1620.47	339.94	1628.13	341.01	1632.94	341.43	1633.12	341.48		

Manning's n Values num= 16

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	594.6	.024	660.68	.031	714.1	.031	761.7	.035
927.85	.02	957.67	.02	1199	.02	1241.55	.02	1263.31	.042
1292.63	.055	1295.48	.065	1343.7	.045	1360.73	.035	1633.12	.06
1633.12	.06								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
927.85	957.67	19.91	18.5	16.67	.1	.3

CROSS SECTION RIVER: San Juan Creek
REACH: Upper RS: 3277.68*

INPUT
Description:
Station Elevation Data num= 144

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	341.29	28.04	340.17	66.5	338.63	81.68	338.05	113.61	336.77
138.76	335.71	203.96	334.95	241.2	334.68	285.77	334.36	341.4	334.49
360.07	334.53	444.6	334.96	509.37	335.25	548.32	335.04	588.23	334.29
590.87	334.23	620.34	333.55	625.1	333.36	640.21	332.71	656.53	331.81
667.7	331.2	679.75	329.53	693.4	327.86	698.25	326.48	704.43	325.32
707.33	324.71	709.62	324.23	715.88	322.92	737.73	321.58	747.67	320.88
756.92	320.21	763.15	319.75	768.88	319.33	769.75	319.19	770.54	319.08
774.21	318.5	778.42	317.77	783.18	316.98	790.76	314.46	795.47	312.74
798.93	311.45	802.31	311.03	814.05	310.35	817.8	310.12	821.26	309.85
824.22	309.68	827.58	309.49	842.93	308.7	845.05	308.65	851.13	308.4
870.71	307.58	874.27	307.43	881.26	307.01	885.48	306.71	894.11	306.43
894.37	306.42	899.93	306.25	901.08	306.04	903.56	305.58	904.7	305.38
905.58	305.16	905.78	305.1	908.58	304.21	913.05	302.22	922.03	297.88
926.41	295.81	931.96	294.72	933.49	294.52	935.2	294.31	939	293.85
940.66	294.14	945.39	295.19	947.12	295.72	951.71	297.35	962.33	304.7
967.99	308.59	968.34	308.83	971.17	310.79	973.59	312.49	975	313.09
976.64	313.74	981.3	315.62	982.18	315.94	985.2	316.08	992.75	316.44
995.71	316.56	998.13	316.63	1020.13	316.43	1041.21	316.25	1044.31	316.22
1046.17	316.2	1056.04	317.2	1060.73	317.66	1085.93	319.89	1088.25	320.12
1090.03	320.29	1100.76	321.36	1111.37	321.31	1123.69	321.37	1138.65	321.41
1193.68	320.65	1199.68	320.56	1214.87	320.34	1225.22	320.34	1236.34	320.33
1258.16	320.32	1274.71	320.32	1278.86	320.6	1287.55	321.08	1290.41	321.24
1293.35	321.4	1293.98	321.53	1294.02	321.53	1300.12	322.49	1301.95	322.81
1306.61	323.64	1327.52	327.88	1330.3	328.49	1331.09	328.6	1332.47	328.8
1338.76	329.75	1349.1	331.32	1355.83	332.28	1364.79	333.56	1366.44	333.78
1369.2	333.99	1383.45	334.87	1388.25	335.16	1424.05	336.62	1426.85	336.72
1437.5	337.24	1462.05	338.41	1491.02	338.42	1506.03	338.34	1548.29	338.09
1562.07	338.06	1588.29	338.06	1597.7	339.08	1602.79	339.27	1613.48	339.78
1616.26	339.92	1623.94	341.01	1628.77	341.41	1628.94	341.47		

Manning's n Values num= 16

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	590.87	.023	656.53	.032	709.62	.032	756.92	.035
922.03	.02	951.71	.02	1193.68	.02	1236.34	.02	1258.16	.045
1287.55	.054	1290.41	.066	1338.76	.041	1355.83	.035	1628.94	.064
1628.94	.064								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
922.03	951.71	19.91	18.5	16.67	.1	.3

CROSS SECTION RIVER: San Juan Creek
REACH: Upper RS: 3259.18*

INPUT
Description:

Station Elevation Data num= 144

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	341.3	27.86	340.13	66.08	338.54	81.17	337.93	112.9	336.57
137.89	335.47	202.67	334.86	239.67	334.58	283.96	334.27	339.24	334.46
357.79	334.53	441.79	334.94	506.16	335.23	544.85	334.97	584.51	334.13
587.14	334.07	616.42	333.37	621.15	333.17	636.16	332.51	652.39	331.59
663.49	330.95	675.45	329.15	689.02	327.35	693.84	325.83	699.98	324.56
702.86	323.9	705.14	323.37	711.36	321.94	733.07	320.5	742.94	319.8
752.14	319.15	758.33	318.7	764.03	318.28	764.89	318.14	765.68	318.02
769.32	317.4	773.5	316.66	778.24	315.83	785.76	313.13	790.45	311.28
793.89	309.9	797.25	309.5	808.91	308.95	812.63	308.76	816.08	308.54
819.02	308.38	822.36	308.19	837.6	307.39	839.72	307.34	845.75	307.09
865.21	306.3	868.75	306.15	875.7	305.73	879.89	305.45	888.47	305.27
888.72	305.26	894.24	305.14	895.39	304.92	897.85	304.46	898.99	304.24
899.86	304.05	900.06	304	902.84	303.23	907.28	301.36	916.2	297.45
920.78	295.42	926.58	294.54	928.17	294.35	929.96	294.15	933.93	293.71
935.47	293.98	939.87	294.87	941.48	295.36	945.75	296.78	956.4	304.32
962.07	308.32	962.42	308.57	965.26	310.58	967.68	312.33	969.1	312.93
970.75	313.58	975.41	315.52	976.3	315.83	979.32	315.88	986.9	316.03
989.87	316.07	992.29	316.09	1014.35	315.87	1035.49	315.66	1038.59	315.63
1040.46	315.61	1050.36	316.72	1055.05	317.24	1080.33	319.75	1082.65	319.99
1084.44	320.17	1095.19	321.35	1105.83	321.3	1118.18	321.35	1133.18	321.4
1188.35	320.56	1194.37	320.47	1209.6	320.24	1219.98	320.24	1231.13	320.24
1253	320.24	1269.6	320.24	1273.76	320.56	1282.48	321.1	1285.34	321.28
1288.29	321.46	1288.92	321.6	1288.96	321.6	1295.08	322.67	1296.91	323.01
1301.59	323.88	1322.55	328.07	1325.33	328.67	1326.13	328.78	1327.51	328.96
1333.82	329.86	1344.19	331.34	1350.93	332.28	1359.92	333.53	1361.57	333.75
1364.34	333.94	1378.62	334.85	1383.44	335.16	1419.33	336.64	1422.14	336.75
1432.82	337.32	1457.44	338.6	1486.48	338.61	1501.53	338.5	1543.9	338.21
1557.72	338.14	1584	338.04	1593.44	339.14	1598.55	339.33	1609.26	339.78
1612.05	339.9	1619.75	341.01	1624.59	341.4	1624.77	341.45		

Manning's n Values num= 16

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	587.14	.021	652.39	.034	705.14	.034	752.14	.035
916.2	.02	945.75	.02	1188.35	.02	1231.13	.02	1253	.047
1282.48	.052	1285.34	.068	1333.82	.038	1350.93	.035	1624.77	.067
1624.77	.067								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
916.2	945.75	19.91	18.5	16.67	.1	.3

CROSS SECTION RIVER: San Juan Creek
REACH: Upper RS: 3240.694

INPUT
Description:
Station Elevation Data num= 77

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	341.3	80.65	337.8	137.01	335.24	238.15	334.49	282.16	334.18
502.94	335.21	541.39	334.91	583.41	333.9	612.5	333.2	632.12	332.32
648.24	331.36	659.27	330.7	671.16	328.76	684.64	326.83	689.43	325.18
695.53	323.81	706.84	320.95	753.51	317.65	759.17	317.24	760.81	316.96
773.29	314.69	780.77	311.8	788.84	308.35	792.18	307.96	807.47	307.41
832.28	306.08	834.38	306.03	863.23	304.87	874.3	304.2	888.56	304.04
889.7	303.81	894.34	302.89	897.1	302.24	910.38	297.01	915.15	295.02
922.85	294.18	928.85	293.56	934.35	294.55	939.79	296.2	956.15	308.05
959.35	310.37	961.78	312.18	964.85	313.43	969.53	315.41	970.42	315.73
973.45	315.69	1034.75	315.02	1049.38	316.81	1078.84	320.06	1089.62	321.35
1100.29	321.28	1127.71	321.39	1183.03	320.48	1204.33	320.13	1247.85	320.16
1264.49	320.17	1268.66	320.52	1280.27	321.32	1283.23	321.52	1283.86	321.67
1291.87	323.21	1317.58	328.25	1320.37	328.85	1322.55	329.12	1328.88	329.97
1356.7	333.71	1378.63	335.16	1417.43	336.78	1452.82	338.79	1481.94	338.79
1497.03	338.67	1579.72	338.02	1589.18	339.19	1607.84	339.88	1615.56	341.01
1620.41	341.38	1620.59	341.44						

Manning's n Values num= 8

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	583.41	.02	648.24	.035	1183.03	.02	1247.85	.05
1280.27	.07	1328.88	.035	1620.59	.07				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
910.38	939.79	17.16	17.02	17.06	.1	.3

INPUT
Description:
Station Elevation Data num= 148

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	340.64	79.11	337.44	134.39	335.1	148.71	335	180.48	334.76
183.62	334.74	197.6	334.64	233.59	334.36	276.76	334.05	320.36	334.2
362.88	334.29	364.82	334.29	402.2	334.46	422.33	334.49	432.37	334.49
460.49	334.47	480.09	334.14	493.32	333.9	495.68	333.83	515.69	333.48
523.5	333.39	531.03	333.33	548.66	332.93	558.81	332.71	572.25	332.37
579.51	332.19	597.65	331.69	600.78	331.58	602.2	331.5	612.08	330.92
619.02	330.3	620.02	330.19	622.98	329.84	627.98	329.42	635.83	328.78
646.65	327.89	649.5	327.39	653.2	326.79	658.32	325.97	669.06	324.45
671.54	324.12	672.23	323.9	676.24	322.67	681.46	321.63	682.22	321.48
693.31	318.99	694.21	318.94	696.03	318.83	698.08	318.78	712.88	318.31
716.87	318.17	721.26	317.91	739.09	316.79	744.64	316.43	746.25	316.18
752.98	315.07	758.49	314.14	765.83	311.53	773.74	308.41	777.02	308.06
792.02	307.54	796.29	307.33	798.74	307.19	816.35	306.22	818.41	306.16
843.3	305.09	846.71	304.92	857.57	304.19	858.31	304.17	868.8	303.93
871.56	303.87	872.67	303.65	877.22	302.76	878.27	302.53	879.93	302.08
884.29	300.3	892.96	296.78	897.72	294.72	902.59	293.97	905	293.73
905.4	293.69	911.39	293.09	915.69	294.04	916.85	294.29	922.25	296.04

937.52	306.96	937.82	307.17	940.86	309.35	943.17	311.04	946.09	312.25
950.55	314.16	951.39	314.47	954.27	314.51	957.11	314.56	969.21	314.67
970.49	314.68	978.07	314.71	1012.59	314.55	1026.51	316.24	1036.48	317.34
1047.19	318.55	1054.54	319.36	1056.11	319.55	1064.79	320.55	1074.94	320.51
1101.03	320.66	1153.66	319.96	1172.91	319.7	1173.92	319.69	1215.32	319.75
1231.15	319.77	1235.12	320.09	1236.16	320.16	1246.16	320.84	1248.98	321.03
1249.58	321.16	1257.2	322.57	1271.24	325.22	1280.92	327.02	1281.66	327.16
1284.31	327.7	1286.39	327.95	1292.41	328.72	1318.87	332.1	1339.74	333.43
1345.74	333.67	1360.9	334.34	1375.12	334.91	1376.65	334.97	1384.14	335.38
1410.32	336.81	1438.02	336.84	1452.38	336.75	1475.52	336.6	1479.39	336.57
1480.28	336.57	1503.89	336.6	1503.97	336.6	1507.99	336.68	1514.38	336.81
1531.04	337.11	1537.92	338.09	1540.04	338.38	1546.18	338.71	1557.79	339.22
1565.14	340.3	1569.75	340.67	1569.92	340.73				

Manning's n Values num= 16

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	364.82	.034	432.37	.021	572.25	.021	635.83	.035
892.96	.02	922.25	.02	1153.66	.02	1215.32	.047	1246.16	.065
1280.92	.02	1292.41	.034	1384.14	.023	1507.99	.049	1569.92	.067
1569.92	.067								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
892.96	922.25	17.16	17.02	17.06	.1	.3

CROSS SECTION RIVER: San Juan Creek
REACH: Upper RS: 3206.64*

INPUT
Description:
Station Elevation Data num= 148

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	339.97	77.56	337.08	131.77	334.97	145.81	334.86	176.96	334.64
180.04	334.62	193.74	334.52	229.04	334.24	271.36	333.91	314.11	334.01
355.8	333.98	357.7	333.99	394.36	334.15	414.09	334.11	423.94	334.05
451.5	333.89	470.72	333.14	483.69	332.58	486.01	332.46	505.63	331.92
513.29	331.82	520.67	331.76	537.96	331.37	547.91	331.19	561.08	330.84
568.2	330.65	585.99	330.1	589.06	329.96	590.45	329.87	600.14	329.16
606.94	328.23	607.93	328.06	610.83	327.53	615.73	327.01	623.43	326.2
634.04	325.08	636.83	324.55	640.45	323.97	645.47	323.18	656.01	321.7
658.44	321.41	659.11	321.22	663.04	320.15	668.16	319.28	668.91	319.15
679.79	317.03	680.66	317	682.45	316.91	684.46	316.95	698.97	317.09
702.88	317.08	707.19	316.88	724.67	315.92	730.11	315.61	731.69	315.4
738.29	314.42	743.69	313.59	750.89	311.26	758.65	308.48	761.86	308.16
776.56	307.68	780.76	307.48	783.16	307.34	800.43	306.35	802.44	306.29
826.84	305.16	830.19	304.97	840.84	304.18	841.57	304.16	851.84	303.8
854.55	303.7	855.65	303.49	860.11	302.64	861.13	302.41	862.76	301.93
867.03	300.11	875.54	296.54	880.29	294.42	885.15	293.45	887.55	293.24
887.96	293.2	893.93	292.61	898.2	293.74	899.35	294.03	904.72	295.89
919.21	306.1	919.48	306.3	922.37	308.33	924.57	309.9	927.34	311.07
931.56	312.9	932.36	313.2	935.1	313.33	937.79	313.47	949.27	313.82
950.49	313.85	957.68	314.01	990.43	314.09	1003.64	315.68	1013.1	316.72
1023.27	317.89	1030.23	318.66	1031.72	318.83	1039.96	319.75	1049.59	319.74
1074.35	319.94	1124.28	319.44	1142.56	319.26	1143.51	319.25	1182.79	319.34
1197.81	319.37	1201.58	319.65	1202.57	319.71	1212.06	320.36	1214.73	320.53
1215.3	320.66	1222.53	321.94	1235.85	324.34	1245.03	325.95	1245.74	326.07
1248.25	326.56	1250.22	326.77	1255.94	327.46	1281.05	330.5	1300.84	331.69
1306.54	331.91	1320.93	332.6	1334.41	333.11	1335.87	333.16	1342.98	333.54
1367.81	334.84	1394.1	334.89	1407.72	334.82	1429.68	334.71	1433.36	334.7
1434.2	334.7	1456.6	334.96	1456.67	334.96	1460.49	335.16	1466.55	335.47
1482.36	336.21	1488.89	337.27	1490.9	337.57	1496.73	337.99	1507.74	338.55
1514.71	339.59	1519.09	339.96	1519.25	340.02				

Manning's n Values num= 16

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	357.7	.032	423.94	.023	561.08	.023	623.43	.035
875.54	.02	904.72	.02	1124.28	.02	1182.79	.044	1212.06	.06
1245.03	.02	1255.94	.032	1342.98	.026	1460.49	.047	1519.25	.063
1519.25	.063								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
875.54	904.72	17.16	17.02	17.06	.1	.3

CROSS SECTION RIVER: San Juan Creek
REACH: Upper RS: 3189.62*

INPUT
Description:
Station Elevation Data num= 148

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	339.31	76.02	336.72	129.14	334.83	142.91	334.73	173.44	334.51
176.46	334.49	189.89	334.39	224.48	334.11	265.96	333.78	307.86	333.82
348.72	333.68	350.58	333.68	386.51	333.84	405.85	333.73	415.5	333.62
442.52	333.31	461.36	332.14	474.07	331.27	476.34	331.1	495.57	330.37
503.08	330.24	510.31	330.18	527.25	329.82	537.01	329.67	549.92	329.31
556.9	329.11	574.33	328.51	577.34	328.34	578.7	328.23	588.19	327.41
594.86	326.17	595.83	325.94	598.67	325.23	603.48	324.6	611.02	323.62
621.42	322.27	624.15	321.71	627.71	321.15	632.63	320.39	642.96	318.96
645.33	318.7	646	318.53	649.85	317.64	654.87	316.93	655.6	316.82
666.26	315.08	667.12	315.05	668.87	314.98	670.84	315.12	685.06	315.86
688.89	316	693.11	315.86	710.25	315.06	715.59	314.8	717.13	314.61
723.6	313.78	728.89	313.04	735.95	310.99	743.55	308.54	746.7	308.25
761.11	307.81	765.22	307.63	767.58	307.49	784.5	306.49	786.48	306.41
810.39	305.24	813.67	305.02	824.11	304.17	824.82	304.14	834.89	303.66
837.55	303.53	838.62	303.33	842.99	302.51	844	302.3	845.6	301.77
849.78	299.91	858.11	296.31	862.86	294.12	867.71	292.94	870.11	292.75
870.51	292.71	876.48	292.14	880.71	293.44	881.86	293.76	887.18	295.73
900.89	305.24	901.15	305.42	903.88	307.3	905.96	308.76	908.58	309.89
912.58	311.65	913.34	311.94	915.92	312.16	918.47	312.37	929.33	312.97

930.48	313.02	937.29	313.31	968.28	313.62	980.77	315.11	989.72	316.09
999.34	317.23	1005.93	317.96	1007.34	318.12	1015.13	318.94	1024.25	318.96
1047.66	319.21	1094.91	318.92	1112.2	318.82	1113.1	318.81	1150.26	318.92
1164.47	318.96	1168.04	319.22	1168.97	319.27	1177.95	319.87	1180.48	320.04
1181.02	320.15	1187.86	321.3	1200.47	323.45	1209.15	324.87	1209.81	324.98
1212.2	325.41	1214.06	325.6	1219.46	326.21	1243.22	328.89	1261.95	329.96
1267.34	330.15	1280.95	330.85	1293.71	331.3	1295.09	331.35	1301.81	331.69
1325.31	332.86	1350.18	332.94	1363.07	332.9	1383.84	332.83	1387.32	332.82
1388.12	332.84	1409.31	333.32	1409.38	333.32	1412.99	333.63	1418.73	334.13
1433.68	335.3	1439.86	336.45	1441.76	336.76	1447.28	337.27	1457.7	337.89
1464.29	338.88	1468.43	339.26	1468.59	339.3				

Manning's n Values num= 16

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	350.58	.031	415.5	.024	549.92	.024	611.02	.035
858.11	.02	887.18	.02	1094.91	.02	1150.26	.041	1177.95	.055
1209.15	.02	1219.46	.031	1301.81	.029	1412.99	.045	1468.59	.06
1468.59	.06								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
858.11	887.18	17.16	17.02	17.06	.1	.3

CROSS SECTION RIVER: San Juan Creek
REACH: Upper RS: 3172.59*

INPUT
Description:
Station Elevation Data num= 148

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	338.65	74.48	336.36	126.52	334.69	140.01	334.6	169.92	334.38
172.88	334.37	186.03	334.27	219.92	333.98	260.56	333.65	301.61	333.62
341.64	333.37	343.47	333.38	378.66	333.53	397.61	333.34	407.06	333.18
433.54	332.73	451.99	331.14	464.44	329.96	466.67	329.73	485.51	328.82
492.86	328.67	499.95	328.6	516.55	328.27	526.11	328.15	538.75	327.78
545.59	327.58	562.67	326.93	565.61	326.72	566.96	326.6	576.25	325.65
582.78	324.1	583.73	323.81	586.52	322.92	591.22	322.18	598.62	321.04
608.8	319.47	611.48	318.87	614.97	318.33	619.78	317.6	629.9	316.22
632.23	315.99	632.88	315.84	636.66	315.13	641.57	314.57	642.29	314.49
652.73	313.12	653.58	313.11	655.29	313.06	657.22	313.3	671.15	314.63
674.91	314.91	679.04	314.83	695.83	314.19	701.06	313.99	702.57	313.83
708.91	313.14	714.1	312.49	721	310.72	728.46	308.6	731.54	308.35
745.66	307.94	749.69	307.78	751.99	307.63	768.57	306.62	770.51	306.54
793.94	305.32	797.15	305.07	807.37	304.16	808.08	304.12	817.94	303.52
820.54	303.36	821.6	303.17	825.88	302.39	826.86	302.18	828.43	301.62
832.53	299.72	840.69	296.07	845.42	293.82	850.26	292.42	852.66	292.26
853.06	292.22	859.02	291.67	863.25	293.14	864.36	293.5	869.64	295.57
882.57	304.38	882.82	304.55	885.39	306.28	887.35	307.63	889.82	308.7
893.59	310.39	894.31	310.68	896.75	310.98	899.15	311.28	909.4	312.12
910.48	312.2	916.89	312.61	946.12	313.16	957.9	314.55	966.34	315.47
975.41	316.57	981.62	317.25	982.96	317.41	990.31	318.14	998.9	318.19
1020.98	318.49	1065.53	318.41	1081.84	318.38	1082.69	318.37	1117.74	318.51
1131.14	318.56	1134.49	318.78	1135.38	318.83	1143.84	319.39	1146.23	319.55
1146.74	319.64	1153.19	320.66	1165.08	322.57	1173.27	323.8	1173.89	323.89
1176.14	324.26	1177.89	324.43	1182.99	324.96	1205.4	327.29	1223.06	328.22
1228.14	328.4	1240.97	329.11	1253.01	329.5	1254.31	329.55	1260.65	329.84
1282.81	330.88	1306.26	330.99	1318.41	330.97	1338	330.95	1341.28	330.94
1342.04	330.97	1362.02	331.68	1362.08	331.68	1365.49	332.11	1370.9	332.78
1385	334.39	1390.82	335.62	1392.62	335.95	1397.82	336.55	1407.65	337.23
1413.87	338.17	1417.77	338.55	1417.92	338.59				

Manning's n Values num= 16

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	343.47	.029	407.06	.026	538.75	.026	598.62	.035
840.69	.02	869.64	.02	1065.53	.02	1117.74	.038	1143.84	.05
1173.27	.02	1182.99	.029	1260.65	.032	1365.49	.044	1417.92	.056
1417.92	.056								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
840.69	869.64	17.16	17.02	17.06	.1	.3

CROSS SECTION RIVER: San Juan Creek
REACH: Upper RS: 3155.57*

0	337.98	72.93	336	123.9	334.56	137.11	334.46	166.4	334.25
169.29	334.24	182.18	334.15	215.36	333.86	255.16	333.52	295.36	333.43
334.56	333.07	336.35	333.07	370.82	333.22	389.37	332.96	398.63	332.75
424.55	332.15	442.62	330.13	454.82	328.65	456.99	328.37	475.45	327.26
482.65	327.09	489.59	327.03	505.84	326.72	515.2	326.62	527.59	326.25
534.28	326.04	551.01	325.34	553.89	325.09	555.21	324.97	564.31	323.89
570.71	322.03	571.64	321.68	574.36	320.62	578.97	319.77	586.21	318.46
596.19	316.66	598.81	316.03	602.22	315.51	606.94	314.82	616.85	313.48
619.13	313.28	619.77	313.16	623.46	312.61	628.28	312.22	628.98	312.16
639.21	311.16	640.03	311.16	641.71	311.14	643.6	311.47	657.24	313.4
660.92	313.83	664.97	313.8	681.41	313.33	686.53	313.18	688.01	313.05
694.21	312.49	699.3	311.94	706.06	310.45	713.36	308.67	716.38	308.45
730.21	308.07	734.15	307.93	736.41	307.78	752.64	306.76	754.54	306.67
777.49	305.39	780.63	305.13	790.64	304.15	791.33	304.11	800.99	303.39
803.54	303.2	804.57	303.01	808.76	302.26	809.73	302.07	811.26	301.46
815.27	299.53	823.27	295.84	827.99	293.52	832.82	291.9	835.22	291.77
835.62	291.73	841.56	291.19	845.74	292.84	846.86	293.24	852.1	295.42
864.25	303.52	864.48	303.67	866.91	305.26	868.74	306.49	871.07	307.52
874.61	309.14	875.28	309.42	877.57	309.8	879.83	310.18	889.46	311.26
890.47	311.37	896.5	311.9	923.96	312.69	935.03	313.98	942.96	314.84
951.48	315.91	957.32	316.55	958.57	316.7	965.48	317.34	973.55	317.42

994.3	317.76	1036.16	317.89	1051.48	317.93	1052.28	317.93	1085.21	318.1
1097.8	318.16	1100.95	318.35	1101.78	318.39	1109.74	318.91	1111.98	319.05
1112.45	319.14	1118.52	320.02	1129.69	321.69	1137.38	322.72	1137.97	322.8
1140.08	323.11	1141.73	323.26	1146.52	323.71	1167.57	325.68	1184.16	326.49
1188.94	326.64	1201	327.36	1212.3	327.7	1213.52	327.74	1219.48	328
1240.3	328.91	1262.34	329.04	1273.76	329.05	1292.16	329.06	1295.25	329.07
1295.95	329.1	1314.73	330.04	1314.79	330.04	1317.99	330.58	1323.07	331.44
1336.32	333.48	1341.79	334.8	1343.48	335.14	1348.37	335.83	1357.6	336.57
1363.44	337.45	1367.11	337.84	1367.25	337.88				

Manning's n Values num= 16

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	336.35	.027	398.63	.027	527.59	.027	586.21	.035
823.27	.02	852.1	.02	1036.16	.02	1085.21	.035	1109.74	.045
1137.38	.02	1146.52	.027	1219.48	.035	1317.99	.043	1367.25	.052
1367.25	.052								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
823.27	852.1	17.16	17.02	17.06	.1	.3

CROSS SECTION RIVER: San Juan Creek
REACH: Upper RS: 3138.54*

INPUT
Description:
Station Elevation Data num= 148

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	337.32	71.39	335.64	121.28	334.42	134.21	334.33	162.88	334.12
165.71	334.12	178.32	334.02	210.81	333.73	249.76	333.38	289.11	333.24
327.48	332.77	329.23	332.77	362.97	332.91	381.13	332.58	390.19	332.32
415.57	331.57	433.26	329.13	445.19	327.33	447.32	327	465.39	325.71
472.44	325.52	479.23	325.45	495.14	325.17	504.3	325.1	516.42	324.71
522.98	324.5	539.35	323.75	542.17	323.47	543.46	323.33	552.37	322.13
558.63	319.97	559.54	319.55	562.21	318.32	566.72	317.35	573.81	315.88
583.57	313.85	586.14	313.19	589.48	312.68	594.1	312.03	603.79	310.73
606.03	310.57	606.65	310.47	610.27	310.1	614.98	309.87	615.67	309.84
625.68	309.2	626.49	309.22	628.13	309.21	629.98	309.64	643.33	312.18
646.94	312.74	650.9	312.78	666.99	312.46	672	312.36	673.45	312.27
679.52	311.85	684.5	311.39	691.12	310.18	698.26	308.73	701.22	308.55
714.75	308.21	718.61	308.08	720.83	307.93	736.72	306.89	738.57	306.8
761.03	305.47	764.11	305.18	773.91	304.14	774.58	304.09	784.04	303.25
786.53	303.03	787.54	302.85	791.65	302.14	792.59	301.96	794.09	301.31
798.02	299.33	805.85	295.61	810.56	293.22	815.38	291.39	817.77	291.28
818.17	291.25	824.1	290.72	828.25	292.55	829.36	292.98	834.57	295.26
845.93	302.66	846.15	302.8	848.42	304.24	850.14	305.35	852.31	306.34
855.62	307.88	856.25	308.15	858.4	308.62	860.51	309.09	869.52	310.41
870.47	310.55	876.11	311.2	901.8	312.22	912.16	313.41	919.58	314.22
927.55	315.25	933.02	315.85	934.19	315.99	940.65	316.54	948.2	316.65
967.62	317.04	1006.78	317.37	1021.12	317.49	1021.87	317.49	1052.68	317.69
1064.46	317.76	1067.41	317.92	1068.19	317.95	1075.63	318.43	1077.73	318.56
1078.17	318.63	1083.84	319.39	1094.3	320.8	1101.5	321.65	1102.05	321.71
1104.02	321.97	1105.57	322.08	1110.05	322.45	1129.74	324.07	1145.27	324.75
1149.74	324.89	1161.02	325.62	1171.6	325.89	1172.74	325.93	1178.32	326.15
1197.8	326.93	1218.42	327.09	1229.1	327.12	1246.33	327.18	1249.21	327.19
1249.87	327.23	1267.44	328.4	1267.5	328.4	1270.49	329.05	1275.25	330.1
1287.65	332.58	1292.76	333.98	1294.34	334.33	1298.91	335.11	1307.55	335.9
1313.02	336.74	1316.45	337.13	1316.58	337.17				

Manning's n Values num= 16

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	329.23	.026	390.19	.029	516.42	.029	573.81	.035
805.85	.02	834.57	.02	1006.78	.02	1052.68	.032	1075.63	.04
1101.5	.02	1110.05	.026	1178.32	.038	1270.49	.041	1316.58	.049
1316.58	.049								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
805.85	834.57	17.16	17.02	17.06	.1	.3

CROSS SECTION RIVER: San Juan Creek
REACH: Upper RS: 3121.52*

INPUT
Description:
Station Elevation Data num= 148

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	336.66	69.85	335.28	118.66	334.28	131.3	334.19	159.35	333.99
162.13	333.99	174.47	333.9	206.25	333.6	244.36	333.25	282.86	333.05
320.4	332.46	322.11	332.46	355.12	332.6	372.89	332.2	381.76	331.88
406.58	330.99	423.89	328.13	435.57	326.02	437.65	325.64	455.32	324.15
462.22	323.94	468.87	323.87	484.43	323.62	493.4	323.58	505.26	323.18
511.67	322.97	527.69	322.16	530.45	321.85	531.71	321.7	540.43	320.37
546.55	317.9	547.44	317.42	550.05	316.01	554.47	314.94	561.4	313.3
570.95	311.04	573.47	310.36	576.73	309.86	581.25	309.24	590.74	307.99
592.93	307.86	593.54	307.79	597.07	307.59	601.69	307.52	602.36	307.51
612.15	307.24	612.94	307.27	614.55	307.29	616.36	307.81	629.43	310.95
632.95	311.66	636.83	311.75	652.57	311.6	657.47	311.55	658.89	311.49
664.83	311.2	669.7	310.84	676.18	309.91	683.17	308.8	686.06	308.65
699.3	308.34	703.08	308.23	705.24	308.08	720.79	307.03	722.61	306.93
744.58	305.55	747.59	305.23	757.18	304.14	757.84	304.07	767.09	303.11
769.53	302.86	770.52	302.69	774.53	302.01	775.46	301.84	776.92	301.15
780.77	299.14	788.43	295.37	793.13	292.92	797.94	290.87	800.33	290.79
800.73	290.76	806.64	290.25	810.76	292.25	811.87	292.72	817.03	295.1
827.61	301.79	827.82	301.92	829.93	303.21	831.53	304.21	833.55	305.16
836.64	306.63	837.23	306.89	839.22	307.45	841.19	307.99	849.58	309.56
850.46	309.72	855.72	310.5	879.64	311.76	889.29	312.85	896.2	313.59
903.62	314.59	908.71	315.15	909.8	315.28	915.82	315.74	922.86	315.87
940.94	316.31	977.41	316.85	990.76	317.05	991.45	317.05	1020.15	317.27
1031.12	317.36	1033.87	317.48	1034.59	317.51	1041.53	317.94	1043.48	318.07

1043.89	318.12	1049.17	318.75	1058.91	319.92	1065.61	320.57	1066.13	320.62
1067.96	320.82	1069.4	320.91	1073.58	321.2	1091.92	322.47	1106.38	323.02
1110.54	323.13	1121.05	323.87	1130.9	324.09	1131.96	324.12	1137.15	324.31
1155.3	324.95	1174.5	325.14	1184.45	325.2	1200.49	325.3	1203.17	325.32
1203.79	325.36	1220.15	326.75	1220.2	326.75	1222.99	327.53	1227.42	328.75
1238.97	331.67	1243.73	333.16	1245.2	333.52	1249.46	334.39	1257.51	335.24
1262.6	336.03	1265.8	336.43	1265.91	336.46				

Manning's n Values num= 16

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	322.11	.024	381.76	.031	505.26	.031	561.4	.035
788.43	.02	817.03	.02	977.41	.02	1020.15	.029	1041.53	.035
1065.61	.02	1073.58	.024	1137.15	.041	1222.99	.039	1265.91	.045
1265.91	.045								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
788.43	817.03	17.16	17.02	17.06	.1	.3

CROSS SECTION RIVER: San Juan Creek
REACH: Upper RS: 3104.50*

INPUT
Description:
Station Elevation Data num= 148

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	336	68.3	334.92	116.03	334.15	128.4	334.06	155.83	333.87
158.55	333.87	170.61	333.78	201.69	333.48	238.96	333.12	276.61	332.86
313.32	332.16	315	332.16	347.27	332.28	364.65	331.81	373.32	331.45
397.6	330.41	414.52	327.13	425.94	324.71	427.98	324.27	445.26	322.6
452.01	322.37	458.51	322.3	473.73	322.06	482.5	322.06	494.09	321.65
500.36	321.43	516.03	320.58	518.73	320.23	519.96	320.07	528.48	318.61
534.47	315.83	535.34	315.3	537.9	313.71	542.21	312.53	549	310.72
558.34	308.23	560.79	307.52	563.99	307.04	568.41	306.45	577.69	305.25
579.82	305.16	580.42	305.1	583.88	305.07	588.39	305.16	589.05	305.18
598.63	305.29	599.4	305.33	600.97	305.37	602.74	305.99	615.52	309.72
618.96	310.57	622.75	310.72	638.15	310.74	642.94	310.74	644.33	310.71
650.14	310.56	654.9	310.29	661.24	309.64	668.07	308.86	670.9	308.75
683.85	308.47	687.54	308.38	689.66	308.22	704.86	307.17	706.64	307.05
728.13	305.63	731.07	305.28	740.45	304.13	741.09	304.05	750.14	302.97
752.52	302.69	753.49	302.53	757.42	301.88	758.32	301.73	759.76	301
763.52	298.95	771	295.14	775.7	292.62	780.5	290.35	782.88	290.3
783.28	290.27	789.19	289.78	793.27	291.95	794.37	292.45	799.49	294.94
809.3	300.93	809.48	301.04	811.44	302.19	812.92	303.07	814.8	303.98
817.66	305.38	818.2	305.63	820.05	306.27	821.87	306.9	829.64	308.71
830.46	308.89	835.32	309.8	857.48	311.29	866.42	312.28	872.82	312.97
879.7	313.93	88[illegible].41	314.45	885.42	314.56	890.99	314.94	897.51	315.1
914.25	315.58	948.04	316.33	960.4	316.61	961.04	316.61	987.62	316.86
997.78	316.96	1000.33	317.05	1001	317.07	1007.42	317.46	1009.23	317.57
1009.61	317.62	1014.5	318.11	1023.52	319.04	1029.73	319.5	1030.2	319.53
1031.91	319.67	1033.24	319.74	1037.1	319.95	1054.09	320.86	1067.49	321.28
1071.34	321.37	1081.07	322.13	1090.2	322.29	1091.18	322.31	1095.99	322.46
1112.79	322.98	1130.57	323.19	1139.79	323.28	1154.65	323.42	1157.13	323.44
1157.71	323.5	1172.86	325.11	1172.91	325.11	1175.49	326	1179.59	327.41
1190.29	330.76	1194.7	332.33	1196.06	332.71	1200.01	333.67	1207.46	334.58
1212.17	335.32	1215.14	335.72	1215.25	335.74				

Manning's n Values num= 16

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	315	.023	373.32	.032	494.09	.032	549	.035
771	.02	799.49	.02	948.04	.02	987.62	.026	1007.42	.03
1029.73	.02	1037.1	.023	1095.99	.044	1175.49	.038	1215.25	.042
1215.25	.042								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
771	799.49	17.16	17.02	17.06	.1	.3

CROSS SECTION RIVER: San Juan Creek
REACH: Upper RS: 3087.47*

INPUT
Description:
Station Elevation Data num= 148

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
441.79	320.79	448.14	320.72	463.02	320.51	471.59	320.54	482.93	320.12
489.06	319.9	504.37	318.99	507.01	318.61	508.21	318.43	516.54	316.85
522.4	313.77	523.25	313.17	525.74	311.4	529.96	310.11	536.59	308.14
545.72	305.42	548.12	304.68	551.24	304.22	555.56	303.66	564.63	302.5
566.72	302.45	567.31	302.42	570.69	302.56	575.1	302.81	575.74	302.85
585.1	303.33	585.85	303.38	587.39	303.44	589.12	304.16	601.61	308.5
604.98	309.49	608.68	309.7	623.73	309.87	628.42	309.93	629.77	309.92
635.45	309.91	640.1	309.74	646.3	309.37	652.98	308.92	655.74	308.84
668.4	308.61	672.01	308.53	674.07	308.37	688.93	307.3	690.67	307.18
711.67	305.7	714.55	305.33	723.72	304.12	724.35	304.04	733.19	302.84
735.52	302.52	736.46	302.37	740.3	301.76	741.19	301.61	742.59	300.84
746.26	298.75	753.58	294.9	758.27	292.32	763.06	289.84	765.44	289.81
765.83	289.78	771.73	289.3	775.78	291.65	776.87	292.19	781.96	294.79
790.98	300.07	791.15	300.17	792.95	301.17	794.32	301.93	796.04	302.8
798.67	304.12	799.17	304.37	800.87	305.09	802.55	305.8	809.7	307.86
810.45	308.07	814.93	309.09	835.33	310.82	843.55	311.72	849.44	312.34
855.77	313.27	860.11	313.75	861.03	313.85	866.16	314.13	872.16	314.33
887.57	314.86	918.66	315.81	930.04	316.16	930.63	316.17	955.09	316.45
964.44	316.55	966.79	316.62	967.4	316.63	973.31	316.98	974.98	317.08
975.33	317.11	979.83	317.47	988.13	318.15	993.84	318.42	994.28	318.45
995.85	318.52	997.07	318.57	1000.63	318.69	1016.27	319.25	1028.59	319.55

1032.14	319.62	1041.1	320.38	1049.49	320.48	1050.4	320.5	1054.82	320.62
1070.29	321	1086.65	321.24	1095.14	321.35	1108.81	321.53	1111.1	321.57
1111.62	321.63	1125.57	323.47	1125.61	323.47	1127.99	324.48	1131.77	326.06
1141.61	329.85	1145.67	331.51	1146.93	331.9	1150.55	332.95	1157.41	333.91
1161.75	334.61	1164.48	335.01	1164.58	335.03				

Manning's n Values num= 16

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	307.88	.021	364.89	.034	482.93	.034	536.59	.035
753.58	.02	781.96	.02	918.66	.02	955.09	.023	973.31	.025
993.84	.02	1000.63	.021	1054.82	.047	1127.99	.036	1164.58	.038
1164.58	.038								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
753.58	781.96	17.16	17.02	17.06	.1	.3

CROSS SECTION RIVER: San Juan Creek
REACH: Upper RS: 3070.453

INPUT
Description:
Station Elevation Data num= 76

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	334.67	122.6	333.79	148.79	333.61	151.38	333.62	162.9	333.53
264.11	332.48	299.16	331.55	300.76	331.55	331.58	331.66	348.17	331.05
356.45	330.58	379.63	329.25	395.79	325.12	408.64	321.54	425.14	319.49
431.58	319.22	452.32	318.96	460.69	319.02	477.75	318.36	492.71	317.4
496.46	316.8	504.6	315.09	510.32	311.7	513.59	309.1	517.71	307.7
535.45	301.84	538.5	301.4	551.58	299.76	554.19	299.73	561.8	300.46
572.31	301.44	573.81	301.52	575.5	302.33	587.7	307.27	590.99	308.4
594.61	308.67	620.76	309.27	656.47	308.68	658.49	308.52	695.22	305.78
707.6	304.02	716.24	302.7	724.05	301.5	729.01	298.56	736.16	294.67
745.62	289.32	747.99	289.32	754.27	288.83	758.29	291.35	764.42	294.63
772.66	299.21	783.23	304.71	789.76	307.01	790.45	307.24	794.54	308.39
826.06	311.72	831.84	312.61	836.65	313.14	899.68	315.72	933.81	316.19
952.74	317.27	957.96	317.35	992.94	317.86	1001.12	318.64	1008.79	318.68
1013.66	318.77	1062.97	319.65	1065.06	319.69	1065.54	319.76	1078.28	321.83
1078.32	321.83	1080.49	322.95	1083.94	324.72	1096.64	330.69	1101.1	332.23
1113.91	334.32								

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	300.76	.02	356.45	.035	957.96	.02	1013.66	.05
1080.49	.035								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
736.16	764.42	156.15	150.03	143.28	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Juan Creek
REACH: Upper RS: 2920.457

INPUT
Description:
Station Elevation Data num= 79

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	327.99	22.04	327.45	31.08	326.82	39.79	325.96	41.94	325.8
62.15	324.34	80.18	320.87	81.99	320.42	87.85	318.1	115.27	306.48
125.88	302.49	145.43	293.3	151	291.45	157.56	289.28	164.84	287.78
177.91	286.38	197.61	284.62	238.1	282.92	245.82	282.9	260.91	282.57
287.69	282.31	305.82	283.13	309.71	283.32	326.14	285.96	350.13	289.26
360.72	292.54	366.94	294.46	368.84	294.99	369.61	295.18	371.29	295.69
389.48	300.05	392.2	300.68	392.54	300.77	392.99	300.87	409.51	302.9
418.52	303.62	434.19	304.38	452.73	303.96	486.91	303.32	523.77	302.98
553.15	303.51	567.67	302.06	571.84	301.93	572.64	301.68	575.47	300.49
582.12	297.7	584.45	295.5	590.42	291.13	593.19	288.95	598.25	287.62
608.06	287.38	611.82	286.89	618.94	287.3	626	287.77	631.11	288.34
633.23	290.08	635.17	291.16	639.8	296.81	642.69	300.03	646.34	303.08
646.77	303.44	651.05	306.88	667.37	311.6	676.78	313.48	690.88	314.7
690.93	314.71	691	314.71	720.46	315.24	771.77	315.14	777.28	315.13
787.35	315.65	803.73	316.28	813.71	317.99	820.38	319.14	823.26	319.78
825.08	320.43	831.8	324.36	838.02	328.22	838.88	328.47		

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.02	41.94	.035	151	.05	360.72	.035	771.77	.02
813.71	.05								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
590.42	635.17	160.12	168.28	173.88	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Juan Creek
REACH: Upper RS: 2752.174

INPUT
Description:
Station Elevation Data num= 73

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	321.29	6.27	320.33	26.21	311.56	30.16	309.95	35.67	307.78
67.31	296.08	68.93	295.3	76.45	291.42	81.01	289.06	85.34	287.61
100.15	282.18	111.25	281.77	128.58	281.15	129.09	281.14	137.56	281.15
142.83	280.91	204.86	280.87	214.99	280.78	235.05	281.71	283.02	282.41
292.29	282.62	296.39	282.7	334.19	284.26	382.23	286.8	385.35	286.96

394.87	287.4	415.97	288.85	439.53	292.84	460.86	297.96	470.85	301.23
478.7	301.69	500.76	303.72	555.59	303.24	573.16	303.08	583.43	302.96
584.28	302.9	586.68	302.87	594.58	302.53	600.59	302.27	602.06	301.95
609.68	297.98	615.16	292.87	617.86	291.06	619.4	289.27	621.23	288.45
624.1	287.6	641.11	287.44	653.42	287.46	657.96	287.85	661.04	288.65
665.76	290.82	671.13	295.21	677.16	301.15	682.07	303.4	689.76	306.93
693.98	308.22	698.57	310.19	712.77	315.04	723.07	315.4	730.49	315.22
735.28	315.1	749.12	315	772.96	317.4	786.78	318.8	789.27	319.06
792.13	319.71	810.25	321.22	817.52	321.82	821.71	322.36	835.92	325.48
846.64	328.07	847.52	328.15	849.4	328.28				

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	76.45	.05	382.23	.035	730.49	.02	772.96	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
617.86	665.76	29.22	41.66	51.58	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Juan Creek
REACH: Upper RS: 2710.51*

INPUT
Description:
Station Elevation Data num= 155

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	321.29	6.46	320.35	7.13	320.1	21.89	314.07	27.02	311.95
27.99	311.57	31.1	310.21	31.48	310.05	36.78	307.86	59.22	299.01
61.54	298.14	69.4	295.2	71.07	294.42	72.59	293.67	72.75	293.6
76.5	291.84	78.83	290.72	83.53	288.46	87.25	287.22	87.99	287
96.35	284.26	103.26	282.18	104.29	282.15	109.27	281.95	114.71	281.78
119.7	281.63	132.58	281.2	133.1	281.19	141.84	281.15	147.27	280.93
154.32	280.89	197.78	280.88	211.23	280.88	221.67	280.82	242.36	281.61
247.47	281.67	289.78	282.38	291.82	282.42	301.37	282.63	305.6	282.72
344.58	284.19	352.71	284.57	352.91	284.58	372.85	285.58	394.11	286.63
397.33	286.79	407.14	287.23	418.96	287.96	428.9	288.55	436.02	289.55
452.04	291.94	453.19	292.09	462.37	293.83	466.09	294.65	471.07	295.65
471.65	295.8	475.18	296.75	479.68	298.28	485.48	299.99	488.37	300.21
493.58	300.58	496.68	300.88	500.17	301.2	516.32	302.67	544.48	302.93
549.92	302.95	552.44	303.01	554.73	303.03	569.55	303.14	572.71	303.2
572.86	303.19	580.23	303.05	590.1	302.94	590.97	302.94	601.56	302.93
602.44	302.89	604.91	302.88	609.07	302.77	609.79	302.74	610.24	302.72
613.06	302.55	617.41	302.3	618.57	302.18	619.26	302.11	620.77	301.74
621.12	301.57	621.46	301.41	626.04	299.06	628.63	297.73	632.01	294.87
633.9	293.2	634.28	292.86	634.83	292.49	637.06	290.87	638.55	289.27
640.32	288.44	640.44	288.4	643.1	287.69	645.51	287.63	659.55	287.3
673.42	287.35	674.03	287.39	675.32	287.47	678.54	287.69	679.79	287.94
680.73	288.16	682.01	288.46	682.7	288.73	686.74	290.29	687.32	290.61
692.23	294.65	697.75	300.02	702.24	302.24	709.26	305.72	709.27	305.72
713.13	307.1	717.33	309.06	719.83	310.03	722.56	311.14	729.92	313.79
730.31	313.93	730.34	313.94	741.77	314.44	743.04	314.44	744.67	314.44
750.02	314.35	752.82	314.3	755.34	314.24	766.62	314.14	770.73	314.09
770.88	314.1	797.24	315.94	812.61	317.01	815.38	317.21	818.3	317.69
818.56	317.74	819.29	317.78	828.25	318.32	832.6	318.57	838.07	319.01
838.71	319.05	843.46	319.35	846.79	319.6	850.01	319.95	851.45	320.12
857.11	321.19	862.65	322.32	865.99	323.08	867.25	323.41	868.49	323.74
872.2	324.88	878.18	326.65	879.17	326.87	880.15	326.97	882.24	327.16

Manning's n Values num= 16

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	72.75	.038	78.83	.05	372.85	.047	394.11	.035
500.17	.038	554.73	.047	637.06	.025	673.42	.05	679.79	.047
687.32	.02	722.56	.02	752.82	.025	766.62	.025	812.61	.05
882.24	.05								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
637.06	687.32	29.22	41.66	51.58	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

Description:
Station Elevation Data num= 155

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	321.29	6.66	320.37	7.34	320.16	22.55	314.39	27.84	312.34
28.83	311.97	32.03	310.47	32.43	310.29	37.89	307.93	61.01	298.28
63.39	297.38	71.49	294.31	73.21	293.54	74.78	292.81	74.95	292.74
78.81	291.1	81.2	290.03	86.05	287.86	89.88	286.59	90.64	286.38
99.25	283.88	106.38	282.18	107.44	282.15	112.56	281.94	118.17	281.8
123.31	281.67	136.57	281.25	137.11	281.24	146.11	281.16	151.71	280.94
158.97	280.87	203.74	280.88	217.59	280.89	228.35	280.85	249.66	281.5
254.93	281.56	298.51	282.39	300.61	282.42	310.46	282.65	314.81	282.74
354.96	284.12	363.34	284.47	363.55	284.48	384.09	285.44	405.99	286.47
409.3	286.62	419.42	287.05	431.59	287.74	441.83	288.25	449.17	289.08
465.67	291.22	466.85	291.34	476.31	292.68	480.14	293.46	485.27	294.3
485.87	294.45	489.51	295.54	494.14	297.17	500.12	298.75	503.09	299.03
508.46	299.47	511.65	299.8	515.24	300.12	531.89	301.62	560.89	302.38
566.49	302.47	569.09	302.61	571.45	302.67	586.72	303.01	589.98	303.15
590.13	303.15	597.72	302.93	607.89	302.8	608.79	302.8	619.7	302.9
620.6	302.87	623.15	302.89	627.43	302.84	628.17	302.81	628.63	302.79
631.54	302.57	636.03	302.25	637.22	302.06	637.92	301.95	639.48	301.53
639.84	301.37	640.19	301.21	644.92	298.83	647.58	297.48	651.06	294.8

653.01	293.18	653.4	292.85	653.97	292.46	656.27	290.69	657.71	289.26
659.42	288.44	659.53	288.4	662.1	287.77	664.43	287.69	678	287.17
693.42	287.24	694.1	287.27	695.54	287.34	699.11	287.53	700.51	287.74
701.55	287.96	702.97	288.27	703.74	288.52	708.24	290	708.89	290.41
713.34	294.09	718.34	298.89	722.41	301.08	728.77	304.51	728.78	304.52
732.28	305.97	736.09	307.93	738.36	308.94	740.83	310.13	747.5	312.69
747.86	312.83	747.89	312.83	760.46	313.48	761.86	313.5	763.66	313.54
769.54	313.48	772.63	313.45	775.41	313.39	787.82	313.25	792.35	313.19
792.51	313.19	821.53	314.47	838.44	315.22	841.49	315.36	844.71	315.73
844.99	315.76	845.79	315.79	855.65	316.2	860.45	316.37	866.46	316.84
867.17	316.87	872.39	317.13	876.06	317.38	879.61	317.71	881.19	317.89
887.42	318.9	893.52	320.06	897.2	320.93	898.58	321.33	899.94	321.74
904.03	323.21	910.62	325.44	911.71	325.66	912.78	325.79	915.08	326.04

Manning's n Values num= 15

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	74.95	.04	81.2	.05	384.09	.045	405.99	.035
515.24	.04	571.45	.045	656.27	.03	693.42	.05	700.51	.045
708.89	.02	747.5	.02	787.82	.03	838.44	.05	915.08	.05

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
656.27 708.89 29.22 41.66 51.58 .1 .3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888		F	

CROSS SECTION RIVER: San Juan Creek
REACH: Upper RS: 2627.20*

INPUT
Description:
Station Elevation Data num= 154

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	321.29	6.85	320.39	7.56	320.21	23.21	314.71	28.65	312.72
29.68	312.36	32.97	310.74	33.38	310.54	39	308.01	62.79	297.56
65.25	296.62	73.59	293.43	75.36	292.66	76.97	291.94	77.14	291.87
81.11	290.36	83.58	289.33	88.56	287.26	92.51	285.96	93.3	285.77
102.16	283.49	109.49	282.19	110.58	282.16	115.86	281.93	121.62	281.81
126.92	281.71	140.57	281.3	141.13	281.28	150.39	281.16	156.15	280.96
163.62	280.85	209.7	280.87	223.96	280.9	235.04	280.89	256.97	281.4
262.39	281.45	307.25	282.39	309.41	282.43	319.54	282.66	324.03	282.76
365.35	284.05	373.97	284.37	374.19	284.37	395.33	285.3	417.87	286.3
421.28	286.45	431.69	286.88	444.22	287.52	454.76	287.95	462.31	288.61
479.29	290.51	480.51	290.59	490.25	291.54	494.19	292.26	499.47	292.94
500.09	293.11	503.83	294.32	508.6	296.06	514.75	297.51	517.82	297.85
523.33	298.36	526.62	298.72	530.32	299.04	547.45	300.56	577.3	301.84
583.07	301.98	585.74	302.21	588.18	302.3	603.89	302.88	607.24	303.11
607.39	303.1	615.21	302.81	625.68	302.65	626.6	302.67	637.83	302.87
638.76	302.86	641.38	302.9	645.79	302.92	646.56	302.89	647.03	302.85
650.02	302.6	654.64	302.2	655.86	301.94	656.59	301.79	658.2	301.32
658.56	301.17	658.92	301.01	663.79	298.61	666.53	297.22	670.11	294.74
672.12	293.17	672.52	292.84	673.1	292.43	675.47	290.5	676.86	289.26
678.51	288.43	678.62	288.39	681.1	287.86	683.35	287.74	696.44	287.04
713.42	287.13	714.17	287.15	715.75	287.21	719.69	287.38	721.23	287.54
722.37	287.77	723.94	288.08	724.79	288.32	729.74	289.71	730.45	290.2
734.44	293.53	738.93	297.77	742.58	299.93	748.28	303.31	751.43	304.85
754.84	306.8	756.88	307.84	759.09	309.12	765.08	311.59	765.4	311.73
765.43	311.73	779.16	312.52	780.69	312.57	782.65	312.64	789.07	312.61
792.44	312.59	795.47	312.53	809.02	312.36	813.96	312.28	814.14	312.28
845.81	313.01	864.27	313.44	867.6	313.52	871.11	313.76	871.42	313.79
872.29	313.8	883.06	314.08	888.29	314.18	894.86	314.67	895.62	314.7
901.33	314.91	905.34	315.16	909.2	315.47	910.93	315.65	917.74	316.6
924.39	317.8	928.4	318.78	929.92	319.26	931.4	319.73	935.86	321.54
943.05	324.24	944.24	324.46	945.41	324.61	947.92	324.91		

Manning's n Values num= 15

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	77.14	.043	83.58	.05	395.33	.043	417.87	.035
530.32	.043	588.18	.043	675.47	.035	713.42	.05	722.37	.043
730.45	.02	779.16	.02	809.02	.035	864.27	.05	947.92	.05

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
675.47 730.45 29.22 41.66 51.58 .1 .3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888		F	

CROSS SECTION RIVER: San Juan Creek
REACH: Upper RS: 2585.54*

INPUT
Description:
Station Elevation Data num= 154

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	321.29	7.05	320.41	7.77	320.26	23.87	315.03	29.47	313.11
30.52	312.76	33.91	311	34.33	310.78	40.1	308.08	64.58	296.83
67.1	295.86	75.68	292.55	77.5	291.78	79.15	291.07	79.33	291.01
83.42	289.61	85.95	288.64	91.08	286.67	95.14	285.32	95.95	285.15
105.06	283.11	112.6	282.19	113.72	282.16	119.15	281.91	125.08	281.83
130.52	281.75	144.57	281.34	145.14	281.33	154.66	281.16	160.59	280.98
168.28	280.84	215.67	280.87	230.33	280.92	241.72	280.92	264.27	281.3
269.85	281.34	315.98	282.39	318.21	282.44	328.63	282.68	333.24	282.78
375.74	283.98	384.61	284.27	384.82	284.27	406.57	285.17	429.75	286.13
433.26	286.28	443.96	286.7	456.85	287.3	467.68	287.65	475.45	288.14
492.92	289.8	494.17	289.84	504.18	290.39	508.24	291.07	513.67	291.59
514.31	291.77	518.15	293.11	523.06	294.96	529.39	296.27	532.54	296.67
538.21	297.25	541.6	297.64	545.4	297.97	563.02	299.51	593.72	301.29
599.65	301.5	602.4	301.81	604.9	301.94	621.05	302.76	624.5	303.06

624.66	303.05	632.7	302.69	643.46	302.5	644.42	302.53	655.96	302.83
656.92	302.84	659.62	302.91	664.15	302.99	664.94	302.96	665.42	302.92
668.5	302.62	673.25	302.15	674.51	301.83	675.26	301.63	676.91	301.12
677.28	300.97	677.65	300.81	682.66	298.38	685.48	296.97	689.16	294.68
691.22	293.15	691.64	292.83	692.24	292.4	694.67	290.31	696.01	289.25
697.6	288.43	697.71	288.38	700.1	287.95	702.26	287.8	714.88	286.9
733.43	287.02	734.24	287.04	735.97	287.08	740.26	287.22	741.95	287.34
743.2	287.57	744.9	287.89	745.83	288.11	751.23	289.41	752.01	289.99
755.55	292.97	759.51	296.64	762.74	298.77	767.8	302.1	770.58	303.72
773.6	305.67	775.4	306.75	777.36	308.11	782.66	310.48	782.94	310.62
782.98	310.63	797.86	311.56	799.51	311.64	801.64	311.74	808.6	311.74
812.25	311.74	815.54	311.68	830.22	311.48	835.57	311.37	835.76	311.37
870.09	311.54	890.1	311.65	893.71	311.67	897.51	311.8	897.85	311.81
898.79	311.81	910.46	311.96	916.13	311.98	923.25	312.5	924.08	312.53
930.27	312.68	934.61	312.94	938.8	313.23	940.67	313.42	948.05	314.31
955.26	315.54	959.61	316.63	961.25	317.18	962.86	317.73	967.69	319.86
975.48	323.03	976.77	323.25	978.04	323.43	980.77	323.79		

Manning's n Values num= 16

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	79.33	.045	85.95	.05	406.57	.04	429.75	.035
545.4	.045	604.9	.04	694.67	.04	733.43	.05	743.2	.04
752.01	.02	797.86	.02	830.22	.04	835.57	.04	890.1	.05
980.77	.05								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
694.67	752.01	29.22	41.66	51.58	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Juan Creek
REACH: Upper RS: 2543.88*

INPUT
Description:
Station Elevation Data num= 154

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	321.29	7.24	320.43	7.99	320.32	24.53	315.35	30.28	313.5
31.37	313.15	34.85	311.26	35.28	311.03	41.21	308.16	66.36	296.11
68.96	295.1	77.77	291.66	79.64	290.91	81.34	290.21	81.53	290.15
85.72	288.87	88.33	287.94	93.6	286.07	97.77	284.69	98.6	284.54
107.97	282.73	115.71	282.19	116.87	282.17	122.45	281.9	128.54	281.84
134.13	281.78	148.56	281.39	149.15	281.38	158.94	281.16	165.03	280.99
172.93	280.82	221.63	280.87	236.7	280.93	248.4	280.96	271.58	281.2
277.31	281.23	324.72	282.4	327	282.45	337.71	282.69	342.45	282.8
386.12	283.91	395.24	284.16	395.46	284.16	417.81	285.04	441.63	285.97
445.23	286.11	456.23	286.53	469.48	287.07	480.61	287.35	488.6	287.67
506.54	289.08	507.83	289.09	518.12	289.25	522.29	289.87	527.87	290.23
528.52	290.42	532.48	291.9	537.52	293.85	544.02	295.03	547.26	295.49
553.09	296.15	556.57	296.55	560.47	296.89	578.58	298.46	610.13	300.74
616.22	301.01	619.05	301.41	621.62	301.57	638.22	302.63	641.77	303.02
641.93	303.01	650.19	302.57	661.25	302.36	662.23	302.39	674.1	302.8
675.08	302.83	677.85	302.93	682.51	303.07	683.32	303.04	683.82	302.99
686.98	302.64	691.86	302.1	693.15	301.71	693.92	301.47	695.62	300.91
696.01	300.76	696.39	300.62	701.53	298.16	704.43	296.72	708.21	294.62
710.33	293.14	710.76	292.82	711.37	292.38	713.88	290.13	715.16	289.25
716.7	288.42	716.8	288.37	719.1	288.04	721.18	287.85	733.33	286.77
753.43	286.9	754.31	286.92	756.18	286.94	760.84	287.06	762.66	287.14
764.02	287.38	765.87	287.71	766.88	287.91	772.73	289.12	773.58	289.79
776.65	292.4	780.1	295.51	782.91	297.61	787.31	300.9	789.73	302.6
792.36	304.54	793.93	305.65	795.63	307.11	800.24	309.38	800.49	309.52
800.52	309.52	816.55	310.6	818.34	310.7	820.63	310.84	828.13	310.87
832.06	310.88	835.6	310.82	851.42	310.59	857.19	310.46	857.39	310.46
894.37	310.08	915.93	309.86	919.81	309.82	923.92	309.83	924.28	309.84
925.3	309.83	937.87	309.84	943.98	309.79	951.65	310.34	952.54	310.35
959.2	310.46	963.88	310.72	968.39	310.99	970.42	311.18	978.36	312.02
986.13	313.29	990.81	314.48	992.58	315.11	994.31	315.72	999.52	318.19
1007.92	321.83	1009.3	322.05	1010.68	322.25	1013.61	322.67		

Manning's n Values num= 16

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	81.53	.047	88.33	.05	417.81	.038	441.63	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
713.88	773.58	29.22	41.66	51.58	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Juan Creek
REACH: Upper RS: 2502.231

INPUT
Description:
Station Elevation Data num= 88

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	321.29	8.2	320.37	25.19	315.67	32.21	313.55	36.23	311.27
68.15	295.38	70.81	294.34	83.53	289.34	83.72	289.29	88.03	288.13
100.4	284.06	110.87	282.35	120.01	282.17	125.74	281.89	137.74	281.82
177.58	280.8	227.59	280.87	284.77	281.12	333.45	282.4	405.87	284.06
406.1	284.06	429.05	284.9	482.11	286.85	501.74	287.2	520.17	288.37
532.06	288.1	536.34	288.68	542.07	288.88	542.74	289.08	551.98	292.74
561.98	294.31	571.54	295.47	575.55	295.81	626.54	300.19	632.8	300.53
635.7	301.01	638.34	301.21	655.39	302.5	659.03	302.97	667.68	302.45

679.04	302.21	700.87	303.14	701.7	303.11	702.21	303.06	710.47	302.05
711.8	301.59	714.73	300.56	715.12	300.42	720.4	297.93	727.26	294.56
729.44	293.12	730.51	292.35	733.08	289.94	735.89	288.36	740.1	287.91
751.77	286.63	774.38	286.8	776.4	286.81	783.38	286.94	784.84	287.18
787.92	287.7	794.23	288.83	795.14	289.58	806.82	299.69	812.45	304.56
813.9	306.1	817.82	308.28	818.03	308.41	818.07	308.42	837.16	309.77
839.62	309.94	851.87	310.03	872.62	309.7	879.02	309.55	950.32	307.87
951.8	307.84	965.27	307.72	971.82	307.59	980.04	308.17	988.14	308.24
997.99	308.75	1008.67	309.73	1017	311.03	1022.02	312.33	1025.77	313.72
1031.35	316.52	1040.35	320.62	1046.45	321.55				

Manning's n Values num= 9

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	83.72	.05	429.05	.035	575.55	.05	638.34	.035
774.38	.05	784.84	.035	837.16	.02	879.02	.05		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
733.08	795.14	45.42	45.32	47.38	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Juan Creek
REACH: Upper RS: 2456.91*

INPUT
Description:
Station Elevation Data num= 129

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	321.37	1.88	321.16	4.37	320.9	12.99	319.99	23.36	317.16
27.09	316.11	29.78	315.17	36.71	312.6	40.68	310.24	45.09	307.88
52.95	303.61	55.93	302	66.13	297.12	70.89	294.97	72.23	294.35
74.86	293.38	87.43	288.68	87.61	288.63	91.76	287.51	91.87	287.49
98.35	285.53	103.93	283.84	104.1	283.79	114.44	282.16	122.62	281.99
124.87	281.88	127.74	281.75	138.47	281.66	161.06	281.08	166.63	280.92
174.1	280.75	217.3	280.82	266.68	281.05	308.73	282.13	376.84	283.66
377.05	283.66	398.64	284.4	442.86	286.03	459.21	286.32	473.49	286.91
488.05	287.55	510.5	287.97	534.44	288.16	588.85	288.39	617.15	288.5
651.97	288.28	666.29	287.19	675.44	286.79	689.48	286.39	695.36	286.21
708	285.77	719.08	285.84	729.22	285.91	731.88	285.93	741.07	286.11
742.99	286.32	747.05	286.78	755.35	287.79	756.55	288.42	759.34	288.4
764.42	288.41	776.57	288.43	776.7	288.48	776.71	288.48	776.76	288.51
780.06	289.92	784.98	292.04	798.27	297.87	798.72	298.07	804.59	300.62
805.14	300.89	805.73	301.18	806.32	301.45	808.73	302.52	811.42	303.96
811.79	304.08	815.19	305.12	818.7	306.09	818.89	306.14	819.09	306.2
819.17	306.21	828.23	306.74	831.08	307.11	833.05	307.38	834.83	307.64
836.41	307.87	838.19	307.99	843.96	308.45	845.59	308.73	847.37	309.04
849.86	309.28	851.89	309.55	853.19	309.68	854.63	309.81	857.02	309.9
861.91	309.84	868.91	309.87	885.77	309.59	889.04	309.54	895.26	309.4
929.69	308.62	964.46	307.82	965.89	307.8	966.3	307.79	978.97	307.66
985.32	307.54	993.3	308	1001.16	308.04	1010.72	308.44	1015.89	308.95
1020.63	309.43	1020.91	309.45	1024.33	309.99	1028.85	310.88	1031.27	311.57
1033.64	312.25	1037.21	313.63	1042.54	316.28	1049.27	319.38	1051.12	320.14
1056.93	321.02	1058.27	321.08	1060.29	321.16	1061.82	321.13	1064.42	321.02
1064.48	321.03	1064.51	321.03	1068.62	321.18	1078.96	321.55		

Manning's n Values num= 16

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	36.71	.041	74.86	.053	217.3	.064	376.84	.038
534.44	.05	588.85	.038	666.29	.047	741.07	.035	756.55	.025
819.17	.05	861.91	.047	964.46	.032	978.97	.025	1020.63	.053
1051.12	.067								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
651.97	756.55	45.42	45.32	47.38	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Juan Creek
REACH: Upper RS: 2411.59*

INPUT
Description:
Station Elevation Data num= 127

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	321.45	2.58	321.16	5.98	320.81	17.77	319.61	28.02	316.86
31.71	315.8	34.36	314.67	41.22	311.65	45.14	309.21	49.49	306.71
57.26	302.14	60.2	300.41	70.28	295.79	74.99	293.89	76.3	293.33
78.9	292.41	91.32	288.02	91.51	287.97	95.61	286.87	95.71	286.84
102.11	285.09	107.63	283.57	107.79	283.53	118.01	281.96	125.22	281.81
127.21	281.72	129.74	281.6	139.21	281.51	159.12	280.98	164.03	280.83
170.63	280.7	207	280.78	248.59	280.97	284	281.85	347.81	283.25
348.01	283.25	368.23	283.9	403.6	285.2	416.69	285.44	428.98	286.22
436.9	286.04	439.76	286.42	443.58	286.56	570.92	287.26	596.69	286.01
610.78	285.67	633.83	285.43	643.48	285.29	664.23	284.91	674.59	284.97
684.06	285.01	687.36	285.06	698.76	285.28	701.14	285.46	706.17	285.87
716.47	286.74	717.96	287.26	723.54	287.21	733.7	287.23	758	287.28
758.19	287.32	758.21	287.32	758.28	287.34	763.1	288.64	770.29	290.58
789.72	296.05	790.38	296.24	798.96	298.61	799.75	298.89	800.62	299.2
801.49	299.45	805	300.48	808.94	301.83	809.48	301.95	814.45	303.02
819.58	303.89	819.87	303.94	820.15	304	820.26	304.01	833.52	304.71
837.68	305.35	840.56	305.81	843.15	306.25	845.47	306.65	848.06	306.84
856.5	307.54	858.88	308.03	861.49	308.6	865.13	308.96	868.1	309.43
869.99	309.65	872.1	309.85	874.41	309.87	879.16	309.7	885.94	309.7
902.3	309.43	905.47	309.38	911.49	309.25	944.88	308.52	978.59	307.78
979.98	307.75	980.38	307.75	992.66	307.61	998.82	307.49	1006.56	307.83
1014.18	307.84	1023.45	308.13	1028.37	308.66	1032.88	309.15	1033.14	309.18

1036.4	309.69	1040.7	310.73	1043	311.45	1045.26	312.17	1048.66	313.53
1053.72	316.05	1060.13	319.02	1061.89	319.67	1067.42	320.5	1070.09	320.61
1074.13	320.77	1077.2	320.71	1082.38	320.5	1082.52	320.51	1082.57	320.51
1090.78	320.81	1111.48	321.56						

Manning's n Values num= 13

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	31.71	.047	70.28	.057	207	.058	347.81	.04
570.92	.045	687.36	.035	717.96	.03	798.96	.05	845.47	.045
978.59	.03	1040.7	.057	1077.2	.063				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
570.92	717.96	45.42	45.32	47.38	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Juan Creek
REACH: Upper RS: 2366.27*

INPUT
Description:
Station Elevation Data num= 128

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	321.53	3.27	321.16	7.59	320.73	22.56	319.23	32.68	316.55
36.33	315.49	38.95	314.18	45.72	310.71	49.59	308.19	53.89	305.55
61.57	300.66	64.47	298.82	74.43	294.46	79.08	292.81	80.38	292.3
82.95	291.45	95.22	287.36	95.4	287.31	99.45	286.22	99.56	286.2
105.88	284.65	111.33	283.3	111.49	283.26	121.59	281.77	127.83	281.63
129.55	281.55	131.74	281.46	139.94	281.35	157.19	280.89	161.44	280.74
167.15	280.65	196.71	280.73	230.5	280.9	259.28	281.58	318.78	282.85
318.96	282.85	337.82	283.4	364.35	284.38	374.16	284.55	383.38	285.14
389.33	285.01	391.47	285.29	394.33	285.4	394.66	285.49	489.84	285.92
527.09	284.84	546.12	284.55	578.18	284.46	591.6	284.37	620.47	284.05
630.09	284.09	638.91	284.12	642.84	284.18	656.45	284.45	659.29	284.61
665.3	284.95	677.6	285.7	679.37	286.1	687.74	286.03	702.98	286.06
739.43	286.12	739.68	286.16	739.7	286.16	739.8	286.18	746.14	287.36
755.6	289.13	781.17	294.24	782.04	294.41	793.33	296.6	794.37	296.89
795.52	297.22	796.66	297.46	801.28	298.45	806.46	299.69	807.17	299.82
813.71	300.91	820.47	301.7	820.84	301.74	821.22	301.79	821.36	301.8
838.8	302.69	844.28	303.58	848.06	304.23	851.48	304.87	854.53	305.44
857.94	305.69	869.04	306.63	872.18	307.34	875.61	308.15	880.4	308.65
884.3	309.31	886.79	309.62	889.56	309.89	891.81	309.83	896.41	309.56
902.98	309.54	918.82	309.27	921.89	309.22	927.73	309.1	960.07	308.42
992.73	307.73	994.08	307.71	994.46	307.7	1006.36	307.55	1012.33	307.44
1019.82	307.67	1027.21	307.64	1036.19	307.83	1040.85	308.37	1045.13	308.87
1045.38	308.9	1048.47	309.39	1052.55	310.57	1054.73	311.34	1056.87	312.09
1060.1	313.44	1064.91	315.81	1070.99	318.65	1072.65	319.19	1077.91	319.97
1081.92	320.14	1087.97	320.38	1092.57	320.28	1100.35	319.97	1100.55	319.99
1100.63	319.99	1112.95	320.44	1143.99	321.57				

Manning's n Values num= 14

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	32.68	.053	61.57	.06	157.19	.053	318.78	.043
389.33	.05	489.84	.043	642.84	.035	781.17	.05	838.8	.043
960.07	.027	992.73	.035	1060.1	.06	1112.95	.06		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
489.84	679.37	45.42	45.32	47.38	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Juan Creek
REACH: Upper RS: 2320.95*

INPUT
Description:
Station Elevation Data num= 128

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	321.61	3.96	321.16	9.2	320.65	27.35	318.85	37.35	316.25
40.94	315.17	43.53	313.68	50.22	309.76	54.05	307.16	58.3	304.38
65.87	299.18	68.75	297.22	78.58	293.12	83.17	291.72	84.46	291.28
289.92	282.44	307.41	282.91	325.1	283.56	331.64	283.67	337.78	284.06
341.75	283.97	343.17	284.17	345.08	284.23	345.31	284.3	408.75	284.59
457.48	283.67	481.47	283.44	522.52	283.5	539.72	283.45	576.7	283.2
585.6	283.21	593.75	283.23	598.32	283.31	614.14	283.61	617.44	283.75
624.42	284.04	638.72	284.66	640.78	284.94	651.94	284.85	672.27	284.89
720.87	284.97	721.17	285	721.2	285	721.32	285.02	729.18	286.08
740.92	287.67	772.61	292.42	773.7	292.58	787.7	294.59	788.99	294.89
790.41	295.23	791.83	295.47	797.56	296.41	803.98	297.56	804.86	297.68
812.97	298.8	821.35	299.5	821.81	299.54	822.28	299.58	822.46	299.6
844.08	300.66	850.87	301.82	855.57	302.66	859.81	303.49	863.59	304.23
867.82	304.54	881.59	305.71	885.47	306.64	889.72	307.7	895.67	308.34
900.51	309.2	903.59	309.59	907.03	309.93	909.2	309.8	913.66	309.43
920.01	309.37	935.34	309.11	938.32	309.06	943.96	308.95	975.26	308.32
1006.86	307.69	1008.17	307.66	1008.54	307.66	1020.05	307.49	1025.83	307.39
1033.08	307.5	1040.23	307.44	1048.92	307.52	1053.33	308.08	1057.38	308.59
1057.62	308.63	1060.54	309.08	1064.4	310.42	1066.46	311.22	1068.49	312.01
1071.55	313.35	1076.09	315.58	1081.84	318.29	1083.42	318.72	1088.39	319.45
1093.74	319.66	1101.81	319.99	1107.94	319.86	1118.32	319.45	1118.59	319.47
1118.69	319.47	1135.12	320.07	1176.5	321.57				

Manning's n Values num= 15

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	27.35	.058	50.22	.063	125.16	.047	234.55	.045
325.1	.05	408.75	.045	593.75	.035	640.78	.04	772.61	.05
821.35	.04	975.26	.025	1006.86	.04	1081.84	.063	1135.12	.057

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
408.75	640.78	45.42	45.32	47.38	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888		F	

CROSS SECTION RIVER: San Juan Creek
REACH: Upper RS: 2275.63*

INPUT
Description:
Station Elevation Data num= 128

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	321.69	4.66	321.16	10.81	320.56	32.13	318.47	42.01	315.94
45.56	314.86	48.12	313.18	54.72	308.81	58.5	306.13	62.7	303.21
70.18	297.71	73.02	295.63	82.73	291.79	87.27	290.64	88.54	290.25
91.04	289.52	103.01	286.04	103.18	285.99	107.14	284.93	107.24	284.91
113.41	283.76	118.72	282.75	118.88	282.73	128.73	281.38	133.04	281.27
134.23	281.22	135.74	281.17	141.4	281.04	153.32	280.7	156.25	280.55
160.2	280.56	176.12	280.64	194.33	280.75	209.82	281.03	260.71	282.04
260.87	282.04	277	282.41	285.84	282.73	289.11	282.79	292.19	282.99
294.17	282.94	294.88	283.04	295.84	283.07	295.95	283.11	327.67	283.25
387.88	282.49	416.81	282.32	466.87	282.53	487.84	282.53	532.93	282.34
541.1	282.34	548.59	282.33	553.8	282.43	571.83	282.78	575.6	282.89
583.55	283.12	599.84	283.61	602.19	283.78	616.14	283.66	641.55	283.71
702.3	283.82	702.66	283.84	702.69	283.84	702.84	283.85	712.22	284.8
726.23	286.22	764.06	290.6	765.36	290.75	782.07	292.58	783.61	292.89
785.31	293.25	786.99	293.47	793.83	294.37	801.5	295.42	802.55	295.55
812.23	296.7	822.23	297.31	822.78	297.34	823.34	297.38	823.55	297.39
849.37	298.64	857.47	300.05	863.07	301.09	868.13	302.11	872.65	303.02
877.69	303.39	894.13	304.8	898.77	305.95	903.84	307.25	910.94	308.02
916.71	309.08	920.4	309.56	924.5	309.97	926.6	309.76	930.9	309.29
937.05	309.21	951.87	308.95	954.74	308.9	960.2	308.8	990.45	308.22
1021	307.64	1022.26	307.62	1022.62	307.61	1033.75	307.44	1039.33	307.33
1046.34	307.33	1053.25	307.24	1061.65	307.21	1065.81	307.78	1069.63	308.32
1069.85	308.35	1072.61	308.78	1076.25	310.27	1078.2	311.11	1080.11	311.94
1082.99	313.26	1087.28	315.34	1092.7	317.93	1094.19	318.24	1098.88	318.92
1105.56	319.19	1115.65	319.6	1123.32	319.44	1136.28	318.92	1136.62	318.95
1136.75	318.95	1157.28	319.7	1209.02	321.57				

Manning's n Values num= 15

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	32.13	.064	103.01	.041	194.33	.047	260.71	.05
285.84	.047	327.67	.038	548.59	.035	602.19	.045	726.23	.05
801.5	.038	990.45	.022	1021	.045	1098.88	.067	1157.28	.053

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
327.67	602.19	45.42	45.32	47.38	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888		F	

CROSS SECTION RIVER: San Juan Creek
REACH: Upper RS: 2230.316

INPUT
Description:
Station Elevation Data num= 77

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	321.77	5.35	321.16	12.42	320.48	36.92	318.09	46.67	315.64
50.18	314.55	67.1	302.04	74.49	296.23	77.29	294.04	86.88	290.46
91.36	289.56	110.98	284.28	117.17	283.32	122.42	282.48	132.3	281.19
136.57	281.06	151.38	280.6	153.66	280.46	156.72	280.51	185.1	280.76
246.59	281.91	318.28	281.32	352.15	281.2	411.22	281.57	435.96	281.61
489.16	281.48	496.61	281.46	503.43	281.44	563.6	282.62	580.34	282.48
610.83	282.54	683.73	282.67	684.15	282.68	684.19	282.68	684.36	282.69
695.26	283.52	711.54	284.76	757.02	288.92	776.44	290.57	778.23	290.89
780.2	291.27	782.16	291.48	800.24	293.42	811.49	294.59	823.75	295.14
854.65	296.61	864.07	298.29	870.58	299.52	876.46	300.73	881.71	301.81
887.57	302.24	906.67	303.89	912.06	305.25	917.96	306.8	926.21	307.71
932.92	308.96	937.2	309.53	941.97	310.01	948.15	309.15	968.39	308.79
1005.64	308.12	1036.7	307.57	1074.38	306.9	1078.29	307.49	1081.88	308.04
1084.68	308.48	1089.93	310.99	1103.56	317.57	1109.36	318.4	1117.38	318.72
1129.49	319.21	1138.69	319.02	1154.25	318.4	1154.66	318.43	1154.81	318.43
1179.45	319.33	1241.53	321.58						

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	12.42	.07	74.49	.035	136.57	.05	496.61	.035
695.26	.05	782.16	.035	968.39	.02	1005.64	.05	1117.38	.07
1179.45	.05								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
246.59	563.6	42.6	40.1	40.87	.1	.3

CROSS SECTION RIVER: San Juan Creek
REACH: Upper RS: 2190.21*

INPUT
Description:
Station Elevation Data num= 162

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	321.75	5.66	321.1	9.7	320.69	10.8	320.58	13.14	320.4

18.48	319.98	19.92	319.8	29.09	318.88	33.96	318.39	35.21	318.29
39.07	317.93	41.78	317.33	47.45	316.08	49.39	315.64	52.91	314.49
54.81	313.19	58.44	310.46	66.36	304.65	69.93	301.93	71.05	301.04
75.45	297.48	76.53	296.66	77.36	296.09	77.94	295.69	80.17	294.14
88.98	291.09	89.82	290.8	94.32	289.91	96.05	289.47	100.92	288.08
106.98	286.57	114.05	284.81	118.99	284.06	120.27	283.88	121.34	283.72
124.38	283.32	125.55	283.14	129.64	282.62	131.18	282.45	135.49	281.86
135.95	281.84	139.78	281.63	148.13	281.17	150.31	281.05	154.67	280.82
156.96	280.64	159.17	280.61	160.04	280.62	161.38	280.61	188.58	280.85
223.06	281.43	229.25	281.53	250.4	281.83	262.53	281.7	269.96	281.62
270.96	281.6	285.31	281.63	288.34	281.64	290.82	281.63	309.19	281.53
311.46	281.53	323.15	281.48	328.12	281.41	329.25	281.4	334.34	281.34
353.1	281.17	387.47	280.95	401.62	280.92	454.09	281.31	476.07	281.38
500.44	281.35	523.33	281.34	529.95	281.33	536	281.33	550.98	281.64
580.86	282.25	589.45	282.45	603.96	282.36	605.09	282.37	630.38	282.51
693.55	282.85	693.91	282.86	693.94	282.86	694.09	282.87	703.39	283.6
703.54	283.61	717.64	284.77	757.05	288.6	776.4	290.49	776.99	290.59
778.18	290.79	780.15	291.15	782.1	291.35	784.2	291.58	800.1	293.2
804.47	293.63	811.3	294.35	823.51	295	826.94	295.19	833.44	295.56
837.94	295.79	845.83	296.2	854.28	296.58	860.5	297.56	863.66	298.06
870.14	299.13	875.99	300.19	877.53	300.47	881.22	301.14	887.06	301.55
906.07	303.09	911.44	304.29	917.32	305.66	925.53	306.49	932.21	307.61
933.09	307.71	936.47	308.12	941.22	308.57	947.38	307.87	967.53	307.7
978.03	307.61	993.83	307.41	1003.99	307.38	1004.62	307.37	1014.65	307.26
1035.55	307.35	1036.65	307.35	1050.08	307.36	1052	307.35	1053.96	307.35
1066.35	307.3	1069.85	307.28	1071.77	307.33	1073.07	307.36	1076.96	308.01
1080.53	308.62	1083.32	309.1	1088.55	311.45	1091.06	312.59	1091.31	312.7
1091.72	312.87	1102.12	317.34	1107.9	318.14	1109.81	318.24	1110.23	318.25
1111.69	318.3	1116.42	318.46	1129.3	318.92	1135.32	318.84	1139.08	318.79
1155.62	318.35	1156.06	318.38	1156.22	318.38	1162.84	318.61	1182.41	319.29
1194.97	319.72	1199.62	319.85	1203.38	319.97	1210.38	320.22	1247.42	321.54
1247.59	321.55	1248.41	321.57						

Manning's n Values num= 17

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.033	13.14	.065	39.07	.04	139.78	.053	154.67	.065
229.25	.037	334.34	.035	589.45	.048	693.55	.035	717.64	.048
804.47	.035	967.53	.033	993.83	.02	1035.55	.05	1109.81	.053
1129.3	.07	1194.97	.05						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
250.4	589.45	42.6	40.1	40.87	.1	.3

CROSS SECTION RIVER: San Juan Creek
REACH: Upper RS: 2150.11*

INPUT
Description:
Station Elevation Data num= 162

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	321.72	5.97	321.04	10.23	320.59	11.39	320.48	13.87	320.32
19.5	319.96	21.01	319.75	30.69	318.75	35.82	318.22	37.15	318.13
41.22	317.76	44.07	317.22	50.05	316.07	52.1	315.64	55.65	314.43
57.55	313.21	61.2	310.44	69.17	304.63	72.76	301.82	73.88	300.91
78.31	297.25	79.39	296.44	80.23	295.95	80.81	295.6	83.06	294.24
91.91	291.41	92.75	291.15	97.28	290.27	99.02	289.84	103.92	288.36
110.01	286.97	117.12	285.34	122.08	284.6	123.38	284.43	124.45	284.28
127.5	283.97	128.68	283.8	132.79	283.29	134.34	283.15	138.67	282.54
139.14	282.51	142.99	282.2	151.39	281.54	153.58	281.36	157.96	281.04
160.27	280.82	162.49	280.73	163.36	280.72	164.71	280.71	192.05	280.93
226.72	281.46	232.94	281.55	254.22	281.75	270.01	281.56	279.68	281.44
280.98	281.41	299.66	281.55	303.61	281.58	306.83	281.57	330.75	281.5
333.71	281.49	348.92	281.46	355.4	281.35	356.88	281.34	363.5	281.26
387.92	281.02	432.66	280.67	451.09	280.63	496.97	281.05	516.18	281.14
537.49	281.16	557.5	281.2	563.28	281.21	568.58	281.21	581.67	281.5
607.8	282.07	615.31	282.28	627.58	282.25	628.53	282.25	649.93	282.48
703.36	283.02	703.67	283.03	703.7	283.03	703.82	283.04	711.69	283.69
711.81	283.7	723.74	284.78	757.08	288.27	776.36	290.4	776.95	290.51
778.14	290.69	780.09	291.02	782.04	291.23	784.13	291.44	799.96	292.98
804.31	293.39	811.12	294.1	823.27	294.86	826.68	295.08	833.16	295.5
837.64	295.75	845.5	296.18	853.91	296.55	860.1	297.4	863.24	297.82
869.7	298.75	875.53	299.65	877.06	299.89	880.73	300.48	886.54	300.86
905.48	302.29	910.82	303.33	916.67	304.51	924.85	305.27	931.5	306.25
1079.19	309.2	1081.96	309.72	1087.17	311.91	1089.67	312.97	1089.91	313.07
1090.32	313.22	1100.68	317.12	1106.43	317.87	1108.45	318.01	1108.91	318.01
1110.45	318.06	1115.46	318.21	1129.1	318.63	1135.49	318.58	1139.47	318.57
1156.99	318.3	1157.45	318.32	1157.62	318.32	1164.64	318.56	1185.37	319.24
1198.68	319.68	1203.6	319.79	1207.59	319.9	1215	320.16	1254.25	321.54
1254.42	321.54	1255.29	321.56						

Manning's n Values num= 17

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.031	13.87	.06	37.15	.045	142.99	.056	157.96	.06
232.94	.039	254.22	.035	615.31	.046	711.69	.035	757.08	.046
823.27	.035	977.13	.031	1002.97	.02	1034.39	.05	1129.1	.056
1139.47	.07	1198.68	.05						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
254.22	615.31	42.6	40.1	40.87	.1	.3

CROSS SECTION RIVER: San Juan Creek
REACH: Upper RS: 2110.00*

INPUT

Description:
Station Elevation Data num= 162

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	321.7	6.28	320.98	10.77	320.5	11.98	320.37	14.59	320.24
20.51	319.95	22.11	319.69	32.29	318.62	37.69	318.05	39.08	317.97
43.37	317.6	46.37	317.11	52.66	316.05	54.82	315.64	58.38	314.38
60.3	313.24	63.97	310.41	71.98	304.62	75.58	301.72	76.71	300.78
81.17	297.01	82.25	296.22	83.1	295.8	83.68	295.51	85.94	294.33
94.84	291.73	95.69	291.49	100.24	290.62	101.99	290.22	106.91	288.65
113.04	287.38	120.19	285.87	125.18	285.14	126.48	284.99	127.56	284.85
130.63	284.62	131.81	284.46	135.95	283.96	137.5	283.85	141.86	283.21
142.33	283.17	146.2	282.77	154.64	281.9	156.84	281.68	161.25	281.26
163.57	281	165.8	280.85	166.68	280.83	168.03	280.8	195.53	281.02
230.39	281.49	236.64	281.57	258.03	281.67	277.48	281.42	289.4	281.26
290.99	281.22	314.02	281.47	318.88	281.53	322.85	281.52	352.32	281.46
355.96	281.46	374.7	281.45	382.68	281.3	384.5	281.28	392.65	281.18
422.74	280.87	477.86	280.38	500.56	280.35	539.84	280.79	556.29	280.91
574.54	280.98	591.67	281.06	596.62	281.08	601.15	281.1	612.36	281.37
634.73	281.89	641.16	282.11	651.2	282.13	651.98	282.14	669.48	282.44
713.18	283.2	713.43	283.21	713.45	283.21	713.55	283.22	719.99	283.78
720.09	283.79	729.85	284.78	757.11	287.95	776.32	290.32	776.91	290.42
778.09	290.6	780.04	290.9	781.98	291.1	784.06	291.31	799.82	292.76
804.15	293.14	810.93	293.86	823.03	294.72	826.43	294.97	832.88	295.44
837.34	295.71	845.16	296.17	853.53	296.52	859.71	297.24	862.83	297.59
869.26	298.36	875.06	299.11	876.59	299.3	880.25	299.81	886.03	300.17
904.88	301.49	910.21	302.37	916.03	303.37	924.17	304.05	930.8	304.9
931.67	304.98	935.02	305.31	939.73	305.68	945.83	305.32	965.81	305.53
976.22	305.63	991.88	305.61	1001.96	305.86	1002.58	305.86	1012.52	305.88
1033.24	306.9	1034.34	306.96	1047.65	307.45	1049.55	307.5	1051.5	307.56
1063.78	307.86	1067.25	307.94	1069.15	308.15	1070.44	308.28	1074.3	309.06
1077.84	309.78	1080.6	310.34	1085.79	312.37	1088.28	313.34	1088.52	313.44
1088.93	313.57	1099.24	316.89	1104.97	317.61	1107.1	317.77	1107.58	317.77
1109.21	317.81	1114.51	317.95	1128.91	318.34	1135.65	318.32	1139.85	318.34
1158.36	318.24	1158.85	318.27	1159.03	318.27	1166.43	318.5	1188.33	319.2
1202.39	319.64	1207.59	319.72	1211.79	319.82	1219.62	320.09	1261.07	321.54
1261.25	321.54	1262.17	321.55						

Manning's n Values num= 18

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.029	14.59	.055	37.69	.05	146.2	.059	161.25	.055
236.64	.041	258.03	.035	634.73	.041	641.16	.044	757.11	.035
776.32	.044	845.16	.035	991.88	.029	1033.24	.033	1047.65	.05
1135.65	.059	1158.36	.07	1207.59	.05				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
258.03	641.16	42.6	40.1	40.87	.1	.3

CROSS SECTION RIVER: San Juan Creek
REACH: Upper RS: 2069.90*

INPUT
Description:
Station Elevation Data num= 162

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	321.68	6.6	320.91	11.3	320.4	12.58	320.26	15.31	320.16
21.53	319.94	23.2	319.64	33.89	318.49	39.56	317.89	41.02	317.81
45.51	317.43	48.67	317	55.27	316.04	57.53	315.63	61.12	314.32
63.04	313.27	66.73	310.39	74.78	304.6	78.41	301.61	79.55	300.65
84.03	296.78	85.12	296	85.96	295.66	86.56	295.42	88.83	294.43
97.77	292.06	98.63	291.83	103.2	290.97	104.96	290.59	109.91	288.93
116.07	287.78	123.25	286.4	128.27	285.69	129.58	285.54	130.66	285.42
133.75	285.27	134.95	285.12	139.1	284.64	140.66	284.55	145.04	283.89
145.52	283.84	149.41	283.34	157.9	282.27	160.11	281.99	164.54	281.48
166.87	281.18	169.12	280.97	170	280.94	171.36	280.89	199	281.1
234.05	281.51	240.34	281.59	261.84	281.59	284.96	281.28	299.12	281.08
301.01	281.03	328.37	281.4	334.15	281.47	338.86	281.47	373.88	281.42
378.21	281.42	400.48	281.43	409.96	281.24	412.12	281.22	421.81	281.09
457.57	280.72	523.06	280.1	550.04	280.07	582.72	280.53	596.4	280.67
611.58	280.79	625.83	280.92	629.96	280.95	633.73	280.99	643.05	281.23
661.67	281.72	667.02	281.94	674.82	282.01	675.42	282.02	689.02	282.41
722.99	283.37	723.19	283.38	723.21	283.38	723.28	283.39	728.29	283.87
728.36	283.88	735.95	284.79	757.14	287.62	776.28	290.23	776.86	290.34
778.05	290.5	779.99	290.78	781.91	290.97	783.99	291.18	799.68	292.54
803.99	292.9	810.74	293.62	822.79	294.58	826.17	294.86	832.6	295.38
837.04	295.66	844.83	296.16	853.16	296.49	859.31	297.08	862.42	297.36
868.82	297.97	874.6	298.57	876.12	298.72	879.76	299.15	885.52	299.48
904.29	300.69	909.59	301.41	915.39	302.23	923.49	302.83	930.09	303.54
930.95	303.62	934.3	303.9	938.98	304.24	945.06	304.04	964.95	304.44
975.32	304.65	990.91	304.71	1000.94	305.11	1001.56	305.11	1011.46	305.2
1032.09	306.68	1033.18	306.76	1046.44	307.5	1048.33	307.58	1050.27	307.67
1062.5	308.13	1065.95	308.26	1067.85	308.56	1069.12	308.75	1072.97	309.58
1076.49	310.36	1079.25	310.96	1084.41	312.82	1086.89	313.72	1087.13	313.81
1087.53	313.92	1097.8	316.67	1103.5	317.35	1105.75	317.54	1106.26	317.53
1107.97	317.57	1113.55	317.7	1128.72	318.05	1135.82	318.06	1140.24	318.11
1159.73	318.19	1160.24	318.21	1160.43	318.22	1168.23	318.45	1191.3	319.15
1206.1	319.6	1211.57	319.66	1216	319.75	1224.24	320.03	1267.89	321.53
1268.08	321.53	1269.06	321.55						

Manning's n Values num= 19

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.026	12.58	.029	15.31	.05	39.56	.055	145.04	.061
164.54	.05	240.34	.044	261.84	.035	661.67	.044	667.02	.041
757.14	.035	783.99	.041	862.42	.035	1000.94	.026	1032.09	.02
1046.44	.037	1062.5	.05	1159.73	.07	1216	.05		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
261.84	667.02	42.6	40.1	40.87	.1	.3

CROSS SECTION RIVER: San Juan Creek
REACH: Upper RS: 2029.80*

INPUT
Description:
Station Elevation Data num= 162

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	321.66	6.91	320.85	11.83	320.3	13.17	320.15	16.03	320.08
22.55	319.93	24.3	319.58	35.49	318.36	41.43	317.72	42.96	317.65
47.66	317.27	50.97	316.88	57.88	316.02	60.25	315.63	63.85	314.26
65.79	313.3	69.5	310.36	77.59	304.59	81.24	301.5	82.38	300.52
86.88	296.54	87.98	295.78	88.83	295.52	89.43	295.34	91.71	294.53
100.71	292.38	101.56	292.18	106.16	291.32	107.93	290.96	112.91	289.22
119.1	288.18	126.32	286.93	131.37	286.23	132.68	286.1	133.77	285.99
136.88	285.93	138.08	285.78	142.25	285.31	143.83	285.25	148.23	284.56
148.7	284.5	152.62	283.91	161.15	282.64	163.38	282.3	167.83	281.7
170.17	281.36	172.43	281.08	173.32	281.05	174.69	280.98	202.48	281.19
237.71	281.54	244.04	281.6	265.65	281.51	292.43	281.14	308.84	280.9
311.03	280.84	342.72	281.32	349.41	281.42	354.88	281.42	395.44	281.38
400.45	281.39	426.26	281.42	437.24	281.19	439.74	281.16	450.97	281.01
492.39	280.58	568.26	279.82	599.51	279.79	625.59	280.27	636.51	280.44
648.63	280.6	660	280.78	663.29	280.83	666.3	280.88	673.75	281.1
688.6	281.54	692.87	281.77	698.44	281.9	698.87	281.91	708.57	282.38
732.81	283.55	732.95	283.56	732.96	283.56	733.02	283.57	736.58	283.97
736.64	283.97	742.05	284.8	757.17	287.3	776.24	290.15	776.82	290.25
778	290.4	779.94	290.66	781.85	290.85	783.92	291.05	799.55	292.31
803.84	292.66	810.55	293.37	822.55	294.44	825.92	294.74	832.31	295.32
836.73	295.62	844.49	296.15	852.79	296.46	858.91	296.91	862.01	297.13
868.38	297.58	874.13	298.03	875.64	298.14	879.27	298.48	885	298.79
903.69	299.89	908.97	300.45	914.74	301.08	922.82	301.61	929.38	302.19
930.24	302.25	933.57	302.5	938.24	302.8	944.28	302.76	964.09	303.35
974.41	303.66	989.94	303.8	999.92	304.35	1000.54	304.36	1010.4	304.51
1030.94	306.46	1032.02	306.56	1045.22	307.55	1047.11	307.66	1049.03	307.78
1061.21	308.41	1064.65	308.59	1066.54	308.97	1067.81	309.21	1071.63	310.11
1075.15	310.93	1077.89	311.58	1083.03	313.28	1085.49	314.1	1085.74	314.18
1086.14	314.26	1096.36	316.44	1102.04	317.09	1104.4	317.31	1104.93	317.3
1106.73	317.33	1112.59	317.44	1128.52	317.76	1135.98	317.81	1140.63	317.88
1161.1	318.14	1161.64	318.16	1161.84	318.16	1170.03	318.4	1194.26	319.11
1209.8	319.56	1215.55	319.59	1220.21	319.68	1228.87	319.97	1274.71	321.53
1274.92	321.53	1275.94	321.54						

Manning's n Values num= 20

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.024	13.17	.031	16.03	.045	41.43	.06	148.23	.064
163.38	.045	244.04	.046	265.65	.035	688.6	.046	692.87	.039
779.94	.035	810.55	.039	885	.035	1030.94	.024	1045.22	.02
1061.21	.041	1075.15	.05	1161.1	.064	1170.03	.07	1228.87	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
265.65	692.87	42.6	40.1	40.87	.1	.3

CROSS SECTION RIVER: San Juan Creek
REACH: Upper RS: 1989.70*

INPUT
Description:
Station Elevation Data num= 161

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	321.63	7.22	320.79	12.37	320.2	13.77	320.04	16.76	320
23.56	319.91	25.39	319.53	37.09	318.23	43.29	317.55	44.89	317.49
49.81	317.1	53.26	316.77	60.49	316.01	62.96	315.63	66.59	314.2
68.53	313.32	72.26	310.34	80.4	304.57	84.07	301.39	85.22	300.39
89.74	296.31	90.85	295.56	91.7	295.38	92.3	295.25	94.59	294.63
103.64	292.7	104.5	292.52	109.13	291.68	110.9	291.34	115.9	289.5
122.13	288.58	129.39	287.47	134.46	286.77	135.79	286.65	136.88	286.55
140	286.58	141.21	286.44	145.41	285.98	146.99	285.95	151.41	285.24
151.89	285.17	155.82	284.49	164.41	283	166.64	282.62	171.12	281.92
173.48	281.54	175.75	281.2	176.64	281.15	178.01	281.08	205.95	281.27
241.38	281.57	247.73	281.62	269.47	281.43	299.91	281	318.56	280.72
321.05	280.65	357.08	281.24	364.68	281.36	370.89	281.36	417.01	281.35
422.7	281.35	452.03	281.4	464.52	281.13	467.36	281.1	480.12	280.92
527.21	280.43	613.45	279.53	648.98	279.5	668.46	280.01	676.62	280.21
685.67	280.41	694.17	280.64	696.63	280.7	698.88	280.76	704.44	280.96
810.37	293.13	822.31	294.3	825.66	294.63	832.03	295.26	836.43	295.58
844.16	296.14	852.42	296.43	858.51	296.75	861.6	296.89	867.94	297.2
873.67	297.49	875.17	297.56	878.78	297.81	884.49	298.1	903.1	299.09
908.35	299.49	914.1	299.94	922.14	300.39	928.67	300.83	929.53	300.89
932.84	301.09	937.49	301.35	943.51	301.48	963.23	302.26	973.51	302.67
988.96	302.9	998.91	303.6	999.52	303.61	1009.33	303.83	1029.78	306.24
1030.87	306.37	1044.01	307.59	1045.88	307.73	1047.8	307.88	1059.93	308.69
1063.35	308.91	1065.23	309.38	1066.49	309.67	1070.3	310.63	1073.8	311.51
1076.53	312.2	1081.64	313.74	1084.1	314.48	1084.34	314.55	1084.74	314.61
1094.92	316.21	1100.57	316.82	1103.05	317.07	1103.61	317.06	1105.49	317.08
1111.63	317.19	1128.33	317.47	1136.15	317.55	1141.02	317.66	1162.47	318.09
1163.04	318.11	1163.24	318.11	1171.83	318.35	1197.22	319.06	1213.51	319.52
1219.54	319.53	1224.41	319.6	1233.49	319.9	1281.54	321.52	1281.75	321.52
1282.82	321.53								

Manning's n Values num= 19

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.022	13.77	.04	43.29	.065	151.41	.067	166.64	.04
247.73	.048	269.47	.035	715.54	.048	718.73	.037	803.68	.035
832.03	.037	903.1	.035	1029.78	.022	1059.93	.02	1070.3	.046
1094.92	.05	1163.04	.067	1197.22	.07	1233.49	.05		

```
Bank Sta: Left   Right    Lengths: Left Channel   Right      Coeff Contr.   Expan.
        269.47  718.73              42.6    40.1   40.87              .1       .3

CROSS SECTION           RIVER: San Juan Creek
REACH: Upper               RS: 1949.598

INPUT
Description:
Station Elevation Data     num=      94
     Sta    Elev      Sta    Elev      Sta    Elev      Sta    Elev      Sta    Elev
       0  321.61     12.9   320.1    14.36  319.93    24.58   319.9    26.49  319.47
   38.69   318.1    45.16  317.38    46.83  317.33    55.56  316.66     63.1  315.99
   65.68  315.63    71.28  313.35    75.03  310.31    83.21  304.56    88.05  300.26
    92.6  296.07    93.71  295.34    95.17  295.16   106.57  293.02   113.87  291.71
   118.9  289.79   125.16  288.98   137.56  287.31   139.99  287.12   143.13  287.23
  148.56  286.65   150.15  286.65   155.08  285.83   167.66  283.37   169.91  282.93
  179.06  281.32   181.34  281.17   245.04   281.6   251.43  281.64   273.28  281.35
  307.38  280.86   328.28  280.54   331.07  280.46   371.43  281.16   379.95  281.31
  386.91  281.31   438.57  281.31   444.95  281.32   477.81  281.39    491.8  281.08
  494.98  281.04   509.28  280.84   658.65  279.25   698.45  279.22   722.72  280.22
  735.13  280.83   742.47  281.18   744.58  281.43   745.76  281.68   753.18  284.15
  757.23  286.65   776.74  290.08   779.83  290.41   783.78  290.79   803.52  292.17
  825.41  294.52   831.75   295.2   836.13  295.54   843.82  296.13   858.11  296.59
   874.7  296.98   928.82  299.52    972.6  301.68   987.99     302   997.89  302.84
 1008.27  303.14  1029.71  306.17  1042.79  307.64  1044.66  307.81  1046.57  307.99
 1058.64  308.97  1062.05  309.24  1063.92  309.79  1082.71  314.86  1082.95  314.92
 1083.35  314.96  1099.11  316.56   1101.7  316.84  1102.28  316.82  1104.25  316.84
 1136.31  317.29  1173.63   318.3  1217.22  319.48  1223.52  319.46  1228.62  319.53
 1238.11  319.84  1288.36  321.52  1288.58  321.52   1289.7  321.52

Manning's n Values         num=      12
     Sta   n Val      Sta   n Val      Sta   n Val      Sta   n Val      Sta   n Val
       0     .02     12.9    .035    38.69     .07   167.66    .035   245.04     .05
  386.91    .035   735.13     .05   825.41    .035  1044.66     .02  1083.35     .05
 1173.63     .07  1238.11     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right      Coeff Contr.   Expan.
        273.28  744.58              407.52  330.72  271.52              .1       .3

CROSS SECTION           RIVER: San Juan Creek
REACH: Upper               RS: 1618.909

INPUT
Description:
Station Elevation Data     num=      86
     Sta    Elev      Sta    Elev      Sta    Elev      Sta    Elev      Sta    Elev
       0  321.04       .66  320.75     7.54   318.4    14.42  314.48    17.17   313.8
   33.66  310.51    42.75  308.65    43.83  308.43    44.62  308.37    70.23  306.67
   82.45  304.38     89.2  302.85    91.61  301.86     93.7   300.7    99.63   295.7
   116.2  283.54   123.16  281.68   129.53  281.08   151.09  281.79   156.45  281.97
  179.13  282.58   183.94   282.7   200.58  283.12   220.01  283.31   262.77  281.96
  273.28  281.63   275.57  281.55   305.53  280.42   315.16  280.07    324.3  279.94
  327.24   279.9   354.73  279.68   544.18  278.19   551.17  278.23   640.67  280.06
  660.49   279.9   672.68  279.82   684.64  280.62   694.53  281.22   704.72  282.18
  720.37  285.94   722.61  286.49   731.94  288.76   745.06   290.8    756.2  294.13
   763.1  295.07   764.12  295.21    831.9  298.72    873.2  301.14   895.61  301.84
  910.94  301.33   914.93  301.35   918.57  302.06   923.48  303.12   932.82  306.36
  934.83  307.06   939.29  308.13   981.53  307.99   995.11  308.03   1001.3  308.42
 1011.97  307.87  1023.33  308.01   1028.2  310.03  1030.09  310.27   1032.5  310.11
 1035.41  309.26   1040.7   307.4  1051.22  307.03  1066.31  305.93  1069.53  305.75
 1081.12  306.98  1089.11  306.94  1096.98  306.42  1101.88  306.77  1110.59  308.04
 1114.78  309.29  1116.76  310.22  1125.51   314.3  1135.22  315.24  1137.04  315.57
 1137.99  315.58  1172.94  316.44  1187.42  316.74  1199.49  316.96   1238.7  318.47
 1313.83  321.49

Manning's n Values         num=       7
     Sta   n Val      Sta   n Val      Sta   n Val      Sta   n Val      Sta   n Val
       0    .035   183.94     .05   262.77    .035   354.73     .05   722.61    .035
  932.82     .02  1116.76     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right      Coeff Contr.   Expan.
        262.77  704.72              167.05  177.35  174.2              .3       .5

BRIDGE                  RIVER: San Juan Creek
REACH: Upper               RS: 1610

INPUT
Description:
Distance from Upstream XS =        8
Deck/Roadway Width        =    161.3
Weir Coefficient          =      2.6
Upstream  Deck/Roadway Coordinates
    num=       5
     Sta Hi Cord Lo Cord      Sta Hi Cord Lo Cord      Sta Hi Cord Lo Cord
-388.446423.4988        0-388.446423.4988 415.625917.3117 379.454  371.58
917.3117 379.454        0  2116.1386.9835        0

Upstream Bridge Cross Section Data
Station Elevation Data     num=      86
     Sta    Elev      Sta    Elev      Sta    Elev      Sta    Elev      Sta    Elev
       0  321.04       .66  320.75     7.54   318.4    14.42  314.48    17.17   313.8
   33.66  310.51    42.75  308.65    43.83  308.43    44.62  308.37    70.23  306.67
   82.45  304.38     89.2  302.85    91.61  301.86     93.7   300.7    99.63   295.7
   116.2  283.54   123.16  281.68   129.53  281.08   151.09  281.79   156.45  281.97
  179.13  282.58   183.94   282.7   200.58  283.12   220.01  283.31   262.77  281.96
  273.28  281.63   275.57  281.55   305.53  280.42   315.16  280.07    324.3  279.94
  327.24   279.9   354.73  279.68   544.18  278.19   551.17  278.23   640.67  280.06
```

660.49	279.9	672.68	279.82	684.64	280.62	694.53	281.22	704.72	282.18
720.37	285.94	722.61	286.49	731.94	288.76	745.06	290.8	756.2	294.13
763.1	295.07	764.12	295.21	831.9	298.72	873.2	301.14	895.61	301.84
910.94	301.33	914.93	301.35	918.57	302.06	923.48	303.12	932.82	306.36
934.83	307.06	939.29	308.13	981.53	307.99	995.11	308.03	1001.3	308.42
1011.97	307.87	1023.33	308.01	1028.2	310.03	1030.09	310.27	1032.5	310.11
1035.41	309.26	1040.7	307.4	1051.22	307.03	1066.31	305.93	1069.53	305.75
1081.12	306.98	1089.11	306.94	1096.98	306.42	1101.88	306.77	1110.59	308.04
1114.78	309.29	1116.76	310.22	1125.51	314.3	1135.22	315.24	1137.04	315.57
1137.99	315.58	1172.94	316.44	1187.42	316.74	1199.49	316.96	1238.7	318.47
1313.83	321.49								

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	183.94	.05	262.77	.035	354.73	.05	722.61	.035
932.82	.02	1116.76	.05						

Bank Sta: Left	Right	Coeff Contr.	Expan.
262.77	704.72	.3	.5

Downstream Deck/Roadway Coordinates
num= 5

Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord
-257.214	423.4988	0	-257.214	423.4988	415.6249	1048.544	379.454	371.5801
1048.544	379.454	0	2116.13	86.9835	0			

Downstream Bridge Cross Section Data
Station Elevation Data num= 74

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	324.38	14.09	317.02	18.82	314.55	22.15	314.07	26.08	313.83
38.83	312.06	60.72	309.38	70.47	308.18	85.71	306.3	96.35	305.32
112.33	303.89	122.95	302.17	152.14	294.69	159.4	292.85	169.8	289.69
188.96	282.77	208.58	280.28	220.97	279.64	260.55	279.22	267.78	279.07
303.15	278.34	335.43	278.08	366.43	277.83	369.58	277.8	451	278.57
484.31	278.88	519.87	279.22	521.49	279.24	547.95	279.04	586.18	278.67
715.66	277.92	744.79	279.05	759.05	279.4	773.6	281.02	782.68	282.35
788.64	284.67	789.24	284.83	806.35	289.42	821.85	293.28	830.23	295.57
836.86	296.22	859.71	296.95	869.19	297.25	873.8	297.4	883.91	297.74
909.58	298.15	935.32	299.42	958.37	300.35	980.5	301.24	1000.65	301.48
1013.61	301.64	1021.12	301.75	1042.93	302.07	1074.07	302.53	1112.21	303.95
1165.45	305.73	1192.5	307.74	1198.66	308.07	1203.02	308.3	1212.14	308.55
1217.22	308.97	1218.07	309.13	1225.95	311.28	1230.74	311.09	1234.56	311.73
1238.05	313.71	1240.05	314.14	1248.32	314.49	1254.85	315.16	1268.43	315.61
1319.97	317.33	1320.58	317.35	1321.28	317.4	1409.36	321.52		

Manning's n Values num= 13

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.02	14.09	.07	70.47	.035	267.78	.05	366.43	.035
451	.05	789.24	.035	859.71	.07	873.8	.035	958.37	.07
1000.65	.035	1042.93	.02	1268.43	.05				

Bank Sta: Left	Right	Coeff Contr.	Expan.
208.58	759.05	.3	.5

Upstream Embankment side slope = 0 horiz. to 1.0 vertical
Downstream Embankment side slope = 0 horiz. to 1.0 vertical
Maximum allowable submergence for weir flow = .95
Elevation at which weir flow begins = 380
Energy head used in spillway design =
Spillway height used in design =
Weir crest shape = Broad Crested

Number of Abutments = 1

Abutment Data
Upstream num= 2

Sta	Elev	Sta	Elev
718	272	918	372

Downstream num= 2

Sta	Elev	Sta	Elev
849	272	1049	372

Number of Piers = 6

Width	Elev	Width	Elev
11	0	11	523

Downstream num= 2

Width	Elev	Width	Elev
11	0	11	523

Pier Data
Pier Station Upstream=-30.8395 Downstream=100.3925
Upstream num= 2

Width	Elev	Width	Elev
11	0	11	523

Downstream num= 2

Width	Elev	Width	Elev
11	0	11	523

Pier Data
Pier Station Upstream=166.0085 Downstream=297.2405
Upstream num= 2

Width	Elev	Width	Elev
11	0	11	523

Downstream num= 2

Width	Elev	Width	Elev
11	0	11	523

Pier Data
Pier Station Upstream=362.8565 Downstream=494.0885
Upstream num= 2

Width	Elev	Width	Elev
11	0	11	523

Downstream num= 2

Width	Elev	Width	Elev
11	0	11	523

Pier Data
Pier Station Upstream=559.7045 Downstream=690.9365
Upstream num= 2

Width	Elev	Width	Elev
11	0	11	523

Downstream num= 2

Width	Elev	Width	Elev
11	0	11	523

Pier Data
Pier Station Upstream=756.5525 Downstream=887.7845
Upstream num= 2

Width	Elev	Width	Elev
11	0	11	523

Downstream num= 2

Width	Elev	Width	Elev
11	0	11	523

Number of Bridge Coefficient Sets = 1

Low Flow Methods and Data
Energy
Selected Low Flow Methods = Energy

High Flow Method
Energy Only

Additional Bridge Parameters
Add Friction component to Momentum
Do not add Weight component to Momentum
Class B flow critical depth computations use critical depth
inside the bridge at the upstream end
Criteria to check for pressure flow = Upstream energy grade line

BRIDGE OUTPUT Profile #Q100
Opening : Single BR

E.G. US. (ft)	290.32	Element	Inside BR US	Inside BR DS
W.S. US. (ft)	289.88	E.G. Elev (ft)	290.29	290.01
Q Total (cfs)	30694.00	W.S. Elev (ft)	289.79	289.63
Q Bridge (cfs)	30694.00	Crit W.S. (ft)	284.88	283.37
Q Weir (cfs)		Max Chl Dpth (ft)	11.60	11.83
Weir Sta Lft (ft)		Vel Total (ft/s)	5.64	4.93
Weir Sta Rgt (ft)		Flow Area (sq ft)	5446.38	6221.85
Weir Submerg		Froude # Chl	0.32	0.27
Weir Max Depth (ft)		Specif Force (cu ft)	31680.65	38168.82
Min El Weir Flow (ft)	380.00	Hydr Depth (ft)	9.11	10.30
Min El Prs (ft)	402.52	W.P. Total (ft)	659.45	673.74
Delta EG (ft)	0.33	Conv. Total (cfs)	747321.9	938666.3
Delta WS (ft)	0.24	Top Width (ft)	597.85	604.24
BR Open Area (sq ft)	81765.02	Frctn Loss (ft)	0.21	0.01
BR Open Vel (ft/s)	5.64	C & E Loss (ft)	0.06	0.02
Coef of Q		Shear Total (lb/sq ft)	0.87	0.62
Br Sel Method	Energy only	Power Total (lb/ft s)	4.90	3.04

CROSS SECTION RIVER: San Juan Creek
REACH: Upper RS: 1441.576

INPUT
Description:
Station Elevation Data num= 74

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	324.38	14.09	317.02	18.82	314.55	22.15	314.07	26.08	313.83
38.83	312.06	60.72	309.38	70.47	308.18	85.71	306.3	96.35	305.32
112.33	303.89	122.95	302.17	152.14	294.69	159.4	292.85	169.8	289.69
188.96	282.77	208.58	280.28	220.97	279.64	260.55	279.22	267.78	279.07
303.15	278.34	335.43	278.08	366.43	277.83	369.58	277.8	451	278.57
484.31	278.88	519.87	279.22	521.49	279.24	547.95	279.04	586.18	278.67
715.66	277.92	744.79	279.05	759.05	279.4	773.6	281.02	782.68	282.35
788.64	284.67	789.24	284.83	806.35	289.42	821.85	293.28	830.23	295.57
836.86	296.22	859.71	296.95	869.19	297.25	873.8	297.4	883.91	297.74
909.58	298.15	935.32	299.42	958.37	300.35	980.5	301.24	1000.65	301.48
1013.61	301.64	1021.12	301.75	1042.93	302.07	1074.07	302.53	1112.21	303.95
1165.45	305.73	1192.5	307.74	1198.66	308.07	1203.02	308.3	1212.14	308.55
1217.22	308.97	1218.07	309.13	1225.95	311.28	1230.74	311.09	1234.56	311.73
1238.05	313.71	1240.05	314.14	1248.32	314.49	1254.85	315.16	1268.43	315.61
1319.97	317.33	1320.58	317.35	1321.28	317.4	1409.36	321.52		

Manning's n Values num= 13

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.02	14.09	.07	70.47	.035	267.78	.05	366.43	.035
451	.05	789.24	.035	859.71	.07	873.8	.035	958.37	.07
1000.65	.035	1042.93	.02	1268.43	.05				

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.

208.58	759.05		289.31	303.1	313.18		.3	.5	

CROSS SECTION RIVER: San Juan Creek
REACH: Upper RS: 1138.496

INPUT
Description:
Station Elevation Data num= 70

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	315.33	10.7	311.25	16.26	309.51	17.9	308.83	21.15	308.33
30.93	307.42	87.15	301.39	108.75	295.64	109.65	295.42	112.12	294.78
122	292.59	155.89	285.07	164.62	282.84	199.16	280.1	209.49	279.11
218.31	278.82	258.02	278.08	260.93	278.01	262.72	277.89	287.39	277.92
291.6	277.69	294.16	278.34	298.53	279.43	303.94	279.04	306.32	279.04
309.83	277.96	313.34	277.55	318.51	275.63	321.79	275.54	328.75	275.35
338.89	275.08	340.55	275.03	347.94	274.96	352.45	275.05	397.67	275.9
447.34	275.79	513.26	275.65	515.12	275.67	575.5	276.36	637.12	278.02
648.17	278.32	671.23	281.8	683.2	282.15	699.03	282.34	719.58	287.86
722.38	288.64	735.04	289.98	736.17	290.01	771.06	293.58	786.71	295.01
827.11	294.99	959.44	297.53	968.63	298.02	973.82	298.43	988.93	298.9
1072.02	301.42	1083.29	301.85	1084.42	301.92	1125.12	303.91	1153.86	305.32
1161.04	305.7	1173.69	305.45	1210.43	306.86	1218.32	307.86	1246.59	308.56
1271.54	308.87	1286.24	310.02	1347.95	314.53	1354.61	314.8	1355.57	314.89

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.07	122	.035	338.89	.05	447.34	.035	515.12	.05
637.12	.035	1125.12	.02						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
258.02	637.12	203.2	206.75	210.65	.1	.3

CROSS SECTION RIVER: San Juan Creek
REACH: Upper RS: 931.764

INPUT
Description:
Station Elevation Data num= 92

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	315.72	3.25	314.42	3.45	314.34	3.61	314.3	21.66	308.49
51.68	304.92	59.84	304	70.38	303.05	82.94	302.07	108.63	300.08
150.29	297.08	163.74	295.71	169.96	294.81	182.38	291.32	207.66	283.89
228.48	277.77	233.54	276.27	250.38	274.17	260.84	273.48	271.47	273.74
307.2	274.61	318.84	276.46	327.01	278.64	329.05	279.19	333.58	280.77
339.37	282.2	354.06	289.11	364.1	293.84	365.17	294.26	369.87	295.35
371.37	295.65	372.44	295.74	376.99	295.26	381.35	294.79	385.62	292.97
390.14	291.03	390.93	290.66	402.83	284.76	403.02	284.66	413.5	280.5
416.98	279.14	423.22	276.95	425.6	276.6	432.04	275.44	437.35	274.42
438.89	273.95	440.02	273.85	446.67	273.63	447.9	273.59	497.62	274.48
545.01	275.32	561.99	275.62	579.4	275.84	588.47	276.32	616.54	277.61
663.49	279.83	687.83	280.98	700.99	281.59	724.88	285.89	742.25	288.71
749	289.01	757.94	289.86	784.18	290.14	792.09	290.96	816.83	293.91
832.46	295.19	845.36	295.19	872.75	295.29	924.25	295.69	936.52	296.37
959.69	299.84	965.23	300.67	969.39	301.61	974.19	302	983.39	301.83
984.6	301.81	1010.23	301.19	1030.78	301.64	1039.47	301.83	1064.33	302.59
1073.6	303.26	1090.41	306.58	1099.3	308.35	1102.28	308.71	1108.38	308.27
1118.28	307.23	1123.58	306.24	1150.03	306.8	1165.65	307.76	1171.1	309.01
1178.46	313.24	1184.81	317.1						

Manning's n Values num= 9

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.07	82.94	.035	402.83	.05	497.62	.035	545.01	.05
663.49	.035	959.69	.07	983.39	.035	1030.78	.02		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
228.48	616.54	224.3	216.45	217.05	.1	.3

CROSS SECTION RIVER: San Juan Creek
REACH: Upper RS: 715.294

INPUT
Description:
Station Elevation Data num= 81

196.44	296.16	209.74	294.66	228.76	293.93	237.24	293.07	271.71	289.46
272.08	289.35	275.98	288.16	282.42	284.17	288.75	280.06	293.25	277.33
295.71	276.01	297.9	275.53	311.69	275.75	325.21	275.69	332.85	275.82
342.54	275.79	397.22	275.65	399.82	275.62	401.04	275.61	446.39	275.6
505.43	275.59	551.53	275.71	579.24	277.22	629.46	279.69	679	282.27
688.77	282.79	693.92	283.31	700.62	283.95	725.2	286.25	741.76	287.88
742.99	287.94	774.99	289.12	805.46	290.25	875.04	294.09	879.3	294.35
887.06	294.29	914.48	294.85	931.38	295.2	936.61	295.15	965.3	295.61
971.66	295.87	990.34	297.58	1020.18	301	1025.31	301.8	1053.01	302.54
1089.37	305.23	1115.59	306.38	1155.31	307.21	1202.45	308.13	1245.71	307.61
1274.17	307.01	1286.48	307.02	1333.03	307.06	1377.59	306.45	1406.35	307.69
1446.86	309.32	1455.97	309.77	1457.11	309.9	1459.96	310.08	1491.11	312.28
1501.71	312.7	1523.68	313.59	1529.1	314.07	1533.48	314.36	1542.72	314.67
1549.97	315.46								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.07	139.5	.035	774.99	.05	914.48	.035	1286.48	.02

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
293.25	579.24	195.9	200.05	191.25	.1	.3

CROSS SECTION RIVER: San Juan Creek
REACH: Upper RS: 515.223

INPUT
Description:
Station Elevation Data num= 71

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	308.61	1.86	308.42	7.51	305.55	11.43	303.33	12.51	303.14
21.17	300.52	25.5	300.34	94.16	297.4	121.97	296.27	125.13	295.93
128.55	295.33	131.34	293.6	135.27	291.87	141.81	288.38	147.46	287.95
178.3	289.63	180.65	289.73	181.38	289.76	182.38	289.63	193.41	288.2
205.54	278.48	207.86	276.8	208.82	276.11	212.72	275.2	216.78	274.86
221.71	274.45	239.6	274.21	268.91	275.74	290.75	275.92	318.8	276.15
382.56	276.66	394.57	276.76	401.96	276.57	414.44	277.03	443.9	279.23
471.83	281.04	494.28	282.49	505.19	284.43	535.57	288.71	612.06	293.45
630.22	294.27	636.83	294.8	675.79	296.3	692.85	296.53	701.04	297.66
730.55	300.42	735.65	301.14	738.66	302.21	739.62	302.36	754.33	304.67
775.5	307.29	780.69	308.39	799.98	308.86	811.2	309.06	843.22	310.05
854.39	310.26	867.43	310.5	873.3	310.84	882.91	310.61	962.37	307.94
962.46	307.94	962.55	307.93	962.96	307.92	1023.28	304.39	1083.92	303.92
1085.49	303.91	1142.91	303.12	1229.01	304.73	1243.34	305.16	1252.01	305.87
1275.2	308.26								

Manning's n Values num= 9

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.07	25.5	.035	216.78	.05	318.8	.035	382.56	.05
471.83	.035	739.62	.05	854.39	.035	1083.92	.02		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
207.86	382.56	204.8	207.7	197.7	.1	.3

CROSS SECTION RIVER: San Juan Creek
REACH: Upper RS: 307.535

INPUT
Description:
Station Elevation Data num= 63

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	301.23	.4	300.92	6.76	298.99	7.8	298.81	30.4	294.27
35.42	294.17	57.94	293.8	62.96	293.82	123.1	296.69	126.05	296.94
129.2	296.94	154.2	295.64	156.67	295.46	157.94	294.76	163.27	290.83
175.14	282.24	190.07	277.01	190.43	276.89	190.81	276.74	191.13	276.69
200.87	275.64	202.13	275.5	207.45	274.93	221.92	275.55	288.75	274.43
291.26	274.39	299.97	274.24	305.32	274.05	323.18	274.04	364.03	273.76
378.63	274.33	501.74	275.15	429.12	276.12	475.21	279.53	502.18	281.64
512.3	282.44	571.65	293.06	580.27	294.69	590.6	296.96	602.61	298.95
621.05	302	624.86	302.69	640.92	305.26	662.59	308.31	675.2	308.36
695.63	308.2	703.05	307.04	714.63	305.24	729.6	302.07	736.12	301.46
753.26	301.08	770.57	300.7	810.78	300.4	910.67	300.61	980.25	300.98
1067.12	301.4	1122.81	301.67	1158.28	301.89	1166.38	302.14	1210.81	304.47
1211.71	304.55	1214.72	304.86	1255.44	308.62				

Manning's n Values num= 9

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	200.87	.05	288.75	.035	401.74	.05	502.18	.035
602.61	.05	703.05	.035	753.26	.05	1067.12	.02		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
221.92	401.74	205.4	195.45	188.3	.1	.3

CROSS SECTION RIVER: San Juan Creek
REACH: Upper RS: 112.108

INPUT
Description:
Station Elevation Data num= 61

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	310.44	5.01	306.36	15.74	299.18	21.57	296.52	24.15	295.85
41.27	293.91	47.61	293.42	51.87	292.92	81.25	290.37	81.37	290.34
81.64	290.23	89.03	287.58	93.4	284.32	103.59	277.32	108.59	275.34
117.11	274.59	128.15	273.94	132.75	274.14	136.48	274.3	144.9	274.67
188.79	275.65	220.69	275.66	223.32	275.51	254.34	273.76	266.22	273.09
275.33	272.7	304.53	272.37	336.46	271.93	349.86	272.54	392.03	274.14
409.43	274.84	433.42	275.79	438.04	275.81	462.01	280.55	470.36	282.04
483.87	283.82	522.85	288.95	533.5	290.6	540.97	291.75	597.04	301.48
612.31	304.63	629.61	308.29	636.48	308.14	645.16	307.04	658.22	305.39
664.69	304.37	672.72	303.05	681.09	302.66	710.69	300.89	726.06	300.37
732.01	300.39	771.69	300.57	781.63	300.61	966.04	301.54	1029.77	301.82
1081	302.05	1132.6	302.92	1166.38	303.63	1223.5	306.58	1225	306.66
1240.69	308.03								

Manning's n Values num= 10

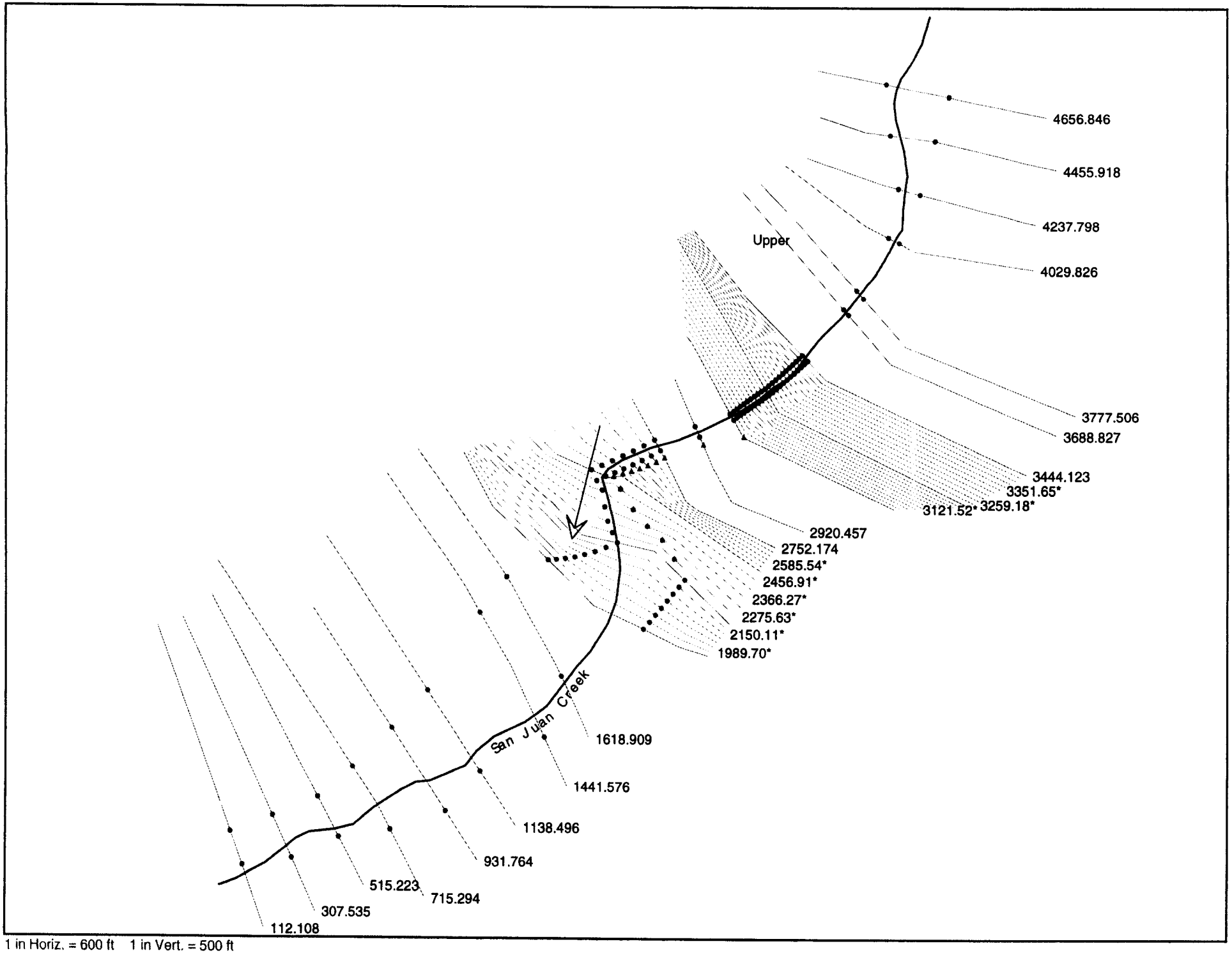
Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	136.48	.05	223.32	.035	409.43	.05	483.87	.035
533.5	.05	645.16	.035	732.01	.05	781.63	.035	1029.77	.02

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
254.34	392.03	35.14	112.11	87.83	.1	.3

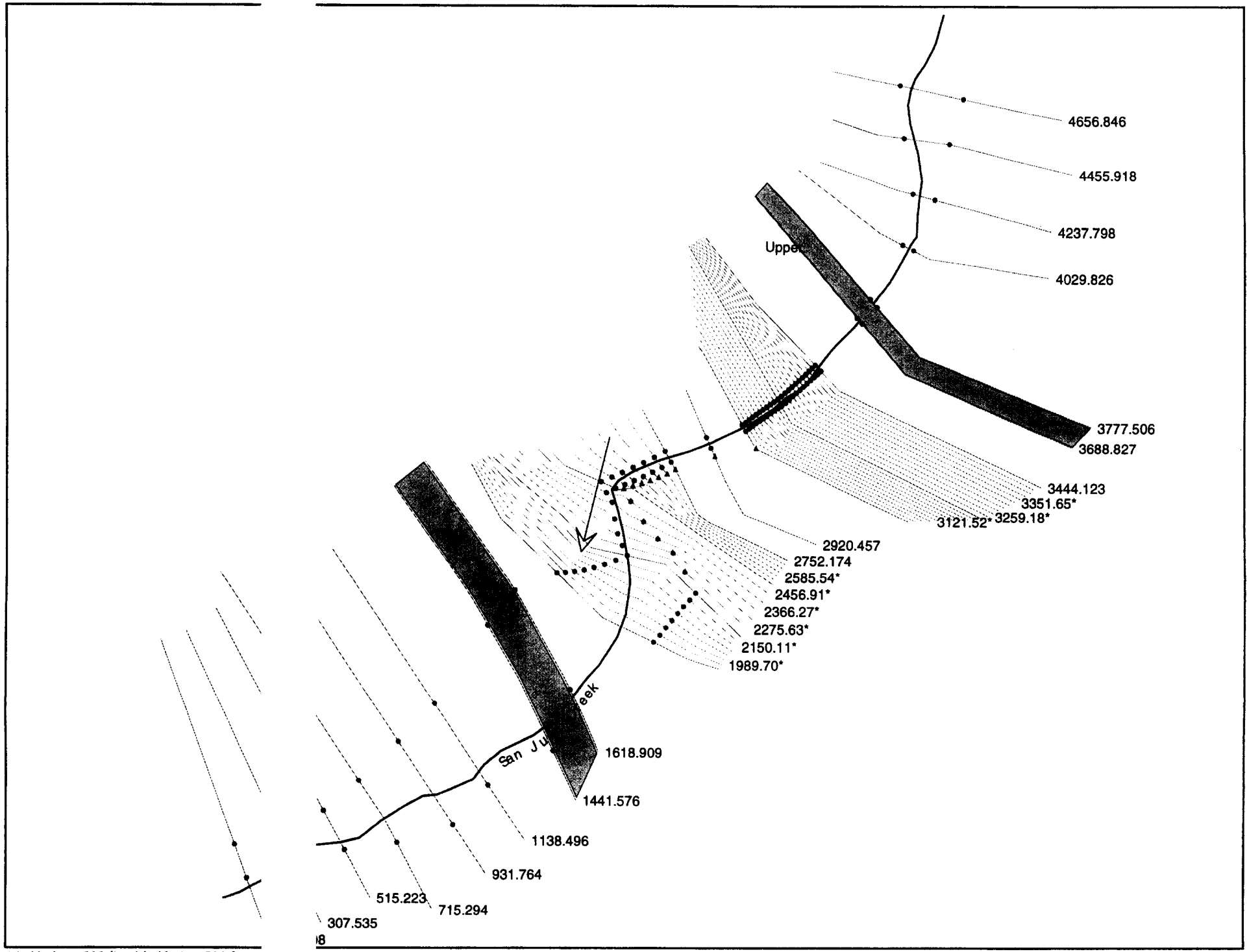
Profile Output Table - Standard Table 1

Reach	River Sta	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
		(cfs)	(ft)	(ft)	(ft)	(ft)	(ft/ft)	(ft/s)	(sq ft)	(ft)	
Upper	4656.846	30694.00	307.52	329.31	316.14	329.69	0.000402	5.21	7002.83	493.70	0.20

Upper	4455.918	30694.00	307.74	329.19		329.60	0.000500	5.67	6429.16	524.29
0.22										
Upper	4237.798	30694.00	306.67	328.87		329.47	0.000552	7.59	5455.16	516.25
0.29										
Upper	4029.826	30694.00	305.97	328.48		329.30	0.000942	10.02	4803.71	527.12
0.38										
Upper	3777.506	30694.00	301.00	327.65	325.54	328.98	0.001330	12.53	4046.44	478.38
0.44										
Upper	3771	Bridge								
Upper	3688.827	30694.00	301.39	326.97		328.65	0.001783	14.95	3808.66	496.93
0.53										
Upper	3444.123	30694.00	295.17	326.75		328.13	0.001317	13.40	4243.92	541.73
0.44										
Upper	3240.694	30694.00	293.56	320.77		322.10	0.001242	12.91	3942.10	482.62
0.45										
Upper	3070.453	30694.00	288.83	312.36	312.36	315.61	0.004217	19.81	2555.30	321.00
0.76										
Upper	2920.457	30694.00	286.89	303.52	303.52	304.08	0.000858	7.54	5216.28	464.59
0.34										
Upper	2752.174	30694.00	287.44	303.16	302.97	303.37	0.000293	4.36	8360.74	563.41
0.20										
Upper	2502.231	30694.00	286.63	303.15	303.15	303.27	0.000150	3.02	11188.45	758.27
0.13										
Upper	2230.316	30694.00	281.20	290.54		291.03	0.001603	5.56	5494.87	689.45
0.33										
Upper	1949.598	30694.00	279.22	290.25		290.70	0.000960	5.56	5791.35	660.65
0.31										
Upper	1618.909	30694.00	278.19	289.88	284.70	290.32	0.001282	5.45	5826.84	631.59
0.30										
Upper	1610	Bridge								
Upper	1441.576	30694.00	277.80	289.65		289.99	0.000841	4.75	6597.35	637.33
0.25										
Upper	1138.496	30694.00	274.96	289.43		289.77	0.000631	4.82	6601.86	593.56
0.23										
Upper	931.764	30694.00	273.48	289.12		289.60	0.000886	5.82	5635.26	520.25
0.29										
Upper	715.294	30694.00	275.53	288.73		289.39	0.000858	6.86	4970.41	490.44
0.34										
Upper	515.223	30694.00	274.21	287.36		288.97	0.004018	10.96	3114.34	331.49
0.57										
Upper	307.535	30694.00	273.76	287.11		288.25	0.002066	9.39	3799.18	370.01
0.47										
Upper	112.108	30694.00	271.93	287.13	280.81	287.85	0.001002	7.94	4788.59	419.38
0.37										



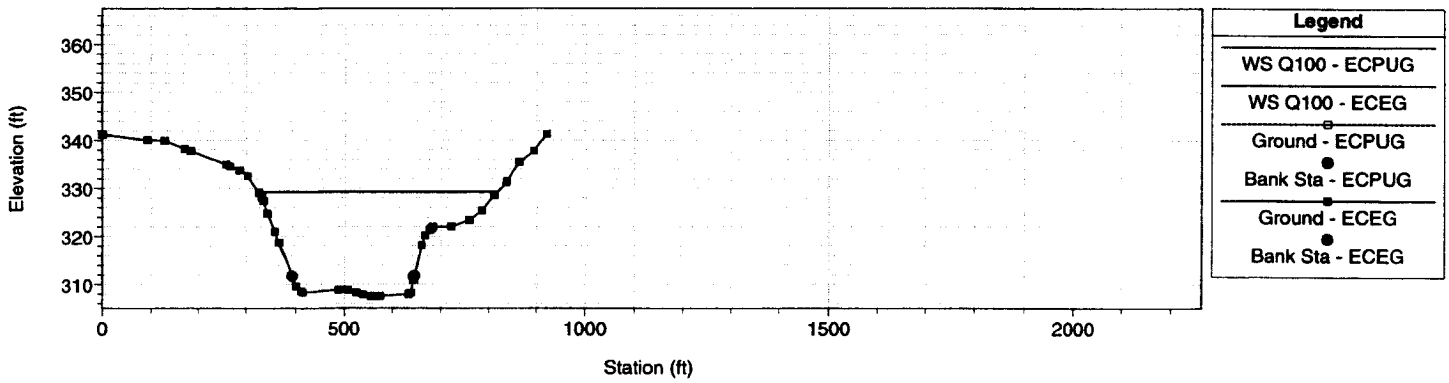
1 in Horiz. = 600 ft 1 in Vert. = 500 ft



1 in Horiz. = 600 ft 1 in Vert. = 500 ft

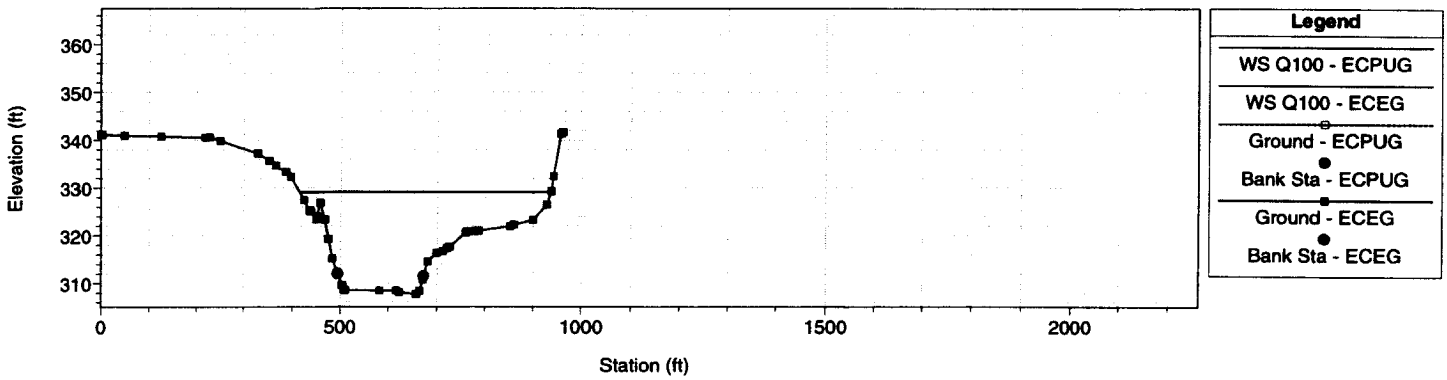
Project Model B

RS = 4656.846 FEC Alternative - San Juan Creek Crossing



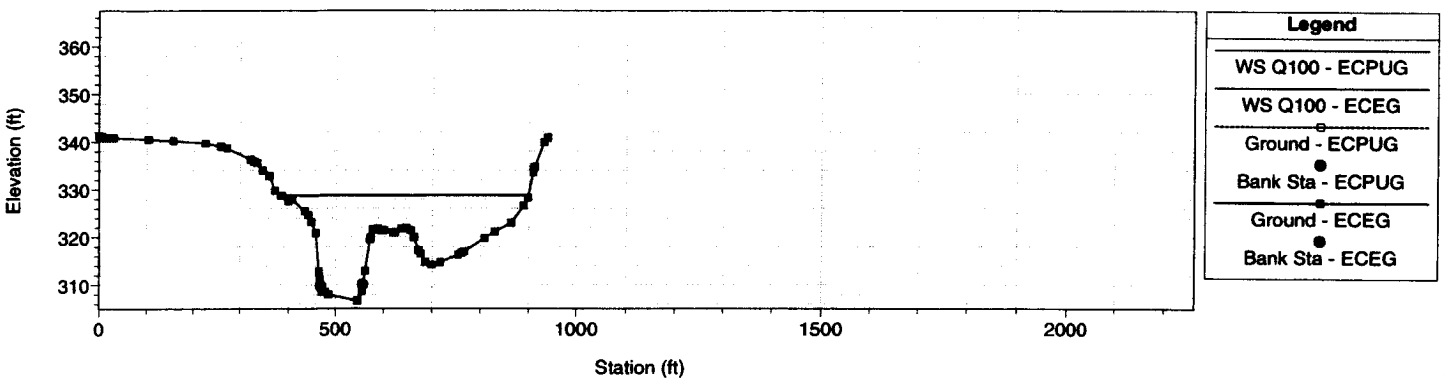
Project Model B

RS = 4455.918 FEC Alternative - San Juan Creek Crossing



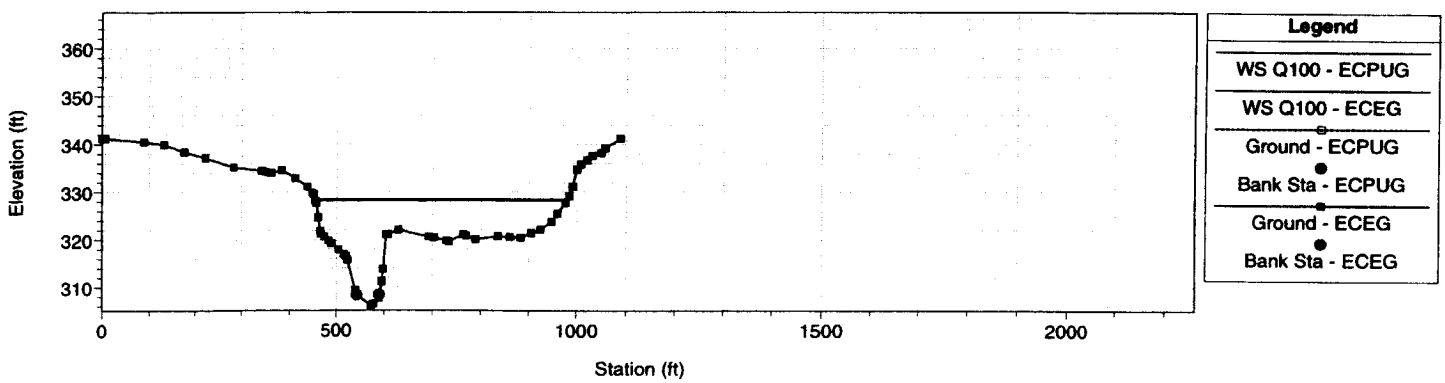
Project Model B

RS = 4237.798 FEC Alternative - San Juan Creek Crossing



Project Model B

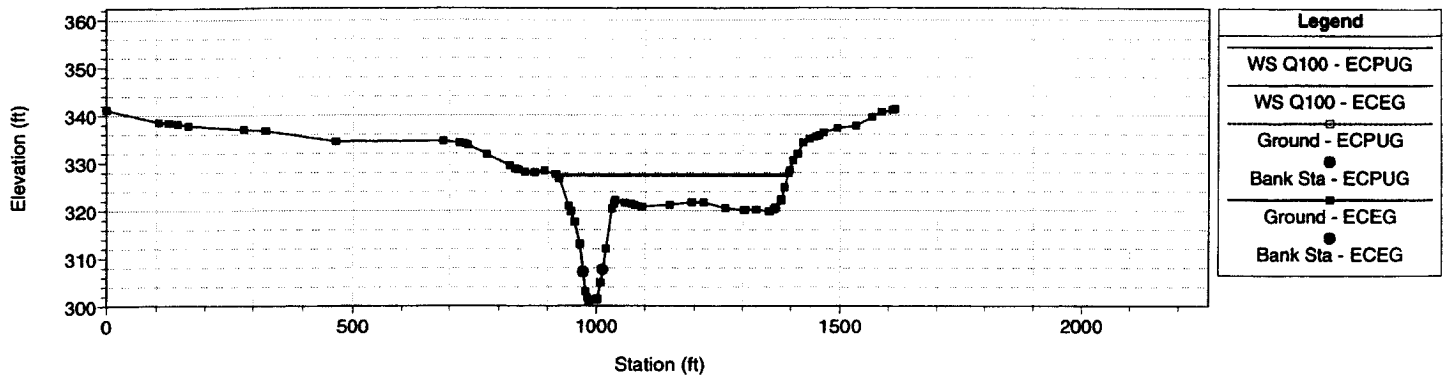
RS = 4029.826 FEC Alternative - San Juan Creek Crossing



1 in Horiz. = 400 ft 1 in Vert. = 40 ft

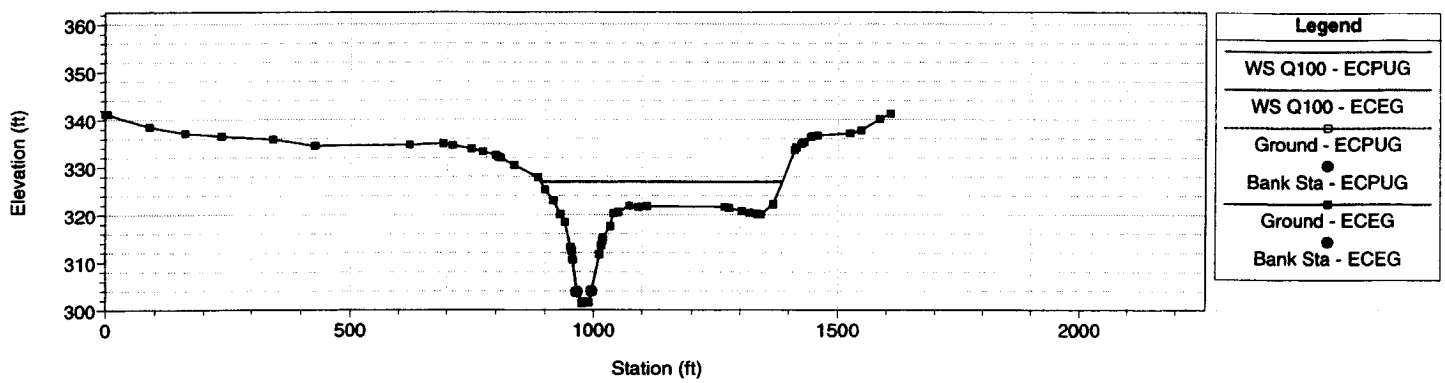
Project Model B

RS = 3777.506 FEC Alternative - San Juan Creek Crossing



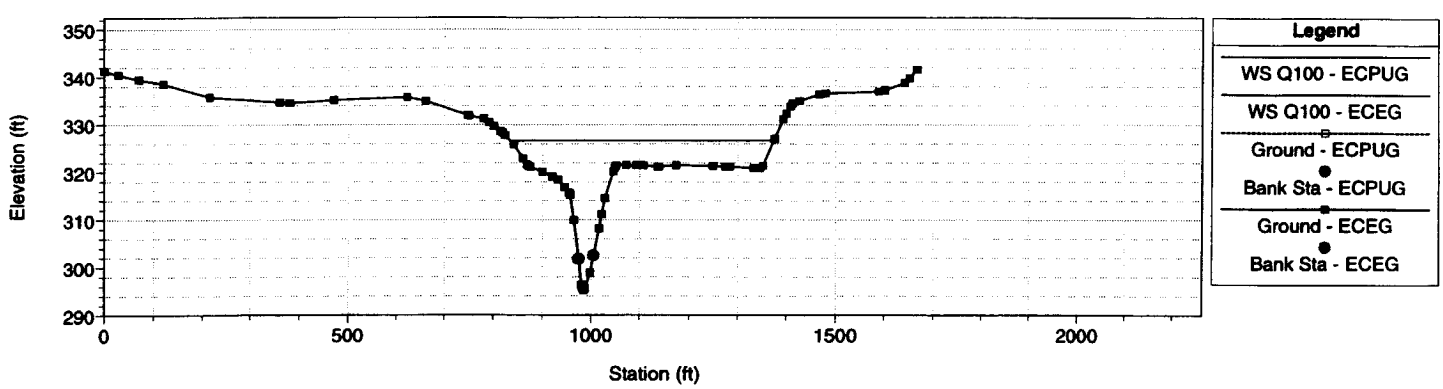
Project Model B

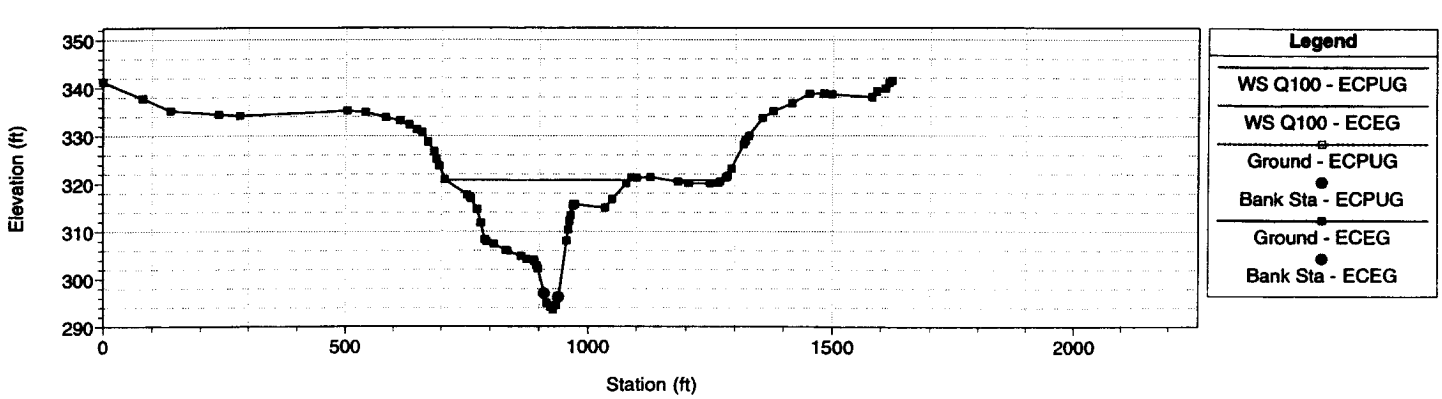
RS = 3688.827 FEC Alternative - San Juan Creek Crossing



Project Model B

RS = 3444.123 FEC Alternative - San Juan Creek Crossing

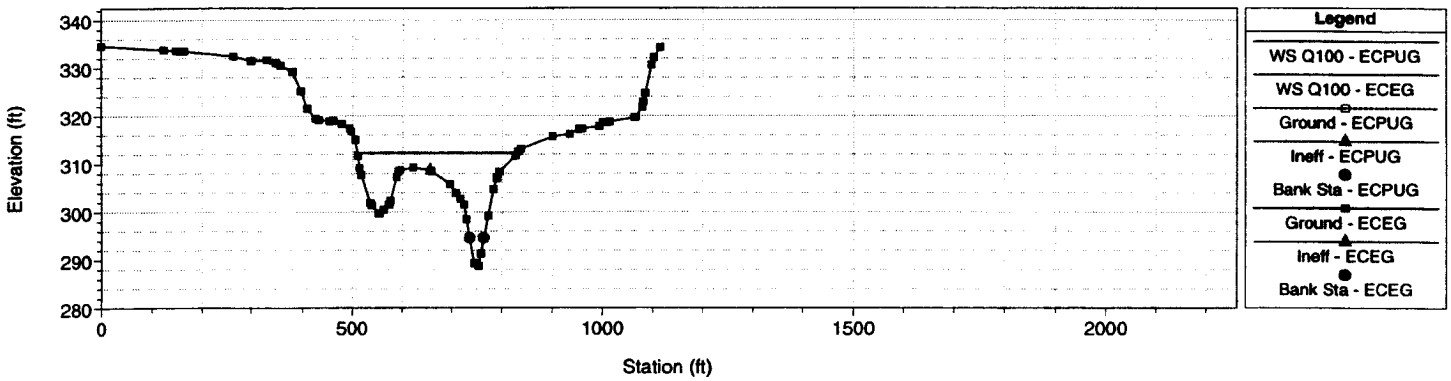




1 in Horiz. = 400 ft 1 in Vert. = 40 ft

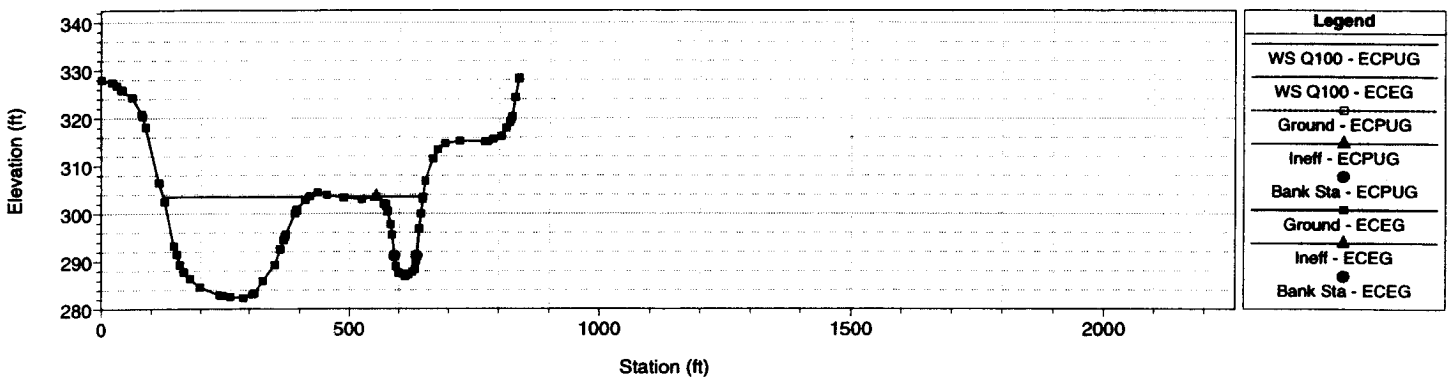
Project Model B

RS = 3070.453 FEC Alternative - San Juan Creek Crossing



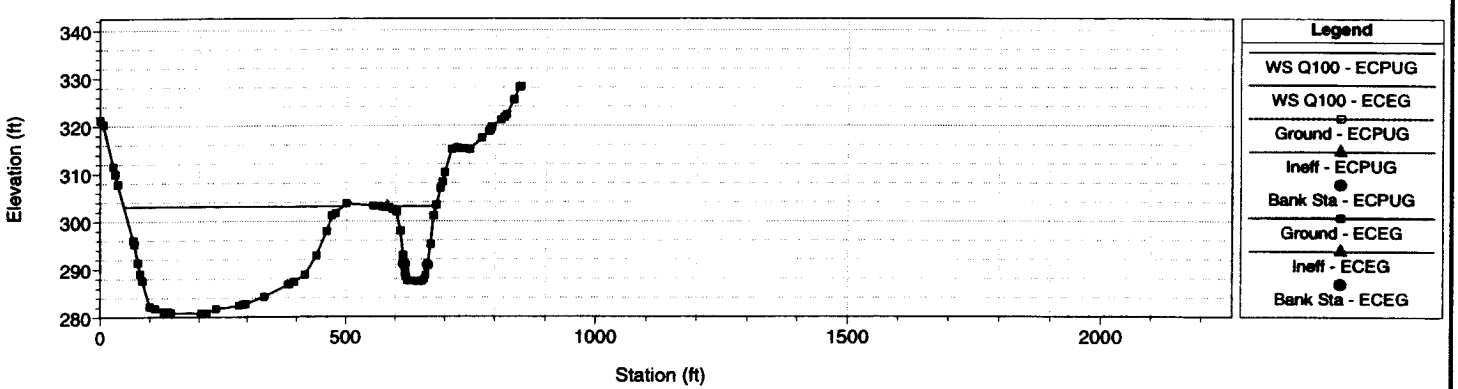
Project Model B

RS = 2920.457 FEC Alternative - San Juan Creek Crossing



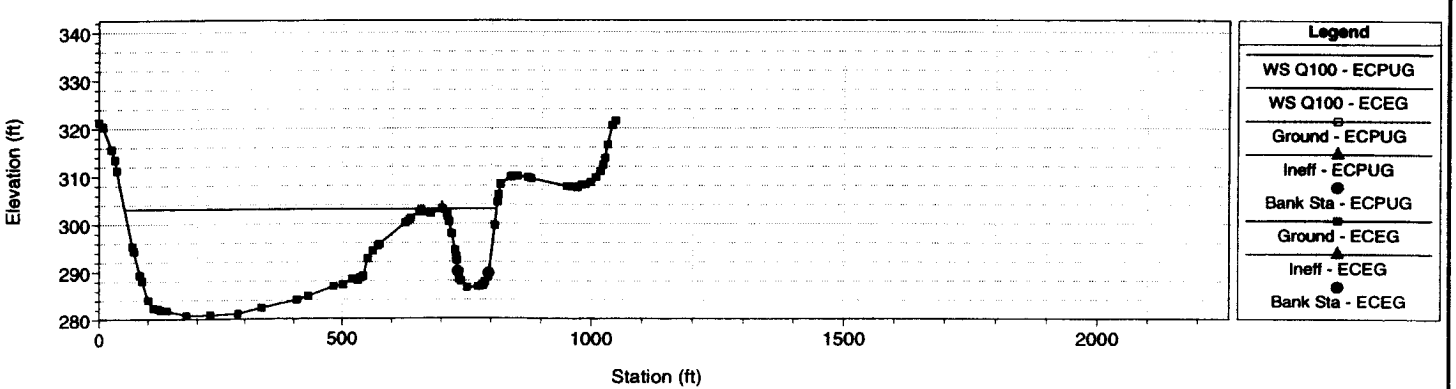
Project Model B

RS = 2752.174 FEC Alternative - San Juan Creek Crossing



Project Model B

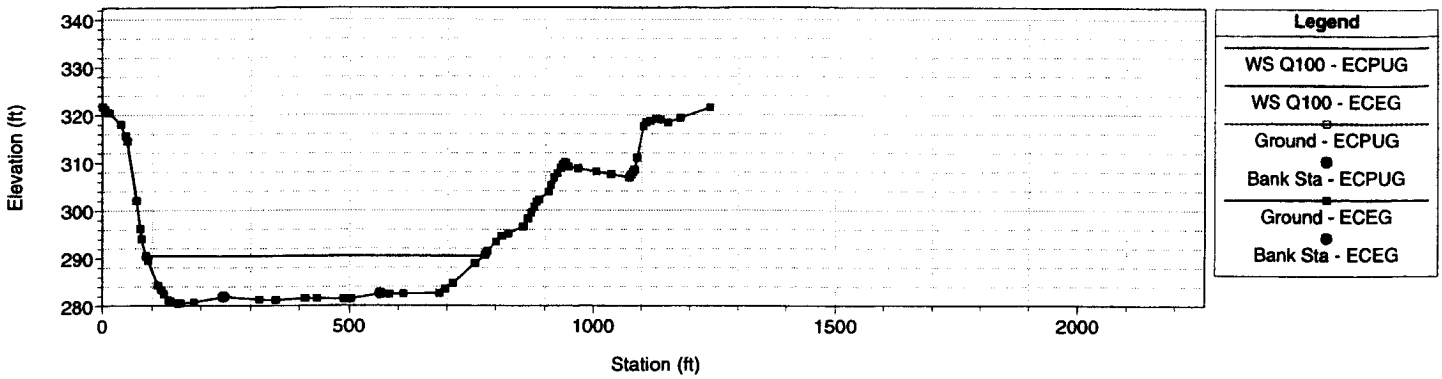
RS = 2502.231 FEC Alternative - San Juan Creek Crossing



1 in Horiz. = 400 ft 1 in Vert. = 40 ft

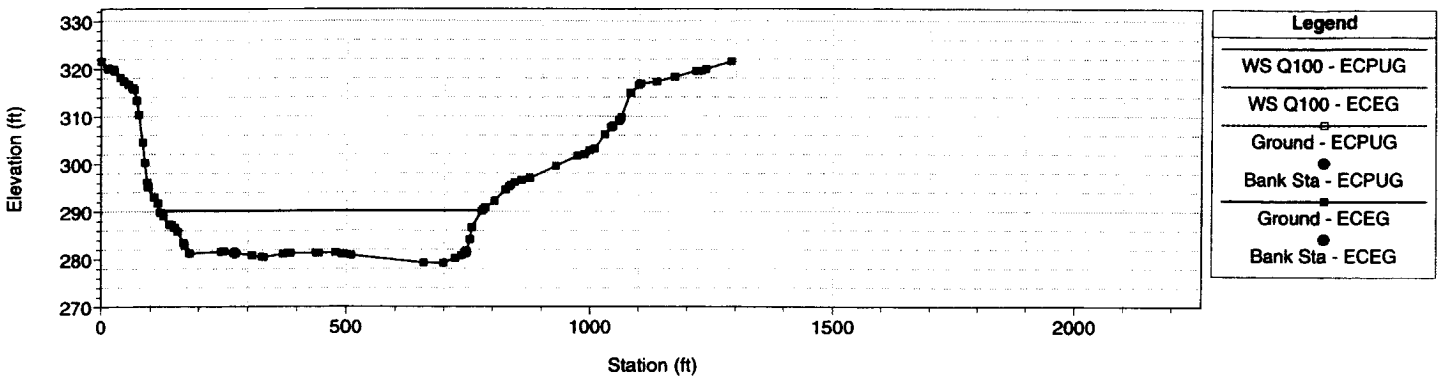
Project Model B

RS = 2230.316 FEC Alternative - San Juan Creek Crossing



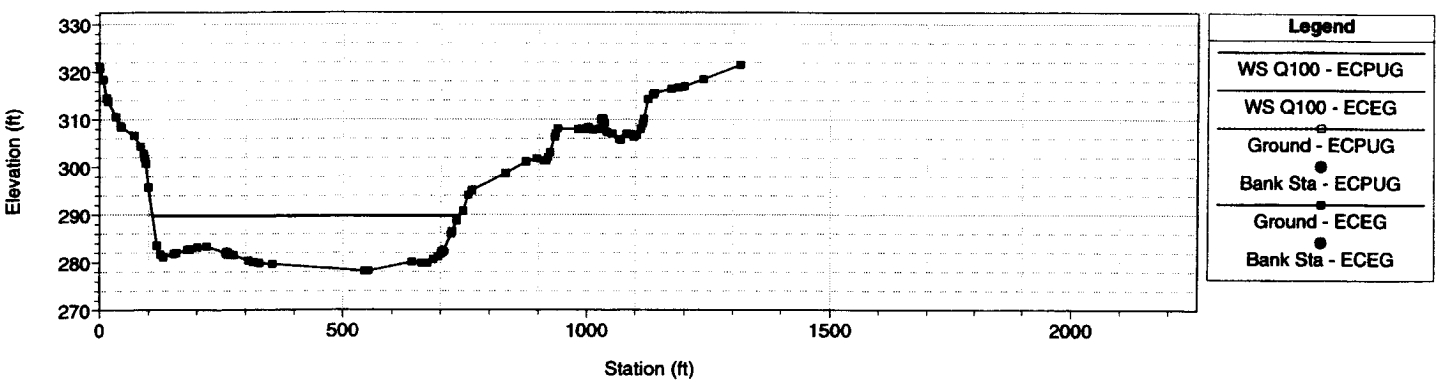
Project Model B

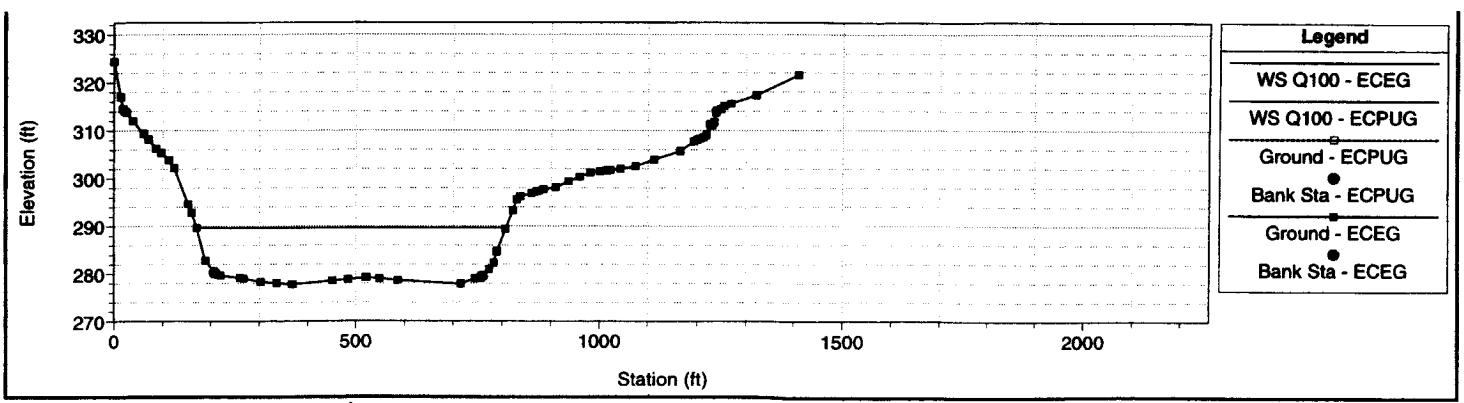
RS = 1949.598 FEC Alternative - San Juan Creek Crossing



Project Model B

RS = 1618.909 FEC Alternative - San Juan Creek Crossing

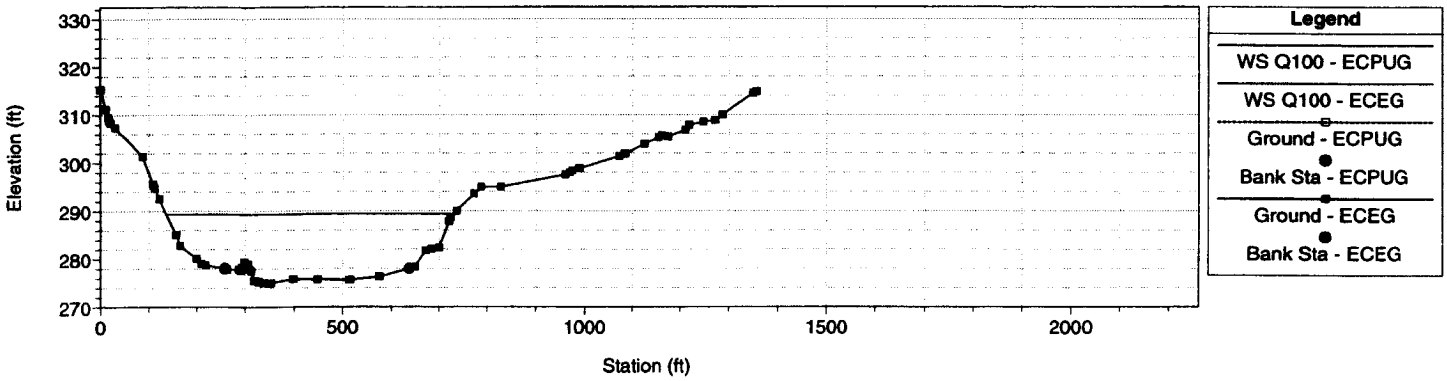




1 in Horiz. = 400 ft 1 in Vert. = 40 ft

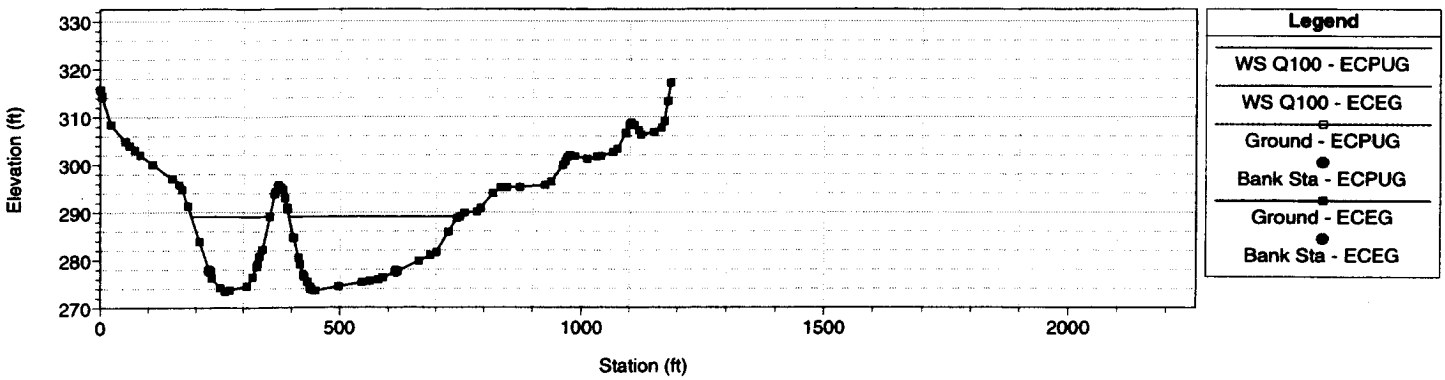
Project Model B

RS = 1138.496 FEC Alternative - San Juan Creek Crossing



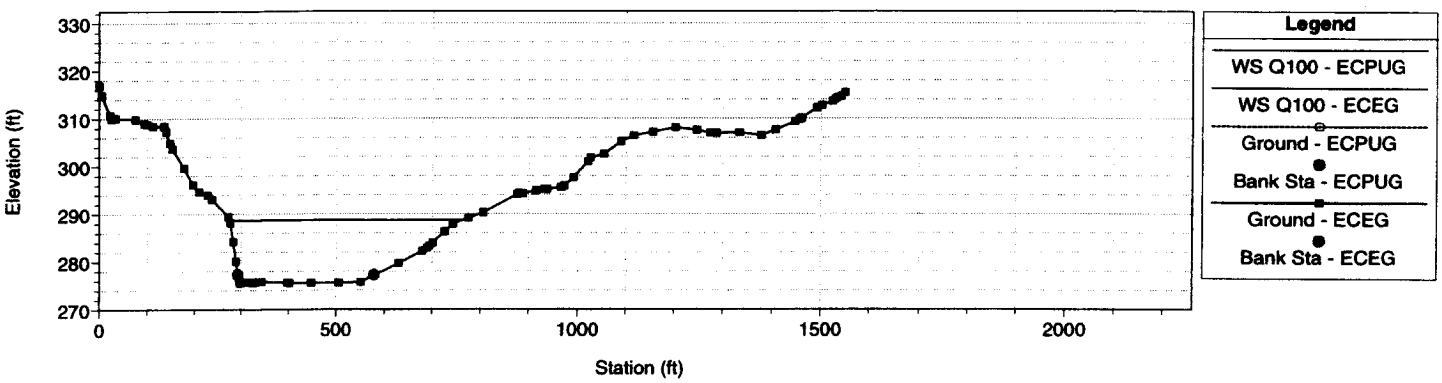
Project Model B

RS = 931.764 FEC Alternative - San Juan Creek Crossing



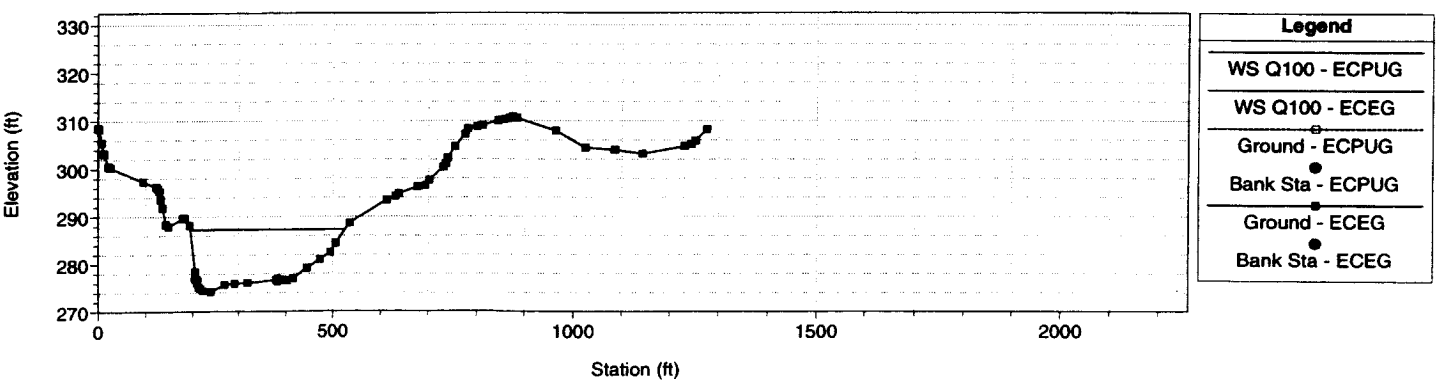
Project Model B

RS = 715.294 FEC Alternative - San Juan Creek Crossing



Project Model B

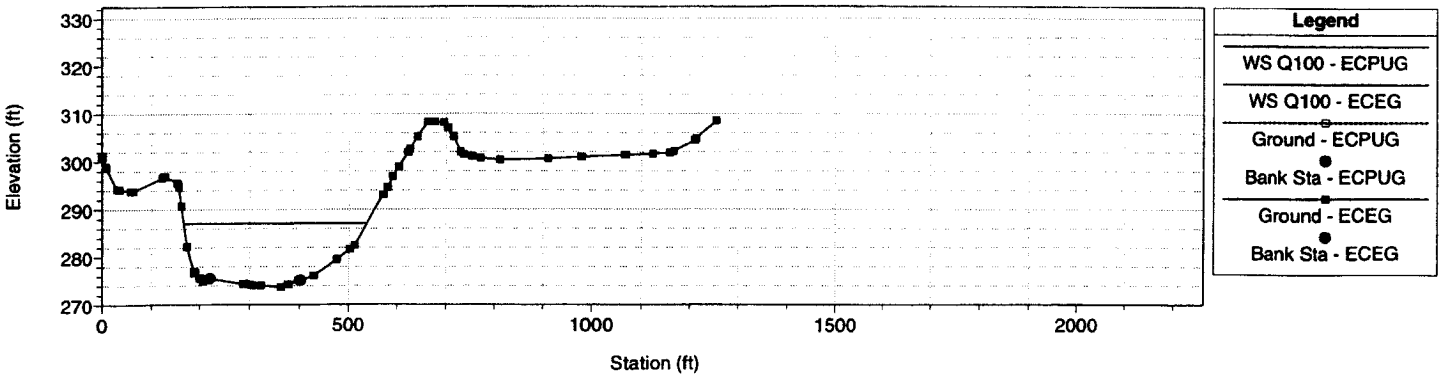
RS = 515.223 FEC Alternative - San Juan Creek Crossing



1 in Horiz. = 400 ft 1 in Vert. = 40 ft

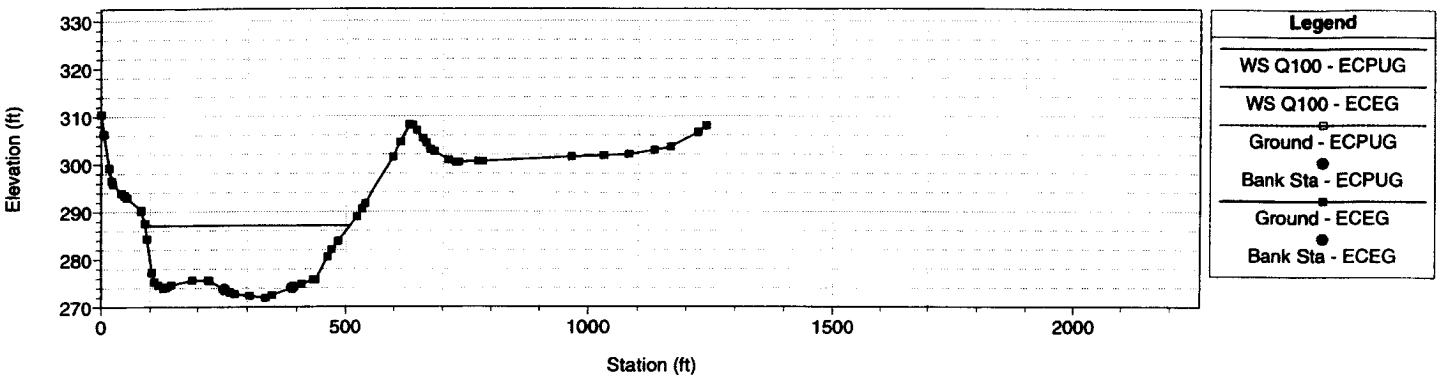
Project Model B

RS = 307.535 FEC Alternative - San Juan Creek Crossing

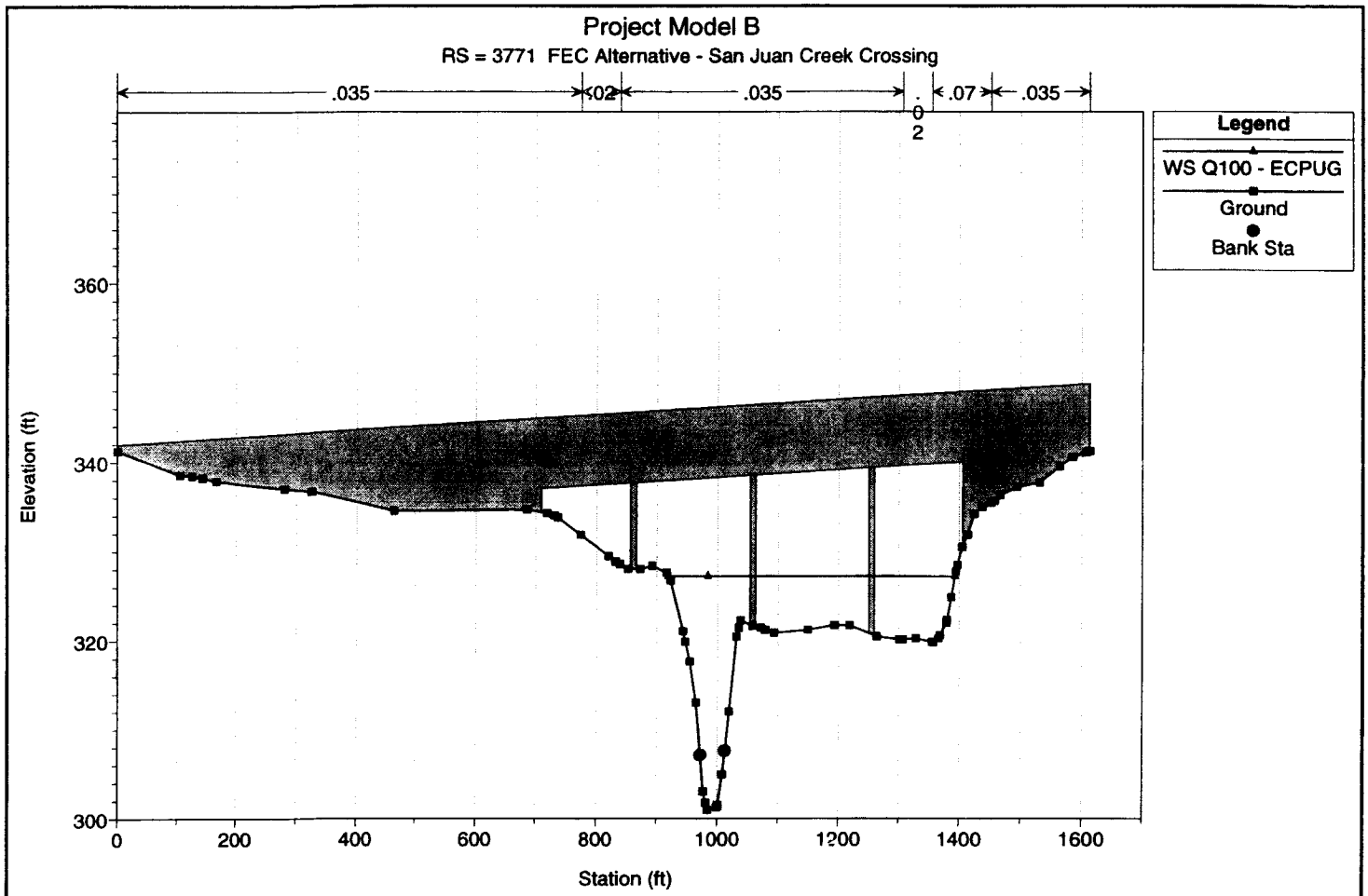


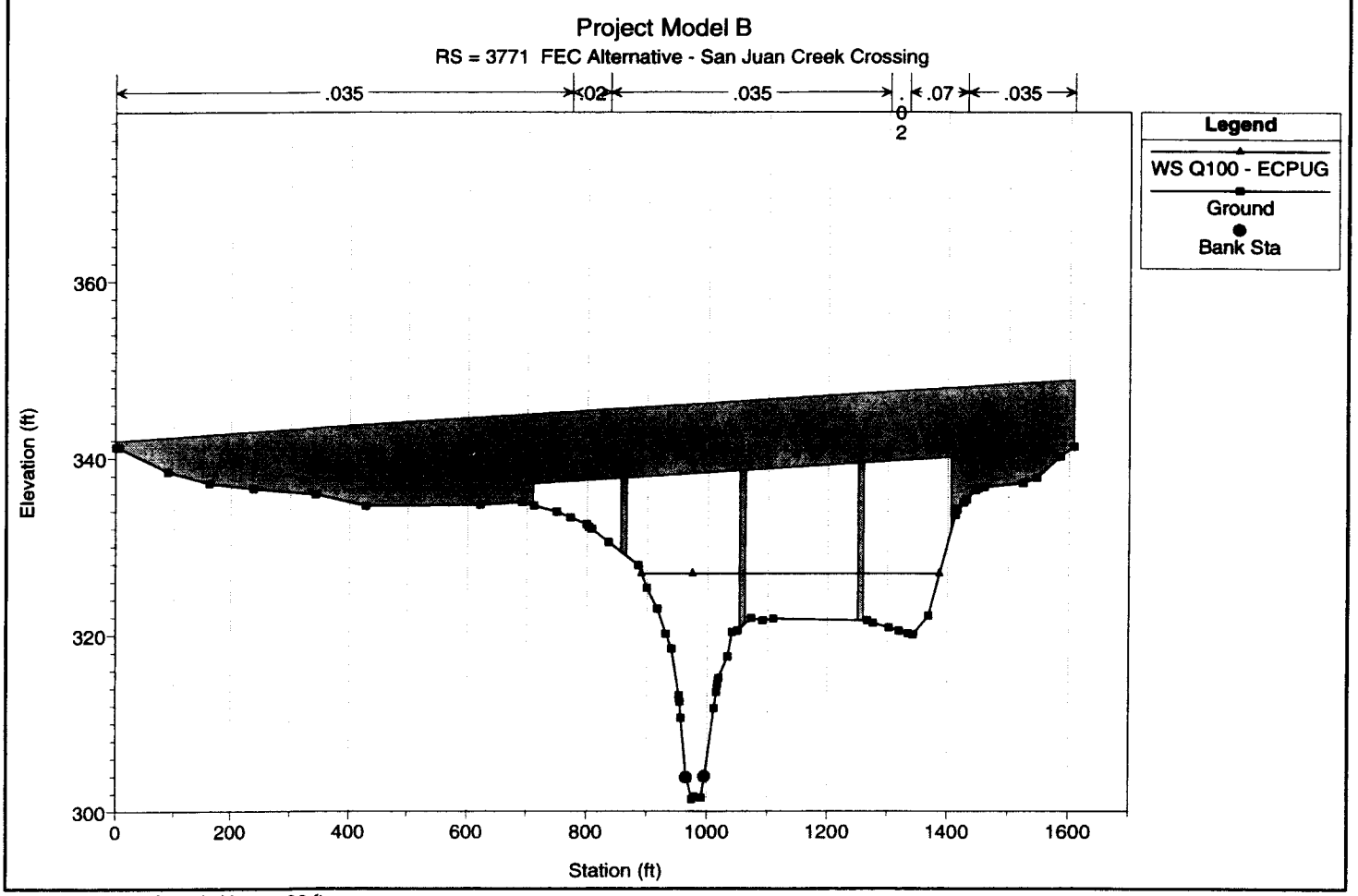
Project Model B

RS = 112.108 FEC Alternative - San Juan Creek Crossing

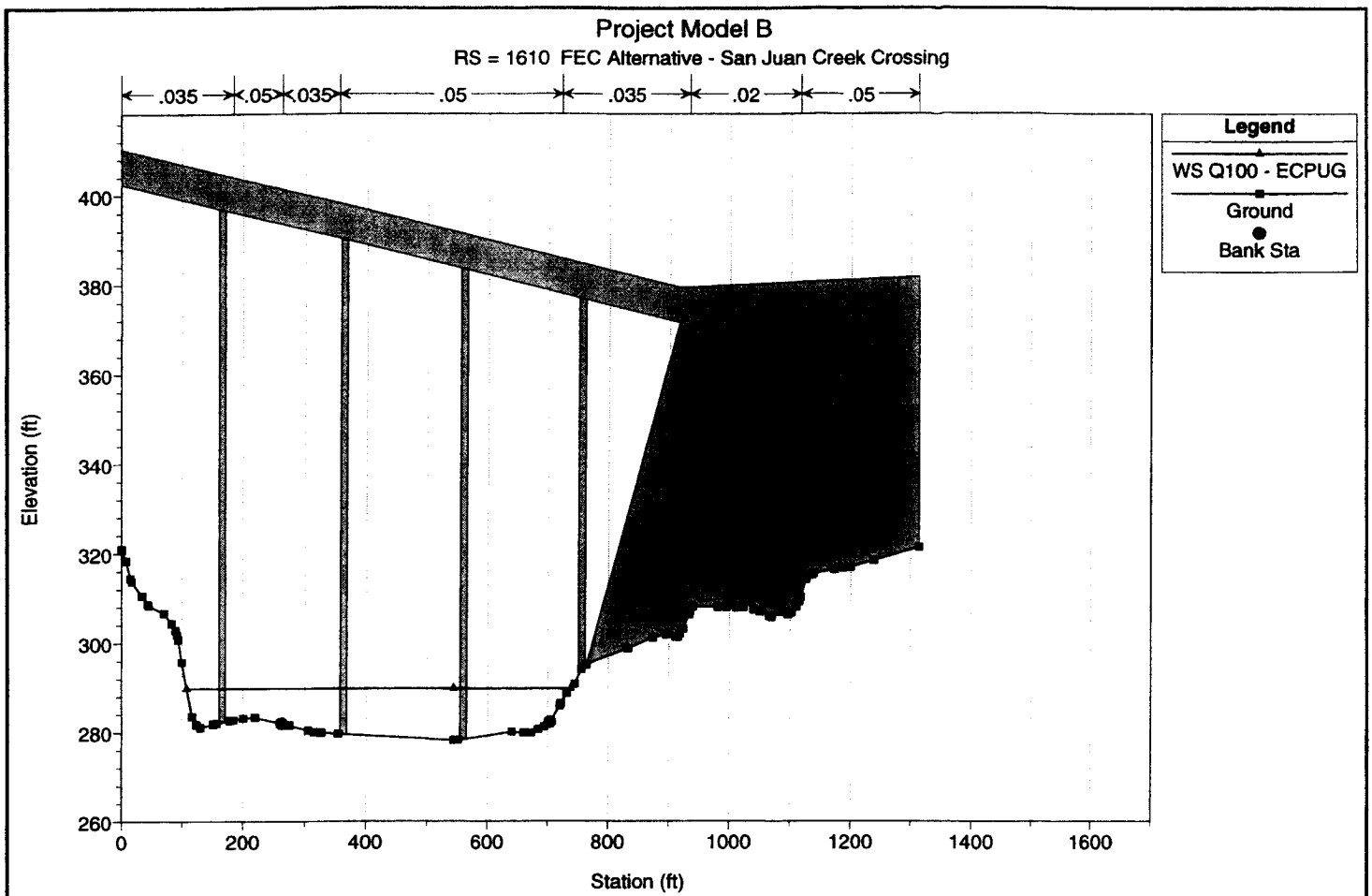


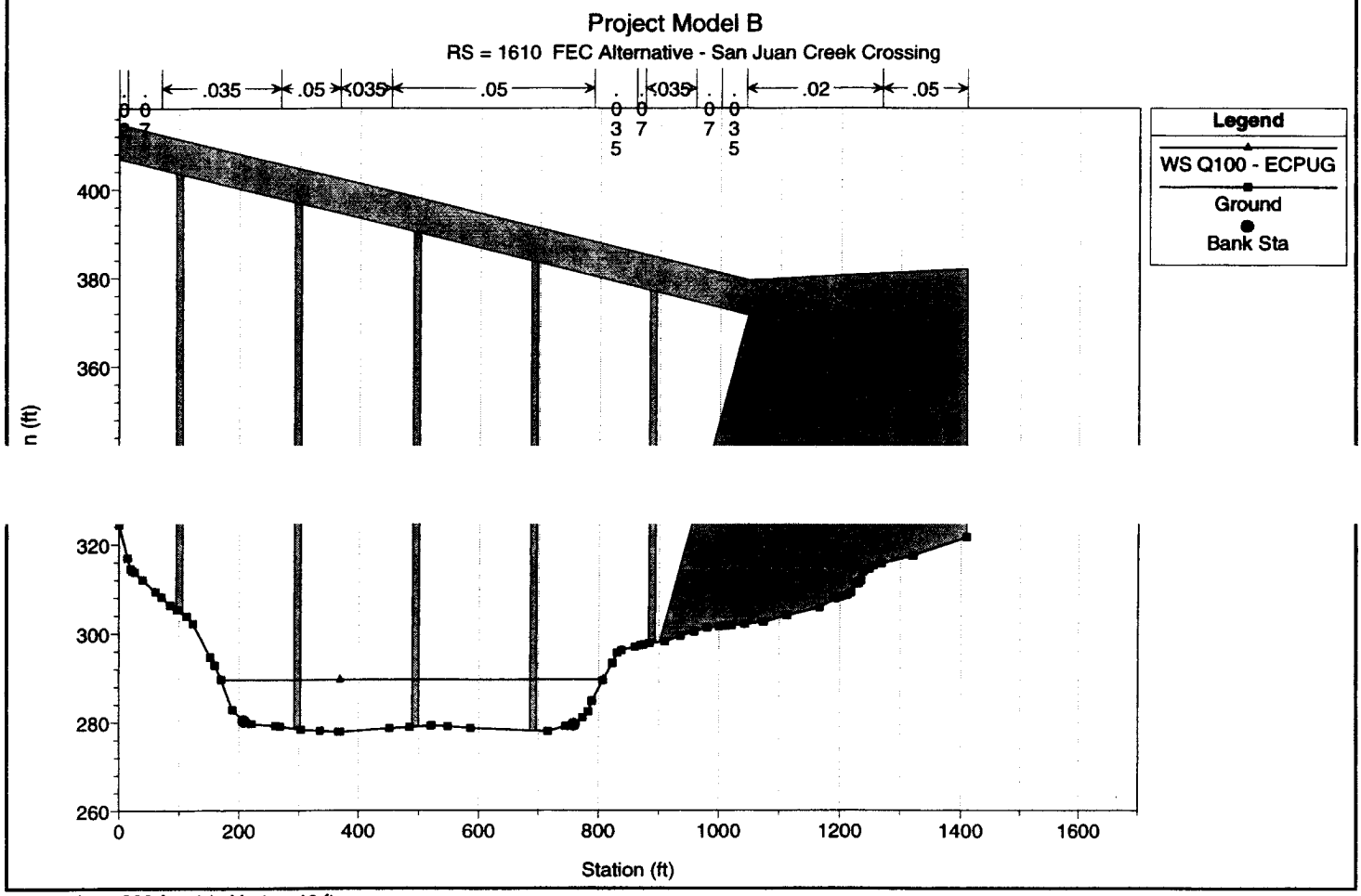
1 in Horiz. = 400 ft 1 in Vert. = 40 ft



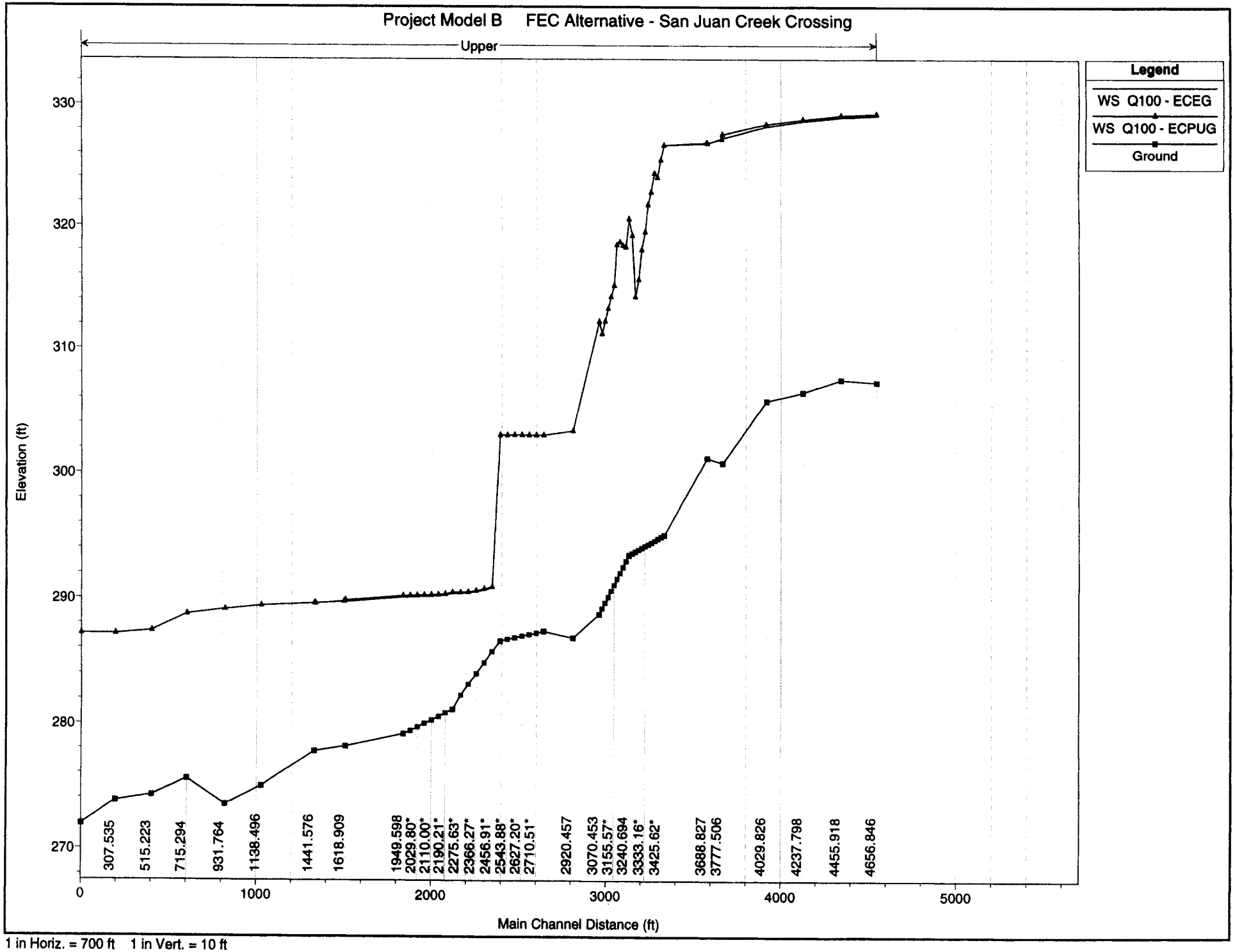


1 in Horiz. = 300 ft 1 in Vert. = 20 ft

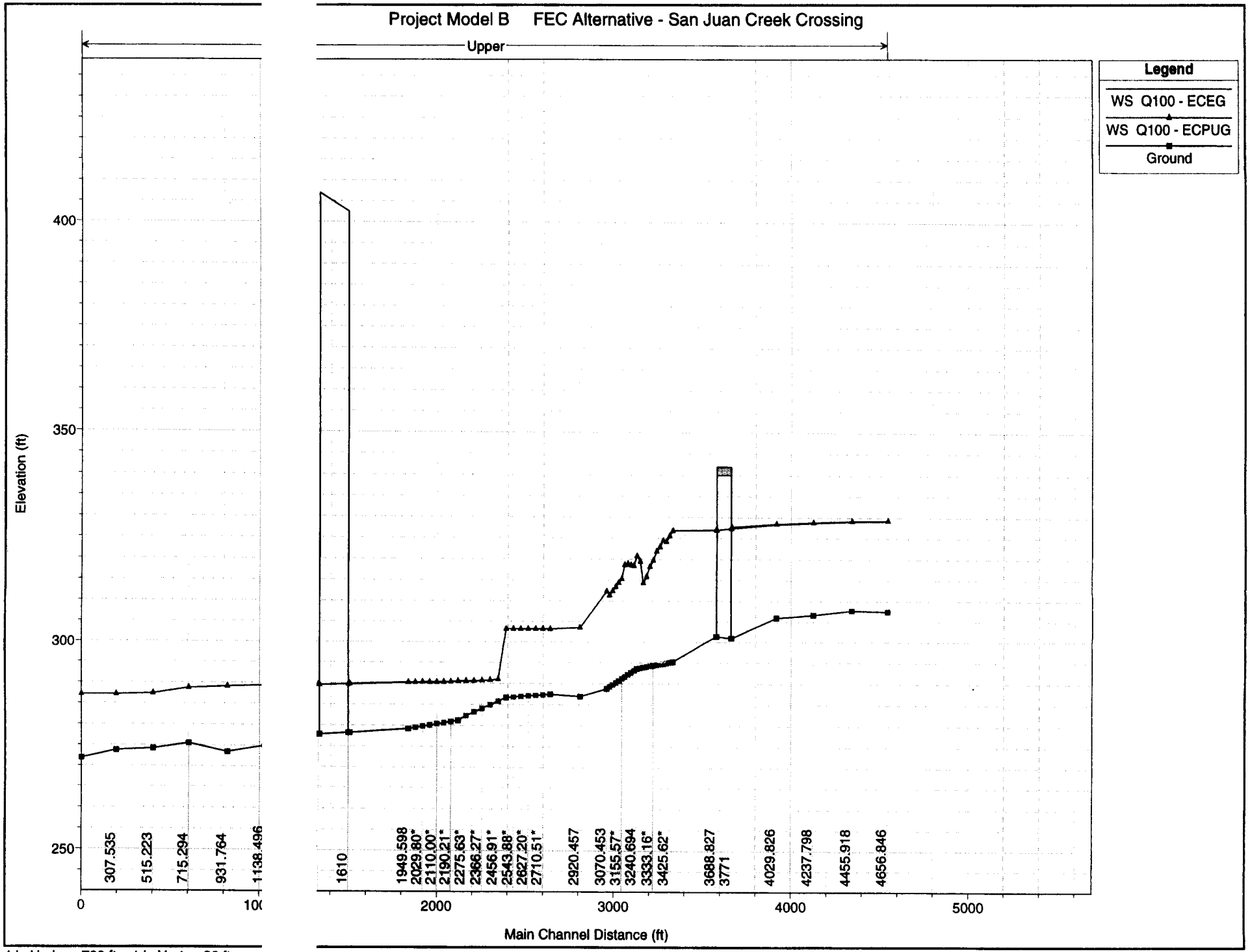




1 in Horiz. = 300 ft 1 in Vert. = 40 ft



1 in Horiz. = 700 ft 1 in Vert. = 10 ft



1 in Horiz. = 700 ft 1 in Vert. = 30 ft

APPENDIX D
HYDRAULIC MODEL INPUT & RESULTS
FEC ALTERNATIVE AT CRISTIANITOS/BLIND GABINO
(MODEL "C")

Appendix D. **Hydraulic Model Input & Results**

FEC Alternative at Cristianitos Creek/Blind Gambino (Model C)

- Model Report
- Project geometry, plan view
- Cross Sections comparing 100-yr existing and project geometries and water surface elevations
- Geometry and water surface elevation profile

Cross sections associated with the proposed bridge structure include:

898	(2945)
839	(2753)
152	(499)
94	(307)

HEC-RAS Version 3.0.1 Mar 2001
U.S. Army Corp of Engineers
Hydrologic Engineering Center
609 Second Street, Suite D
Davis, California 95616-4687
(916) 756-1104

```
X     X  XXXXXX    XXXX        XXXX       XX      XXXX
X     X  X        X    X       X   X     X  X    X
X     X  X        X            X   X    X    X   X
XXXXXXX  XXXX     X       XXX  XXXX     XXXXXX    XXXX
X     X  X        X            X  X     X    X        X
X     X  X        X    X       X   X    X    X        X
X     X  XXXXXX    XXXX        X    X   X    X   XXXXX
```

PROJECT DATA
Project Title: Project Model C
Project File : PMC.prj
Run Date and Time: 11/14/02 8:39:16 AM

Project in English units

Project Description:
FEC Alternative - Blind/Gabino and Cristianitos Creek Crossing

PLAN DATA

Plan Title: Existing Flow/Existing Geometry
Plan File : p:\2PDA0104\Hydr\LHS\Modeling\Model C\HecRas C\PMC.p01

Geometry Title: Existing Conditions
Geometry File : p:\2PDA0104\Hydr\LHS\Modeling\Model C\HecRas C\PMC.g01

Flow Title : Existing Conditions
Flow File : p:\2PDA0104\Hydr\LHS\Modeling\Model C\HecRas C\PMC.f01

Plan Summary Information:
Number of: Cross Sections = 131 Mulitple Openings = 0
Culverts = 1 Inline Weirs = 0
Bridges = 1

Computational Information
Water surface calculation tolerance = 0.01
Critical depth calculaton tolerance = 0.01
Maximum number of interations = 20
Maximum difference tolerance = 0.3
Flow tolerance factor = 0.001

Computation Options
Critical depth computed only where necessary
Conveyance Calculation Method: At breaks in n values only
Friction Slope Method: Average Conveyance
Computational Flow Regime: Mixed Flow

FLOW DATA

Flow Title: Existing Conditions
Flow File : p:\2PDA0104\Hydr\LHS\Modeling\Model C\HecRas C\PMC.f01

Flow Data (cfs)

River	Reach	RS	Q2	Q5	Q10	Q25	Q50	Q100	Q100HC
Blind Gabino	Tributary	2618.417	1	133	292	896	1834	2838	9084
Cristianitos	Upper	7542.007	1	32	72	217	461	714	2254
Cristianitos	Lower	4235.234	2	165	364	1113	2295	3552	11338

Boundary Conditions

River	Reach	Profile	Upstream	Downstream
Blind Gabino	Tributary	Q2	Normal S = .02	
Blind Gabino	Tributary	Q5	Normal S = .02	
Blind Gabino	Tributary	Q10	Normal S = .02	
Blind Gabino	Tributary	Q25	Normal S = .02	
Blind Gabino	Tributary	Q50	Normal S = .02	
Blind Gabino	Tributary	Q100	Normal S = .02	
Blind Gabino	Tributary	Q100HC	Normal S = .02	
Cristianitos	Upper	Q2	Normal S = .03	
Cristianitos	Upper	Q5	Normal S = .03	
Cristianitos	Upper	Q10	Normal S = .03	
Cristianitos	Upper	Q25	Normal S = .03	
Cristianitos	Upper	Q50	Normal S = .03	

Cristianitos	Upper	Q100	Normal S = .03	
Cristianitos	Upper	Q100HC	Normal S = .03	
Cristianitos	Lower	Q2		Normal S = .006
Cristianitos	Lower	Q5		Normal S = .006
Cristianitos	Lower	Q10		Normal S = .006
Cristianitos	Lower	Q25		Normal S = .006
Cristianitos	Lower	Q50		Normal S = .006
Cristianitos	Lower	Q100		Normal S = .006
Cristianitos	Lower	Q100HC		Normal S = .006

GEOMETRY DATA

Geometry Title: Existing Conditions
Geometry File : p:\2PDA0104\Hydr\LHS\Modeling\Model C\HecRas C\PMC.g01

Reach Connection Table

River	Reach	Upstream Boundary	Downstream Boundary
Blind Gabino	Tributary		2
Cristianitos	Upper		2
Cristianitos	Lower	2	

JUNCTION INFORMATION

Name: 2
Description:
Energy computation Method

Length across Junction River	Reach	Tributary River	Reach	Length	Angle
Blind Gabino	Tributary	to Cristianitos	Lower	306.91	
Cristianitos	Upper	to Cristianitos	Lower	431.78	

CROSS SECTION RIVER: Blind Gabino
REACH: Tributary RS: 2618.417

INPUT
Description:
Station Elevation Data num= 29

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	295.44	15.03	294.28	48.09	289.31	76.95	287.76	77.04	287.75
81.19	287.47	83	287.26	92.45	286.89	113.04	286.09	123.23	285.13
139.31	283.16	161.1	282.05	176.5	281.29	197.73	280.85	237.61	280.36
276.91	279.92	308.16	280.49	310.23	280.53	325.38	280.8	330.61	280.89
363.33	281.28	376.57	281.04	390.77	281.36	417.85	281.95	422.27	283.1
444.11	292.12	447.69	293.6	451.38	295.08	453.18	295.46		

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	77.04	.035	308.16	.05	444.11	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
237.61	308.16	255.48	266.58	227.1	.1	.3

CROSS SECTION RIVER: Blind Gabino
REACH: Tributary RS: 2351.855

INPUT
Description:
Station Elevation Data num= 33

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	295.2	23.36	293.51	46.37	291.85	83.43	289.19	112.66	287.58
152.54	286.57	185.08	284.34	232.66	284.39	249.46	284.26	287.45	282.22
310.71	281.61	318	281.42	365.65	280.18	385.15	279.69	415.54	278.84
425.6	278.69	437.25	278.62	447.85	278.55	448.86	278.54	519.07	278.24
523.91	278.4	534.7	278.75	541.83	279.01	564.16	279.51	587.5	280.15
605.02	280.63	626.99	281.46	633.65	282.45	635.58	282.74	637.02	283.61
639.87	284.88	651.08	291.21	662.5	297.95				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
415.54	534.7	164.1	205.8	231.8	.1	.3

CROSS SECTION RIVER: Blind Gabino
REACH: Tributary RS: 2146.050

INPUT
Description:
Station Elevation Data num= 38

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	295.54	25.58	291.52	46.52	288.79	47.34	288.76	74.51	287.74
119.16	286.19	177.86	286.15	326.22	284.93	350.45	284.14	359.39	282.98
371.81	281.92	378.24	279.38	383.83	277.57	389.25	275.67	394.47	275.28
397.21	275.08	399.74	274.9	402.08	274.72	403.15	274.64	404.54	274.53
494.48	275.08	522.32	275.25	534.9	275.65	538.73	275.77	544.37	275.89
593.71	276.95	614.72	277.47	620.55	277.39	626.75	277.5	709.8	278.67
746.78	280.43	754.68	281.09	758.54	281.64	766.8	284.62	767.9	284.92
768.85	285.51	781.05	293.24	788.94	298.24				

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	47.34	.05	394.47	.035	544.37	.05	781.05	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
397.21	494.48	221.05	188.15	166.7	.1	.3

CROSS SECTION RIVER: Blind Gabino
REACH: Tributary RS: 1957.878

INPUT
Description:
Station Elevation Data num= 44

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	294.35	3.5	293.73	7.9	293.06	26.71	290.17	31.9	288.9
50.24	287.77	70.53	287.87	103.6	287.05	106.74	286.85	205.02	284.16
285.21	283.86	290.15	283.45	300.5	283.86	302.36	283.77	328.71	282.46
330.71	282	339.65	280.24	353.91	277.27	358.88	276.25	390.66	274.21
411.54	272.58	449.98	271.64	451.3	271.63	497.16	271.53	497.95	271.53
538.12	271.44	566.35	271.72	579.49	272.44	655.32	273.83	660.92	274.16
663.21	274.39	663.93	274.47	668.68	274.95	669.71	275.06	692.03	276.06
706.45	278.12	716.8	278.48	729.09	279.05	743.06	281.06	747.67	282.02
761.07	284.73	784.22	292.68	788.15	294.2	790.4	295.01		

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	7.9	.05	497.95	.035	663.93	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
449.98	566.35	29.94	37.51	40.62	.1	.3

CROSS SECTION RIVER: Blind Gabino
REACH: Tributary RS: 1920.36*

INPUT
Description:
Station Elevation Data num= 80

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	293.42	3.51	292.81	7.91	292.14	14.4	291.14	26.75	289.55
31.95	288.49	50.31	287.52	70.63	287.58	101.81	286.91	102.62	286.89
103.1	286.88	103.75	286.86	104.23	286.83	106.89	286.67	122.2	286.23
163.28	285.04	169.58	284.86	173.12	284.76	182.59	284.34	183.89	284.22
185.63	284.09	200.02	282.91	205.32	282.67	208.89	282.58	217.49	282.44
228.92	282.35	236.1	282.31	285.62	281.94	290.57	281.58	300.93	281.88
302.8	281.8	305.41	281.68	328.1	280.74	329.18	280.69	331.19	280.3
340.14	278.8	354.42	276.27	359.4	275.4	391.22	273.59	412.13	272.15
450.63	271.23	451.49	271.22	452.19	271.21	452.29	271.21	453.16	271.2
453.51	271.19	454.07	271.2	506.54	271.13	507.47	271.13	546.16	271.08
549.99	271.04	555.08	270.99	580.66	271.33	585.22	271.61	592.76	272.24
605.01	272.85	610.91	273.06	627.61	273.56	655.91	274.29	662.55	274.44
667.7	274.74	669.81	274.94	670.47	275.01	674.85	275.43	675.79	275.53
678.26	275.64	693.22	276.33	696.34	276.5	697.43	276.65	709.61	278.37
716.04	278.65	719.14	278.77	730.45	279.32	743.31	281.07	747.55	281.9
749.35	282.24	759.88	284.42	781.19	291.56	784.81	292.92	786.88	293.64

Manning's n Values num= 9

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.041	7.91	.053	122.2	.067	450.63	.035	504.23	.035
566.62	.038	580.66	.05	670.47	.05	786.88	.05		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
450.63	580.66	29.94	37.51	40.62	.1	.3

CROSS SECTION RIVER: Blind Gabino
REACH: Tributary RS: 1882.86*

INPUT
Description:
Station Elevation Data num= 80

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	292.48	3.51	291.89	7.92	291.22	14.42	290.22	26.79	288.93
31.99	288.07	50.38	287.28	70.73	287.3	101.95	286.72	102.77	286.7
103.25	286.69	103.9	286.67	104.38	286.64	107.05	286.5	122.38	286.03
163.51	284.76	169.82	284.58	173.37	284.49	182.85	283.9	184.15	283.69
185.9	283.48	200.31	281.51	205.61	281.18	209.19	281.02	217.8	280.76
229.25	280.63	236.44	280.57	286.03	280.03	290.99	279.71	301.37	279.9
303.23	279.82	305.85	279.71	328.57	278.96	329.66	278.92	331.66	278.6
340.63	277.36	354.93	275.27	359.91	274.56	391.79	272.96	412.73	271.72
451.28	270.81	452.28	270.8	453.09	270.78	453.2	270.78	454.2	270.77
454.61	270.76	455.26	270.76	515.92	270.72	517	270.73	561.72	270.69
566.15	270.63	572.03	270.54	594.97	270.93	599.14	271.24	606.02	272.03
617.22	273.01	622.61	273.32	637.86	273.99	663.71	274.89	669.78	275.04
674.49	275.31	676.41	275.49	677.02	275.55	681.01	275.91	681.88	276
684.14	276.1	697.8	276.76	700.65	276.93	701.65	277.07	712.77	278.62
718.64	278.94	721.47	279.06	731.81	279.58	743.55	281.08	747.43	281.78
749.08	282.06	758.7	284.12	778.16	290.45	781.46	291.63	783.36	292.27

Manning's n Values num= 9

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.047	7.92	.057	122.38	.063	451.28	.035	510.51	.035
579.46	.04	594.97	.05	677.02	.05	783.36	.05		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
451.28	594.97	29.94	37.51	40.62	.1	.3

CROSS SECTION RIVER: Blind Gabino
REACH: Tributary RS: 1845.35*

INPUT

Description:
Station Elevation Data num= 80

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	291.54	3.52	290.97	7.93	290.29	14.44	289.3	26.83	288.31
32.04	287.66	50.46	287.03	70.83	287.01	102.1	286.52	102.92	286.51
103.4	286.5	104.05	286.48	104.53	286.45	107.2	286.32	122.55	285.83
163.75	284.49	170.07	284.3	173.62	284.21	183.11	283.46	184.42	283.17
186.17	282.87	200.6	280.11	205.91	279.69	209.49	279.45	218.11	279.09
229.58	278.92	236.78	278.83	286.44	278.11	291.4	277.84	301.8	277.92
303.67	277.85	306.29	277.75	329.04	277.19	330.13	277.15	332.14	276.9
341.12	275.92	355.44	274.27	360.43	273.71	392.35	272.34	413.32	271.29
451.92	270.4	453.06	270.38	453.98	270.36	454.11	270.36	455.25	270.34
455.71	270.33	456.44	270.33	525.29	270.32	526.52	270.32	577.29	270.31
582.31	270.22	588.99	270.1	609.28	270.54	613.06	270.86	619.29	271.83
629.42	273.17	634.3	273.58	648.12	274.42	671.52	275.48	677.01	275.65
681.27	275.89	683.02	276.04	683.56	276.09	687.18	276.4	687.96	276.47
690.01	276.57	702.38	277.18	704.95	277.37	705.86	277.49	715.93	278.88
721.25	279.23	723.81	279.35	733.16	279.85	743.8	281.1	747.31	281.66
748.8	281.89	757.51	283.81	775.13	289.33	778.12	290.35	779.84	290.9

Manning's n Values num= 9

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.053	7.93	.06	122.55	.06	451.92	.035	516.79	.035
592.29	.043	609.28	.05	683.56	.05	779.84	.05		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
451.92	609.28	29.94	37.51	40.62	.1	.3

CROSS SECTION RIVER: Blind Gabino
REACH: Tributary RS: 1807.84*

INPUT
Description:
Station Elevation Data num= 80

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	290.61	3.52	290.04	7.95	289.37	14.46	288.38	26.86	287.69
32.08	287.24	50.53	286.78	70.94	286.73	102.25	286.33	103.06	286.32
103.54	286.31	104.2	286.29	104.68	286.27	107.36	286.14	122.73	285.62
163.98	284.22	170.31	284.03	173.87	283.94	183.37	283.02	184.68	282.64
186.44	282.26	200.88	278.71	206.2	278.2	209.79	277.89	218.42	277.41
229.91	277.2	237.12	277.09	286.85	276.19	291.82	275.97	302.23	275.94
304.1	275.87	306.73	275.79	329.52	275.41	330.6	275.38	332.62	275.19
341.61	274.48	355.95	273.28	360.95	272.86	392.91	271.71	413.91	270.86
452.57	269.98	453.84	269.96	454.87	269.94	455.01	269.94	456.29	269.91
456.8	269.9	457.63	269.9	534.67	269.92	536.05	269.92	592.85	269.93
598.48	269.81	605.95	269.65	623.6	270.14	626.98	270.48	632.55	271.63
641.63	273.33	646	273.84	658.37	274.84	679.32	276.07	684.24	276.25
688.06	276.47	689.62	276.59	690.11	276.63	693.35	276.88	694.05	276.94
695.88	277.03	706.95	277.6	709.26	277.8	710.07	277.91	719.09	279.13
723.85	279.52	726.15	279.64	734.52	280.11	744.05	281.11	747.19	281.53
748.52	281.71	756.32	283.5	772.1	288.21	774.78	289.07	776.31	289.54

Manning's n Values num= 9

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.058	7.95	.063	122.73	.057	452.57	.035	523.07	.035
605.13	.045	623.6	.05	690.11	.05	776.31	.05		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
452.57	623.6	29.94	37.51	40.62	.1	.3

CROSS SECTION RIVER: Blind Gabino
REACH: Tributary RS: 1770.33*

INPUT
Description:
Station Elevation Data num= 80

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	289.67	3.53	289.12	7.96	288.45	14.48	287.45	26.9	287.07
32.13	286.83	50.6	286.54	71.04	286.44	102.39	286.14	103.21	286.13
103.69	286.12	104.35	286.1	104.83	286.08	107.51	285.97	122.9	285.42
164.22	283.94	170.56	283.75	174.12	283.66	183.64	282.58	184.95	282.12
186.7	281.65	201.17	277.32	206.5	276.72	210.09	276.32	218.74	275.74
230.24	275.48	237.46	275.35	287.26	274.28	292.24	274.1	302.66	273.95
614.64	269.4	622.9	269.2	637.91	269.74	640.89	270.11	645.82	271.43
653.83	273.49	657.69	274.1	668.62	275.27	687.13	276.67	691.47	276.86
694.84	277.05	696.22	277.14	696.65	277.17	699.51	277.36	700.13	277.4
701.75	277.49	711.53	278.03	713.57	278.24	714.29	278.33	722.25	279.38
726.46	279.81	728.48	279.93	735.88	280.38	744.29	281.12	747.07	281.41
748.25	281.54	755.13	283.19	769.07	287.09	771.44	287.78	772.79	288.17

Manning's n Values num= 9

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.064	7.96	.067	122.9	.053	453.22	.035	529.35	.035
617.96	.047	637.91	.05	696.65	.05	772.79	.05		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
453.22	637.91	29.94	37.51	40.62	.1	.3

CROSS SECTION RIVER: Blind Gabino
REACH: Tributary RS: 1732.829

INPUT
Description:
Station Elevation Data num= 41

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	288.74	14.5	286.53	102.54	285.95	103.36	285.94	103.84	285.93
104.98	285.89	123.08	285.22	164.45	283.67	170.8	283.47	174.37	283.39
183.9	282.14	185.21	281.59	186.97	281.04	201.46	275.92	210.39	274.76
219.05	274.06	230.57	273.76	237.8	273.61	307.61	271.86	330.46	271.86
453.87	269.15	455.41	269.12	456.83	269.09	458.38	269.05	459	269.03
460	269.04	623.98	269.17	630.8	268.99	639.86	268.75	652.22	269.35
654.81	269.73	666.04	273.65	669.39	274.36	678.87	275.7	694.93	277.26
707.62	277.95	716.11	278.45	718.5	278.75	729.06	280.1	747.97	281.36
769.27	286.8								

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.07	123.08	.05	453.87	.035	630.8	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
453.87	652.22	143.9	223.75	251.1	.1	.3

CROSS SECTION RIVER: Blind Gabino
REACH: Tributary RS: 1509.081

INPUT
Description:
Station Elevation Data num= 30

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	282.27	41.94	281.27	58.19	278.77	69.17	277.31	100.04	271.95
101.49	271.71	102.85	271.23	103.76	271.27	142.63	269.26	214.68	269.36
228.57	269.28	234.91	269.11	359.89	269.29	361.58	269.29	377.88	269.17
387.57	269.1	442.07	268.71	458.98	268.58	477.3	268.37	514.79	267.93
532.54	267.92	542.6	267.68	543.6	267.66	553.15	268.47	560.87	268.88
568.29	273.41	586.72	280.85	588.88	281.89	590.82	282.54	605.58	283.2

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	387.57	.035	442.07	.05	605.58	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
477.3	553.15	44.2	37.9	30.94	.1	.3

CROSS SECTION RIVER: Blind Gabino
REACH: Tributary RS: 1471.17*

INPUT
Description:
Station Elevation Data num= 72

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	282.21	30.9	281.32	32.14	281.25	42.48	280.92	48.88	280.02
58.94	278.62	70.06	277.26	101.32	272.38	102.79	272.16	104.17	271.74
105.09	271.76	118.14	271.03	134.4	270.23	136.85	270.11	144.46	269.75
164.79	269.69	190.08	269.66	196.51	269.69	211.66	269.84	217.43	269.89
231.5	269.94	237.92	269.85	306.08	270.46	308.43	270.47	351.32	270.52
364.5	270.54	366.21	270.54	369.34	270.52	372.02	270.46	382.72	270.09
383.17	270.08	383.29	270.07	392.53	269.38	395.19	269.18	401.55	269.07
410.2	268.84	428.15	268.88	447.73	268.69	464.86	268.51	470.41	268.43
473.84	268.39	483.41	268.26	494.5	268.14	523.83	267.86	542.96	267.84
553.81	267.63	554.89	267.61	564.93	268.33	571.04	268.55	572.04	268.63
573.03	268.71	573.53	268.82	574.35	269.13	575.1	269.4	576.61	269.94
577.54	270.01	578.37	270.09	578.98	270.31	580.63	270.79	584.24	271.83
591.29	273.85	595.42	274.62	603.88	276.38	605.25	276.66	613.93	278.42
623.37	280.3	624.88	280.65	627.13	281.2	630.15	281.72	630.51	281.79
650.81	282.79	656.21	283.03						

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.047	136.85	.038	392.53	.038	447.73	.05	470.41	.047
483.41	.038	564.93	.038	580.63	.05	603.88	.047	656.21	.035
656.21	.035								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
483.41	564.93	44.2	37.9	30.94	.1	.3

CROSS SECTION RIVER: Blind Gabino
REACH: Tributary RS: 1433.26*

INPUT
Description:
Station Elevation Data num= 72

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	282.15	31.29	281.1	32.54	280.99	43.01	280.56	49.5	279.75
59.68	278.47	70.94	277.2	102.6	272.8	104.09	272.6	105.48	272.25
106.42	272.25	119.64	271.46	136.1	270.68	138.58	270.57	146.28	270.25
166.88	270.09	192.49	270	198.99	270.06	214.34	270.33	220.18	270.43
234.42	270.59	240.93	270.58	309.95	271.72	312.33	271.73	355.76	271.77
369.11	271.78	370.84	271.78	374.01	271.77	376.73	271.68	387.56	271.01
388.01	270.98	388.14	270.97	397.5	269.66	400.18	269.29	406.62	269.11
415.39	268.71	433.56	268.92	453.39	268.66	470.73	268.44	476.36	268.35
479.83	268.3	489.52	268.14	501.41	268.04	532.87	267.79	553.39	267.76
565.02	267.58	566.18	267.57	576.71	268.19	585.42	268.45	586.85	268.58
588.26	268.7	588.97	268.9	590.13	269.49	591.21	270.01	593.36	271.05
594.69	271.17	595.87	271.3	596.74	271.53	599.09	271.9	604.23	272.73
614.28	274.29	620.18	274.88	632.24	276.43	634.19	276.68	646.56	278.18
660.03	279.75	662.17	280.04	665.39	280.51	669.69	280.97	670.21	281.04
699.14	282.53	706.84	282.87						

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.045	138.58	.04	397.5	.04	453.39	.05	476.36	.045
489.52	.04	576.71	.04	599.09	.05	632.24	.045	706.84	.035

706.84 .035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
489.52	576.71	44.2	37.9	30.94	.1	.3

CROSS SECTION RIVER: Blind Gabino
REACH: Tributary RS: 1395.35*

INPUT
Description:
Station Elevation Data num= 72

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	282.09	31.68	280.88	32.95	280.73	43.55	280.21	50.12	279.48
60.43	278.32	71.83	277.15	103.88	273.23	105.39	273.05	106.8	272.75
107.75	272.74	121.13	271.89	137.8	271.13	140.31	271.03	148.11	270.74
168.96	270.48	194.89	270.34	201.48	270.42	217.01	270.82	222.93	270.96
237.35	271.25	243.93	271.32	313.82	272.97	316.23	272.99	360.2	273.03
373.71	273.03	375.47	273.03	378.68	273.02	381.43	272.9	392.4	271.93
392.86	271.89	392.98	271.88	402.46	269.95	405.18	269.39	411.7	269.14
420.57	268.58	438.97	268.95	459.05	268.64	476.61	268.36	482.31	268.26
485.82	268.2	495.63	268.03	508.33	267.93	541.91	267.71	563.81	267.67
576.23	267.53	577.46	267.52	588.48	268.05	599.8	268.35	601.66	268.52
603.49	268.69	604.4	268.99	605.92	269.86	607.32	270.63	610.11	272.16
611.83	272.33	613.37	272.52	614.49	272.75	617.55	273.02	624.23	273.63
637.28	274.73	644.94	275.13	660.6	276.48	663.14	276.69	679.19	277.94
696.68	279.19	699.47	279.43	703.64	279.82	709.23	280.22	709.9	280.29
747.47	282.26	757.47	282.7						

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.043	140.31	.043	402.46	.043	459.05	.05	482.31	.043
495.63	.043	588.48	.043	617.55	.05	660.6	.043	757.47	.035
757.47	.035								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
495.63	588.48	44.2	37.9	30.94	.1	.3

CROSS SECTION RIVER: Blind Gabino
REACH: Tributary RS: 1357.44*

INPUT
Description:
Station Elevation Data num= 72

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	282.03	32.07	280.66	33.36	280.47	44.09	279.86	50.73	279.21
61.17	278.17	72.71	277.09	105.16	273.65	106.69	273.49	108.12	273.26
109.07	273.23	122.62	272.31	139.5	271.58	142.04	271.5	149.94	271.23
171.04	270.88	197.29	270.68	203.96	270.78	219.69	271.31	225.68	271.49
240.28	271.91	246.94	272.06	317.69	274.23	320.13	274.24	364.65	274.28
378.32	274.28	380.1	274.28	383.35	274.27	386.13	274.12	397.23	272.86
397.7	272.8	397.83	272.78	407.42	270.23	410.18	269.49	416.78	269.18
425.76	268.45	444.38	268.99	464.71	268.62	482.49	268.29	488.26	268.18
491.81	268.11	501.75	267.92	515.24	267.82	550.95	267.64	574.24	267.59
587.44	267.48	588.75	267.47	600.26	267.92	614.18	268.25	616.47	268.47
618.71	268.69	619.84	269.07	621.71	270.23	623.43	271.25	626.86	273.27
628.98	273.49	630.87	273.73	632.25	273.96	636.01	274.14	644.23	274.53
660.28	275.17	669.7	275.39	688.96	276.52	692.08	276.71	711.82	277.7
733.34	278.64	736.76	278.82	741.9	279.13	748.77	279.47	749.59	279.53
795.8	281.99	808.1	282.53						

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.04	142.04	.045	407.42	.045	464.71	.05	488.26	.04
501.75	.045	600.26	.045	636.01	.05	688.96	.04	808.1	.035
808.1	.035								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
501.75	600.26	44.2	37.9	30.94	.1	.3

CROSS SECTION RIVER: Blind Gabino
REACH: Tributary RS: 1319.53*

INPUT

61.92	278.01	73.6	277.04	106.44	274.08	107.99	273.94	109.43	273.77
110.4	273.72	124.12	272.74	141.2	272.04	143.77	271.96	151.76	271.73
173.13	271.28	199.7	271.02	206.45	271.15	222.36	271.8	228.42	272.03
243.2	272.57	249.95	272.79	321.56	275.48	324.03	275.5	369.09	275.53
382.93	275.53	384.73	275.52	388.02	275.52	390.84	275.33	402.07	273.78
402.55	273.71	402.67	273.69	412.38	270.51	415.17	269.6	421.85	269.21
430.94	268.32	449.8	269.02	470.37	268.6	488.37	268.22	494.2	268.09
497.8	268.02	507.86	267.8	522.16	267.72	559.98	267.57	584.66	267.51
598.65	267.43	600.04	267.43	612.04	267.78	628.56	268.14	631.27	268.41
633.94	268.68	635.28	269.16	637.49	270.6	639.54	271.86	643.61	274.38
646.12	274.65	648.36	274.94	650.01	275.18	654.47	275.25	664.22	275.42
683.28	275.61	694.45	275.64	717.32	276.57	721.02	276.72	744.46	277.46
769.99	278.09	774.06	278.2	780.15	278.44	788.31	278.72	789.28	278.78
844.13	281.73	858.73	282.37						

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.037	143.77	.048	412.38	.048	470.37	.05	494.2	.037
507.86	.048	612.04	.048	654.47	.05	717.32	.037	858.73	.035
858.73	.035								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
507.86	612.04	44.2	37.9	30.94	.1	.3

CROSS SECTION RIVER: Blind Gabino
REACH: Tributary RS: 1281.630

INPUT
Description:
Station Elevation Data num= 47

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	281.91	32.85	280.22	34.17	279.95	51.97	278.66	125.61	273.17
142.9	272.49	145.5	272.42	175.21	271.68	202.1	271.36	208.93	271.51
225.04	272.29	325.43	276.74	327.93	276.76	373.53	276.78	392.69	276.77
395.54	276.55	407.39	274.62	407.52	274.59	420.17	269.7	426.93	269.25
436.13	268.19	455.21	269.06	500.15	268.01	503.79	267.93	513.97	267.69
529.07	267.61	611.33	267.38	623.82	267.64	642.94	268.04	646.08	268.36
649.17	268.67	650.72	269.24	653.28	270.97	655.65	272.48	660.36	275.49
663.27	275.81	667.77	276.4	672.93	276.37	684.22	276.32	719.21	275.9
745.68	276.62	749.96	276.74	777.09	277.22	811.35	277.59	827.85	277.97
892.46	281.46	909.36	282.2						

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	145.5	.05	500.15	.035	672.93	.05	745.68	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
513.97	623.82	72.47	45.75	29.75	.1	.3

CROSS SECTION RIVER: Blind Gabino
REACH: Tributary RS: 1235.88*

INPUT
Description:
Station Elevation Data num= 88

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	282.23	28.31	280.44	29.45	280.2	42.23	279.14	44.79	278.92
108.26	273.52	123.16	272.75	125.4	272.66	126.13	272.64	146.9	271.79
151	271.63	174.18	271.06	180.06	271.1	193.95	271.57	244.96	273.08
267.79	273.98	279.08	274.45	280.47	274.5	282.62	274.52	321.92	274.44
326.15	274.43	338.09	274.25	338.43	274.24	340.89	274.06	350.74	272.48
351.1	272.42	351.22	272.4	362.12	268.3	367.94	267.91	375.87	267.01
392.32	267.7	431.05	266.74	434.18	266.67	442.96	266.45	449.32	266.3
450.39	266.28	457.19	266.2	457.86	266.19	472.24	266.15	494.52	266.07
534.75	265.93	537.98	266.03	548.53	266.36	572.25	267.05	576.15	267.37
579.23	267.63	579.98	267.68	581.91	268.17	585.08	269.62	588.02	270.89
589.31	271.45	593.87	273.41	597.48	273.69	603.06	274.19	609.46	274.17
609.64	274.17	617.68	274.04	623.47	274.03	655.48	273.77	666.57	273.68
666.88	273.68	684.55	274.04	692.14	274.13	699.72	274.23	705.03	274.31
710.93	274.35	720.39	274.86	723.06	275.01	726.81	275.45	738.69	276.17
741.11	276.31	742.04	276.35	745.04	276.49	745.68	276.69	746.87	276.71
754.59	277.12	776.68	277.63	777.91	277.64	779.65	277.67	781.19	277.69
801.66	278.13	802.61	278.17	806.55	278.34	821.75	278.9	868.23	280.65
881.82	281.32	900.11	282.1	902.79	282.2				

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.041	125.4	.053	350.74	.064	431.05	.035	442.96	.05
529.09	.05	548.53	.047	609.46	.047	655.48	.035	699.72	.035
902.79	.035								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
442.96	548.53	72.47	45.75	29.75	.1	.3

CROSS SECTION RIVER: Blind Gabino
REACH: Tributary RS: 1190.13*

INPUT
Description:
Station Elevation Data num= 88

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	282.55	23.77	280.67	24.73	280.46	35.46	279.4	37.61	279.19
90.9	273.86	103.41	273.01	105.29	272.91	105.91	272.88	123.35	271.77
126.79	271.58	146.25	270.75	151.2	270.7	162.86	270.85	205.69	271.24
224.86	271.87	234.34	272.23	235.51	272.27	237.31	272.27	270.31	272.1
273.86	272.08	283.89	271.72	284.18	271.72	286.24	271.56	294.51	270.28
294.82	270.23	294.91	270.21	304.07	266.9	308.96	266.57	315.62	265.83
329.42	266.34	361.95	265.47	364.58	265.41	371.95	265.21	377.92	264.94
378.93	264.92	385.32	264.79	385.94	264.78	399.46	264.74	420.38	264.64
458.17	264.49	461.7	264.63	473.24	265.08	501.57	266.06	506.22	266.39
509.9	266.65	510.79	266.69	513.09	267.09	516.88	268.27	520.39	269.31
521.93	269.76	527.37	271.34	531.68	271.56	538.35	271.97	545.99	271.97
546.21	271.97	555.8	271.75	562.72	271.73	600.94	271.54	614.18	271.47
614.55	271.46	635.65	271.79	644.71	271.81	653.76	271.85	660.1	271.88
667.14	271.88	678.44	272.76	681.63	273.02	686.1	273.85	700.29	275.12
703.17	275.37	704.29	275.45	707.87	275.71	708.63	276.09	710.05	276.13
719.27	276.87	745.64	277.71	747.12	277.73	749.19	277.77	751.04	277.8
775.48	278.3	776.6	278.34	781.31	278.49	799.46	278.96	854.96	280.43
871.19	281.18	893.02	282.1	896.22	282.21				

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.047	105.29	.057	294.51	.058	361.95	.035	371.95	.05
454.59	.05	473.24	.045	545.99	.045	600.94	.035	653.76	.035
896.22	.035								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
371.95	473.24	72.47	45.75	29.75	.1	.3

CROSS SECTION RIVER: Blind Gabino
REACH: Tributary RS: 1144.39*

INPUT
Description:
Station Elevation Data num= 88

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	282.86	19.23	280.89	20.01	280.71	28.69	279.66	30.43	279.45
73.55	274.21	83.67	273.28	85.19	273.15	85.69	273.11	99.8	271.76
102.59	271.54	118.33	270.45	122.33	270.29	131.76	270.13	166.42	269.41
181.93	269.75	189.6	270	190.54	270.03	192.01	270.03	218.71	269.76
221.58	269.73	229.69	269.2	229.92	269.19	231.59	269.07	238.28	268.07
238.53	268.03	238.61	268.02	246.01	265.5	249.97	265.24	255.36	264.66
266.53	264.98	292.84	264.2	294.97	264.14	300.93	263.96	306.52	263.58
307.47	263.55	313.44	263.38	314.03	263.36	326.67	263.32	346.24	263.21
381.59	263.04	385.42	263.22	397.96	263.8	430.88	265.07	436.29	265.4
440.57	265.66	441.61	265.71	444.28	266.02	448.68	266.92	452.77	267.72
454.55	268.07	460.88	269.26	465.89	269.44	473.64	269.76	482.52	269.77
482.77	269.77	493.93	269.45	501.96	269.44	546.4	269.3	561.79	269.25
562.21	269.25	586.75	269.53	597.28	269.48	607.8	269.46	615.17	269.45
623.35	269.41	636.49	270.66	640.2	271.04	645.4	272.25	661.88	274.08
665.24	274.44	666.54	274.55	670.7	274.93	671.59	275.5	673.24	275.55
683.95	276.63	714.61	277.8	716.32	277.81	718.74	277.87	720.88	277.9
749.29	278.46	750.6	278.5	756.07	278.65	777.17	279.02	841.69	280.2
860.55	281.05	885.93	282.1	889.65	282.21				

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.053	85.19	.06	238.28	.053	292.84	.035	300.93	.05
380.09	.05	397.96	.043	482.52	.043	546.4	.035	607.8	.035
889.65	.035								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
300.93	397.96	72.47	45.75	29.75	.1	.3

CROSS SECTION RIVER: Blind Gabino
REACH: Tributary RS: 1098.64*

INPUT
Description:
Station Elevation Data num= 88

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	283.18	14.7	281.11	15.29	280.96	21.92	279.93	23.25	279.72
56.19	274.55	63.93	273.54	65.09	273.4	65.47	273.35	76.25	271.75
78.38	271.49	90.41	270.15	93.46	269.89	100.67	269.41	127.15	267.57
139	267.64	144.86	267.78	145.58	267.79	146.7	267.78	167.1	267.43
169.29	267.39	175.49	266.67	175.67	266.67	176.94	266.57	182.06	265.86
182.25	265.84	182.3	265.83	187.96	264.1	190.99	263.9	195.1	263.48
203.64	263.62	223.74	262.93	225.37	262.88	229.92	262.72	235.13	262.22
236.01	262.19	241.57	261.97	242.11	261.95	253.88	261.91	272.1	261.78
305	261.6	309.15	261.81	322.67	262.52	360.19	264.07	366.36	264.42
371.24	264.68	372.42	264.72	375.46	264.94	380.49	265.57	385.14	266.13
387.18	266.37	394.38	267.19	400.09	267.31	408.92	267.55	419.05	267.58
419.34	267.58	432.05	267.15	441.21	267.15	491.85	267.06	509.4	267.03
509.88	267.03	537.85	267.28	549.85	267.16	561.83	267.08	570.23	267.02
579.56	266.94	594.54	268.56	598.77	269.05	604.69	270.65	623.48	273.03
627.31	273.51	628.78	273.66	633.53	274.15	634.54	274.91	636.42	274.97
648.64	276.39	683.58	277.88	685.53	277.89	688.28	277.97	690.72	278.01
723.1	278.63	724.6	278.66	730.84	278.8	754.88	279.08	828.42	279.98
849.91	280.91	878.84	282.1	883.08	282.21				

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.058	65.09	.063	182.06	.047	223.74	.035	229.92	.05
305.59	.05	322.67	.04	419.05	.04	491.85	.035	561.83	.035
883.08	.035								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
229.92	322.67	72.47	45.75	29.75	.1	.3

CROSS SECTION RIVER: Blind Gabino
REACH: Tributary RS: 1052.90*

INPUT

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
38.84	274.9	44.18	273.8	44.99	273.64	45.25	273.59	52.7	271.73
54.17	271.44	62.49	269.85	64.6	269.48	69.58	268.69	87.88	265.74
96.07	265.53	100.12	265.56	100.62	265.56	101.39	265.54	115.49	265.09
117.01	265.04	121.29	264.15	121.41	264.14	122.29	264.08	125.83	263.66
125.96	263.64	126	263.63	129.91	262.7	132	262.56	134.84	262.3
140.74	262.26	154.64	261.67	155.76	261.62	158.91	261.48	163.73	260.87
164.54	260.82	169.69	260.56	170.2	260.53	181.09	260.49	197.96	260.35
228.42	260.15	232.87	260.41	247.38	261.24	289.51	263.08	296.42	263.43
301.9	263.7	303.23	263.73	306.65	263.87	312.29	264.23	317.51	264.54
319.8	264.68	327.89	265.11	334.3	265.19	344.21	265.33	355.58	265.38
355.9	265.38	370.18	264.86	380.46	264.86	437.31	264.83	457.01	264.81
457.55	264.81	488.94	265.03	502.42	264.83	515.87	264.69	525.3	264.59
535.78	264.47	552.59	266.46	557.33	267.07	563.99	269.05	585.08	271.98
589.37	272.57	591.03	272.76	596.36	273.36	597.5	274.31	599.61	274.39
613.32	276.14	652.54	277.96	654.73	277.98	657.83	278.06	660.56	278.11
696.92	278.79	698.59	278.83	705.6	278.96	732.59	279.14	815.14	279.76
839.27	280.77	871.75	282.1	876.51	282.22				

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val

0	.064	44.99	.067	125.83	.041	154.64	.035	158.91	.05
231.09	.05	247.38	.038	355.58	.038	437.31	.035	515.87	.035
876.51	.035								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
158.91	247.38	72.48	45.75	29.75	.1	.3

CROSS SECTION RIVER: Blind Gabino
REACH: Tributary RS: 1007.157

INPUT
Description:
Station Elevation Data num= 46

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	283.82	8.38	280.45	25.03	273.83	29.15	271.72	48.61	263.9
53.14	263.42	55.38	263.34	64.72	262.69	67.09	261.62	69.6	261.45
87.9	260.24	92.33	259.51	93.08	259.46	98.28	259.12	108.3	259.08
123.82	258.92	151.84	258.71	156.59	259	172.09	259.96	232.57	262.72
252.42	262.99	292.47	263.18	308.3	262.56	382.77	262.59	404.62	262.59
440.04	262.78	454.99	262.51	491.99	262	510.64	264.36	515.9	265.08
523.28	267.45	551.44	271.64	553.28	271.86	559.19	272.58	560.45	273.72
562.79	273.81	578	275.9	621.51	278.04	623.94	278.06	627.37	278.16
672.59	278.99	680.36	279.11	710.3	279.2	801.87	279.54	864.66	282.1
869.94	282.22								

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.07	69.6	.035	156.59	.05	382.77	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
87.9	172.09	53.37	40.99	32.89	.1	.3

CROSS SECTION RIVER: Blind Gabino
REACH: Tributary RS: 966.166*

INPUT
Description:
Station Elevation Data num= 92

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	283.46	.73	283.17	7.53	280.28	13.9	277.59	21.27	274.53
22.48	274	26.18	272	43.66	264.26	47.56	263.56	47.65	263.54
47.73	263.53	47.76	263.53	49.74	263.41	58.13	262.63	60.26	261.71
62.51	261.5	64.85	261.29	72.6	260.73	75.95	260.53	78.95	260.35
82.71	259.76	83.34	259.71	84.91	259.61	87.75	259.43	96.25	259.38
99.28	259.35	109.4	259.23	133.16	259	138.72	259.26	156.86	260.12
193.74	261.57	200.28	261.81	211.89	262.22	217.97	262.45	238.03	262.68
245.81	262.71	253.92	262.81	264.06	263.03	265.28	263.05	271.73	262.94
278.5	263.06	279.39	263.04	294.5	262.57	340.94	262.56	343.67	262.51
348.68	262.51	352.26	262.53	369.75	262.49	391.83	262.45	405.83	262.48
427.62	262.53	436.64	262.38	438.2	262.36	438.64	262.36	442.73	262.34
463.71	262.33	463.93	262.34	464.55	262.41	474.23	263.58	476.94	263.64
479.08	263.69	480.11	263.72	485.62	264.48	490.42	265.2	498.96	266.16
504.28	266.81	508.81	268.02	511.73	268.82	523.68	270.45	532.14	271.55
540.19	272.58	542.05	272.78	548.02	273.42	549.29	274.35	551.66	274.44
567.03	276.28	581.04	276.97	604.24	277.76	610.99	278.04	613.45	278.06
616.91	278.15	649.56	278.73	662.61	279	670.46	279.14	678.77	279.21
700.71	279.27	747.22	279.42	776.63	279.52	793.24	279.69	808.7	280.3
856.69	282.08	862.03	282.2						

Manning's n Values num= 10

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.07	62.51	.042	75.95	.063	78.95	.05	142.52	.05
156.86	.038	200.28	.05	264.06	.047	369.75	.035	862.03	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
78.95	156.86	53.37	40.99	32.89	.1	.3

CROSS SECTION RIVER: Blind Gabino
REACH: Tributary RS: 925.176*

INPUT
Description:
Station Elevation Data num= 92

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	283.1	.65	282.85	6.67	280.11	12.33	277.56	18.86	274.7
19.93	274.17	23.22	272.28	38.71	264.61	42.17	263.67	42.25	263.65
42.32	263.64	42.35	263.64	44.1	263.47	51.54	262.57	53.43	261.79
55.43	261.55	57.5	261.31	64.38	260.76	67.34	260.6	70	260.46
73.09	260	73.61	259.97	74.89	259.89	77.22	259.74	84.19	259.68
86.68	259.65	94.99	259.53	114.48	259.3	120.85	259.53	141.63	260.29
178.89	261.52	185.5	261.69	197.23	262	203.38	262.17	223.64	262.37
231.5	262.4	239.7	262.56	249.94	262.94	251.17	262.99	257.69	262.73
264.53	262.94	265.44	262.94	280.7	262.58	327.62	262.54	330.37	262.45
335.44	262.43	339.06	262.47	356.73	262.4	379.04	262.31	393.18	262.29
415.2	262.27	424.31	262.14	425.89	262.13	426.34	262.13	430.46	262.17
451.67	262.45	451.89	262.46	452.51	262.6	462.29	265.08	465.03	265.24
467.2	265.37	468.24	265.44	473.8	266.27	478.66	267.1	487.28	267.97
492.65	268.54	497.23	269.52	500.19	270.19	512.26	271.69	520.81	272.65
528.94	273.53	530.81	273.7	536.85	274.26	538.14	274.97	540.52	275.07
556.05	276.66	570.21	277.37	593.65	277.8	600.48	278.04	602.96	278.07
606.46	278.15	639.44	278.7	652.63	279	660.56	279.17	668.95	279.28
691.13	279.34	738.12	279.47	767.83	279.57	784.62	279.84	800.24	280.44
848.73	282.06	854.12	282.18						

Manning's n Values num= 10

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.07	55.43	.049	67.34	.056	70	.05	128.44	.05
141.63	.041	185.5	.05	249.94	.044	356.73	.035	854.12	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
70	141.63	53.37	40.99	32.89	.1	.3

CROSS SECTION RIVER: Blind Gabino
REACH: Tributary RS: 884.185*

INPUT
Description:
Station Elevation Data num= 92

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	282.73	.57	282.52	5.82	279.94	10.75	277.53	16.45	274.87
17.39	274.34	20.25	272.56	33.76	264.97	36.78	263.79	36.85	263.76
36.91	263.75	36.94	263.75	38.47	263.54	44.95	262.5	46.6	261.88
48.34	261.6	50.15	261.32	56.15	260.78	58.74	260.66	61.06	260.56
63.46	260.25	63.87	260.22	64.88	260.16	66.7	260.06	72.14	259.99
74.08	259.95	80.57	259.84	95.8	259.59	102.98	259.79	126.4	260.45
164.04	261.47	170.72	261.58	182.57	261.78	188.78	261.9	209.26	262.05
217.19	262.09	225.48	262.31	235.83	262.86	237.07	262.93	243.66	262.53
250.57	262.82	251.48	262.84	266.9	262.58	314.3	262.51	317.08	262.38
322.2	262.36	325.85	262.41	343.71	262.3	366.25	262.16	380.53	262.1
402.78	262.02	411.98	261.9	413.58	261.89	414.03	261.9	418.2	262
439.62	262.56	439.85	262.59	440.47	262.8	450.35	266.58	453.13	266.84
455.31	267.05	456.36	267.16	461.99	268.06	466.89	269.01	475.6	269.77
481.03	270.27	485.66	271.03	488.64	271.56	500.84	272.92	509.47	273.74
517.68	274.47	519.58	274.62	525.68	275.1	526.98	275.6	529.39	275.71
545.08	277.04	559.39	277.76	583.06	277.85	589.96	278.04	592.46	278.07
596	278.14	629.32	278.67	642.65	279.01	650.66	279.2	659.14	279.36
681.54	279.41	729.02	279.52	759.04	279.61	775.99	279.99	791.77	280.58
840.76	282.04	846.2	282.17						

Manning's n Values num= 10

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.07	48.34	.056	58.74	.049	61.06	.05	114.37	.05
126.4	.044	170.72	.05	235.83	.041	343.71	.035	846.2	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
61.06	126.4	53.37	40.99	32.89	.1	.3

CROSS SECTION RIVER: Blind Gabino
REACH: Tributary RS: 843.195*

INPUT
Description:
Station Elevation Data num= 92

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	282.37	.48	282.2	4.97	279.77	9.18	277.49	14.04	275.03
14.84	274.52	17.28	272.83	28.82	265.32	31.39	263.9	31.45	263.87
31.5	263.86	31.52	263.86	32.83	263.6	38.37	262.44	39.77	261.97
41.26	261.66	42.8	261.34	47.92	260.81	50.13	260.73	52.11	260.67
53.84	260.49	54.13	260.47	54.86	260.44	56.17	260.37	60.09	260.29
61.49	260.26	66.16	260.14	77.12	259.89	85.11	260.06	111.17	260.62
149.2	261.41	155.94	261.46	167.91	261.55	174.19	261.63	194.87	261.74
202.89	261.77	211.25	262.06	221.71	262.77	222.96	262.86	229.62	262.32
236.6	262.7	237.52	262.74	253.09	262.59	300.98	262.49	303.79	262.32
308.96	262.28	312.65	262.36	330.69	262.21	353.45	262.02	367.89	261.92
390.36	261.76	399.66	261.66	401.27	261.66	401.73	261.68	405.94	261.84
427.58	262.67	427.8	262.71	428.44	262.99	438.42	268.08	441.22	268.44
443.43	268.72	444.49	268.88	450.17	269.85	455.12	270.91	463.92	271.58
469.4	272	474.08	272.53	477.09	272.93	489.41	274.16	498.14	274.84
506.43	275.42	508.35	275.54	514.51	275.94	515.82	276.22	518.26	276.34
534.11	277.41	548.56	278.15	572.48	277.89	579.44	278.04	581.97	278.07
585.55	278.14	619.21	278.65	632.66	279.01	640.76	279.23	649.32	279.43
671.96	279.48	719.91	279.57	750.24	279.66	767.37	280.14	783.31	280.71
832.79	282.02	838.29	282.15						

Manning's n Values num= 10

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.07	41.26	.063	50.13	.042	52.11	.05	100.3	.05
111.17	.047	155.94	.05	221.71	.038	330.69	.035	838.29	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
52.11	111.17	53.37	40.99	32.89	[illegible]	[illegible]

INPUT
Description:
Station Elevation Data num= 51

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	282.01	.4	281.88	7.6	277.46	11.63	275.2	26	264.02
26.05	263.98	26.11	263.97	35.45	261.35	39.69	260.83	41.52	260.8
43.16	260.78	44.84	260.71	48.89	260.56	58.44	260.18	95.94	260.78
134.35	261.36	141.16	261.35	153.25	261.33	188.58	261.46	197.03	261.81
207.59	262.69	208.86	262.8	215.58	262.11	223.56	262.64	287.66	262.47
290.5	262.25	295.72	262.21	299.45	262.3	355.24	261.73	387.33	261.42
388.96	261.43	389.42	261.45	415.53	262.78	415.76	262.83	416.4	263.19
426.48	269.58	429.31	270.04	431.54	270.4	438.35	271.64	443.35	272.82
462.5	274.03	477.99	275.4	486.8	275.93	537.73	278.54	561.89	277.94
609.09	278.62	639.51	279.51	710.81	279.62	741.44	279.7	774.84	280.85
830.38	282.13								

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.07	41.52	.035	141.16	.05	207.59	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.

43.16	95.94	62.83	39.82	34.62	.1	.3

CROSS SECTION RIVER: Blind Gabino
REACH: Tributary RS: 762.359*

INPUT
Description:
Station Elevation Data num= 101

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	279.94	1.11	279.76	2.35	279.47	5.99	278.95	12.29	277.93
19.95	276.21	21.02	276.04	21.83	275.91	27.36	274.37	27.54	274.36
27.8	274.29	29.23	273.92	32.16	273.25	34.5	272.58	36.38	272.2
41	271.27	41.08	271.26	52.28	269.2	56.49	268.24	62.61	266.87
65.62	266.07	71.9	264.35	72.03	264.31	72.2	264.29	75.09	263.84
75.21	263.81	93.64	261.24	98.03	260.75	98.98	260.68	102.61	260.41
109.75	259.99	114.81	259.82	119.35	259.68	121.28	259.62	125.93	259.5
128.23	259.43	132.2	259.32	136.9	259.2	164.56	259.66	185.89	259.92
197.43	260.07	203.25	260.06	213.6	260.06	243.82	260.17	251.05	260.41
260.09	261	261.18	261.07	266.93	260.62	273.75	260.98	295.43	260.95
328.6	260.89	331.03	260.75	335.49	260.72	338.68	260.78	385.64	260.43
386.42	260.42	410.65	260.35	413.87	260.31	415.27	260.31	415.66	260.33
428.66	260.79	438	261.27	438.2	261.3	438.74	261.55	447.37	265.91
449.79	266.25	451.7	266.51	457.52	267.41	461.8	268.25	478.19	269.25
480.24	269.42	491.44	270.27	498.98	270.68	513.37	271.36	532.78	272.16
533.91	272.21	542.55	272.62	544.84	272.6	557.24	272.46	563.22	272.46
567.47	272.59	594.69	273.44	603.61	273.66	607.08	273.79	609.79	273.89
626.74	274.84	629.63	275.02	637.35	275.31	645.49	275.52	674.34	276.06
690.63	276.08	695.38	276.09	705.32	276.1	708.85	276.15	716.84	276.55
726.77	277.29	738.91	277.9	745.42	278.32	757.37	279	782.63	279.75
792.94	279.99								

Manning's n Values num= 10

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.058	52.28	.047	114.81	.047	119.35	.045	164.56	.04
203.25	.04	260.09	.03	532.78	.02	695.38	.025	792.94	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
119.35	164.56	62.83	39.82	34.62	.1	.3

CROSS SECTION RIVER: Blind Gabino
REACH: Tributary RS: 722.513*

INPUT
Description:
Station Elevation Data num= 101

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	277.87	1.81	277.64	3.86	277.33	9.81	277.11	20.13	276.46
32.68	274.73	34.43	274.61	35.76	274.53	44.82	272.57	45.11	272.57
45.54	272.5	47.88	272.05	52.69	271.29	56.52	270.63	59.6	270.38
67.18	269.83	67.31	269.82	85.65	268.85	92.55	268.12	102.57	267.1
107.52	266.35	117.79	264.68	118.02	264.64	118.29	264.61	123.03	264.01
123.23	263.95	153.41	260.69	160.6	260.15	162.16	260.06	168.11	259.68
179.81	259.16	188.1	258.85	195.53	258.57	197.71	258.53	202.97	258.44
205.57	258.39	210.06	258.3	215.37	258.23	233.19	258.53	250.92	258.69
260.5	258.77	265.35	258.78	273.94	258.79	299.07	258.87	305.08	259
312.59	259.31	313.49	259.35	318.27	259.13	323.95	259.31	341.97	259.32
369.53	259.31	371.55	259.24	375.26	259.23	377.92	259.27	416.94	259.11
417.59	259.12	437.74	259.25	440.41	259.21	441.57	259.2	441.9	259.2
452.71	259.35	460.47	259.76	460.63	259.78	461.09	259.91	468.25	262.25
470.27	262.46	471.85	262.63	476.7	263.18	480.25	263.68	493.87	264.47
495.58	264.59	504.89	265.14	511.15	265.43	523.11	265.93	539.25	266.37
540.19	266.39	547.37	266.71	549.28	266.72	559.58	266.8	564.55	266.98
568.09	267.18	590.71	268.41	598.12	268.71	601.01	268.85	603.26	268.95
617.35	270.28	619.75	270.52	626.17	271.09	632.93	271.49	656.91	272.53
670.46	272.53	674.41	272.54	682.66	272.54	685.6	272.63	692.24	273.4
700.49	274.49	710.58	275.2	716	275.8	725.93	276.83	746.92	277.65
755.49	277.85								

Manning's n Values num= 10

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.047	85.65	.058	188.1	.058	195.53	.04	233.19	.03
265.35	.03	312.59	.025	539.25	.02	674.41	.03	755.49	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
195.53	233.19	62.83	39.82	34.62	.1	.3

CROSS SECTION RIVER: Blind Gabino
REACH: Tributary RS: 682.668

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 56

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	275.8	5.36	275.2	13.63	275.27	27.98	274.99	45.42	273.24
49.7	273.15	62.28	270.77	62.69	270.79	63.29	270.71	66.54	270.18
78.54	268.67	82.82	268.57	93.35	268.39	93.53	268.39	119.02	268.51
128.61	268.01	142.54	267.34	149.41	266.64	170.96	264.18	171.24	264.09
213.19	260.14	225.35	259.43	233.61	258.95	271.72	257.47	282.91	257.34
287.91	257.28	293.83	257.25	301.81	257.41	315.94	257.45	356	257.59
388.5	257.7	448.25	257.8	464.82	258.14	476.75	257.91	510.92	259.77
532.86	260.5	545.72	260.58	546.47	260.58	553.71	260.85	561.92	261.15
568.7	261.76	586.73	263.38	594.94	263.9	596.73	264.01	607.96	265.71
614.99	266.87	620.38	267.47	639.49	269	653.43	268.99	660.01	268.98
662.35	269.1	674.22	271.68	682.26	272.51	694.49	274.66	711.22	275.55
718.05	275.71								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val

0	.035	119.02	.07	271.72	.035	545.72	.02	653.43	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
271.72	356	37.97	37.94	40.29	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Permanent
888			F
888			F

CULVERT RIVER: Blind Gabino
REACH: Tributary RS: 680

INPUT
Description:
Distance from Upstream XS = 2.668
Deck/Roadway Width = 20
Weir Coefficient = 2.6
Upstream Deck/Roadway Coordinates
num= 16

Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord
0	270		130	269		189	265.7	
245	264.1		366	262.5		392	260.8	
524	260.8		537	262.5		579	264.1	
599	265.7		616	267.4		635	269	
658	269		678	272.3		691	275.6	
711	275.6							

Upstream Bridge Cross Section Data
Station Elevation Data num= 56

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	275.8	5.36	275.2	13.63	275.27	27.98	274.99	45.42	273.24
49.7	273.15	62.28	270.77	62.69	270.79	63.29	270.71	66.54	270.18
78.54	268.67	82.82	268.57	93.35	268.39	93.53	268.39	119.02	268.51
128.61	268.01	142.54	267.34	149.41	266.64	170.96	264.18	171.24	264.09
213.19	260.14	225.35	259.43	233.61	258.95	271.72	257.47	282.91	257.34
287.91	257.28	293.83	257.25	301.81	257.41	315.94	257.45	356	257.59
388.5	257.7	448.25	257.8	464.82	258.14	476.75	257.91	510.92	259.77
532.86	260.5	545.72	260.58	546.47	260.58	553.71	260.85	561.92	261.15
568.7	261.76	586.73	263.38	594.94	263.9	596.73	264.01	607.96	265.71
614.99	266.87	620.38	267.47	639.49	269	653.43	268.99	660.01	268.98
662.35	269.1	674.22	271.68	682.26	272.51	694.49	274.66	711.22	275.55
718.05	275.71								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	119.02	.07	271.72	.035	545.72	.02	653.43	.035

Bank Sta: Left	Right	Coeff Contr.	Expan.
271.72	356	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Permanent
888			F
888			F

Downstream Deck/Roadway Coordinates
num= 16

Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord
0	270		130	269		189	265.7	
245	264.1		366	262.5		392	260.8	
524	260.8		537	262.5		579	264.1	
599	265.7		616	267.4		635	269	
658	269		678	272.3		691	275.6	
711	275.6							

Downstream Bridge Cross Section Data
Station Elevation Data num= 63

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	276.29	5.36	276.27	16.91	275.46	18.26	275.29	41.41	274.68
47.51	274.57	52.78	274.32	59.65	273.05	64.13	271.28	66.98	270.56
84.33	269.51	84.63	269.52	87.1	269.62	90.84	269.81	92.02	269.83
97.94	269.53	109.81	269.79	112.78	269.68	124.52	269.28	131.17	268.97
131.88	268.93	144.6	268.27	150.73	268.05	155.76	267.57	169.7	264.65
174.18	263.42	182.55	262.58	188.33	261.67	221.78	258.65	238.17	258.04
[illegible]	[illegible]	[illegible]							
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	634.3	265.19	650.66	269
655.18	269.8	656.43	269.85	657.01	269.98	673.49	271.67	703.96	274.72
706.12	274.89	727.84	275.43	732.67	275.55				

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	131.88	.05	293.07	.035	549.5	.05

Bank Sta: Left	Right	Coeff Contr.	Expan.
299.92	356	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Permanent
888			F
888			F

Upstream Embankment side slope = 0 horiz. to 1.0 vertical
Downstream Embankment side slope = 0 horiz. to 1.0 vertical
Maximum allowable submergence for weir flow = .95
Elevation at which weir flow begins = 261
Energy head used in spillway design =
Spillway height used in design =

Weir crest shape = Broad Crested

Number of Culverts = 1

Culvert Name	Shape	Rise	Span
Culvert #1	Circular	4	

FHWA Chart # 1 - Concrete Pipe Culvert
FHWA Scale # 3 - Groove end entrance; pipe projecting from fill
Solution Criteria = Highest U.S. EG

Culvert Upstrm Dist	Length	n Value	Entrance Loss Coef	Exit Loss Coef
2.668	20	.025	.8	1

Number of Barrels = 6
Upstream Elevation = 257.5
Centerline Stations

Sta.	Sta.	Sta.	Sta.	Sta.	Sta.
303.9	313.7	323.6	333.4	343.3	353.1

Downstream Elevation = 256
Centerline Stations

Sta.	Sta.	Sta.	Sta.	Sta.	Sta.
303.9	313.7	323.6	333.4	343.3	353.1

CROSS SECTION RIVER: Blind Gabino
REACH: Tributary RS: 644.729

INPUT
Description:
Station Elevation Data num= 63

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	276.29	5.36	276.27	16.91	275.46	18.26	275.29	41.41	274.68
47.51	274.57	52.78	274.32	59.65	273.05	64.13	271.28	66.98	270.56
84.33	269.51	84.63	269.52	87.1	269.62	90.84	269.81	92.02	269.83
97.94	269.53	109.81	269.79	112.78	269.68	124.52	269.28	131.17	268.97
131.88	268.93	144.6	268.27	150.73	268.05	155.76	267.57	169.7	264.65
174.18	263.42	182.55	262.58	188.33	261.67	221.78	258.65	238.17	258.04
271.09	256.9	291.6	256.19	293.07	256.14	299.92	255.91	303.68	255.77
339.13	255.89	356	255.94	388.7	256.04	430.38	256.1	475.45	257.03
508.12	256.38	540.22	258.11	546.47	259.57	549.5	260.12	553.9	260.92
559.52	261.93	574.58	262.77	584.83	262.92	592.3	263	601.65	263.49
604.26	263.7	610.05	264.2	627.89	265.15	634.3	265.19	650.66	269
655.18	269.8	656.43	269.85	657.01	269.98	673.49	271.67	703.96	274.72
706.12	274.89	727.84	275.43	732.67	275.55				

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	131.88	.05	293.07	.035	549.5	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
299.92	356	59.22	36.53	18.28	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Permanent
888	F		
888	F		

CROSS SECTION RIVER: Blind Gabino
REACH: Tributary RS: 608.199*

INPUT
Description:
Station Elevation Data num= 87

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	274.45	.93	274.43	4.88	274.37	15.38	273.64	16.61	273.5
37.67	272.79	43.21	272.64	48.01	272.39	54.26	271.37	58.33	269.99
60.92	269.42	76.71	268.44	76.98	268.44	79.22	268.49	82.63	268.59
83.7	268.6	89.08	268.31	99.88	268.37	102.58	268.26	113.26	267.83
113.64	267.81	119.31	267.48	119.96	267.43	124.52	267.14	131.53	266.41
134.47	266.14	137.1	265.88	141.68	265.21	150.03	263.2	154.36	262.4
158.43	261.42	166.04	260.69	166.3	260.66	167.22	260.52	171.3	259.92
201.73	257.13	204.93	256.98	216.64	256.57	226.29	256.26	229.88	256.14
246.58	255.6	265.23	254.99	266.57	254.95	272.8	254.75	277.17	254.55
290.35	254.63	310.11	254.74	339.76	254.9	356.14	255.01	364.11	255.05
393.73	255.28	394.85	255.29	416.96	255.85	436.7	256.35	439.6	256.33
442.88	256.3	444.02	256.29	467.03	255.95	473.8	256.25	496.84	257.26
502.64	258.35	505.46	258.77	509.54	259.37	514.76	260.13	528.75	260.76
538.26	260.87	544.26	260.92	545.2	260.93	553.88	261.33	556.31	261.5
561.68	261.89	578.25	262.67	584.2	262.72	585.08	262.89	599.39	265.62
603.59	266.23	604.75	266.27	605.29	266.37	620.59	267.68	625.91	268.12
636.17	269.07	641.76	269.77	648.89	271.12	650.89	271.46	664.73	273.22
671.06	273.65	675.54	273.96						

Manning's n Values num= 9

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.039	119.96	.05	229.88	.046	266.57	.035	272.8	.05
310.11	.05	439.6	.05	505.46	.05	675.54	.05		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
272.8	310.11	59.22	36.53	18.28	.1	.3

CROSS SECTION RIVER: Blind Gabino
REACH: Tributary RS: 571.669*

INPUT
Description:
Station Elevation Data num= 87

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	272.61	.83	272.58	4.39	272.48	13.85	271.82	14.96	271.7
33.92	270.89	38.92	270.71	43.24	270.47	48.86	269.68	52.53	268.7
54.87	268.28	69.08	267.37	69.33	267.37	71.35	267.37	74.41	267.38
75.38	267.36	80.23	267.08	89.95	266.96	92.39	266.84	102	266.38

102.34	266.36	107.45	265.98	108.03	265.93	112.15	265.61	118.45	264.54
121.1	264.12	123.47	263.71	127.59	262.85	135.12	260.76	139.01	260.15
142.68	259.43	149.54	258.81	149.77	258.78	150.59	258.67	154.27	258.17
181.68	255.62	184.56	255.44	195.1	255.11	203.8	254.85	207.03	254.75
222.07	254.3	238.87	253.79	240.07	253.76	245.68	253.59	250.67	253.33
262.84	253.44	281.1	253.6	308.47	253.81	323.58	253.98	330.94	254.05
358.28	254.46	359.31	254.48	379.72	255.11	397.94	255.67	400.62	255.68
403.65	255.7	404.7	255.71	425.95	255.52	432.2	255.74	453.46	256.41
458.82	257.14	461.41	257.41	465.19	257.82	470	258.32	482.91	258.74
491.7	258.82	497.23	258.85	498.1	258.87	506.12	259.17	508.35	259.3
513.32	259.59	528.61	260.18	534.1	260.24	534.91	260.36	548.12	262.23
552	262.66	553.07	262.69	553.57	262.76	567.69	263.69	572.6	264
582.07	264.79	587.23	265.6	593.81	267.51	595.66	268.03	608.44	271.19
614.28	271.88	618.42	272.36						

Manning's n Values num= 9

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.043	108.03	.05	207.03	.043	240.07	.035	245.68	.05
281.1	.05	400.62	.05	461.41	.05	618.42	.05		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
245.68	281.1	59.22	36.53	18.28	.1	.3

CROSS SECTION RIVER: Blind Gabino
REACH: Tributary RS: 535.139*

INPUT
Description:
Station Elevation Data num= 87

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	270.76	.74	270.72	3.91	270.58	12.32	270	13.31	269.91
30.18	269	34.62	268.77	38.46	268.54	43.47	268	46.73	267.41
48.81	267.13	61.46	266.3	61.67	266.29	63.47	266.24	66.2	266.16
67.06	266.13	71.37	265.86	80.02	265.54	82.19	265.41	90.74	264.93
91.05	264.91	95.59	264.49	96.11	264.44	99.77	264.09	105.38	262.68
107.74	262.1	109.84	261.54	113.51	260.49	120.2	258.31	123.67	257.9
126.93	257.43	133.03	256.92	133.24	256.9	133.97	256.81	137.25	256.43
161.62	254.1	164.19	253.9	173.57	253.64	181.3	253.43	184.18	253.35
197.56	252.99	212.5	252.59	213.58	252.56	218.57	252.43	224.17	252.11
235.33	252.26	252.08	252.45	277.17	252.72	291.03	252.94	297.77	253.05
322.83	253.65	323.78	253.68	342.49	254.37	359.19	254.98	361.65	255.04
364.42	255.11	365.39	255.13	384.86	255.09	390.59	255.22	410.08	255.56
414.99	255.92	417.37	256.06	420.83	256.26	425.25	256.52	437.08	256.73
445.13	256.77	450.21	256.79	451	256.8	458.35	257.02	460.4	257.1
464.95	257.28	478.97	257.7	484	257.77	484.75	257.84	496.86	258.85
500.41	259.09	501.39	259.11	501.85	259.14	514.8	259.69	519.3	259.88
527.98	260.51	532.71	261.42	538.74	263.91	540.43	264.6	552.14	269.15
557.5	270.1	561.29	270.77						

Manning's n Values num= 9

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.046	96.11	.05	184.18	.039	213.58	.035	218.57	.05
252.08	.05	361.65	.05	417.37	.05	561.29	.05		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
218.57	252.08	59.22	36.53	18.28	.1	.3

CROSS SECTION RIVER: Blind Gabino
REACH: Tributary RS: 498.610

INPUT
Description:
Station Elevation Data num= 30

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	268.92	.65	268.87	79.75	263.46	87.39	262.56	94.37	260.08
105.29	255.87	116.71	255.02	117.35	254.96	143.82	252.36	158.81	252.02
161.33	251.96	191.45	251.27	197.66	250.89	207.82	251.07	223.06	251.3
245.87	251.63	264.6	252.05	287.38	252.83	305.25	253.63	322.67	254.4
325.19	254.51	326.07	254.55	348.98	254.7	403.18	254.72	434.58	255.31
465.99	255.76	473.88	256.23	478.18	257.24	495.85	267.11	504.17	269.18

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

CROSS SECTION RIVER: Blind Gabino
REACH: Tributary RS: 460.270*

INPUT
Description:
Station Elevation Data num= 66

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	268.94	.69	268.89	3.36	268.69	7.31	268.36	12.07	267.82
19.62	266.85	21.59	266.58	21.91	266.52	22.41	266.41	30.93	264.71
32.12	264.58	47.03	263.62	71.21	262	78.16	261.53	85.1	261.09
93.26	260.26	97.66	259.03	100.7	258.21	112.36	254.82	123.68	254.16
124.54	254.11	125.23	254.06	153.47	251.94	169.47	251.64	172.16	251.59
190.79	251.24	204.3	250.94	211.67	250.58	220.11	250.7	223.56	250.74
241.39	250.95	251.43	251.1	255.52	251.14	259.49	251.21	265.65	251.34
269.55	251.44	277.29	251.65	285.58	251.86	309.81	252.72	328.22	253.51
328.82	253.54	347.35	254.36	350.03	254.48	350.97	254.52	371.57	254.86
373.07	254.87	375.34	254.9	380.36	254.93	433	255.26	438.2	255.37
453.63	255.7	466.41	255.84	468.03	255.86	482.8	255.85	499.82	255.83
508.21	256.1	509.65	256.34	511.72	256.66	512.36	256.8	512.79	256.89
519.74	260.05	520.28	260.36	531.59	266.76	532.76	267.15	534.82	267.86

540.44 269.2

Manning's n Values num= 10

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.047	21.91	.042	71.21	.066	172.16	.038	204.3	.047
220.24	.035	241.39	.05	269.55	.05	347.35	.05	540.44	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
204.3	241.39	36.75	38.34	46.49	.1	.3

CROSS SECTION RIVER: Blind Gabino
REACH: Tributary RS: 421.931*

INPUT
Description:
Station Elevation Data num= 66

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	268.97	.74	268.9	3.57	268.67	7.77	268.28	12.83	267.5
20.86	266.05	22.95	265.64	23.29	265.52	23.82	265.33	32.87	262.49
34.14	262.3	49.99	261.34	75.68	259.65	83.08	259.16	90.46	258.71
99.12	257.96	103.8	256.96	107.04	256.34	119.42	253.77	131.46	253.24
132.38	253.21	133.1	253.17	163.13	251.52	180.13	251.27	182.99	251.22
202.79	250.92	217.15	250.61	225.68	250.27	235.35	250.37	239.3	250.41
259.71	250.6	270.36	250.77	274.69	250.79	278.9	250.88	285.43	251.05
289.56	251.17	297.77	251.42	306.55	251.68	332.24	252.61	351.75	253.42
352.39	253.45	372.04	254.33	374.88	254.45	375.87	254.5	397.7	255.03
399.3	255.06	401.71	255.09	407.02	255.16	462.82	255.81	468.34	255.93
484.69	256.31	498.23	256.38	499.95	256.38	515.61	256.18	533.65	255.9
542.55	255.98	544.07	256.13	546.26	256.32	546.94	256.46	547.4	256.55
554.76	259.22	555.34	259.55	567.32	266.41	568.57	266.91	570.75	267.86
576.71	269.22								

Manning's n Values num= 10

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.044	23.29	.049	75.68	.062	182.99	.041	217.15	.044
235.45	.035	259.71	.05	289.56	.05	372.04	.05	576.71	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
217.15	259.71	36.75	38.34	46.49	.1	.3

CROSS SECTION RIVER: Blind Gabino
REACH: Tributary RS: 383.592*

INPUT
Description:
Station Elevation Data num= 66

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	268.99	.78	268.92	3.78	268.66	8.23	268.2	13.59	267.17
22.09	265.25	24.3	264.69	24.66	264.53	25.23	264.26	34.82	260.26
36.16	260.02	52.94	259.05	80.16	257.29	88	256.79	95.81	256.34
104.99	255.66	109.94	254.9	113.37	254.47	126.49	252.72	139.24	252.33
140.21	252.3	140.98	252.27	172.78	251.1	190.79	250.89	193.82	250.85
214.79	250.61	230	250.27	239.7	249.97	250.59	250.05	255.03	250.09
278.04	250.24	289.29	250.43	293.86	250.43	298.32	250.55	305.22	250.76
309.58	250.9	318.25	251.19	327.53	251.49	354.67	252.5	375.29	253.33
375.97	253.36	396.72	254.29	399.72	254.42	400.77	254.47	423.84	255.21
425.53	255.24	428.07	255.29	433.68	255.39	492.65	256.35	498.47	256.48
515.75	256.92	530.06	256.91	531.87	256.91	548.42	256.5	567.48	255.97
576.88	255.85	578.49	255.92	580.81	255.98	581.52	256.12	582.01	256.2
589.79	258.38	590.4	258.74	603.06	266.06	604.38	266.68	606.68	267.85
612.97	269.25								

Manning's n Values num= 10

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.041	24.66	.056	80.16	.058	193.82	.044	230	.041
250.65	.035	278.04	.05	309.58	.05	396.72	.05	612.97	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
230	278.04	36.75	38.34	46.49	.1	.3

CROSS SECTION RIVER: Blind Gabino
REACH: Tributary RS: 345.253*

INPUT
Description:
Station Elevation Data num= 66

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	269.02	.82	268.94	3.99	268.64	8.69	268.12	14.35	266.85
23.33	264.44	25.66	263.75	26.04	263.53	26.64	263.19	36.76	258.04
38.18	257.74	55.9	256.77	84.64	254.94	92.91	254.42	101.16	253.97
110.85	253.36	116.09	252.83	119.71	252.61	133.56	251.66	147.02	251.41
148.04	251.39	148.86	251.37	182.43	250.68	201.45	250.51	204.64	250.48
226.79	250.29	242.85	249.94	253.71	249.66	265.82	249.73	270.77	249.76
296.36	249.89	308.22	250.1	313.04	250.08	317.73	250.22	325	250.47
329.59	250.63	338.73	250.96	348.51	251.31	377.11	252.39	398.82	253.24
399.54	253.27	421.4	254.25	424.57	254.4	425.67	254.45	449.97	255.39
451.75	255.43	454.43	255.49	460.35	255.62	522.47	256.9	528.61	257.04
546.81	257.53	561.89	257.45	563.8	257.43	581.23	256.83	601.31	256.04
611.22	255.72	612.91	255.72	615.35	255.64	616.11	255.77	616.62	255.85
624.81	257.55	625.46	257.92	638.8	265.71	640.18	266.44	642.61	267.85
649.24	269.27								

Manning's n Values num= 10

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.038	26.04	.063	84.64	.054	204.64	.047	242.85	.038
265.86	.035	296.36	.05	329.59	.05	421.4	.05	649.24	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.

242.85 296.36 36.75 38.34 46.49 .1 .3

CROSS SECTION RIVER: Blind Gabino
REACH: Tributary RS: 306.914

INPUT
Description:
Station Elevation Data num= 41

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	269.04	4.2	268.63	9.15	268.04	15.11	266.53	24.56	263.64
27.02	262.8	27.42	262.54	28.05	262.12	38.71	255.82	40.2	255.46
58.86	254.49	89.12	252.59	97.83	252.05	122.23	250.77	154.8	250.49
238.79	249.97	255.7	249.61	267.72	249.35	281.06	249.41	314.69	249.54
327.15	249.76	332.21	249.73	337.14	249.89	349.61	250.36	359.21	250.73
422.36	253.15	476.11	255.57	477.98	255.61	487.01	255.85	558.74	257.6
577.87	258.14	595.72	257.96	614.04	257.15	647.33	255.51	649.9	255.3
650.69	255.43	659.84	256.71	660.52	257.11	675.99	266.21	678.54	267.84
685.51	269.29								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	27.42	.07	89.12	.05	281.06	.035	349.61	.05

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
255.7 314.69 105.13 306.91 129.05 .1 .3

CROSS SECTION RIVER: Cristianitos
REACH: Upper RS: 7542.007

INPUT
Description:
Station Elevation Data num= 25

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	314.87	18.38	313.25	31.02	312.27	58.16	310.16	87.34	307.92
113.66	304.31	134.08	302.37	135.11	302.04	135.13	302.03	151.03	295.89
152.41	295.44	164.67	295.89	168.36	295.85	173.61	297.25	188.34	301.94
191.63	302.16	197.14	302.55	231.27	301.74	248.83	301.27	254.63	301.22
259.4	301.33	282.32	302.47	314.55	306.64	326.16	308.64	344.66	314.42

Manning's n Values num= 2

Sta	n Val	Sta	n Val
0	.02	31.02	.05

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
151.03 164.67 136.98 234.48 286.68 .1 .3

CROSS SECTION RIVER: Cristianitos
REACH: Upper RS: 7307.535

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 41

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	310.99	6.84	309.32	23.14	306.75	31.88	304.6	39.14	301.85
60.82	296.51	65.52	295.36	66.42	295.07	68.17	294.82	70.11	294.94
70.73	294.98	81.17	294.25	85.36	293.97	87.62	294.13	103.28	294.22
125.57	295.46	129.46	295.64	131.97	295.68	137.44	297.13	145.24	299.2
145.56	299.3	145.94	299.29	150.87	300.71	152.51	300.32	157.35	296.83
160.74	295.86	194.58	296.2	203.39	296.55	205.24	296.66	220.82	296.01
235.2	295.73	244.1	295.6	247.39	295.11	286.77	295.25	318.68	295.45
329.34	296.34	350.56	300.28	362.09	303	381.58	306.49	392.27	308.08
394.95	308.79								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.05	203.39	.035	350.56	.07

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
81.17 103.28 31.68 39.55 25.34 .1 .3
Ineffective Flow num= 1
Sta L Sta R Elev Permanent
888 F

Description:
Station Elevation Data num= 67

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	309.99	6.05	308.7	7.65	308.35	7.82	308.3	10.52	307.65
17.9	306.21	18.89	306	19.65	305.88	26.44	304.86	36.43	302.69
44.72	300.06	45.5	299.89	55.63	297.71	56.1	297.61	57.92	297.22
69.5	294.76	74.87	293.62	75.9	293.34	77.9	293.07	79.66	293.1
80.11	293.12	80.82	293.14	92.75	292.34	96.72	292.08	98.87	292.22
113.72	292.31	120.31	292.75	126.7	293.2	132.45	293.88	134.52	294.09
138.15	294.44	140.5	294.6	145.6	296.12	152.88	298.29	153.18	298.39
153.54	298.4	154.98	298.86	155.41	299	158.14	299.83	158.32	299.8
159.67	299.53	164.19	296.62	165.06	296.4	167.35	295.8	188.18	295.99
198.94	296.08	207.16	296.37	208.89	296.46	223.43	295.88	236.86	295.62
245.17	295.5	248.24	295.07	285	295.14	304.82	295.23	308.24	295.24
308.98	295.25	310.83	295.28	314.78	295.33	318.2	295.63	324.73	296.18
344.54	299.73	350.92	301.16	352.89	301.63	355.3	302.2	373.5	305.58
383.47	307.15	385.98	307.81						

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	92.75	.035	113.72	.04	207.16	.04	344.54	.07

352.89	.07	385.98	.07

Bank Sta: Left 92.75, Right 113.72
Lengths: Left 31.68, Channel 39.55, Right 25.34
Coeff Contr. .1
Expan. .3

CROSS SECTION
REACH: Upper
RIVER: Cristianitos
RS: 7228.45*

INPUT
Description:
Station Elevation Data num= 67

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	308.99	6.81	307.71	8.6	307.35	8.79	307.29	11.83	306.36
20.14	304.49	21.25	304.2	22.1	304.08	29.74	302.96	40.98	300.77
50.31	298.26	51.18	298.09	62.57	295.91	63.1	295.81	65.15	295.43
78.17	293	84.21	291.88	85.37	291.61	87.62	291.32	89.61	291.29
90.11	291.3	90.91	291.31	104.33	290.43	108.09	290.19	110.11	290.31
124.15	290.41	130.27	290.89	136.21	291.41	141.55	292.41	143.48	292.73
146.85	293.24	149.03	293.53	153.77	295.11	160.53	297.37	160.81	297.48
161.14	297.51	162.47	297.98	162.88	298.12	165.41	298.95	165.57	298.94
166.83	298.74	171.03	296.41	171.84	296.25	173.97	295.75	193.31	295.9
203.3	295.95	210.94	296.18	212.54	296.25	226.05	295.75	238.52	295.51
246.23	295.39	249.08	295.04	283.22	295.03	301.63	295.07	304.81	295.07
305.49	295.08	307.21	295.13	310.88	295.22	314.06	295.49	320.12	296.02
338.52	299.17	344.44	300.43	346.28	300.86	348.52	301.4	365.41	304.66
374.68	306.22	377	306.83						

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	104.33	.035	124.15	.045	210.94	.045	338.52	.07
346.28	.07	377	.07						

Bank Sta: Left 104.33, Right 124.15
Lengths: Left 31.68, Channel 39.55, Right 25.34
Coeff Contr. .1
Expan. .3

CROSS SECTION
REACH: Upper
RIVER: Cristianitos
RS: 7188.91*

INPUT
Description:
Station Elevation Data num= 67

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	307.99	7.57	306.72	9.56	306.35	9.77	306.27	13.15	305.07
22.37	302.76	23.61	302.41	24.56	302.27	33.04	301.07	45.52	298.86
55.89	296.47	56.86	296.3	69.52	294.12	70.1	294.02	72.38	293.64
86.85	291.25	93.56	290.14	94.85	289.89	97.35	289.58	99.56	289.48
100.12	289.48	101	289.47	115.91	288.52	119.45	288.3	121.36	288.4
134.59	288.5	140.24	289.02	145.72	289.61	150.65	290.95	152.43	291.36
155.54	292.05	157.55	292.45	161.93	294.1	168.17	296.46	168.43	296.56
168.73	296.61	169.97	297.1	170.34	297.25	172.68	298.07	172.83	298.07
173.99	297.95	177.87	296.2	178.61	296.09	180.58	295.69	198.44	295.81
207.66	295.83	214.71	296	216.19	296.05	228.66	295.62	240.17	295.4
247.3	295.29	249.93	295	281.45	294.92	298.44	294.91	301.38	294.9
302.01	294.92	303.6	294.98	306.99	295.1	309.92	295.36	315.52	295.86
332.5	298.62	337.97	299.7	339.66	300.1	341.73	300.6	357.33	303.75
365.88	305.29	368.03	305.85						

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	115.91	.035	134.59	.05	214.71	.05	332.5	.07
339.66	.07	368.03	.07						

Bank Sta: Left 115.91, Right 134.59
Lengths: Left 31.68, Channel 39.55, Right 25.34
Coeff Contr. .1
Expan. .3

CROSS SECTION
REACH: Upper
RIVER: Cristianitos
RS: 7149.37*

INPUT
Description:
Station Elevation Data num= 67

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	306.98	8.32	305.73	10.51	305.35	10.74	305.26	14.46	303.77
24.61	301.04	25.96	300.61	27.01	300.47	36.34	299.17	50.07	296.94
61.48	294.68	62.54	294.5	76.46	292.32	77.11	292.23	79.61	291.85
95.53	289.49	102.91	288.4	104.32	288.16	107.07	287.83	109.5	287.67
110.12	287.66	111.09	287.63	127.49	286.62	130.81	286.4	132.6	286.48
145.03	286.6	150.21	287.16	155.24	287.82	159.76	289.49	161.38	289.99
164.24	290.85	166.08	291.37	170.09	293.09	175.82	295.54	176.05	295.65
176.33	295.72	177.46	296.22	177.81	296.38	179.95	297.19	180.09	297.21
181.15	297.15	184.7	295.98	185.39	295.93	187.19	295.63	203.57	295.72
212.02	295.71	218.49	295.81	219.85	295.85	231.28	295.49	241.83	295.29
248.36	295.19	250.77	294.96	279.67	294.81	295.25	294.75	297.95	294.73
298.52	294.75	299.98	294.84	303.09	294.98	305.78	295.23	310.91	295.7
326.48	298.06	331.49	298.97	333.05	299.33	334.94	299.8	349.24	302.83
357.09	304.35	359.05	304.87						

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	127.49	.035	145.03	.055	218.49	.055	326.48	.07
333.05	.07	359.05	.07						

Bank Sta: Left 127.49, Right 145.03
Lengths: Left 31.68, Channel 39.55, Right 25.34
Coeff Contr. .1
Expan. .3

CROSS SECTION
REACH: Upper
RIVER: Cristianitos
RS: 7109.83*

INPUT
Description:
Station Elevation Data num= 67

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	305.98	9.08	304.73	11.47	304.35	11.72	304.24	15.77	302.48
26.84	299.32	28.32	298.82	29.46	298.66	39.65	297.28	54.62	295.03
67.06	292.88	68.22	292.71	83.41	290.53	84.11	290.44	86.84	290.07
104.2	287.74	112.26	286.66	113.8	286.43	116.8	286.08	119.45	285.86
120.12	285.84	121.18	285.79	139.07	284.71	142.17	284.51	143.85	284.57
155.47	284.69	160.18	285.3	164.75	286.03	168.86	288.03	170.34	288.62
172.93	289.65	174.61	290.29	178.26	292.08	183.46	294.63	183.68	294.74
183.93	294.83	184.96	295.35	185.27	295.51	187.22	296.32	187.35	296.34
188.31	296.36	191.54	295.77	192.17	295.77	193.81	295.57	208.69	295.63
216.38	295.59	222.26	295.63	223.5	295.65	233.89	295.36	243.49	295.18
249.43	295.08	251.62	294.92	277.9	294.7	292.07	294.6	294.51	294.57
295.04	294.59	296.36	294.69	299.19	294.87	301.63	295.1	306.3	295.55
320.46	297.51	325.02	298.24	326.43	298.57	328.15	299	341.16	301.92
348.29	303.42	350.08	303.89						

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	139.07	.035	155.47	.06	222.26	.06	320.46	.07
326.43	.07	350.08	.07						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
139.07	155.47	31.68	39.55	25.34	.1	.3

CROSS SECTION RIVER: Cristianitos
REACH: Upper RS: 7070.29*

INPUT
Description:
Station Elevation Data num= 67

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	304.98	9.83	303.74	12.42	303.35	12.69	303.22	17.09	301.18
29.08	297.6	30.68	297.02	31.92	296.86	42.95	295.39	59.17	293.11
72.64	291.09	73.9	290.91	90.35	288.73	91.12	288.64	94.07	288.28
112.88	285.98	121.6	284.92	123.27	284.7	126.52	284.33	129.39	284.05
130.12	284.01	131.27	283.96	150.65	282.8	153.54	282.62	155.1	282.66
165.9	282.79	170.14	283.43	174.26	284.23	177.96	286.57	179.29	287.26
181.63	288.45	183.14	289.22	186.42	291.07	191.11	293.72	191.3	293.83
191.53	293.94	192.45	294.47	192.74	294.63	194.49	295.44	194.6	295.48
195.47	295.57	198.38	295.56	198.94	295.62	200.42	295.52	213.82	295.54
220.75	295.46	226.04	295.44	227.15	295.44	236.51	295.23	245.15	295.07
250.49	294.98	252.47	294.89	276.12	294.59	288.88	294.44	291.08	294.4
291.55	294.42	292.75	294.55	295.29	294.75	297.49	294.97	301.69	295.39
314.44	296.96	318.54	297.51	319.82	297.8	321.37	298.2	333.07	301
339.49	302.49	341.1	302.91						

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	150.65	.035	165.9	.065	226.04	.065	314.44	.07
319.82	.07	341.1	.07						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
150.65	165.9	31.68	39.55	25.34	.1	.3

CROSS SECTION RIVER: Cristianitos
REACH: Upper RS: 7030.755

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 31

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	303.98	10.59	302.75	13.38	302.35	18.4	299.89	31.31	295.88
33.04	295.23	34.37	295.05	79.58	289.12	97.3	286.94	98.12	286.85
101.3	286.49	139.34	282.24	162.23	280.89	164.9	280.73	176.34	280.88
180.11	281.57	183.77	282.44	187.06	285.11	199.95	293.59	200.2	293.76
201.86	294.61	205.72	295.46	218.95	295.45	285.69	294.28	287.65	294.23
288.07	294.26	289.13	294.4	293.35	294.84	312.07	296.78	313.2	297.04
332.13	301.93								

Manning's n Values num= 3

[illegible] .1 .3

CROSS SECTION RIVER: Cristianitos
REACH: Upper RS: 6989.41*

INPUT
Description:
Station Elevation Data num= 68

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	303.51	10.92	302.33	11.04	302.32	13.79	301.97	18.96	299.92
31.21	296.79	32.27	296.52	34.05	295.97	35.43	295.81	39.39	295.34
74.12	291.48	82.02	290.61	89.21	289.85	96.53	289.1	98.69	288.87
100.29	288.69	101.13	288.6	101.17	288.6	104.41	288.15	105.33	288.02
105.98	287.93	106.7	287.85	111.25	287.29	115.22	286.75	126.45	285.21
134.3	284.13	138.49	283.4	143.62	282.52	148.83	281.83	162.72	280.2
167.21	279.85	171.33	279.63	181.48	279.83	185.63	280.81	188.46	281.59
189.66	281.9	193.29	284.34	195	285.3	206.35	291.34	207.48	291.93
207.75	292.08	209.58	292.85	213.83	293.73	215.72	293.82	216.03	293.83
219.91	294.02	222.38	294.08	227.21	294.09	228.4	294.1	240.15	294.01
269.63	293.67	285.13	293.43	288.75	293.4	301.89	293.36	304.05	293.35
304.51	293.37	305.12	293.44	305.67	293.5	310.32	293.9	310.45	293.91

326.83	295.42	330.93	295.86	331.29	295.93	332.18	296.13	335.99	297.04
343.79	298.89	346.92	299.93	353.02	301.91				

Manning's n Values num= 10

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.047	31.21	.038	74.12	.044	105.33	.026	167.21	.035
181.48	.063	215.72	.035	305.12	.042	332.18	.07	353.02	.07

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
167.21	181.48	33.68	41.35	37.89	.1	.3

CROSS SECTION RIVER: Cristianitos
REACH: Upper RS: 6948.06*

INPUT
Description:
Station Elevation Data num= 68

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	303.04	11.24	301.91	11.37	301.9	14.2	301.59	19.53	299.96
32.14	297.38	33.23	297.15	35.07	296.71	36.48	296.56	40.56	296.14
76.33	292.84	84.47	292.09	91.87	291.44	99.41	290.82	101.63	290.61
103.27	290.44	104.14	290.36	104.18	290.36	107.52	289.81	108.47	289.65
109.14	289.54	109.88	289.45	114.56	288.83	118.65	288.17	130.21	286.31
138.3	285.01	142.62	284.01	147.89	282.8	153.26	281.72	167.56	279.25
172.19	278.81	177.76	278.52	186.62	278.78	191.16	280.05	194.24	281
195.56	281.36	199.51	283.57	201.38	284.48	213.77	289.77	215.01	290.28
215.31	290.41	217.3	291.09	221.94	292	224	292.18	224.34	292.21
228.58	292.58	231.28	292.7	236.55	292.74	237.85	292.75	250.68	292.75
282.86	292.55	299.79	292.31	303.74	292.32	318.08	292.45	320.44	292.46
320.95	292.49	321.62	292.54	322.22	292.6	327.29	292.95	327.43	292.96
345.32	294.45	349.8	294.95	350.18	295.01	351.16	295.22	355.32	296.15
363.84	298.01	367.25	299.36	373.91	301.89				

Manning's n Values num= 10

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.044	32.14	.041	76.33	.038	108.47	.032	172.19	.035
186.62	.056	224	.035	321.62	.049	351.16	.07	373.91	.07

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
172.19	186.62	33.68	41.35	37.89	.1	.3

CROSS SECTION RIVER: Cristianitos
REACH: Upper RS: 6906.72*

INPUT
Description:
Station Elevation Data num= 68

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	302.56	11.57	301.5	11.7	301.48	14.61	301.21	20.09	299.99
33.07	297.96	34.19	297.79	36.08	297.45	37.54	297.32	41.73	296.94
78.53	294.2	86.91	293.58	94.53	293.03	102.28	292.53	104.57	292.34
106.26	292.19	107.16	292.11	107.19	292.11	110.63	291.47	111.61	291.29
112.3	291.16	113.05	291.05	117.87	290.37	122.09	289.6	133.98	287.41
142.3	285.88	146.74	284.62	152.17	283.07	157.69	281.6	172.41	278.3
177.17	277.77	184.2	277.42	191.77	277.72	196.68	279.29	200.02	280.42
201.45	280.82	205.74	282.81	207.76	283.65	221.2	288.19	222.54	288.62
222.86	288.73	225.03	289.33	230.06	290.27	232.29	290.54	232.65	290.58
237.25	291.14	240.18	291.32	245.89	291.38	247.3	291.4	261.21	291.5
296.1	291.43	314.45	291.19	318.73	291.23	334.28	291.53	336.84	291.58
337.38	291.6	338.11	291.65	338.76	291.69	344.26	292.01	344.41	292.02
363.81	293.48	368.66	294.03	369.08	294.09	370.13	294.31	374.64	295.26
383.88	297.13	387.59	298.78	394.81	301.87				

Manning's n Values num= 10

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.041	33.07	.044	78.53	.032	111.61	.038	177.17	.035
191.77	.049	232.29	.035	338.11	.056	370.13	.07	394.81	.07

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
177.17	191.77	33.68	41.35	37.89	.1	.3

CROSS SECTION RIVER: Cristianitos
REACH: Upper RS: 6865.37*

INPUT
Description:
Station Elevation Data num= 68

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	302.09	11.89	301.08	12.03	301.07	15.02	300.83	20.66	300.02
34	298.55	35.15	298.42	37.1	298.19	38.59	298.07	42.91	297.73
80.74	295.56	89.35	295.06	97.18	294.62	105.16	294.25	107.51	294.08
109.25	293.94	110.17	293.87	110.21	293.87	113.74	293.13	114.74	292.92
115.45	292.77	116.23	292.66	121.19	291.91	125.52	291.03	137.74	288.52
146.3	286.76	150.87	285.23	156.45	283.35	162.13	281.49	177.25	277.35
182.15	276.73	190.63	276.31	196.91	276.67	202.2	278.53	205.81	279.83
207.34	280.29	211.96	282.04	214.15	282.82	228.62	286.62	230.07	286.96
230.42	287.05	232.75	287.57	238.17	288.54	240.57	288.9	240.97	288.96
245.92	289.71	249.07	289.94	255.23	290.03	256.75	290.05	271.74	290.24
309.33	290.31	329.11	290.08	333.72	290.15	350.48	290.62	353.23	290.69
353.82	290.72	354.61	290.75	355.31	290.79	361.24	291.07	361.4	291.07
382.29	292.5	387.53	293.11	387.97	293.17	389.11	293.39	393.97	294.37
403.93	296.26	407.92	298.21	415.7	301.85				

Manning's n Values num= 10

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.038	34	.047	80.74	.026	114.74	.044	182.15	.035
196.91	.042	240.57	.035	354.61	.063	389.11	.07	415.7	.07

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
182.15	196.91	33.68	41.35	37.89	.1	.3

CROSS SECTION RIVER: Cristianitos
REACH: Upper RS: 6824.032

INPUT
Description:
Station Elevation Data num= 42

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	301.62	12.36	300.65	34.93	299.14	44.08	298.53	82.95	296.92
99.84	296.21	108.03	295.96	110.45	295.82	113.22	295.62	117.88	294.55
118.61	294.38	119.41	294.26	124.5	293.45	128.95	292.46	141.51	289.62
150.3	287.64	154.99	285.84	166.56	281.38	182.1	276.4	187.13	275.69
197.06	275.21	202.05	275.62	211.59	279.24	220.53	281.99	236.05	285.04
248.86	287.26	249.28	287.33	254.59	288.27	257.97	288.56	264.57	288.67
282.27	288.99	322.57	289.19	343.77	288.96	348.71	289.06	371.1	289.86
378.38	290.13	400.78	291.53	406.87	292.25	413.3	293.48	423.97	295.38
428.25	297.64	436.59	301.83						

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	34.93	.05	82.95	.02	117.88	.05	248.86	.035
371.1	.07								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
187.13	202.05	247.74	274.55	224.1	.1	.3

CROSS SECTION RIVER: Cristianitos
REACH: Upper RS: 6549.504

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 36

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	302.18	.68	301.93	7.44	300.75	31.22	295.87	45.01	295.38
72.87	294.38	75.02	294.26	101.69	292.81	113.02	292.19	120.76	291.77
125.34	291.22	137.27	288.99	140.65	288.21	144.3	286.8	157.17	282.05
168.07	278.03	181.91	274.69	183.47	274.35	184.44	274.17	189.35	274.3
209.04	274.63	211.09	274.78	212.57	275.36	215.65	276.16	220.45	277.28
222.89	278.05	230.41	281.51	235.57	282.91	245.09	285.48	251.96	288.79
308.56	291.39	324.9	292.63	329.94	293.04	361.43	299.34	369.18	300.75
375.11	302.47								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	45.01	.02	75.02	.05	251.96	.035	361.43	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
181.91	209.04	205.05	204.05	201.6	.1	.3

CROSS SECTION RIVER: Cristianitos
REACH: Upper RS: 6345.465

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 31

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	295.28	2.85	295.04	27.05	292.96	39.87	291.63	40.22	291.59
53.2	290.2	61.12	288.73	62.2	288.39	71.93	283.17	75.76	281.52
76	281.42	89.2	276.75	115.04	274.04	118.23	273.71	122.99	273.44
127.77	274.02	148.88	276.66	149.44	276.93	153.07	278.44	160.86	281.85
162.91	282.01	167.32	282.36	169.78	282.83	200.39	283.99	217.15	284.49
240.82	285.24	246.54	285.95	269.26	289.31	269.65	289.4	272.87	290.2
284.81	293.06								

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	2.85	.02	39.87	.05	200.39	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
115.04	127.77	204.5	201.3	197.95	.1	.3

[illegible]

Description:
Station Elevation Data num= 31

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	288.97	6.47	288.5	10.52	288.2	34.2	286.29	36.98	285.81
37.63	285.58	38.8	285.3	41	284.77	52.7	281.83	63.68	275.92
70.47	271.27	73.35	270.03	79.54	268.89	82.78	268.87	97.4	268.77
109.57	268.42	127.77	268.12	129.87	268.41	134.89	269.05	157.14	272.61
162.57	273.97	172.02	275.51	175.62	276.1	184.56	277.49	218.81	280.72
225.14	281.83	240.5	282.99	247.12	283.51	252.21	283.73	287.61	285.23
323.35	289.27								

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	6.47	.02	38.8	.05	252.21	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
109.57	129.87	183.85	189.1	195.8	.1	.3

CROSS SECTION RIVER: Cristianitos
REACH: Upper RS: 5955.087

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 36

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	287.39	10.15	286.65	40.58	284.44	44	284.19	79.24	281.74
79.88	281.71	81	281.59	106.55	276.82	108.3	276.55	109.23	276.2
113.25	274.68	121.12	269.41	128.54	264.28	131.27	262.61	131.96	262.57
134.28	262.58	136.52	264.25	141.39	267.33	143.28	268.61	144.29	268.71
165.4	271.67	167.31	272.19	177.87	274.7	181.27	274.95	186	275.27
199.19	276.17	211.92	276.24	221.38	275.98	222.3	275.95	245	275.28
261.89	274.79	274.74	276.22	308.23	279.16	328.1	280.98	333	281.81
338.17	283.27								

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	10.15	.02	40.58	.05	245	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
128.54	136.52	214.85	210.7	206.15	.1	.3

CROSS SECTION RIVER: Cristianitos
REACH: Upper RS: 5744.383

INPUT
Description:
Station Elevation Data num= 39

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	280.52	7.5	280.66	44.83	281.33	52.47	281.1	78.41	280.35
90	279.73	91.22	279.69	92.1	279.64	93.7	279.61	94.64	279.59
119.49	279.1	140.93	276.58	148.44	275.8	156.1	272.64	161.16	270.21
172.36	264.81	175.3	263.19	178.17	262.33	186.41	262.55	187.53	262.6
188.56	263.19	193.17	265.89	193.85	266.32	196.08	266.88	202.76	268.89
204.13	269.31	232.37	269.57	232.64	269.57	233.64	269.61	236.3	269.6
238.49	269.67	268.05	271.2	296.38	273.37	316.49	275.27	316.8	275.3
340.16	276.54	364.56	277.65	371.19	278.31	374.79	278.95		

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	7.5	.05	52.47	.02	93.7	.05	232.37	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
175.3	188.56	250.55	220.45	190.35	.1	.3

CROSS SECTION RIVER: Cristianitos
REACH: Upper RS: 5523.938

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 36

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	281.66	7.48	280.87	32.61	278.22	54.94	277.58	69.35	276.66
73.11	276.46	80.17	275.06	81.96	274.25	92.97	265.32	94.84	263.84
95.65	263.31	96.34	263.24	98.42	262.8	104.43	261.53	106.12	261.19
124.23	261.22	128.45	261.5	132.45	261.75	145.11	262.45	147.45	263.04
151.49	264.05	167.36	267.07	172.74	268.37	194.25	269.62	201.48	270.04
209.45	270.28	230	270.28	263.05	270.28	293.09	270.27	301	270.62
314.54	271.41	337.46	272.72	348.15	273.86	363.06	276.29	367.93	277.65
374.23	279.71								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.02	7.48	.05	230	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
104.43	128.45	42.84	44.89	45.03	.1	.3

CROSS SECTION RIVER: Cristianitos
REACH: Upper RS: 5479.05*

INPUT
Description:
Station Elevation Data num= 64

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	280.45	8.66	279.7	9.45	279.63	27.48	277.93	37.73	277.05
38.24	277.04	40.88	276.84	44.58	276.62	60.76	275.79	63.57	275.67
67.91	275.39	72.16	275.11	80.24	274.54	81.89	274.44	84.6	274.28
92.76	273	94.84	272.31	105.81	265.94	107.58	264.85	108.98	264.01
109.74	263.54	110.49	263.16	110.68	263.05	110.69	263.05	111.48	262.87
113.04	262.41	113.88	262.16	116.36	261.42	120.84	260.53	122.44	260.23
123.99	259.93	139.28	260.21	142.84	260.5	146.22	260.73	150.64	261
156.9	261.57	158.87	262.12	162.28	263.06	173.51	265.52	175.67	266.01
180.21	267.25	185.47	267.78	197.55	268.99	198.36	269.06	204.46	269.55
207.43	269.71	211.18	269.91	217.57	270.05	228.52	270.13	253.57	270.31
256.41	270.34	261.21	270.38	264.95	270.42	273.83	270.52	281.76	270.62
288.43	270.98	294.27	271.38	299.85	271.75	319.19	273.04	326.72	273.89
328.21	274.06	340.79	276.1	344.9	277.23	350.22	278.92		

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.026	8.66	.05	120.84	.038	142.84	.038	228.52	.038
350.22	.038								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
120.84	142.84	42.84	44.89	45.03	.1	.3

CROSS SECTION RIVER: Cristianitos
REACH: Upper RS: 5434.16*

INPUT
Description:
Station Elevation Data num= 64

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	279.24	9.83	278.52	10.73	278.45	31.22	276.7	42.86	275.88
43.43	275.86	46.43	275.53	50.63	275.19	69.01	273.93	72.2	273.77
77.13	273.44	81.96	273.12	91.14	272.42	93.01	272.29	96.08	272.11
105.36	270.94	107.71	270.38	120.17	265.33	122.18	264.39	123.77	263.65
124.64	263.25	125.49	262.9	125.7	262.79	125.72	262.78	126.61	262.51
128.39	261.87	129.34	261.52	132.16	260.49	137.24	259.52	139.58	259.09
141.86	258.67	154.33	259.21	157.23	259.5	159.98	259.7	163.58	259.96
168.69	260.69	170.3	261.2	173.07	262.07	182.23	264.46	183.98	264.95
187.68	266.14	191.97	266.83	201.81	268.42	202.47	268.49	207.44	269.06
209.86	269.28	212.92	269.53	218.13	269.83	227.05	269.99	247.46	270.35
249.77	270.4	253.68	270.47	256.73	270.57	263.96	270.78	270.42	270.97
275.86	271.34	280.62	271.73	285.17	272.1	300.92	273.36	307.06	274.11
308.27	274.25	318.52	275.92	321.87	276.8	326.2	278.13		

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.032	9.83	.05	137.24	.041	157.23	.041	227.05	.041
326.2	.041								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
137.24	157.23	42.84	44.89	45.03	.1	.3

CROSS SECTION RIVER: Cristianitos
REACH: Upper RS: 5389.27*

INPUT
Description:
Station Elevation Data num= 64

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	278.02	11.01	277.35	12.01	277.28	34.95	275.48	47.98	274.72
48.62	274.69	51.98	274.23	56.68	273.77	77.26	272.07	80.83	271.86
86.35	271.48	91.76	271.12	102.03	270.3	104.13	270.14	107.57	269.93
117.95	268.88	120.59	268.44	134.54	264.71	136.79	263.92	138.57	263.3
139.54	262.95	140.5	262.64	140.73	262.52	140.74	262.52	141.75	262.14
143.73	261.33	144.81	260.88	147.95	259.57	153.65	258.52	156.73	257.96
159.72	257.41	169.38	258.2	171.63	258.49	173.75	258.68	176.53	258.91
180.48	259.81	181.72	260.28	183.87	261.08	190.94	263.4	192.3	263.89
195.15	265.02	198.47	265.88	206.07	267.85	206.58	267.93	210.42	268.57
212.29	268.85	214.65	269.16	218.68	269.6	225.57	269.84	241.34	270.38
243.13	270.45	246.15	270.57	248.51	270.72	254.09	271.03	259.09	271.32
263.29	271.7	266.97	272.08	270.48	272.44	282.66	273.68	287.4	274.34
288.33	274.45	296.25	275.73	298.84	276.38	302.19	277.33		

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.038	11.01	.05	153.65	.044	171.63	.044	225.57	.044
302.19	.044								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
153.65	171.63	42.84	44.89	45.03	.1	.3

CROSS SECTION RIVER: Cristianitos
REACH: Upper RS: 5344.38*

INPUT
Description:
Station Elevation Data num= 64

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	276.81	12.18	276.17	13.3	276.11	38.68	274.25	53.1	273.55
53.81	273.52	57.53	272.92	62.74	272.34	85.51	270.21	89.46	269.95
95.57	269.53	101.55	269.13	112.93	268.18	115.25	267.99	119.05	267.75
130.55	266.83	133.46	266.5	148.9	264.1	151.39	263.45	153.36	262.94
154.44	262.65	155.5	262.39	155.76	262.26	155.77	262.25	156.88	261.77
159.08	260.78	160.27	260.24	163.75	258.64	170.05	257.51	173.88	256.83
177.59	256.15	184.43	257.19	186.02	257.49	187.52	257.66	189.48	257.87
192.26	258.93	193.14	259.35	194.66	260.09	199.65	262.34	200.61	262.83
202.62	263.91	204.96	264.93	210.33	267.27	210.69	267.37	213.4	268.08
214.72	268.41	216.39	268.79	219.23	269.38	224.09	269.69	235.23	270.42
236.49	270.51	238.62	270.67	240.28	270.86	244.23	271.28	247.75	271.67

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.044	12.18	.05	170.05	.047	186.02	.047	224.09	.047
278.17	.047								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
170.05	186.02	42.84	44.89	45.03	.1	.3

CROSS SECTION RIVER: Cristianitos
REACH: Upper RS: 5299.501

INPUT
Description:
Station Elevation Data num= 33

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	275.6	14.58	274.94	42.41	273.03	59	272.35	63.08	271.62
68.79	270.91	93.76	268.35	104.79	267.58	111.35	267.13	126.37	265.84
163.27	263.48	168.16	262.59	170.5	262.13	170.8	261.99	174.43	260.24
179.55	257.71	186.46	256.51	191.03	255.7	195.46	254.89	200.41	256.49
202.43	256.83	208.36	261.28	211.46	263.98	214.59	266.7	217.15	267.98
219.78	269.15	229.11	270.45	231.09	270.77	232.06	271.01	234.36	271.53
239.66	272.78	248.07	274.78	254.16	275.75				

Manning's n Values num= 1

Sta	n Val
0	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
186.46	200.41	205.92	227.22	232.86	.1	.3

CROSS SECTION RIVER: Cristianitos
REACH: Upper RS: 5072.281

INPUT
Description:
Station Elevation Data num= 29

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	275.66	15.45	275.18	26.05	274.1	35.48	273.14	42.44	271.71
53.2	268.9	56.75	267.96	69.38	260.83	76.1	256.91	77.53	256.14
79.39	255.96	87.58	255.18	90.33	254.96	92.63	255.04	96.93	255.18
119.67	256.14	138.86	256.94	139.9	257.11	141.15	257.38	145.95	258.39
159.25	260.84	160.86	261.26	173.78	267.21	176.39	268.78	187.79	273.44
191.12	274.58	194.64	275.55	195.51	275.58	197.48	275.63		

Manning's n Values num= 2

Sta	n Val	Sta	n Val
0	.05	195.51	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
76.1	138.86	50.75	42.38	33.15	.1	.3

CROSS SECTION RIVER: Cristianitos
REACH: Upper RS: 5029.90*

INPUT
Description:
Station Elevation Data num= 49

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	274.7	14.57	274.25	14.66	274.24	20.79	273.66	24.56	273.26
29.01	272.78	33.45	272.28	36.87	271.6	40.02	270.8	50.16	267.74
51.23	267.42	52.2	267.12	53.51	266.72	53.74	266.6	64.88	260.44
65.42	260.17	69.34	258.12	71.75	256.84	72.96	256.21	74.54	256.05
81.47	255.34	83.79	255.13	85.66	255.2	89.14	255.33	107.54	256.17
123.07	256.87	124.02	257.05	125.16	257.31	126.3	257.56	129.54	258.61
136	260.56	139.62	261.63	140.09	261.77	141.67	262.12	143.14	262.54
144.17	263.01	146.97	264.31	154.93	267.41	155.39	267.65	157.31	268.65
157.53	268.73	157.95	268.9	167.71	272.65	169.21	273.14	170.75	273.64
173.96	274.49	174.75	274.54	175.48	274.57	176.55	274.64		

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	71.75	.038	123.07	.038	174.75	.038	176.55	.038

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
71.75	123.07	50.75	42.38	33.15	.1	.3

CROSS SECTION RIVER: Cristianitos
REACH: Upper RS: 4987.52*

INPUT
Description:
Station Elevation Data num= 49

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	273.73	13.69	273.32	13.77	273.31	19.53	272.82	23.07	272.41
27.25	271.94	31.43	271.42	34.64	270.8	37.59	269.89	47.12	266.58
48.13	266.23	49.03	265.92	50.27	265.49	50.48	265.37	60.95	259.73
61.46	259.5	65.14	257.83	67.41	256.78	68.4	256.29	69.69	256.14
75.35	255.49	77.26	255.3	78.68	255.37	81.34	255.48	95.41	256.2
107.28	256.81	108.13	256.99	109.16	257.24	110.2	257.49	113.12	258.84
118.96	261.42	122.24	262.84	122.66	263.02	124.09	263.4	125.42	263.82
126.35	264.25	128.89	265.42	136.07	267.62	136.49	267.79	138.23	268.52
138.43	268.58	138.81	268.72	147.63	271.85	148.98	272.27	150.37	272.69
153.28	273.44	154	273.5	154.65	273.54	155.62	273.64		

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	67.41	.041	107.28	.041	154	.041	155.62	.041

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
67.41	107.28	50.75	42.38	33.15	.1	.3

CROSS SECTION RIVER: Cristianitos
REACH: Upper RS: 4945.14*

INPUT
Description:
Station Elevation Data num= 49

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	272.77	12.8	272.39	12.89	272.39	18.27	271.98	21.59	271.57
25.49	271.09	29.4	270.56	32.41	270	35.17	268.97	44.09	265.42
45.03	265.05	45.87	264.71	47.03	264.25	47.23	264.14	57.02	259.02
57.49	258.84	60.94	257.55	63.06	256.71	63.83	256.36	64.83	256.23
69.24	255.65	70.72	255.48	71.71	255.53	73.55	255.63	83.27	256.23
91.48	256.74	92.25	256.92	93.17	257.17	94.09	257.41	96.71	259.06
101.93	262.28	104.85	264.05	105.23	264.28	106.51	264.68	107.7	265.1
108.53	265.49	110.8	266.53	117.22	267.82	117.59	267.93	119.15	268.39
119.33	268.42	119.67	268.55	127.55	271.06	128.76	271.4	130	271.75
132.6	272.38	133.24	272.45	133.82	272.52	134.69	272.65		

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	63.06	.044	91.48	.044	133.24	.044	134.69	.044

Bank Sta: Left 63.06, Right 91.48 — Lengths: Left 50.75, Channel 42.38, Right 33.15 — Coeff Contr. .1 — Expan. .3

CROSS SECTION — RIVER: Cristianitos
REACH: Upper — RS: 4902.76*

INPUT
Description:
Station Elevation Data num= 49

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	271.8	11.92	271.46	12	271.46	17.01	271.13	20.1	270.73
23.74	270.25	27.38	269.7	30.17	269.2	32.75	268.06	41.05	264.27
41.92	263.86	42.71	263.51	43.79	263.02	43.97	262.92	53.09	258.3
53.53	258.18	56.74	257.26	58.72	256.65	59.27	256.43	59.98	256.32
63.13	255.81	64.19	255.65	64.73	255.69	65.75	255.78	71.14	256.27
75.69	256.68	76.37	256.86	77.18	257.09	77.99	257.33	80.3	259.28
84.89	263.15	87.47	265.25	87.81	265.53	88.93	265.96	89.98	266.38
90.71	266.72	92.71	267.64	98.37	268.03	98.7	268.06	100.06	268.26
100.22	268.27	100.52	268.37	107.47	270.27	108.53	270.54	109.63	270.81
111.92	271.32	112.48	271.41	113	271.49	113.76	271.65		

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	58.72	.047	75.69	.047	112.48	.047	113.76	.047

Bank Sta: Left 58.72, Right 75.69 — Lengths: Left 50.75, Channel 42.38, Right 33.15 — Coeff Contr. .1 — Expan. .3

CROSS SECTION — RIVER: Cristianitos
REACH: Upper — RS: 4860.382

INPUT
Description:
Station Elevation Data num= 25

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	270.84	11.11	270.53	15.75	270.29	21.98	269.41	27.94	268.4
38.82	262.68	39.55	262.3	40.72	261.69	49.16	257.59	52.54	256.98
54.37	256.58	57.65	255.82	59.9	256.61	61.89	257.25	67.86	264.01
70.09	266.46	70.38	266.78	72.89	267.96	74.62	268.75	79.8	268.2
81.12	268.12	81.38	268.2	88.31	269.67	92.17	270.46	92.83	270.66

Manning's n Values num= 1

Sta	n Val
0	.05

Bank Sta: Left 54.37, Right 59.9 — Lengths: Left 35.73, Channel 38.67, Right 40.52 — Coeff Contr. .1 — Expan. .3

CROSS SECTION — RIVER: Cristianitos
REACH: Upper — RS: 4821.70*

INPUT
Description:
Station Elevation Data num= 41

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	270.49	7.32	270.14	10.12	269.95	11.12	269.88	15.76	269.47
22	268.47	27.96	267.38	29.3	266.75	31.64	265.51	38.85	261.75
39.58	261.37	39.91	261.2	40.36	260.97	40.75	260.76	49.19	256.64
49.97	256.45	52.58	255.92	52.77	255.87	54.41	255.47	56.95	254.8
57.95	254.53	57.98	254.53	62.64	255.51	64.1	255.95	64.83	256.19
71.43	262.14	73.89	264.31	74.22	264.59	75.6	265.18	76.99	265.77
77.54	266	78.9	266.6	81.78	266.71	84.62	266.83	86.08	266.94
86.37	267.04	87.05	267.22	94.03	268.91	95.22	269.19	98.29	270.03
99.02	270.28								

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	54.41	.05	62.64	.05	99.02	.05

Bank Sta: Left [illegible] Right [illegible] — Lengths: Left [illegible] Channel [illegible] Right [illegible] — Coeff Contr. [illegible] — Expan. [illegible]

INPUT
Description:
Station Elevation Data num= 41

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	270.14	7.32	269.65	10.13	269.35	11.13	269.24	15.77	268.65
22.01	267.53	27.98	266.36	29.32	265.81	31.66	264.56	38.87	260.82
39.61	260.44	39.94	260.27	40.39	260.04	40.78	259.84	49.23	255.69
50.01	255.45	52.61	254.86	52.81	254.81	54.45	254.35	57.17	253.56
58.25	253.24	58.31	253.24	65.37	254.41	66.98	254.87	67.78	255.12
75	260.28	77.7	262.16	78.05	262.4	79.57	262.99	81.09	263.57
81.7	263.8	83.18	264.45	86.34	264.94	89.45	265.46	91.04	265.76
91.36	265.88	92.1	266.11	99.74	268.15	101.05	268.49	104.41	269.6
105.21	269.9								

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	54.45	.05	65.37	.05	105.21	.05

Bank Sta: Left 54.45, Right 65.37 — Lengths: Left 35.73, Channel 38.67, Right 40.52 — Coeff Contr. .1 — Expan. .3

CROSS SECTION RIVER: Cristianitos
REACH: Upper RS: 4744.36*

INPUT
Description:
Station Elevation Data num= 41

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	269.8	7.33	269.15	10.14	268.75	11.13	268.59	15.78	267.84
22.03	266.59	28	265.34	29.34	264.87	31.69	263.6	38.9	259.88
39.63	259.51	39.96	259.34	40.41	259.11	40.81	258.91	49.26	254.74
50.04	254.45	52.65	253.8	52.85	253.75	54.48	253.24	57.4	252.32
58.55	251.96	58.64	251.96	68.11	253.31	69.85	253.79	70.72	254.06
78.57	258.41	81.5	260	81.89	260.21	83.54	260.79	85.19	261.38
85.85	261.61	87.46	262.3	90.89	263.17	94.27	264.09	96.01	264.58
96.35	264.72	97.15	265.01	105.46	267.39	106.88	267.8	110.53	269.16
111.4	269.51								

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	54.48	.05	68.11	.05	111.4	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
54.48	68.11	35.73	38.67	40.52	.1	.3

CROSS SECTION RIVER: Cristianitos
REACH: Upper RS: 4705.68*

INPUT
Description:
Station Elevation Data num= 42

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	269.45	7.33	268.66	10.14	268.14	11.14	267.95	15.79	267.02
22.04	265.66	28.02	264.32	29.36	263.92	31.71	262.65	38.93	258.95
39.66	258.58	39.99	258.41	40.44	258.18	40.83	257.98	49.3	253.79
50.08	253.45	52.69	252.74	52.88	252.68	54.52	252.12	57.62	251.08
58.85	250.67	58.97	250.67	70.84	252.21	72.73	252.7	73.67	252.99
82.14	256.54	85.31	257.85	85.72	258.02	87.5	258.6	89.28	259.18
90	259.41	91.74	260.14	95.45	261.41	99.09	262.72	100.97	263.4
100.98	263.41	101.34	263.55	102.21	263.9	111.17	266.63	112.71	267.1
116.65	268.73	117.59	269.13						

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	54.52	.05	70.84	.05	117.59	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
54.52	70.84	35.73	38.67	40.52	.1	.3

CROSS SECTION RIVER: Cristianitos
REACH: Upper RS: 4667.013

INPUT
Description:
Station Elevation Data num= 22

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	269.1	7.34	268.16	10.15	267.54	29.38	262.98	31.73	261.69
40.02	257.48	40.47	257.25	50.11	252.45	52.92	251.62	54.56	251.01
57.85	249.84	59.15	249.38	59.3	249.38	73.58	251.11	75.6	251.62
91.47	256.41	94.15	257.22	100	259.64	105.94	262.23	107.26	262.79
118.54	266.4	123.78	268.75						

Manning's n Values num= 1

Sta	n Val
0	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
54.56	73.58	102.41	431.78	280.69	.1	.3

CROSS SECTION RIVER: Cristianitos
REACH: Lower RS: 4235.234

INPUT
Description:
Station Elevation Data num= 38

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	262.16	1.06	262.02	4.48	260.49	6.08	260.25	6.81	260.14
12.4	256.6	19.34	255.11	24.81	254.78	32.67	254.23	108.8	250.02
117.15	250.3	127.56	250.91	152.67	250.88	164.14	250.96	182.62	251.07
279.86	251.2	285.91	251.17	320.15	249.62	364.39	247.8	387.31	247.22
401.23	246.98	453.17	246.1	455.32	246.07	456.02	246.05	456.78	246.06
485.37	245.97	486.34	245.97	521.51	245.92	528.78	246.06	555.11	247.52
564.76	248.25	565.37	248.3	568.67	248.55	571	248.82	574.41	249.65
576.77	250.45	582.33	252.01	607.93	262.73				

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	6.08	.07	164.14	.05	401.23	.035	486.34	.05
565.37	.07								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
456.78	528.78	142.68	162.76	168.52	.1	.3

CROSS SECTION RIVER: Cristianitos
REACH: Lower RS: 4072.483

INPUT
Description:

Station Elevation Data num= 24

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	262.64	.66	262.54	4.93	260.61	12.16	252.5	14.31	250.22
19.65	248.9	44.15	247.56	51.53	247.26	53.98	246.98	66.29	246.16
80.29	245.1	107.88	243.94	109.39	243.88	123.85	243.27	133.39	242.91
142.85	242.54	153.23	242.24	154.21	242.48	159.69	243.77	170.71	252.35
176.01	256.48	176.2	256.63	182.13	261.1	189.26	266.62		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.05	107.88	.035	176.01	.07

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
109.39	159.69	133.31	169.92	180.4	.1	.3

CROSS SECTION RIVER: Cristianitos
REACH: Lower RS: 3902.554

INPUT
Description:
Station Elevation Data num= 27

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	263.07	1.33	262.91	3.09	262.32	7.3	258.82	14.65	255.57
21.06	252.22	25.1	249.43	31.12	249.23	44.41	247.36	49.2	246.69
56.89	245.7	61.29	245.09	66.55	244.8	73.23	244.36	77.58	244.08
96.71	242.7	120.7	243.63	121.97	243.68	124.1	243.69	124.79	243.69
153.98	243.63	159.06	244.19	163.7	243.82	165.13	244.51	170.09	249.35
178.27	257.33	185.69	264.58						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.05	120.7	.035	178.27	.07

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
77.58	159.06	222.54	246.18	257.52	.1	.3

CROSS SECTION RIVER: Cristianitos
REACH: Lower RS: 3656.363

INPUT
Description:
Station Elevation Data num= 26

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	262.7	.65	262.64	8.27	259.77	14.3	256.9	26.01	250.01
31.98	248.89	42.71	248.32	65.92	246.96	105.18	244.67	110.36	244.35
144.8	242.26	151.74	241.94	165.39	241.89	173.14	241.86	176.81	241.81
190.77	241.62	216.27	241.29	232.3	241.9	239.38	242.17	241.44	242.25
242.63	242.27	244.55	242.72	248.81	243.69	250.1	244.43	254.58	248.66
272.02	263.42								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.05	176.81	.035	239.38	.07

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
173.14	232.3	44.98	44.9	43.86	.1	.3

CROSS SECTION RIVER: Cristianitos
REACH: Lower RS: 3611.46*

INPUT
Description:
Station Elevation Data num= 68

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	262.66	.74	262.59	5.91	261.01	9.42	259.82	11.09	259.13
16.29	257.12	24.98	253.02	25.82	252.62	29.18	251.09	29.63	250.88
36.43	249.81	37.07	249.78	37.79	249.73	39.18	249.65	48.65	248.85
56.35	248.17	63.59	247.83	71.18	247.47	75.08	247.29	78.34	247.14
105.06	245.89	113.62	245.34	119.8	245.01	125.7	244.67	129.67	244.45
148.28	243.41	164.93	242.5	168.77	242.33	169.11	242.31	172.83	242.1
177.27	241.99	184.5	241.61	185.86	241.55	187.56	241.47	188.38	241.45
197.21	241.18	200.75	241.09	204.6	240.99	205.61	240.98	214.22	240.87
234.54	240.62	238.81	240.57	246.39	240.88	253.79	241.19	261.95	241.61
292.4	258.22	295.64	260.53	300.01	263.48				

Manning's n Values num= 9

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	78.34	.048	129.67	.037	197.21	.035	200.72	.035
253.79	.067	261.95	.05	262.03	.067	300.01	.067		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
197.21	253.79	44.98	44.9	43.86	.1	.3

CROSS SECTION RIVER: Cristianitos
REACH: Lower RS: 3566.55*

INPUT
Description:
Station Elevation Data num= 68

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	262.63	.83	262.55	6.63	261.09	10.57	259.87	12.45	259.19
18.28	257.34	28.03	253.63	28.97	253.26	32.74	251.93	33.24	251.76
40.87	250.74	41.59	250.69	42.4	250.63	43.96	250.54	54.59	249.38
63.23	248.41	71.35	248.1	79.87	247.78	84.25	247.62	87.9	247.48

117.88	246.36	127.49	245.7	134.42	245.35	141.04	245	145.5	244.77
166.37	243.68	185.06	242.74	189.37	242.56	189.76	242.53	193.93	242.26
198.9	242.06	207.02	241.32	208.54	241.2	210.46	241.05	211.38	241.01
221.28	240.49	224.69	240.37	228.4	240.23	229.37	240.22	237.66	240.12
257.24	239.89	261.36	239.84	268.4	240.17	275.28	240.49	284.59	241.05
284.66	241.05	284.68	241.05	286.91	241.26	287.41	241.31	288.99	241.43
291.54	241.94	294.21	242.46	296.79	242.97	297.2	243.09	298.91	243.9
301.65	245.74	301.96	245.95	302.41	246.25	302.66	246.45	304.86	248.18
312.04	253.45	314.89	255.41	316.43	256.55	318.12	257.81	318.44	258.01
319.32	258.55	323.02	260.83	328.01	263.54				

Manning's n Values num= 9

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	87.9	.046	145.5	.039	221.28	.035	224.63	.035
275.28	.064	284.59	.05	284.68	.064	328.01	.064		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
221.28	275.28	44.98	44.9	43.86	.1	.3

CROSS SECTION RIVER: Cristianitos
REACH: Lower RS: 3521.65*

INPUT
Description:
Station Elevation Data num= 68

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	262.59	.92	262.5	7.35	261.17	11.72	259.93	13.8	259.25
20.26	257.56	31.08	254.24	32.12	253.91	36.3	252.78	36.86	252.63
45.32	251.66	46.11	251.61	47.01	251.53	48.74	251.43	60.52	249.91
70.11	248.65	79.11	248.38	88.56	248.09	93.41	247.95	97.46	247.82
130.7	246.82	141.36	246.06	149.05	245.69	156.39	245.32	161.32	245.08
184.47	243.95	205.19	242.98	209.97	242.78	210.4	242.75	215.02	242.42
220.54	242.12	229.54	241.04	231.22	240.85	233.35	240.64	234.37	240.57
245.35	239.81	248.63	239.65	252.19	239.47	253.13	239.46	261.11	239.37
279.94	239.16	283.9	239.12	290.41	239.45	296.77	239.78	307.23	240.48
307.3	240.49	307.33	240.49	309.83	240.77	310.4	240.83	312.17	241.02
315.04	241.55	318.03	242.1	320.93	242.65	321.39	242.79	323.31	243.63
326.4	245.43	326.74	245.63	327.24	245.92	327.53	246.13	330	247.94
338.07	253.56	341.27	255.59	343	256.81	344.89	258.16	345.25	258.35
346.25	258.88	350.4	261.12	356	263.6				

Manning's n Values num= 9

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	97.46	.044	161.32	.041	245.35	.035	248.54	.035
296.77	.061	307.23	.05	307.33	.061	356	.061		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
245.35	296.77	44.98	44.9	43.86	.1	.3

CROSS SECTION RIVER: Cristianitos
REACH: Lower RS: 3476.75*

INPUT
Description:
Station Elevation Data num= 68

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	262.55	1.01	262.46	8.07	261.25	12.87	259.98	15.16	259.31
22.25	257.78	34.12	254.84	35.27	254.55	39.87	253.63	40.47	253.5
49.76	252.58	50.64	252.53	51.62	252.43	53.52	252.32	66.46	250.44
76.99	248.89	86.87	248.65	97.25	248.41	102.58	248.28	107.03	248.17
143.52	247.29	155.23	246.41	163.67	246.02	171.73	245.65	177.15	245.4
202.57	244.22	225.32	243.22	230.57	243.01	231.04	242.97	236.12	242.58
242.17	242.19	252.05	240.75	253.91	240.5	256.24	240.22	257.36	240.12
269.42	239.12	272.57	238.92	275.99	238.71	276.9	238.69	284.55	238.62
302.64	238.43	306.44	238.39	312.42	238.74	318.26	239.08	329.87	239.92
329.95	239.93	329.98	239.93	332.76	240.28	333.39	240.36	335.36	240.6
338.53	241.16	341.86	241.74	345.07	242.32	345.58	242.49	347.72	243.37
351.14	245.11	351.52	245.3	352.08	245.58	352.4	245.8	355.13	247.69
364.09	253.66	367.64	255.76	369.56	257.07	371.67	258.51	372.07	258.69
373.17	259.22	377.78	261.41	384	263.65				

Manning's n Values num= 9

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	107.03	.041	177.15	.044	269.42	.035	272.45	.035
318.26	.059	329.87	.05	329.98	.059	384	.059		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
269.42	318.26	44.98	44.9	43.86	.1	.3

CROSS SECTION RIVER: Cristianitos
REACH: Lower RS: 3431.85*

INPUT
Description:
Station Elevation Data num= 68

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	262.51	1.1	262.41	8.79	261.32	14.02	260.03	16.51	259.37
24.24	258	37.17	255.45	38.42	255.19	43.43	254.48	44.09	254.37
54.21	253.51	55.16	253.45	56.24	253.33	58.31	253.21	72.4	250.97
83.86	249.14	94.63	248.93	105.93	248.72	111.74	248.61	116.59	248.51
156.35	247.76	169.09	246.77	178.29	246.36	187.07	245.97	192.98	245.71
220.67	244.48	245.45	243.46	251.17	243.24	251.68	243.19	257.21	242.74
263.81	242.25	274.57	240.46	276.59	240.15	279.13	239.8	280.35	239.68
293.49	238.44	296.51	238.2	299.79	237.94	300.66	237.93	308	237.86
325.34	237.71	328.98	237.67	334.43	238.02	339.75	238.37	352.5	239.36
352.6	239.37	352.63	239.37	355.68	239.8	356.37	239.89	358.54	240.18
362.03	240.77	365.68	241.38	369.21	242	369.78	242.19	372.12	243.1
375.88	244.79	376.3	244.98	376.92	245.25	377.26	245.48	380.27	247.45

390.12	253.77	394.02	255.94	396.13	257.33	398.44	258.85	398.88	259.03
400.09	259.55	405.16	261.7	411.99	263.71				

Manning's n Values num= 9

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	116.59	.039	192.98	.046	293.49	.035	296.36	.035
339.75	.056	352.5	.05	352.63	.056	411.99	.056		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
293.49	339.75	44.98	44.9	43.86	.1	.3

CROSS SECTION RIVER: Cristianitos
REACH: Lower RS: 3386.94*

INPUT
Description:
Station Elevation Data num= 68

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	262.48	1.19	262.37	9.51	261.4	15.17	260.08	17.87	259.43
26.23	258.22	40.22	256.06	41.57	255.84	46.99	255.32	47.71	255.25
58.66	254.43	59.69	254.36	60.85	254.23	63.09	254.1	78.34	251.5
90.74	249.38	102.39	249.2	114.62	249.03	120.91	248.93	126.15	248.86
169.17	248.22	182.96	247.12	192.91	246.7	202.41	246.3	208.8	246.03
238.76	244.75	265.58	243.7	271.77	243.46	272.32	243.41	278.31	242.9
285.44	242.32	297.09	240.17	299.28	239.8	302.03	239.38	303.35	239.24
317.56	237.75	320.45	237.48	323.59	237.18	324.42	237.17	331.44	237.11
348.04	236.98	351.53	236.94	356.44	237.31	361.24	237.67	375.14	238.8
375.24	238.81	375.28	238.81	378.61	239.31	379.36	239.42	381.72	239.76
385.53	240.38	389.51	241.02	393.36	241.67	393.97	241.89	396.53	242.84
400.63	244.47	401.08	244.65	401.75	244.91	402.13	245.15	405.41	247.21
416.14	253.87	420.39	256.11	422.69	257.58	425.22	259.2	425.7	259.38
427.02	259.89	432.54	262	439.99	263.77				

Manning's n Values num= 9

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	126.15	.037	208.8	.048	317.56	.035	320.27	.035
361.24	.053	375.14	.05	375.28	.053	439.99	.053		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
317.56	361.24	44.98	44.9	43.86	.1	.3

CROSS SECTION RIVER: Cristianitos
REACH: Lower RS: 3342.045

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 47

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	262.44	10.23	261.48	19.22	259.49	43.27	256.67	44.72	256.48
50.55	256.17	64.21	255.28	65.46	255.13	67.87	254.99	97.62	249.62
110.15	249.48	123.31	249.34	135.71	249.2	181.99	248.69	196.83	247.48
224.63	246.34	256.86	245.02	292.37	243.69	292.96	243.63	307.08	242.38
319.61	239.88	321.96	239.45	324.92	238.96	341.63	237.07	347.39	236.42
348.18	236.41	370.74	236.25	374.07	236.22	378.45	236.59	382.73	236.96
397.78	238.24	397.89	238.25	401.53	238.82	413.33	240.66	417.5	241.35
425.37	244.15	425.86	244.33	426.59	244.58	427	244.83	442.17	253.98
446.77	256.29	449.26	257.84	451.99	259.55	452.51	259.72	453.94	260.22
459.92	262.29	467.98	263.83						

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	135.71	.035	224.63	.05	341.63	.035	397.78	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
341.63	382.73	166.75	215.2	256.05	.1	.3

CROSS SECTION RIVER: Cristianitos
REACH: Lower RS: 3126.861

INPUT
Description:
Station Elevation Data num= 50

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
296.64	242.7	297.16	242.67	318.65	242.02	337.98	241.64	340.22	241.46
344.98	241.14	348.11	240.9	394.72	237.33	403.37	237.23	412.21	237.13
419.33	237.04	433.7	236.69	447.58	236.34	450.27	236.27	451.44	236.22
456.08	236.03	465.44	236.72	468.5	237.04	476.35	237.73	480.67	238.1
482.18	238.43	488.02	239.61	492.17	240.51	503.78	242.88	510.64	246.03
518.5	249.8	524.29	252.43	544.65	260.79	548.04	262.06	552.56	262.7

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	132.62	.035	348.11	.05	403.37	.035	447.58	.07

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
419.33	468.5	75.06	94.26	108.69	.1	.3

CROSS SECTION RIVER: Cristianitos
REACH: Lower RS: 3032.611

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 65

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev

0	262.42	6.06	262.24	13.02	262.04	15.92	261.95	19.03	261.45
36.36	260.49	52.77	259.57	72.71	257.95	88.18	256.69	90.06	256.53
90.92	256.43	94.23	256.3	109.78	255.95	111.53	255.9	126.36	255.79
156.05	253.35	169.67	252.46	188.31	251.24	208.02	249.47	247.25	248.97
273.69	248.58	286.71	248.47	292.36	248.52	329.35	246.41	330.09	246.47
331.26	245.99	332.02	245.94	345.3	244.82	368.75	244.96	387.81	244.77
388.31	244.77	432.06	244.45	432.74	244.44	443.26	243.59	451.45	242.73
455.04	242.47	463.26	239.57	465.42	238.88	466.58	238.22	469.38	236.62
469.61	236.48	469.77	236.39	476.48	235	483.85	234.46	499.91	234.98
501.24	235.03	504.48	235.24	506.63	235.66	509	236.22	510.14	236.49
517.47	240.38	525.77	245.15	530.02	247.88	533.24	249.65	533.33	249.7
533.81	249.9	537.83	251.66	550.23	255.67	550.74	255.77	553.65	255.88
564.14	257.14	588.66	259.59	593.17	260.72	604.58	262.24	605.95	262.43

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	6.06	.05	169.67	.035	387.81	.05	466.58	.035
509	.07	533.24	.05						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
476.48	499.91	49.43	46.02	52.03	.1	.3

BRIDGE RIVER: Cristianitos
REACH: Lower RS: 3020

INPUT
Description:
Distance from Upstream XS = 12
Deck/Roadway Width = 32
Weir Coefficient = 2.6
Upstream Deck/Roadway Coordinates
num= 6

Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord
0	249		365	249		457	249.3	244.4
522	249.3	244.4	542	249.3		700	249.3	

Upstream Bridge Cross Section Data
Station Elevation Data num= 65

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	262.42	6.06	262.24	13.02	262.04	15.92	261.95	19.03	261.45
36.36	260.49	52.77	259.57	72.71	257.95	88.18	256.69	90.06	256.53
90.92	256.43	94.23	256.3	109.78	255.95	111.53	255.9	126.36	255.79
156.05	253.35	169.67	252.46	188.31	251.24	208.02	249.47	247.25	248.97
273.69	248.58	286.71	248.47	292.36	248.52	329.35	246.41	330.09	246.47
331.26	245.99	332.02	245.94	345.3	244.82	368.75	244.96	387.81	244.77
388.31	244.77	432.06	244.45	432.74	244.44	443.26	243.59	451.45	242.73
455.04	242.47	463.26	239.57	465.42	238.88	466.58	238.22	469.38	236.62
469.61	236.48	469.77	236.39	476.48	235	483.85	234.46	499.91	234.98
501.24	235.03	504.48	235.24	506.63	235.66	509	236.22	510.14	236.49
517.47	240.38	525.77	245.15	530.02	247.88	533.24	249.65	533.33	249.7
533.81	249.9	537.83	251.66	550.23	255.67	550.74	255.77	553.65	255.88
564.14	257.14	588.66	259.59	593.17	260.72	604.58	262.24	605.95	262.43

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	6.06	.05	169.67	.035	387.81	.05	466.58	.035
509	.07	533.24	.05						

Bank Sta: Left	Right	Coeff Contr.	Expan.
476.48	499.91	.1	.3

Downstream Deck/Roadway Coordinates
num= 6

Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord
0	249		365	249		457	249.3	244.4
522	249.3	244.4	542	249.3		700	249.3	

Downstream Bridge Cross Section Data
Station Elevation Data num= 83

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	262.3	9.71	262.21	36.1	260.5	40.1	260.38	40.94	260.35
65.21	256.56	70.57	256.12	102.15	255.79	120.03	255.41	145.85	255.58
156.55	255.45	175	254.48	187.11	254.83	195.7	252.51	201.55	251.99
206.71	251.79	215.26	251.43	218.53	250.93	226.68	249.78	230.86	249.72
246.04	249.58	247.76	249.37	250.94	249.34	262.15	249.23	282.51	249.04
304.66	246.21	310.65	245.9	317.56	245.77	341.76	245.01	351.12	244.8
360.17	244.59	369.25	244.78	415.1	245.64	421.61	245.6	430.98	245.22
440.04	244.64	450.64	243.99	458.12	243.3	458.29	243.26	464.72	239.97
466.54	239.08	468.16	238.05	472.98	235	480.99	229.91	481.18	229.89
485.07	229.81	494.23	229.65	494.55	229.71	494.8	229.85	499.15	231.29
509.47	239.12	509.91	239.46	510.16	239.65	510.46	239.89	510.71	240.02
512.94	241.05	517.18	242.96	517.35	242.99	523.24	243.33	530.56	243.75
537.01	244.14	541.52	244.42	543.69	244.52	544.13	244.54	544.36	244.64
562.91	247.98	568.19	248.72	575.71	249.18	588.17	249.62	592.08	250.62
593.96	251.1	596.78	251.46	611.41	251.37	622.03	251.98	633.74	253.15
642.14	254.98	642.37	255.03	642.52	255.14	642.63	255.16	663.28	255.87
674.62	255.2	682.22	254.94	688.47	254.84				

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	102.15	.05	468.16	.035	509.47	.05	592.08	.035

Bank Sta: Left	Right	Coeff Contr.	Expan.
480.99	494.8	.1	.3

Upstream Embankment side slope = 0 horiz. to 1.0 vertical
Downstream Embankment side slope = 0 horiz. to 1.0 vertical
Maximum allowable submergence for weir flow = .95

Elevation at which weir flow begins = 250
Energy head used in spillway design =
Spillway height used in design =
Weir crest shape = Broad Crested

Number of Bridge Coefficient Sets = 1

Low Flow Methods and Data
Energy
Selected Low Flow Methods = Energy

High Flow Method
Energy Only

Additional Bridge Parameters
Add Friction component to Momentum
Do not add Weight component to Momentum
Class B flow critical depth computations use critical depth inside the bridge at the upstream end
Criteria to check for pressure flow = Upstream energy grade line

BRIDGE OUTPUT Profile #Q100
Opening : Single BR

E.G. US. (ft)	243.87	Element	Inside BR US	Inside BR DS
W.S. US. (ft)	242.04	E.G. Elev (ft)	243.72	243.01
Q Total (cfs)	3552.00	W.S. Elev (ft)	241.19	237.42
Q Bridge (cfs)	3552.00	Crit W.S. (ft)	241.19	239.21
Q Weir (cfs)		Max Chl Dpth (ft)	6.73	7.77
Weir Sta Lft (ft)		Vel Total (ft/s)	12.22	17.35
Weir Sta Rgt (ft)		Flow Area (sq ft)	290.72	204.72
Weir Submerg		Froude # Chl	0.99	1.38
Weir Max Depth (ft)		Specif Force (cu ft)	2214.37	2709.02
Min El Weir Flow (ft)	250.00	Hydr Depth (ft)	4.83	5.38
Min El Prs (ft)	244.40	W.P. Total (ft)	62.76	42.60
Delta EG (ft)	0.95	Conv. Total (cfs)	36688.3	27014.1
Delta WS (ft)	4.53	Top Width (ft)	60.21	38.08
BR Open Area (sq ft)	496.33	Frctn Loss (ft)	0.23	0.40
BR Open Vel (ft/s)	17.35	C & E Loss (ft)	0.00	0.31
Coef of Q		Shear Total (lb/sq ft)	2.71	5.19
Br Sel Method	Energy only	Power Total (lb/ft s)	33.12	89.99

Warning: The energy equation could not be balanced within the specified number of iterations. The program used critical depth for the water surface and continued on with the calculations.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Warning: During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated water surface came back below critical depth. This indicates that there is not a valid subcritical answer. The program defaulted to critical depth.
Warning: The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Note: The energy method has computed a class B profile.

CROSS SECTION RIVER: Cristianitos
REACH: Lower RS: 2986.590

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 83

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	262.3	9.71	262.21	36.1	260.5	40.1	260.38	40.94	260.35
65.21	256.56	70.57	256.12	102.15	255.79	120.03	255.41	145.85	255.58
156.55	255.45	175	254.48	187.11	254.83	195.7	252.51	201.55	251.99
206.71	251.79	215.26	251.43	218.53	250.93	226.68	249.78	230.86	249.72
246.04	249.58	247.76	249.37	250.94	249.34	262.15	249.23	282.51	249.04
304.66	246.21	310.65	245.9	317.56	245.77	341.76	245.01	351.12	244.8
360.17	244.59	369.25	244.78	415.1	245.64	421.61	245.6	430.98	245.22
440.04	244.64	450.64	243.99	458.12	243.3	458.29	243.26	464.72	239.97
466.54	239.08	468.16	238.05	472.98	235	480.99	229.91	481.18	229.89
485.07	229.81	494.23	229.65	494.55	229.71	494.8	229.85	499.15	231.29
509.47	239.12	509.91	239.46	510.16	239.65	510.46	239.89	510.71	240.02
512.94	241.05	517.18	242.96	517.35	242.99	523.24	243.33	530.56	243.75

674.62 255.2 682.22 254.94 688.47 254.84

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	102.15	.05	468.16	.035	509.47	.05	592.08	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
480.99	494.8	13.88	13.99	13.09	.1	.3

CROSS SECTION RIVER: Cristianitos
REACH: Lower RS: 2972.60*

INPUT
Description:
Station Elevation Data num= 137

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	262.32	7.3	262.18	9.16	262.14	34.05	260.57	37.82	260.43
38.61	260.4	61.5	257.48	66.55	257.1	67.39	257.08	96.34	256.24
101.79	256.04	113.2	255.68	119.73	255.6	137.55	255.46	140.4	255.4
147.64	255.18	156.26	254.68	165.04	254.1	176.46	254	184.56	252.22
190.08	251.71	194.95	251.44	198.13	251.25	200.85	251.1	203.01	250.98

206.09	250.56	213.78	249.58	217.72	249.44	232.04	248.96	233.66	248.78
236.66	248.68	236.74	248.67	247.23	248.36	250.54	248.27	259.47	247.91
266.43	247.7	281.77	245.95	287.32	245.41	292.97	245.16	296.42	245.09
299.49	245.03	314.06	244.63	322.31	244.39	331.14	244.19	339.68	244
348.24	244.07	357.75	244.13	364.86	244.2	367.96	244.2	374.54	244.08
391.48	244.1	397.62	244.01	399.57	243.93	406.46	243.17	407.05	243.1
412.8	242.5	415	242.13	416.5	241.88	423.18	240.42	425	239.95
427.87	239.16	429.58	239.01	432.05	238.8	432.21	238.77	438.28	236.45
439.99	235.82	440.7	235.49	441.52	235.11	446.07	233.02	453.62	229.54
453.9	229.52	455.82	229.46	459.73	229.33	471.59	228.97	473.46	228.89
473.86	228.94	475.07	229.1	476.22	229.2	477.39	229.33	477.56	229.35
478.37	229.46	482.5	230.55	484.22	231.53	486.77	232.97	488.42	234.08
491.99	236.62	492.3	236.85	492.72	237.16	492.96	237.33	493.24	237.55
493.48	237.68	493.82	237.85	495.31	238.86	495.6	239.06	499.62	241.79
499.78	241.87	505.24	244.06	505.38	244.1	508.78	245.11	512.33	245.33
518.45	245.72	518.76	245.74	522.74	245.98	523.7	246.03	524.8	246.09
525.21	246.12	525.43	246.19	528.39	246.65	534.44	247.84	543.05	249.43
548.06	250.22	549.11	250.32	555.2	250.85	565.02	251.53	567.03	251.62
570.75	252.37	572.53	252.72	573.59	252.84	575.21	253.02	586.93	253.22
589.1	253.22	590.74	253.3	595.03	253.46	597.68	253.55	599.19	253.63
603.78	254	610.31	254.59	618.1	255.94	618.28	255.98	618.5	256.02
618.65	256.11	618.75	256.12	638.14	257.72	638.36	257.73	649.13	257.5
656.34	257.48	662.28	257.53						

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.04	96.34	.05	441.52	.04	453.62	.045	455.56	.035
471.75	.04	478.37	.045	492.3	.045	570.75	.035	573.59	.035
662.28	.035								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
453.62	478.37	13.88	13.99	13.09	.1	.3

CROSS SECTION RIVER: Cristianitos
REACH: Lower RS: 2958.61*

INPUT
Description:
Station Elevation Data num= 137

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	262.33	6.86	262.13	8.6	262.06	31.99	260.65	35.54	260.48
36.28	260.44	57.79	258.41	62.54	258.09	63.33	258.06	90.52	256.69
95.65	256.42	106.37	255.94	112.5	255.74	129.25	255.33	131.93	255.25
138.73	254.91	146.83	254.39	155.08	253.72	165.82	253.17	173.43	251.92
178.61	251.43	183.18	251.08	186.17	250.85	188.73	250.67	190.76	250.52
193.66	250.19	200.88	249.39	204.59	249.16	218.04	248.34	219.56	248.18
222.38	248.01	222.45	248.01	232.32	247.5	235.43	247.34	243.82	246.7
250.36	246.36	264.77	244.95	269.99	244.61	275.3	244.42	278.54	244.34
281.42	244.29	295.11	243.97	302.87	243.78	311.16	243.59	319.18	243.41
327.23	243.36	336.17	243.3	342.84	243.29	345.76	243.24	351.94	242.85
367.86	242.57	373.63	242.41	375.46	242.34	381.93	241.12	382.49	241.01
387.9	240.21	389.96	239.62	391.37	239.22	397.64	236.72	399.35	235.92
402.06	234.62	403.66	234.48	405.98	234.3	406.13	234.28	411.83	232.93
413.44	232.56	414.11	232.37	414.88	232.17	419.15	231.04	426.25	229.16
426.63	229.14	429.18	229.05	434.4	228.85	450.19	228.26	452.69	228.13
453.45	228.23	455.73	228.52	457.88	228.69	460.09	228.88	460.42	228.9
461.94	229.07	465.85	229.82	467.48	230.39	469.9	231.23	471.45	232.14
474.83	234.38	475.13	234.58	475.53	234.86	475.75	235.01	476.02	235.2
476.25	235.34	476.57	235.52	477.98	236.81	478.25	237.07	482.06	240.61
482.22	240.74	487.39	244.8	487.51	244.87	490.73	246.69	494.1	246.91
499.9	247.31	500.18	247.33	503.95	247.54	504.87	247.59	505.9	247.67
506.3	247.7	506.5	247.74	509.3	248.09	515.04	249.34	523.19	250.88
527.93	251.71	528.92	251.86	534.7	252.53	543.99	253.51	545.9	253.62
549.42	254.11	551.11	254.35	552.1	254.44	553.64	254.58	564.74	255.05
566.8	255.07	568.34	255.13	572.41	255.18	574.92	255.22	576.35	255.28
580.7	255.54	586.88	256.03	594.26	256.94	594.43	256.97	594.64	257.02
594.77	257.07	594.87	257.09	613.23	259.58	613.44	259.59	623.64	259.81
630.47	260.02	636.09	260.23						

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.045	90.52	.05	414.88	.045	426.25	.04	429.05	.035
452.39	.045	461.94	.04	475.13	.04	549.42	.035	552.1	.035
636.09	.035								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
426.25	461.94	13.88	13.99	13.09	.1	.3

CROSS SECTION RIVER: Cristianitos
REACH: Lower RS: 2944.635

INPUT
Description:
Station Elevation Data num= 59

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	262.35	6.42	262.08	59.26	259.03	89.51	256.79	105.28	255.88
123.46	255.1	137.4	254.1	174.22	250.45	176.61	250.24	208.17	247.34
220.31	246.41	228.16	245.5	247.77	243.94	260.65	243.6	276.16	243.32
314.58	242.46	320.83	242.38	323.56	242.27	329.34	241.63	351.35	240.75
357.93	238.93	362.99	237.92	366.24	236.56	372.11	233.03	376.24	230.07
377.74	229.95	387.52	229.26	398.88	228.79	402.54	228.64	428.8	227.56
431.92	227.37	433.03	227.51	436.38	227.94	442.79	228.42	443.28	228.45
445.51	228.68	450.74	229.25	453.02	229.5	454.49	230.2	457.68	232.13
459.32	233.19	460.65	234.76	469.53	245.54	472.69	248.26	481.61	248.91
486.03	249.15	490.22	249.54	495.63	250.83	508.74	253.39	522.96	255.5
530.62	256.04	542.55	256.88	545.95	256.96	549.79	256.91	552.16	256.88
557.61	257.08	570.41	257.94	588.32	261.44	609.9	262.92		

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	402.54	.035	433.03	.05	530.62	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
398.88	445.51	17.34	17.39	17.7	.1	.3

CROSS SECTION RIVER: Cristianitos
REACH: Lower RS: 2927.25*

INPUT
Description:
Station Elevation Data num= 106

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	262.36	5.13	262.15	6.44	262.1	33.72	260.65	59.46	259.2
67.14	258.66	89.82	257.15	105.64	256.34	112.46	256.08	123.88	255.63
129.14	255.28	137.87	254.72	152.09	253.44	174.82	251.41	175.95	251.32
177.21	251.22	181.43	250.85	186.21	250.4	208.88	248.28	214.38	247.85
218.39	247.48	221.06	247.15	223.15	246.82	226.06	246.34	228.94	245.95
233.75	245.45	240.43	244.85	248.62	244.04	250.21	243.96	258.87	243.53
261.54	243.44	273.41	243.1	277.1	243	301.61	242.24	312.66	241.95
315.66	241.88	321.93	241.78	324.67	241.67	330.47	241.06	336.27	240.83
346.5	240.39	352.55	240.1	359.15	238.37	361.9	237.84	364.23	237.39
367.49	236.12	372.61	233.28	373.38	232.85	377.53	230.12	379.03	230
388.85	229.27	389.27	229.25	390.13	229.22	400.24	228.78	403.86	228.64
404.72	228.6	429.84	227.62	430.12	227.6	432.92	227.44	434.04	227.57
437.42	227.97	441.69	228.27	443.89	228.43	444.39	228.46	446.64	228.68
452.27	229.23	454.72	229.47	456.3	230.11	459.74	231.88	461.5	232.86
462.93	234.29	463.22	234.59	465.43	236.87	467.68	239.23	472.49	244.29
475.89	246.85	484.34	247.59	485.44	247.68	485.48	247.68	486.02	247.72
486.63	247.76	490.24	247.94	494.75	248.3	500.57	249.49	510.19	251.11
514.68	251.89	515.93	252.06	520.99	252.81	529.98	254.34	538.22	255.2
539.02	255.28	541.78	255.57	542.89	255.69	543.93	255.78	551.06	256.43
554.71	256.61	557.88	256.68	558.85	256.68	561.4	256.69	567.26	256.94
572.15	257.29	581.03	257.9	583.45	258.32	596.77	260.68	600.3	261.3
623.52	262.88								

Manning's n Values num= 10

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	400.24	.035	403.89	.035	404.44	.035	434.22	.049
446.64	.036	463.22	.05	538.22	.036	583.45	.049	623.52	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
400.24	446.64	17.34	17.39	17.7	.1	.3

CROSS SECTION RIVER: Cristianitos
REACH: Lower RS: 2909.86*

INPUT
Description:
Station Elevation Data num= 106

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	262.37	5.14	262.17	6.46	262.12	33.84	260.78	59.67	259.37
67.37	258.85	90.12	257.51	106	256.79	112.84	256.56	124.3	256.15
129.58	255.84	138.34	255.33	152.61	254.19	175.41	252.37	176.55	252.29
177.82	252.19	182.05	251.85	186.85	251.38	209.59	249.23	215.11	248.77
219.14	248.35	221.82	247.9	223.91	247.48	226.83	246.86	229.72	246.4
234.55	245.79	241.25	245.1	249.47	244.14	251.06	244.03	259.76	243.39
262.43	243.27	274.34	242.81	278.05	242.68	302.64	241.71	313.73	241.38
316.73	241.3	323.03	241.18	325.77	241.07	331.59	240.49	337.41	240.26
347.68	239.79	353.75	239.45	360.38	237.8	363.14	237.29	365.47	236.86
368.75	235.69	373.88	233.07	374.66	232.68	378.81	230.17	380.32	230.05
390.17	229.29	390.6	229.27	391.46	229.23	401.61	228.77	405.19	228.64
406.04	228.6	430.87	227.68	431.15	227.66	433.92	227.52	435.05	227.64
438.47	228.01	442.77	228.29	445	228.44	445.5	228.47	447.77	228.67
453.8	229.2	456.42	229.43	458.12	230.02	461.79	231.64	463.68	232.52
465.21	233.82	465.52	234.09	467.89	236.15	470.29	238.34	475.44	243.04
479.08	245.44	488.13	246.35	489.31	246.45	489.36	246.46	489.93	246.51
490.58	246.56	494.45	246.73	499.28	247.07	505.51	248.16	515.81	249.64
520.61	250.39	521.95	250.56	527.37	251.36	536.99	253.18	545.82	254.36
546.67	254.48	549.63	254.86	550.82	255.04	551.93	255.15	559.56	255.98
563.48	256.27	566.86	256.43	567.9	256.45	570.63	256.49	576.91	256.81
582.14	257.19	591.66	257.85	594.24	258.27	608.5	260.56	612.28	261.16

0	.05	401.61	.035	405.23	.035	405.78	.035	435.42	.047
447.77	.038	465.52	.05	545.82	.038	594.24	.047	637.15	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
401.61	447.77	17.34	17.39	17.7	.1	.3

CROSS SECTION RIVER: Cristianitos
REACH: Lower RS: 2892.48*

INPUT
Description:
Station Elevation Data num= 106

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	262.38	5.16	262.18	6.49	262.14	33.95	260.92	59.87	259.54
67.6	259.04	90.43	257.87	106.36	257.25	113.22	257.05	124.73	256.68
130.02	256.4	138.81	255.95	153.13	254.94	176.01	253.33	177.15	253.25
178.42	253.17	182.67	252.86	187.48	252.36	210.31	250.17	215.84	249.7
219.88	249.22	222.57	248.64	224.67	248.14	227.6	247.37	230.5	246.86
235.34	246.12	242.07	245.36	250.31	244.24	251.92	244.09	260.64	243.26
263.33	243.11	275.27	242.53	278.99	242.36	303.66	241.17	314.79	240.81
317.81	240.72	324.12	240.58	326.88	240.47	332.72	239.93	338.56	239.68

348.86	239.19	354.96	238.8	361.6	237.24	364.37	236.74	366.72	236.34
370	235.25	375.15	232.86	375.93	232.5	380.1	230.23	381.62	230.1
391.5	229.3	391.92	229.28	392.79	229.24	402.97	228.76	406.51	228.63
407.35	228.6	431.91	227.74	432.18	227.72	434.92	227.59	436.06	227.7
439.51	228.04	443.86	228.31	446.1	228.45	446.61	228.48	448.9	228.67
455.33	229.18	458.12	229.4	459.93	229.93	463.85	231.39	465.86	232.19
467.49	233.35	467.82	233.59	470.35	235.44	472.91	237.46	478.4	241.78
482.28	244.03	491.92	245.11	493.18	245.22	493.23	245.23	493.84	245.3
494.54	245.35	498.66	245.51	503.81	245.83	510.45	246.82	521.43	248.17
526.55	248.89	527.98	249.05	533.75	249.91	544.01	252.02	553.42	253.52
554.33	253.67	557.48	254.15	558.75	254.38	559.93	254.53	568.07	255.52
572.24	255.92	575.85	256.18	576.96	256.22	579.87	256.3	586.56	256.67
592.14	257.09	602.28	257.81	605.03	258.21	620.24	260.44	624.27	261.01
650.77	262.81								

Manning's n Values num= 10

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	402.97	.035	406.58	.035	407.12	.035	436.61	.046
448.9	.039	467.82	.05	553.42	.039	605.03	.046	650.77	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
402.97	448.9	17.34	17.39	17.7	.1	.3

CROSS SECTION RIVER: Cristianitos
REACH: Lower RS: 2875.09*

INPUT
Description:
Station Elevation Data num= 106

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	262.39	5.18	262.2	6.51	262.16	34.07	261.06	60.07	259.71
67.83	259.23	90.73	258.23	106.72	257.7	113.61	257.53	125.15	257.2
130.46	256.96	139.28	256.57	153.65	255.69	176.6	254.28	177.75	254.22
179.03	254.14	183.29	253.86	188.12	253.34	211.02	251.12	216.57	250.63
220.63	250.09	223.32	249.39	225.43	248.79	228.38	247.88	231.28	247.31
236.14	246.46	242.89	245.61	251.16	244.35	252.77	244.15	261.52	243.12
264.22	242.94	276.21	242.24	279.94	242.04	304.69	240.64	315.86	240.23
318.88	240.14	325.22	239.98	327.99	239.86	333.85	239.36	339.71	239.11
350.04	238.59	356.16	238.15	362.83	236.67	365.6	236.2	367.96	235.81
371.25	234.81	376.42	232.65	377.2	232.33	381.39	230.28	382.91	230.14
392.82	229.32	393.25	229.29	394.12	229.25	404.34	228.75	407.84	228.63
408.67	228.6	432.94	227.8	433.22	227.79	435.92	227.67	437.08	227.77
440.55	228.08	444.94	228.33	447.21	228.46	447.72	228.49	450.03	228.67
456.85	229.15	459.83	229.36	461.74	229.84	465.9	231.14	468.04	231.85
469.78	232.88	470.13	233.1	472.8	234.73	475.52	236.57	481.36	240.53
485.48	242.62	495.72	243.86	497.05	244	497.11	244	497.76	244.08
498.49	244.15	502.87	244.3	508.33	244.6	515.39	245.48	527.05	246.7
532.48	247.39	534	247.55	540.14	248.46	551.03	250.86	561.02	252.69
561.98	252.86	565.33	253.45	566.68	253.73	567.94	253.9	576.57	255.07
581.01	255.57	584.84	255.94	586.01	255.98	589.1	256.1	596.21	256.54
602.13	256.99	612.9	257.76	615.83	258.15	631.97	260.32	636.25	260.87
664.39	262.77								

Manning's n Values num= 10

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	404.34	.035	407.92	.035	408.47	.035	437.8	.045
450.03	.04	470.13	.05	561.02	.04	615.83	.045	664.39	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
404.34	450.03	17.34	17.39	17.7	.1	.3

CROSS SECTION RIVER: Cristianitos
REACH: Lower RS: 2857.71*

INPUT
Description:
Station Elevation Data num= 106

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	262.4	5.2	262.21	6.53	262.17	34.18	261.19	60.27	259.88
68.06	259.43	91.04	258.59	107.08	258.16	113.99	258.02	125.57	257.73
130.9	257.51	139.75	257.18	154.17	256.43	177.2	255.24	178.35	255.19
179.63	255.12	183.91	254.86	188.75	254.33	211.73	252.06	217.3	251.56
221.37	250.96	224.08	250.13	226.2	249.45	229.15	248.39	232.06	247.76
236.94	246.79	243.71	245.87	252.01	244.45	253.62	244.22	262.4	242.98
265.11	242.78	277.14	241.95	280.88	241.72	305.72	240.11	316.92	239.66
319.96	239.56	326.32	239.38	329.09	239.26	334.97	238.79	340.85	238.54
351.22	237.99	357.36	237.5	364.05	236.11	366.84	235.65	369.2	235.28
372.5	234.37	377.69	232.44	378.47	232.15	382.68	230.33	384.2	230.19
394.15	229.33	394.58	229.3	395.45	229.26	405.7	228.74	409.16	228.63
409.98	228.6	433.98	227.86	434.25	227.85	436.92	227.74	438.09	227.83
441.6	228.11	446.03	228.34	448.31	228.47	448.83	228.5	451.16	228.67
458.38	229.13	461.53	229.33	463.56	229.75	467.96	230.89	470.22	231.52
472.06	232.41	472.43	232.6	475.26	234.02	478.14	235.69	484.31	239.28
488.67	241.21	499.51	242.62	500.92	242.77	500.98	242.78	501.67	242.87
502.45	242.94	507.08	243.09	512.86	243.36	520.33	244.15	532.67	245.23
538.42	245.89	540.02	246.05	546.52	247.01	558.04	249.7	568.61	251.85
569.64	252.05	573.18	252.74	574.61	253.07	575.94	253.27	585.08	254.62
589.77	255.23	593.83	255.69	595.07	255.75	598.34	255.91	605.86	256.4
612.13	256.9	623.52	257.72	626.62	258.1	643.71	260.2	648.24	260.73
678.02	262.73								

Manning's n Values num= 10

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	405.7	.035	409.27	.035	409.81	.035	439	.043
451.16	.042	472.43	.05	568.61	.042	626.62	.043	678.02	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
405.7	451.16	17.34	17.39	17.7	.1	.3

CROSS SECTION RIVER: Cristianitos
REACH: Lower RS: 2840.32*

INPUT
Description:
Station Elevation Data num= 106

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	262.42	5.21	262.23	6.55	262.19	34.3	261.33	60.48	260.05
68.29	259.62	91.35	258.96	107.44	258.61	114.37	258.51	125.99	258.26
131.34	258.07	140.22	257.8	154.69	257.18	177.8	256.2	178.95	256.16
180.24	256.09	184.53	255.86	189.39	255.31	212.44	253	218.04	252.48
222.12	251.83	224.83	250.88	226.96	250.1	229.92	248.91	232.84	248.21
237.74	247.13	244.53	246.13	252.86	244.55	254.47	244.28	263.29	242.84
266	242.62	278.07	241.66	281.83	241.4	306.75	239.58	317.99	239.09
321.04	238.98	327.42	238.78	330.2	238.66	336.1	238.22	342	237.97
352.4	237.39	358.56	236.84	365.28	235.55	368.07	235.1	370.44	234.75
373.76	233.94	378.96	232.23	379.75	231.97	383.96	230.38	385.49	230.24
395.47	229.35	395.9	229.31	396.78	229.27	407.07	228.72	410.49	228.63
411.3	228.6	435.01	227.92	435.28	227.91	437.93	227.82	439.1	227.9
442.64	228.15	447.11	228.36	449.42	228.48	449.94	228.51	452.3	228.66
459.91	229.1	463.23	229.29	465.37	229.66	470.01	230.65	472.4	231.18
474.34	231.94	474.73	232.1	477.72	233.3	480.76	234.8	487.27	238.03
491.87	239.79	503.3	241.38	504.79	241.54	504.86	241.55	505.58	241.66
506.4	241.74	511.29	241.88	517.39	242.13	525.27	242.81	538.29	243.76
544.36	244.39	546.05	244.54	552.9	245.55	565.06	248.54	576.21	251.01
577.29	251.25	581.03	252.03	582.54	252.42	583.94	252.64	593.58	254.17
598.53	254.88	602.81	255.45	604.12	255.52	607.57	255.71	615.51	256.27
622.12	256.8	634.15	257.67	637.41	258.04	655.44	260.08	660.22	260.59
691.64	262.7								

Manning's n Values num= 10

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	407.07	.035	410.62	.035	411.15	.035	440.19	.042
452.3	.043	474.73	.05	576.21	.043	637.41	.042	691.64	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
407.07	452.3	17.34	17.39	17.7	.1	.3

CROSS SECTION RIVER: Cristianitos
REACH: Lower RS: 2822.94*

INPUT
Description:
Station Elevation Data num= 106

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	262.43	5.23	262.24	6.57	262.21	34.41	261.46	60.68	260.23
68.51	259.81	91.65	259.32	107.8	259.07	114.76	258.99	126.42	258.78
131.78	258.63	140.69	258.42	155.21	257.93	178.39	257.16	179.55	257.13
180.84	257.07	185.15	256.86	190.02	256.29	213.15	253.95	218.77	253.41
222.86	252.7	225.59	251.62	227.72	250.76	230.69	249.42	233.62	248.66
238.53	247.46	245.35	246.38	253.7	244.65	255.33	244.34	264.17	242.7
266.89	242.45	279	241.38	282.77	241.08	307.78	239.04	319.06	238.51
322.11	238.4	328.51	238.18	331.31	238.06	337.23	237.65	343.14	237.4
353.58	236.78	359.76	236.19	366.5	234.98	369.3	234.56	371.68	234.22
375.01	233.5	380.23	232.02	381.02	231.8	385.25	230.44	386.79	230.29
396.8	229.36	397.23	229.32	398.11	229.28	408.43	228.71	411.81	228.62
412.61	228.6	436.05	227.98	436.31	227.97	438.93	227.89	440.11	227.96
443.68	228.18	448.19	228.38	450.52	228.5	451.05	228.52	453.43	228.66
461.44	229.08	464.93	229.26	467.18	229.57	472.07	230.4	474.58	230.85
476.62	231.47	477.03	231.6	480.18	232.59	483.37	233.92	490.22	236.77
495.07	238.38	507.1	240.14	508.67	240.31	508.73	240.32	509.49	240.44
510.36	240.53	515.5	240.67	521.92	240.89	530.21	241.48	543.91	242.3
550.29	242.89	552.07	243.04	559.28	244.1	572.08	247.38	583.81	250.17
584.95	250.44	588.88	251.33	590.46	251.77	591.94	252.01	602.09	253.72
607.3	254.53	611.8	255.2	613.18	255.29	616.81	255.52	625.16	256.13
632.12	256.7	644.77	257.63	648.21	257.98	667.17	259.96	672.21	260.45
705.27	262.66								

Manning's n Values num= 10

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	408.43	.035	411.96	.035	412.5	.035	441.38	.04
453.43	.045	477.03	.05	583.81	.045	648.21	.04	[illegible]	[illegible]

CROSS SECTION RIVER: Cristianitos
REACH: Lower RS: 2805.55*

INPUT
Description:
Station Elevation Data num= 106

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	262.44	5.25	262.26	6.6	262.23	34.53	261.6	60.88	260.4
68.74	260	91.96	259.68	108.16	259.52	115.14	259.48	126.84	259.31
132.22	259.19	141.16	259.03	155.72	258.68	178.99	258.12	180.15	258.1
181.44	258.04	185.76	257.86	190.66	257.27	213.87	254.89	219.5	254.34
223.61	253.56	226.34	252.37	228.48	251.41	231.46	249.93	234.4	249.11
239.33	247.8	246.17	246.64	254.55	244.75	256.18	244.41	265.05	242.56
267.78	242.29	279.93	241.09	283.72	240.76	308.81	238.51	320.12	237.94
323.19	237.82	329.61	237.58	332.42	237.46	338.35	237.09	344.29	236.83
354.77	236.18	360.97	235.54	367.73	234.42	370.54	234.01	372.92	233.7
376.26	233.06	381.5	231.81	382.29	231.62	386.54	230.49	388.08	230.34
398.13	229.37	398.56	229.34	399.44	229.29	409.8	228.7	413.13	228.62
413.93	228.6	437.08	228.04	437.34	228.03	439.93	227.97	441.12	228.03
444.73	228.22	449.28	228.4	451.63	228.51	452.16	228.53	454.56	228.66
462.97	229.05	466.63	229.22	469	229.48	474.13	230.15	476.76	230.51

478.9	231	479.33	231.1	482.64	231.88	485.99	233.03	493.18	235.52
498.26	236.97	510.89	238.9	512.54	239.08	512.6	239.1	513.4	239.23
514.31	239.33	519.71	239.45	526.45	239.66	535.15	240.14	549.53	240.83
556.23	241.4	558.1	241.54	565.66	242.65	579.09	246.22	591.41	249.33
592.6	249.63	596.73	250.62	598.39	251.11	599.94	251.38	610.59	253.26
616.06	254.19	620.79	254.96	622.23	255.06	626.05	255.32	634.81	256
642.11	256.6	655.39	257.58	659	257.93	678.91	259.84	684.19	260.31
718.89	262.62								

Manning's n Values num= 10

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	409.8	.035	413.31	.035	413.84	.035	442.58	.039
454.56	.046	479.33	.05	591.41	.046	659	.039	718.89	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
409.8	454.56	17.34	17.39	17.7	.1	.3

CROSS SECTION RIVER: Cristianitos
REACH: Lower RS: 2788.17*

INPUT
Description:
Station Elevation Data num= 106

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	262.45	5.27	262.27	6.62	262.25	34.64	261.74	61.08	260.57
68.97	260.2	92.27	260.04	108.52	259.98	115.52	259.97	127.26	259.83
132.66	259.74	141.63	259.65	156.24	259.42	179.58	259.08	180.75	259.06
182.05	259.02	186.38	258.86	191.29	258.26	214.58	255.84	220.23	255.27
224.35	254.43	227.09	253.11	229.24	252.07	232.23	250.44	235.18	249.57
240.13	248.13	246.99	246.9	255.4	244.85	257.03	244.47	265.93	242.43
268.68	242.13	280.87	240.8	284.66	240.44	309.83	237.98	321.19	237.37
324.27	237.24	330.71	236.98	333.52	236.86	339.48	236.52	345.44	236.25
355.95	235.58	362.17	234.89	368.95	233.86	371.77	233.46	374.17	233.17
377.52	232.62	382.77	231.6	383.57	231.45	387.82	230.54	389.37	230.39
399.45	229.39	399.89	229.35	400.77	229.3	411.16	228.69	414.46	228.62
415.24	228.6	438.12	228.1	438.38	228.09	440.93	228.04	442.13	228.09
445.77	228.25	450.36	228.41	452.73	228.52	453.27	228.54	455.69	228.66
464.5	229.03	468.33	229.19	470.81	229.39	476.18	229.9	478.94	230.18
481.18	230.53	481.64	230.61	485.09	231.17	488.61	232.15	496.14	234.27
501.46	235.56	514.68	237.65	516.41	237.86	516.48	237.87	517.32	238.02
518.27	238.12	523.92	238.24	530.98	238.42	540.09	238.8	555.15	239.36
562.16	239.9	564.12	240.04	572.05	241.2	586.11	245.06	599.01	248.49
600.26	248.82	604.58	249.91	606.32	250.46	607.95	250.75	619.1	252.81
624.82	253.84	629.78	254.71	631.29	254.83	635.28	255.13	644.46	255.86
652.11	256.51	666.01	257.54	669.79	257.87	690.64	259.72	696.17	260.16
732.51	262.58								

Manning's n Values num= 10

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	411.16	.035	414.66	.035	415.18	.035	443.77	.038
455.69	.047	481.64	.05	599.01	.047	669.79	.038	732.51	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
411.16	455.69	17.34	17.39	17.7	.1	.3

CROSS SECTION RIVER: Cristianitos
REACH: Lower RS: 2770.78*

INPUT
Description:
Station Elevation Data num= 106

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	262.46	5.28	262.29	6.64	262.27	34.76	261.87	61.29	260.74
69.2	260.39	92.57	260.4	108.88	260.43	115.91	260.45	127.68	260.36
133.1	260.3	142.1	260.27	156.76	260.17	180.18	260.04	181.35	260.03
182.65	259.99	187	259.86	191.93	259.24	215.29	256.78	220.96	256.19
225.1	255.3	227.85	253.86	230	252.72	233	250.96	235.97	250.02
240.92	248.47	247.81	247.15	256.25	244.96	257.89	244.54	266.82	242.29
269.57	241.96	281.8	240.52	285.61	240.12	310.86	237.44	322.25	236.79
325.34	236.66	331.81	236.38	334.63	236.26	340.61	235.95	346.58	235.68
357.13	234.98	363.37	234.24	370.17	233.29	373.01	232.92	375.41	232.64
378.77	232.19	384.04	231.39	384.84	231.27	389.11	230.59	390.66	230.43
400.78	229.4	401.21	229.36	402.1	229.31	412.53	228.68	415.78	228.62
416.56	228.6	439.15	228.15	439.41	228.15	441.93	228.12	443.15	228.16
446.82	228.29	451.45	228.43	453.84	228.53	454.38	228.55	456.82	228.65
466.02	229	470.04	229.15	472.62	229.3	478.24	229.66	481.12	229.84
483.46	230.06	483.94	230.11	487.55	230.45	491.22	231.26	499.09	233.02
504.65	234.15	518.48	236.41	520.28	236.63	520.35	236.64	521.23	236.8
522.22	236.92	528.13	237.03	535.51	237.19	545.03	237.47	560.77	237.89
568.1	238.4	570.15	238.53	578.43	239.75	593.13	243.9	606.61	247.65
607.91	248.02	612.43	249.21	614.25	249.8	615.95	250.12	627.6	252.36
633.59	253.49	638.76	254.47	640.35	254.59	644.52	254.93	654.11	255.73
662.1	256.41	676.64	257.49	680.59	257.82	702.38	259.6	708.16	260.02
746.14	262.55								

Manning's n Values num= 10

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	412.53	.035	416	.035	416.53	.035	444.96	.036
456.82	.049	483.94	.05	606.61	.049	680.59	.036	746.14	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
412.53	456.82	17.34	17.39	17.7	.1	.3

CROSS SECTION RIVER: Cristianitos
REACH: Lower RS: 2753.405

INPUT
Description:

Station Elevation Data num= 52

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	262.47	5.3	262.3	34.87	262.01	69.43	260.58	116.29	260.94
133.54	260.86	157.28	260.92	181.95	261	187.62	260.86	192.56	260.22
221.69	257.12	225.84	256.17	230.76	253.38	233.77	251.47	241.72	248.8
248.63	247.41	258.74	244.6	267.7	242.15	282.73	240.23	311.89	236.91
323.32	236.22	347.73	235.11	358.31	234.38	374.24	232.37	385.31	231.18
402.54	229.37	403.43	229.32	413.89	228.67	417.87	228.6	440.44	228.21
442.93	228.19	452.53	228.45	457.95	228.65	486.24	229.61	490.01	229.74
493.84	230.38	522.27	235.17	524.15	235.4	525.14	235.59	526.18	235.71
566.39	236.42	576.17	237.03	584.81	238.3	615.57	247.21	620.28	248.5
622.18	249.15	623.95	249.49	647.75	254.22	672.1	256.31	691.38	257.76
714.11	259.48	759.76	262.51						

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	417.87	.035	486.24	.05	691.38	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
413.89	457.95	337.47	285.6	234.57	.1	.3

CROSS SECTION RIVER: Cristianitos
REACH: Lower RS: 2467.829

INPUT
Description:
Station Elevation Data num= 43

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	256.15	3.09	255.85	41.45	255.76	69.25	255.59	87.06	254.69
109.88	253.6	128.46	252.72	152.61	251.2	154.14	251.1	156.79	250.39
164.19	248.6	177.08	238.46	181.92	234.3	186.9	230.01	190.49	227.8
199.7	223.28	206.73	223.09	210.3	222.83	232.47	223.15	251.48	223.27
261.01	224.99	286.31	227.39	286.92	227.45	300.97	228.78	309.11	229.33
313.41	229.38	383.91	230.78	411.27	231.34	422.35	231.42	448.66	232.64
484.04	234.34	491.19	235.89	493.56	236.17	498.94	238.23	501.3	239.82
507.25	242.91	515.59	245.02	533.15	249.3	539.14	250.11	555.52	252.34
556.79	252.52	593.29	254.95	610.46	256.16				

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	109.88	.05	152.61	.035	286.92	.05	555.52	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
199.7	251.48	250.26	259.56	250.68	.1	.3

CROSS SECTION RIVER: Cristianitos
REACH: Lower RS: 2208.250

INPUT
Description:
Station Elevation Data num= 41

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	249.66	4.9	249.21	7	248.39	17.52	242.38	21.02	240.38
25.86	238.46	34.81	235.4	40.22	234.44	56.34	228.69	61.31	226.9
64.23	225.85	66.9	224.9	69.03	224.1	72.6	223.82	79.23	223.22
89.72	222.34	94.23	222.01	107.43	222.14	163.47	223.29	179.84	225.03
181.01	225.16	186.21	225.71	218.91	229.03	226.21	229.76	245.27	229.69
270.49	229.36	327.49	226.57	337.22	226.2	352.64	226.07	416.68	225.77
436.42	226.39	490.6	230.75	498.14	231.26	500.51	231.67	523.26	235.76
531.35	237.23	535.32	238.35	568.41	247	570.01	247.53	577.25	248.56
583.91	249.67								

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	17.52	.05	64.23	.035	181.01	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
79.23	163.47	249.05	212.25	182.45	.1	.3

CROSS SECTION RIVER: Cristianitos
REACH: Lower RS: 1996.005

INPUT

41.05	229.28	53.5	225.98	56.83	225.07	72.81	223.01	75.9	222.63
78.28	222.31	78.71	222.29	81.89	222.1	83.22	222.16	84.89	222.09
111.74	222.4	132.58	222.62	192.84	223.21	196.77	223.25	203.66	225.32
213.3	223.55	243.09	223.1	244.6	223.1	263.12	222.52	269.89	222.33
285.79	222.36	391.08	223.36	430.29	223.84	449.31	223.94	461.28	224.39
519.46	225.98	555.2	229.67	555.26	229.67	555.59	229.71	556.27	229.97
595.9	242.75	610	244.94	611.3	245.14	633.36	247.73	655.91	249.45

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	32.8	.05	78.71	.035	196.77	.05	610	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
72.81	192.84	245.2	225	211.55	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: Cristianitos
REACH: Lower RS: 1770.999

INPUT
Description:
Station Elevation Data num= 36

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	252.24	9.7	246.73	17.93	241.37	34.24	232.27	44.97	226.3
48.12	224.55	50.14	223.9	54.58	222.91	64.25	223.62	66.82	223.81
67.81	223.88	84.62	224.58	102.39	225.23	117.95	224.49	140.5	224
150.99	223.7	154.2	223.61	188.28	222.65	195.39	222.44	206.65	222.18
274.26	222.33	292.86	222.85	408.66	223.18	419.78	223.26	424.47	223.43
470.78	224.69	474.13	224.97	518.52	228.91	523.73	230.44	539.35	236.7
544.9	238.86	554.14	242.59	565.39	243.51	575.66	244.35	613.76	248.05
642.49	249.36								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.07	44.97	.05	64.25	.035	154.2	.05	565.39	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
48.12	84.62	39.32	36.34	35.99	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: Cristianitos
REACH: Lower RS: 1734.65*

INPUT
Description:
Station Elevation Data num= 69

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	250.03	5.3	247.43	7.15	246.47	8.68	245.64	15.46	241.51
16.05	241.08	20.73	238.08	27.68	233.77	30.65	231.93	37.98	227.4
39.73	226.3	40.16	226.04	40.26	225.99	43.08	224.44	44.83	223.83
46.99	223.26	47.63	223.1	48.69	222.89	54.48	223.19	55.99	223.26
61.4	223.53	64.78	223.7	66.08	223.76	78.36	224.15	88.18	224.49
100.05	224.79	104.29	224.91	118.41	224.34	133.5	224.06	138.86	223.96
139.99	223.93	148.37	223.72	151.28	223.65	182.19	222.9	188.64	222.74
198.85	222.54	234.1	222.57	260.17	222.6	277.04	222.98	296.09	223.01
299.42	223.02	301.95	223.01	377.99	222.52	382.06	222.51	392.14	222.53
396.4	222.64	404.51	222.79	422.77	223.26	438.4	223.65	441.43	223.87
442.98	223.99	464.89	225.86	481.69	227.33	486.42	228.54	496.41	231.99
500.58	233.55	505.62	235.37	512.74	238.03	514	238.5	515.84	238.7
521.52	239.31	524.2	239.66	533.52	240.86	554.31	243.79	559.64	244.6
568.07	245.64	589.24	247.36	594.1	247.75	594.12	247.75		

Manning's n Values num= 10

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.065	27.68	.046	40.26	.046	43.08	.039	63.01	.039
88.18	.05	139.99	.05	151.28	.05	524.2	.039	594.12	.039

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
43.08	88.18	39.32	36.34	35.99	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: Cristianitos
REACH: Lower RS: 1698.31*

INPUT
Description:
Station Elevation Data num= 69

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	247.81	4.68	245.99	6.31	245.24	7.67	244.56	13.65	241.21
14.17	240.79	18.3	237.7	24.44	233.42	27.06	231.59	33.53	227.08
35.08	225.98	35.46	225.73	35.55	225.68	38.03	224.33	39.52	223.76
41.36	223.17	41.9	223.01	42.8	222.86	49.97	223.14	51.85	223.2
58.55	223.44	62.74	223.59	64.35	223.64	79.56	224.02	91.74	224.4
102.39	224.51	106.2	224.59	118.86	224.2	132.41	223.99	137.21	223.91
138.23	223.89	145.75	223.74	148.36	223.69	176.1	223.16	181.89	223.04
191.05	222.89	222.69	222.87	246.07	222.87	261.21	223.11	278.31	223.11
281.3	223.12	283.57	223.1	351.81	221.88	355.46	221.85	364.51	221.8
368.32	221.85	375.6	221.9	391.99	222.29	406.01	222.62	408.74	222.78
410.13	222.86	429.78	224.45	444.87	225.75	449.11	226.64	458.07	229.13
461.82	230.39	466.34	231.88	472.73	234.03	473.86	234.42	475.51	234.65
480.61	235.36	483.01	235.81	491.37	237.36	510.03	241.01	514.81	242.05
522.38	243.24	541.38	245.6	545.73	246.14	545.76	246.14		

Manning's n Values num= 10

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.06	24.44	.043	35.55	.043	38.03	.043	61.77	.043
91.74	.05	138.23	.05	148.36	.05	483.01	.043	545.76	.043

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
38.03	91.74	39.32	36.34	35.99	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: Cristianitos
REACH: Lower RS: 1661.97*

INPUT
Description:
Station Elevation Data num= 69

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	245.6	4.06	244.54	5.48	244.01	6.65	243.47	11.84	240.92
12.29	240.5	15.88	237.32	21.2	233.06	23.48	231.24	29.09	226.76

30.43	225.66	30.76	225.41	30.83	225.38	32.99	224.23	34.22	223.69
35.72	223.09	36.17	222.93	36.91	222.83	45.47	223.1	47.7	223.15
55.7	223.35	60.7	223.47	62.62	223.52	80.77	223.9	95.29	224.3
104.73	224.24	108.1	224.27	119.32	224.05	131.31	223.92	135.57	223.87
136.47	223.86	143.13	223.77	145.44	223.74	170.01	223.41	175.13	223.34
183.25	223.25	211.27	223.18	231.98	223.14	245.39	223.23	260.53	223.21
263.18	223.22	265.19	223.18	325.62	221.23	328.85	221.18	336.87	221.07
340.25	221.06	346.7	221.02	361.21	221.33	373.63	221.58	376.04	221.68
377.27	221.73	394.68	223.05	408.04	224.17	411.79	224.75	419.74	226.27
423.05	227.24	427.05	228.38	432.71	230.04	433.71	230.33	435.18	230.6
439.69	231.4	441.82	231.95	449.23	233.87	465.75	238.22	469.99	239.51
476.69	240.83	493.51	243.85	497.37	244.53	497.39	244.53		

Manning's n Values num= 10

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.055	21.2	.039	30.83	.039	32.99	.046	60.52	.046
95.29	.05	136.47	.05	145.44	.05	441.82	.046	497.39	.046

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
32.99 95.29 39.32 36.34 35.99 .1 .3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888		F	

CROSS SECTION RIVER: Cristianitos
REACH: Lower RS: 1625.629

INPUT
Description:
Station Elevation Data num= 38

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	243.38	3.44	243.1	4.64	242.78	10.03	240.62	13.45	236.94
17.96	232.71	24.64	226.44	25.78	225.34	26.06	225.1	27.95	224.12
30.09	223	30.44	222.84	31.02	222.81	40.96	223.05	43.56	223.09
81.98	223.78	98.85	224.21	107.07	223.97	130.22	223.85	134.71	223.82
199.85	223.48	242.75	223.31	245.06	223.32	246.81	223.27	299.44	220.59
317.79	220.13	330.43	220.36	344.42	220.6	359.58	221.64	381.4	223.41
392.7	226.04	394.85	226.55	398.78	227.45	421.47	235.44	425.16	236.96
445.65	242.09	449.01	242.92	449.03	242.92				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.05	17.96	.035	134.71	.05

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
27.95 98.85 34.28 39.33 40.32 .1 .3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888		F	

CROSS SECTION RIVER: Cristianitos
REACH: Lower RS: 1586.29*

INPUT
Description:
Station Elevation Data num= 71

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	243.28	5.39	242.31	6.79	241.92	7.27	241.78	10.48	240.59
13.41	239.61	14.69	239.27	15.71	239.01	21.07	235.64	25.6	233.14
28.14	231.76	34.63	228.24	36.43	227.16	38.61	225.97	39.99	225.2
40.39	224.83	40.83	224.45	41.85	223.76	41.98	223.71	42.29	223.53
43.41	223.17	43.79	223.05	45.48	222.48	46.42	222.17	47.31	221.92
47.88	221.78	48.7	221.75	48.84	221.74	58.82	221.98	61.43	222.02
75.13	222.26	100.02	222.71	116.97	223.12	124.99	222.91	147.59	222.8
151.98	222.77	169.12	222.68	202.44	222.56	204.27	222.55	215.57	222.51
219.9	222.5	239.68	222.45	257.45	222.4	259.7	222.41	261.41	222.37
264.33	222.24	312.79	220.19	314.13	220.16	330.71	219.82	335.67	219.9
343.05	220.08	353.24	220.32	356.7	220.4	371.5	221.43	381.23	222.22
392.81	223.38	394.93	223.87	398.64	224.74	399.84	225.01	403.84	226.04
405.94	226.59	409.77	227.56	426.37	233.56	431.92	235.61	435.53	237.12
436.69	237.44	446.51	240.05	450.47	240.98	455.53	242.17	458.81	242.93
458.83	242.93								

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
43.79 116.97 34.28 39.33 40.32 .1 .3

CROSS SECTION RIVER: Cristianitos
REACH: Lower RS: 1546.96*

INPUT
Description:
Station Elevation Data num= 71

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	243.18	7.34	241.53	9.25	240.98	9.9	240.78	14.27	239.23
18.27	238	20.01	237.67	21.4	237.4	28.7	234.34	34.86	232.05
38.32	230.81	47.15	227.66	49.6	226.57	52.57	225.5	54.45	224.8
55	224.31	55.6	223.8	56.99	222.76	57.17	222.7	57.59	222.44
59.11	222.09	59.63	221.97	61.98	221.37	63.29	221.05	64.53	220.84
65.33	220.71	66.47	220.68	66.65	220.68	76.68	220.9	79.3	220.95
93.06	221.19	118.06	221.64	135.08	222.04	142.91	221.86	164.96	221.75
169.24	221.72	185.97	221.63	218.48	221.56	220.26	221.56	231.29	221.54
235.52	221.53	254.81	221.52	272.15	221.49	274.35	221.5	276.02	221.47
278.86	221.36	326.15	219.78	327.45	219.76	343.62	219.5	348.47	219.58

355.66	219.8	365.61	220.1	368.99	220.21	383.43	221.23	392.92	221.98
404.21	223.34	406.29	223.83	409.91	224.68	411.07	224.94	414.98	226.04
417.02	226.62	420.77	227.67	436.96	233.69	442.38	235.77	445.89	237.28
447.03	237.63	456.61	240.33	460.47	241.18	465.41	242.25	468.61	242.95
468.63	242.95								

Manning's n Values num= 9

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.056	20.01	.064	38.32	.039	59.63	.046	73.93	.035
135.08	.05	169.24	.05	220.26	.05	468.63	.05		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
59.63	135.08	34.28	39.33	40.32	.1	.3

CROSS SECTION RIVER: Cristianitos
REACH: Lower RS: 1507.63*

INPUT
Description:
Station Elevation Data num= 71

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	243.08	9.29	240.74	11.71	240.04	12.53	239.78	18.06	237.86
23.12	236.4	25.33	236.06	27.08	235.79	36.32	233.05	44.12	230.96
48.5	229.86	59.68	227.07	62.78	225.99	66.54	225.03	68.92	224.41
69.61	223.8	70.37	223.15	72.13	221.76	72.35	221.69	72.89	221.35
74.82	221.02	75.47	220.9	78.48	220.27	80.16	219.93	81.74	219.75
82.77	219.65	84.23	219.62	84.47	219.61	94.54	219.83	97.17	219.87
110.99	220.12	136.11	220.57	153.2	220.95	160.84	220.8	182.34	220.69
186.51	220.67	202.82	220.59	234.52	220.57	236.26	220.57	247	220.57
251.13	220.57	269.94	220.58	286.85	220.58	288.99	220.59	290.62	220.57
293.39	220.49	339.5	219.38	340.77	219.37	356.54	219.19	361.26	219.26
368.28	219.53	377.97	219.88	381.27	220.01	395.35	221.02	404.61	221.75
415.62	223.31	417.64	223.78	421.17	224.61	422.31	224.87	426.11	226.04
428.11	226.66	431.76	227.78	447.55	233.82	452.83	235.94	456.26	237.44
457.37	237.81	466.71	240.61	470.48	241.37	475.29	242.34	478.41	242.96
478.43	242.96								

Manning's n Values num= 9

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.059	25.33	.061	48.5	.041	75.47	.044	90.2	.035
153.2	.05	186.51	.05	236.26	.05	478.43	.05		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
75.47	153.2	34.28	39.33	40.32	.1	.3

CROSS SECTION RIVER: Cristianitos
REACH: Lower RS: 1468.30*

INPUT
Description:
Station Elevation Data num= 71

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	242.99	11.24	239.96	14.17	239.1	15.16	238.78	21.86	236.5
27.97	234.8	30.64	234.45	32.77	234.18	43.94	231.75	53.38	229.86
58.68	228.92	72.2	226.49	75.96	225.4	80.5	224.56	83.38	224.02
84.23	223.28	85.14	222.49	87.26	220.76	87.54	220.67	88.19	220.26
90.52	219.94	91.32	219.83	94.98	219.16	97.03	218.82	98.96	218.67
100.21	218.59	102	218.55	102.28	218.55	112.4	218.76	115.05	218.8
128.92	219.05	154.15	219.5	171.32	219.87	178.76	219.75	199.71	219.64
203.77	219.62	219.67	219.54	250.56	219.58	252.25	219.58	262.72	219.6
266.74	219.6	285.07	219.65	301.55	219.67	303.64	219.68	305.22	219.67
307.92	219.61	352.85	218.97	354.09	218.97	369.46	218.88	374.06	218.94
380.9	219.25	390.34	219.67	393.56	219.82	407.28	220.81	416.3	221.52
427.03	223.27	429	223.74	432.44	224.55	433.54	224.79	437.25	226.04
439.2	226.7	442.75	227.89	458.14	233.94	463.29	236.1	466.63	237.6
467.7	238	476.81	240.88	480.48	241.56	485.17	242.42	488.21	242.97
488.23	242.97								

Manning's n Values num= 9

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.061	30.64	.059	58.68	.044	91.32	.041	106.47	.035
171.32	.05	203.77	.05	252.25	.05	488.23	.05		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
91.32	171.32	34.28	39.33	40.32	.1	.3

CROSS SECTION RIVER: Cristianitos
REACH: Lower RS: 1428.97*

INPUT
Description:
Station Elevation Data num= 71

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	242.89	13.19	239.17	16.62	238.16	17.79	237.78	25.65	235.13
32.82	233.2	35.96	232.84	38.45	232.57	51.57	230.45	62.64	228.77
68.86	227.97	84.73	225.91	89.14	224.81	94.47	224.09	97.85	223.63
98.84	222.77	99.91	221.84	102.4	219.76	102.73	219.66	103.49	219.17
106.22	218.86	107.16	218.76	111.48	218.06	113.9	217.7	116.18	217.59
117.65	217.53	119.76	217.49	120.1	217.48	130.26	217.68	132.92	217.73
146.86	217.98	172.19	218.44	189.44	218.78	196.68	218.69	217.08	218.59
221.04	218.57	236.51	218.49	266.59	218.59	268.24	218.59	278.44	218.62
282.35	218.64	300.21	218.72	316.25	218.76	318.28	218.77	319.82	218.77
322.46	218.73	366.2	218.57	367.41	218.57	382.38	218.56	386.86	218.62
393.51	218.97	402.71	219.45	405.84	219.62	419.2	220.61	427.98	221.29
438.43	223.24	440.35	223.69	443.7	224.49	444.78	224.72	448.39	226.04
450.28	226.74	453.75	228	468.73	234.07	473.74	236.27	476.99	237.76
478.04	238.18	486.91	241.16	490.48	241.75	495.05	242.5	498.01	242.98
498.03	242.98								

Manning's n Values num= 9

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.064	35.96	.056	68.86	.046	107.16	.039	122.74	.035
189.44	.05	221.04	.05	268.24	.05	498.03	.05		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
107.16	189.44	34.28	39.33	40.32	.1	.3

CROSS SECTION RIVER: Cristianitos
REACH: Lower RS: 1389.64*

INPUT
Description:
Station Elevation Data num= 71

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	242.79	15.14	238.39	19.08	237.22	20.42	236.78	29.44	233.77
37.68	231.59	41.27	231.24	44.14	230.96	59.19	229.15	71.9	227.68
79.04	227.02	97.25	225.32	102.31	224.23	108.43	223.62	112.31	223.23
113.45	222.25	114.68	221.19	117.54	218.76	117.91	218.65	118.79	218.08
121.93	217.79	123	217.68	127.98	216.95	130.77	216.59	133.4	216.51
135.1	216.46	137.53	216.42	137.91	216.42	148.12	216.61	150.79	216.66
164.79	216.91	190.23	217.37	207.55	217.7	214.6	217.63	234.45	217.54
238.3	217.52	253.36	217.45	282.63	217.59	284.24	217.6	294.16	217.65
297.97	217.67	315.34	217.78	330.95	217.85	332.93	217.86	334.43	217.87
336.99	217.86	379.56	218.16	380.73	218.18	395.29	218.25	399.65	218.3
406.13	218.69	415.08	219.23	418.13	219.43	431.13	220.4	439.67	221.05
449.84	223.2	451.71	223.65	454.97	224.42	456.01	224.64	459.53	226.04
461.37	226.77	464.74	228.11	479.32	234.19	484.2	236.43	487.36	237.91
488.38	238.37	497.01	241.43	500.49	241.95	504.93	242.58	507.81	243
507.83	243								

Manning's n Values num= 9

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.067	41.27	.053	79.04	.048	123	.037	139.02	.035
207.55	.05	238.3	.05	284.24	.05	507.83	.05		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
123	207.55	34.28	39.33	40.32	.1	.3

CROSS SECTION RIVER: Cristianitos
REACH: Lower RS: 1350.312

INPUT
Description:
Station Elevation Data num= 38

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	242.69	21.54	236.28	33.23	232.4	42.53	229.99	46.59	229.63
81.16	226.59	109.78	224.74	115.49	223.64	126.78	222.84	132.68	217.76
133.1	217.64	134.09	216.99	137.63	216.71	138.84	216.61	144.48	215.85
147.64	215.47	155.29	215.36	155.73	215.35	182.72	215.84	225.67	216.61
270.21	216.4	298.67	216.6	300.23	216.61	313.58	216.71	330.47	216.85
351.52	216.98	394.05	217.78	412.45	217.98	427.45	219.01	451.36	220.82
463.06	223.6	466.23	224.36	467.25	224.57	489.91	234.32	498.72	238.55
507.11	241.71	510.49	242.14	517.63	243.01				

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.07	46.59	.05	155.29	.035	300.23	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
138.84	225.67	23.13	38.05	47.34	.1	.3

CROSS SECTION RIVER: Cristianitos
REACH: Lower RS: 1312.26*

INPUT
Description:
Station Elevation Data num= 87

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	241.49	.4	241.37	9.63	238.62	16.59	236.84	22.78	235.26
25.55	234.56	27.73	233.95	34.96	231.96	37.41	231.32	39.42	230.84
39.48	230.82	50.46	228.76	50.98	228.72	55.27	228.43	55.3	228.42
163.28	218.06	164.72	215.99	170.37	215.37	170.71	215.33	174.07	215.01
182.2	214.92	182.67	214.91	207.24	215.33	219.48	215.53	246.33	215.98
265.21	216.01	287.11	216.05	313.17	216.36	314.6	216.38	326.82	216.54
333.36	216.62	337.08	216.69	342.28	216.8	351.14	216.96	361.56	217.16
367.98	217.35	375.27	217.56	385.35	217.84	400.49	218.26	407.94	218.42
417.34	218.64	419.39	218.8	430.38	219.47	431.07	219.51	434.05	219.69
439.23	220.28	443.09	220.76	448.79	221.96	449.42	222.09	450.52	222.33
450.92	222.42	452.22	222.57	452.96	222.66	462.82	225.35	463.68	225.53
466.22	226.08	466.58	226.16	467.51	226.33	481.94	231.89	488.26	234.4
495.32	237.53	496.33	237.98	497.68	238.45	504.01	240.7	507.1	241.11
508.94	241.34	513.64	241.94						

Manning's n Values num= 12

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.067	16.59	.053	55.27	.053	55.3	.067	91.24	.047
164.72	.038	180.18	.038	246.33	.05	314.6	.05	385.35	.05
495.32	.047	513.64	.047						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
164.72	246.33	23.13	38.05	47.34	.1	.3

CROSS SECTION RIVER: Cristianitos
REACH: Lower RS: 1274.21*

INPUT
Description:
Station Elevation Data num= 87

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	240.28	.46	240.16	11.14	236.96	19.2	235.16	26.36	233.55
29.57	232.84	32.09	232.23	40.45	230.26	43.29	229.68	45.62	229.27
45.69	229.26	58.38	227.52	58.99	227.49	63.96	227.22	63.99	227.22
76.95	226.53	85.25	225.94	88.04	225.57	92.56	225.15	94.53	224.74
97.07	224.37	102.12	223.7	105.57	223.48	111.41	223.12	119.33	222.71
122.67	222.54	124.35	222.46	130.38	222.17	150.7	221.28	158.54	220.45
159.38	220.41	174.04	219.73	182.14	216.24	182.71	216.15	184.07	215.7
188.93	215.45	190.59	215.36	196.58	214.84	196.94	214.81	200.5	214.56
209.11	214.48	209.61	214.47	231.76	214.82	242.79	214.98	267	215.36
284.13	215.51	304.02	215.69	327.67	216.13	328.97	216.15	340.06	216.36
346	216.48	349.37	216.58	354.1	216.75	362.14	217.02	371.59	217.34
377.42	217.59	384.04	217.85	393.19	218.21	406.94	218.74	413.7	218.96
422.23	219.3	424.09	219.47	434.07	219.98	434.7	220.01	437.4	220.13
442.1	220.88	445.61	221.52	450.78	223.45	451.35	223.66	452.35	224.04
452.72	224.18	453.9	224.38	454.57	224.5	463.52	227.33	464.29	227.47
466.6	227.9	466.93	227.96	467.78	228.08	480.87	232.43	486.61	234.49
493.02	237.04	493.93	237.4	495.16	237.79	500.9	239.7	503.71	240.07
505.38	240.29	509.65	240.87						

Manning's n Values num= 12

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.063	19.2	.057	63.96	.057	63.99	.063	105.57	.045
190.59	.04	205.07	.04	267	.05	328.97	.05	393.19	.05
493.02	.045	509.65	.045						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
190.59	267	23.13	38.05	47.34	.1	.3

CROSS SECTION RIVER: Cristianitos
REACH: Lower RS: 1236.17*

INPUT
Description:
Station Elevation Data num= 87

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	239.08	.52	238.94	12.65	235.31	21.8	233.47	29.94	231.84
33.58	231.12	36.45	230.52	45.94	228.57	49.17	228.04	51.81	227.71
51.89	227.7	66.31	226.29	66.99	226.26	72.64	226.02	72.68	226.01
87.4	225.39	96.82	224.78	100	224.31	105.13	223.83	107.36	223.28
110.25	222.8	115.99	221.96	119.91	221.74	126.54	221.38	135.53	220.96
139.33	220.78	141.23	220.7	148.08	220.4	171.16	219.55	180.06	218.86
181.01	218.82	197.67	218.17	206.87	215.47	207.52	215.4	209.06	215.05
214.58	214.82	216.47	214.74	222.8	214.32	223.18	214.29	226.93	214.1
236.03	214.04	236.55	214.04	256.28	214.3	266.1	214.44	287.67	214.73
303.06	215.01	320.92	215.34	342.17	215.89	343.33	215.92	353.3	216.19
358.64	216.33	361.67	216.47	365.91	216.69	373.14	217.07	381.63	217.51
386.87	217.83	392.82	218.15	401.03	218.57	413.38	219.22	419.45	219.51
427.12	219.97	428.79	220.13	437.75	220.49	438.32	220.51	440.75	220.57
444.97	221.47	448.12	222.28	452.77	224.93	453.28	225.23	454.18	225.75
454.51	225.95	455.57	226.18	456.17	226.34	464.21	229.3	464.91	229.4
466.98	229.71	467.28	229.75	468.04	229.84	479.8	232.97	484.96	234.57
490.72	236.55	491.54	236.83	492.64	237.13	497.8	238.69	500.32	239.04
501.83	239.24	505.65	239.8						

Manning's n Values num= 12

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.06	21.8	.06	72.64	.06	72.68	.06	119.91	.043
216.47	.043	229.96	.043	287.67	.05	343.33	.05	401.03	.05
490.72	.043	505.65	.043						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
216.47	287.67	23.13	38.05	47.34	.1	.3

CROSS SECTION RIVER: Cristianitos
REACH: Lower RS: 1198.12*

INPUT
Description:
Station Elevation Data num= 87

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	237.87	.59	237.72	14.17	233.65	24.41	231.79	33.52	230.13
37.6	229.4	40.81	228.8	51.44	226.88	55.05	226.4	58	226.14
58.09	226.14	74.24	225.05	75	225.02	81.32	224.81	81.36	224.81
97.85	224.25	108.39	223.62	111.95	223.06	117.7	222.51	120.19	221.81
123.43	221.24	129.85	220.22	134.24	220	141.67	219.65	151.74	219.21
155.98	219.03	158.11	218.93	165.79	218.64	191.62	217.82	201.59	217.27
202.65	217.23	221.3	216.61	231.59	214.71	232.33	214.66	234.06	214.41
240.23	214.19	242.35	214.12	249.01	213.79	249.41	213.78	253.36	213.65
262.94	213.6	263.49	213.6	280.79	213.79	289.42	213.89	308.33	214.1
321.98	214.5	337.82	214.98	356.67	215.66	357.7	215.7	366.54	216.02
371.28	216.19	373.96	216.35	377.73	216.64	384.14	217.12	391.67	217.69
396.31	218.07	401.59	218.44	408.88	218.94	419.83	219.7	425.21	220.06
432.01	220.63	433.5	220.8	441.44	221.01	441.95	221	444.1	221.01
447.85	222.07	450.64	223.04	454.76	226.42	455.22	226.8	456.01	227.47
456.3	227.71	457.24	227.99	457.78	228.18	464.91	231.27	465.53	231.34
467.36	231.53	467.63	231.55	468.3	231.6	478.74	233.52	483.31	234.65
488.41	236.05	489.14	236.25	490.12	236.47	494.7	237.69	496.94	238
498.27	238.19	501.66	238.73						

Manning's n Values num= 12

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val

0	.057	24.41	.063	81.32	.063	81.36	.057	134.24	.04
242.35	.045	254.85	.045	308.33	.05	357.7	.05	408.88	.05
488.41	.04	501.66	.04						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
242.35	308.33	23.13	38.05	47.34	.1	.3

CROSS SECTION RIVER: Cristianitos
REACH: Lower RS: 1160.07*

INPUT
Description:
Station Elevation Data num= 87

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	236.67	.65	236.51	15.68	232	27.01	230.1	37.1	228.42
41.61	227.68	45.16	227.08	56.93	225.18	60.92	224.76	64.2	224.58
64.3	224.57	82.16	223.82	83.01	223.79	90.01	223.61	90.05	223.6
108.29	223.12	119.97	222.46	123.91	221.8	130.26	221.18	133.03	220.35
136.61	219.67	143.72	218.47	148.58	218.26	156.79	217.91	167.94	217.46
172.64	217.27	175	217.17	183.49	216.87	212.08	216.1	223.11	215.67
224.29	215.64	244.92	215.05	256.32	213.95	257.13	213.91	259.05	213.76
265.89	213.56	268.22	213.49	275.22	213.27	275.64	213.26	279.79	213.19
289.85	213.16	290.43	213.16	305.31	213.28	312.73	213.34	328.99	213.48
340.91	214	354.73	214.63	371.17	215.42	372.07	215.47	379.78	215.84
383.91	216.04	386.26	216.24	389.54	216.59	395.13	217.18	401.7	217.87
405.76	218.31	410.36	218.74	416.72	219.31	426.27	220.18	430.97	220.6
436.91	221.29	438.2	221.46	445.13	221.52	445.57	221.5	447.45	221.44
450.72	222.66	453.15	223.8	456.75	227.9	457.15	228.36	457.84	229.18
458.1	229.48	458.92	229.8	459.38	230.02	465.6	233.25	466.14	233.27
467.75	233.34	467.98	233.35	468.57	233.36	477.67	234.06	481.66	234.74
486.11	235.56	486.75	235.68	487.6	235.81	491.59	236.68	493.55	236.97
494.71	237.14	497.67	237.66						

Manning's n Values num= 12

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.053	27.01	.067	90.01	.067	90.05	.053	148.58	.038
268.22	.047	279.74	.047	328.99	.05	372.07	.05	416.72	.05
486.11	.038	497.67	.038						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
268.22	328.99	23.13	38.05	47.34	.1	.3

CROSS SECTION RIVER: Cristianitos
REACH: Lower RS: 1122.028

INPUT
Description:
Station Elevation Data num= 54

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	235.46	.71	235.29	17.19	230.34	29.62	228.42	40.68	226.71
49.52	225.36	62.42	223.49	66.8	223.12	70.5	223.01	91.02	222.56
98.74	222.4	118.74	221.98	131.54	221.3	135.86	220.54	142.83	219.86
145.86	218.88	149.79	218.1	157.58	216.73	162.91	216.52	184.14	215.71
189.29	215.51	191.88	215.41	201.19	215.11	245.93	214.05	294.1	212.87
301.43	212.74	317.37	212.72	336.04	212.79	349.66	212.85	359.83	213.5
396.55	215.9	398.55	216.13	406.13	217.23	415.2	218.55	419.13	219.03
424.56	219.68	436.73	221.15	442.9	222.13	448.82	222.03	450.8	221.88
453.59	223.26	455.67	224.56	458.74	229.39	459.08	229.93	459.67	230.89
459.89	231.24	460.59	231.61	466.3	235.22	468.13	235.16	476.6	234.6
483.81	235.07	485.08	235.15	491.15	236.09	493.68	236.59		

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	29.62	.07	98.74	.05	162.91	.035	424.56	.05
483.81	.035								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
294.1	349.66	189.78	237.42	313.14	.1	.3

CROSS SECTION RIVER: Cristianitos
REACH: Lower RS: 884.628

INPUT

46.91	216.86	57.79	216.72	61.9	216.57	64.33	216.5	65.44	216.42
69.7	216.19	75.1	215.51	88.35	213.84	105.44	211.68	136.9	209.93
168.96	209.84	176.74	210.3	193.55	211.56	206.45	212.5	209.1	212.7
225.38	213.91	230.6	214.29	245.06	215.3	250.36	216.63	253.79	216.51
256.65	216.85	258.05	217.63	261.55	221.09	269.79	228.54	276.23	231.32
280.91	233.58	291.43	235.27	294.51	235.98				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.05	88.35	.035	209.1	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
105.44	193.55	238.8	227.34	193.44	.1	.3

CROSS SECTION RIVER: Cristianitos
REACH: Lower RS: 657.311

INPUT
Description:
Station Elevation Data num= 39

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev

0	244.11	1.67	243.7	11.8	241.61	17.35	239	25	234.52
42.86	219.39	47.13	216.51	52.23	211.6	54.93	210.59	56.58	209.94
56.86	209.81	57.16	209.82	58.76	210.03	59.46	210.13	67.99	211.17
74.49	211.97	105.61	210.85	116.55	210.19	117.03	210.16	118.58	210.07
124.44	210.58	139.03	211.76	158.81	213.27	179.37	214.78	211.77	217.44
222.54	218.41	231.4	219.74	259.14	223.62	271.95	226.68	280.51	228.72
282.15	229.09	283.84	229.24	285.61	229.35	340.27	233.8	362.4	234.53
416.44	234.78	466.81	235.15	481.13	236.22	485.62	236.24		

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	67.99	.035	116.55	.05	271.95	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
105.61	124.44	252.65	221.75	184	.1	.3

CROSS SECTION RIVER: Cristianitos
REACH: Lower RS: 435.541

INPUT
Description:
Station Elevation Data num= 37

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	239.01	36.12	236.83	42.69	236.3	49.05	235.76	49.44	235.66
59.63	232.9	70.41	230.21	73.3	228.73	85.89	218.91	99.21	210.03
99.35	209.95	100.99	209.93	107.35	209.8	113	209.69	123.71	209.49
148.02	209.02	155.37	209.4	158.19	209.55	177.35	210.55	190.16	211.03
201.2	212.58	203.69	212.92	240.12	216.98	289.19	222.45	313.47	225.97
316.04	226.15	347.14	229.17	363.66	229.39	540.81	232.16	553.27	232.5
573.06	232.47	628.54	234.24	639.84	234.6	687.59	235.7	699.16	236.05
701.9	236.13	706.22	236.18						

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	49.44	.05	113	.035	155.37	.05	240.12	.035
628.54	.02	699.16	.035						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
123.71	158.19	179.7	195.75	193.7	.1	.3

CROSS SECTION RIVER: Cristianitos
REACH: Lower RS: 239.788

INPUT
Description:
Station Elevation Data num= 44

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	229.71	4.19	229.42	17.17	229.08	40.16	225.87	59.63	222.38
63.07	221.76	72.78	220.61	74.83	220.05	84.25	216.85	84.59	216.7
89.59	214.76	97.13	210.9	100.56	210.17	106.01	209.42	106.4	209.37
113.3	209.14	150.69	207.91	165.64	207.7	166.31	207.69	168.29	207.66
197.73	209.43	214.38	210.39	217.04	210.87	220.5	211.47	245.64	216.53
259.78	216.45	294.08	216.47	301.77	217.99	327.17	221.57	331.29	221.89
337.04	222.35	400.68	223.93	410.24	224.15	417.4	224.23	505.62	226.02
515.74	226.29	547.61	227.79	575.93	228.67	589.69	228.95	593.55	229.04
625.33	229.25	636.07	229.32	657.26	229.47	662.57	229.98		

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	59.63	.05	106.01	.035	165.64	.05	331.29	.035
589.69	.02	636.07	.035						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
106.4	197.73	183.12	173.64	180.36	.1	.3

CROSS SECTION RIVER: Cristianitos
REACH: Lower RS: 66.136

INPUT
Description:
Station Elevation Data num= 42

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	229.47	2.45	228.85	19.35	223.65	46.47	219.66	51.83	219.16
59.55	218.26	74.15	217.33	98.75	216.95	130.73	214.92	164.5	211.14
166.88	211.1	184.15	210.82	187.9	210.68	195.28	210.4	229.68	209.09
236.41	208.81	261.72	208.87	265.08	208.88	277.85	208.91	330.01	209.13
333.98	209.15	355.11	209.65	395	210.02	415.69	210.46	432.52	211.6
436.2	212.14	467.39	216.75	469.76	217	472.73	217.32	480.26	219.56
480.5	219.64	480.62	219.66	502	223.18	516.73	223.57	523.87	223.76
559.64	225.51	570.42	226.08	595.05	227.37	597.26	227.52	620.66	229.07
637.53	229.27	671.08	229.68						

Manning's n Values num= 9

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	187.9	.035	261.72	.05	436.2	.035	469.76	.05
516.73	.035	570.42	.05	597.26	.035	637.53	.02		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
229.68	330.01	50.56	66.14	29.35	.1	.3

Profile Output Table - Standard Table 1

River	Reach	River Sta	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(cfs)	(ft)	(ft)	(ft)	(ft)	(ft/ft)	(ft/s)	(sq ft)	(ft)	
Cristianitos	Upper	7542.007	714.00	295.44	299.79	298.95	300.44	0.009452	7.40			

Cristianitos Upper	7307.535	714.00	293.97	296.27	296.27	297.00	0.025899	7.88	117.39	40.63	0.64
Cristianitos Upper	7030.755	714.00	280.73	282.77	283.55	285.33	0.052311	15.24	109.34	223.20	0.95
Cristianitos Upper	6824.032	714.00	275.21	279.77	278.79	280.37	0.007990	7.05	65.40	49.61	1.91
Cristianitos Upper	6549.504	714.00	274.17	278.76		279.01	0.003131	4.42	123.71	41.71	0.60
Cristianitos Upper	6345.465	714.00	273.44	276.83	276.83	277.65	0.019629	8.86	187.53	58.33	0.37
Cristianitos Upper	6144.174	714.00	268.12	271.68	270.29	271.87	0.003446	3.95	108.20	60.25	0.88
Cristianitos Upper	5955.087	714.00	262.57	269.64	268.59	270.74	0.010088	9.62	211.30	81.49	0.38
Cristianitos Upper	5744.383	714.00	262.33	267.23	266.71	268.36	0.012685	9.23	98.80	30.13	0.66
Cristianitos Upper	5523.938	714.00	261.19	263.65	263.65	264.54	0.024655	8.36	92.44	29.92	0.75
Cristianitos Upper	5299.501	714.00	254.89	263.06		263.27	0.001496	4.27	98.74	54.74	0.95
Cristianitos Upper	5072.281	714.00	254.96	263.11		263.14	0.000148	1.35	212.80	44.83	0.28
Cristianitos Upper	4860.382	714.00	255.82	261.10	261.10	262.73	0.022037	12.39	580.59	99.55	0.09
Cristianitos Upper	4667.013	714.00	249.38	253.12	253.59	255.01	0.037529	11.53	75.40	23.36	0.99
Cristianitos Lower	4235.234	3552.00	245.92	250.12	248.79	250.45	0.003358	5.21	68.70	31.79	1.19
Cristianitos Lower	4072.483	3552.00	242.24	248.79	247.77	249.79	0.004392	9.04	788.05	271.31	0.45
Cristianitos Lower	3902.554	3552.00	242.70	247.81	247.07	248.82	0.008146	8.45	531.68	144.44	0.66
Cristianitos Lower	3656.363	3552.00	241.29	245.42		246.63	0.009860	10.17	461.48	127.26	0.72
Cristianitos Lower	3342.045	3552.00	236.22	244.07		244.64	0.001813	7.00	459.91	158.85	0.91
Cristianitos Lower	3126.861	3552.00	236.03	244.02		244.23	0.001146	4.27	686.20	142.93	0.45
Cristianitos Lower	3032.611	3552.00	234.46	242.04	241.19	243.87	0.005900	12.28	1035.52	214.64	0.28
Cristianitos Lower	3020	Bridge							343.44	64.09	0.80
Cristianitos Lower	2986.590	3552.00	229.65	239.21	239.21	242.24	0.007344	16.21	277.24	43.30	0.93
Cristianitos Lower	2944.635	3552.00	227.37	230.66	232.80	239.44	0.122365	25.27	162.85	79.84	2.78
Cristianitos Lower	2753.405	3552.00	228.19	232.10	232.49	234.07	0.016565	12.72	342.65	127.32	1.17
Cristianitos Lower	2467.829	3552.00	222.83	227.42	227.96	229.83	0.013768	13.23	304.20	95.39	1.12
Cristianitos Lower	2208.250	3552.00	222.01	226.39	226.39	227.61	0.008284	9.40	440.54	234.38	0.85
Cristianitos Lower	1996.005	3552.00	222.09	226.27	224.48	226.39	0.001332	3.60	1374.28	469.81	0.33
Cristianitos Lower	1770.999	3552.00	222.91	225.78	225.24	225.95	0.003436	3.24	1060.71	437.35	0.41
Cristianitos Lower	1625.629	3552.00	222.81	224.36	224.25	224.97	0.019319	5.40	567.83	357.99	1.01
Cristianitos Lower	1350.312	3552.00	215.35	219.41	218.40	219.75	0.003577	5.46	798.13	301.97	0.52
Cristianitos Lower	1122.028	3552.00	212.72	217.29		217.66	0.002506	5.81	762.79	252.15	0.48
Cristianitos Lower	884.628	3552.00	209.84	216.98		217.28	0.001038	4.78	883.47	210.32	0.33
Cristianitos Lower	657.311	3552.00	210.07	216.11		216.81	0.004559	7.93	577.39	147.98	0.59
Cristianitos Lower	435.541	3552.00	209.02	213.95		215.32	0.009235	11.17	423.59	119.63	0.91
Cristianitos Lower	239.788	3552.00	207.66	212.99	211.95	213.82	0.005373	7.64	515.69	134.97	0.63
Cristianitos Lower	66.136	3552.00	208.81	212.28	211.50	212.70	0.006001	5.86	705.58	282.75	0.57
Blind Gabino Tributary	2618.417	2838.00	279.92	283.27	282.55	283.64	0.004212	5.87	368.69	216.15	1.02
Blind Gabino Tributary	1957.878	2838.00	271.44	274.30	273.86	274.79	0.007058	6.16	543.77	273.15	0.65
Blind Gabino Tributary	1732.829	2838.00	268.75	271.96		272.23	0.002778	4.37	765.33	357.64	0.45
Blind Gabino Tributary	1509.081	2838.00	267.66	271.73		271.81	0.001376	2.63	1243.21	464.15	0.24
Blind Gabino Tributary	1281.630	2838.00	267.38	269.75	269.75	270.63	0.012816	8.21	405.98	231.44	0.97
Blind Gabino Tributary	1007.157	2838.00	258.71	264.51		264.63	0.000770	3.45	1249.80	464.62	0.26
Blind Gabino Tributary	802.205	2838.00	260.18	264.19		264.34	0.001528	3.98	972.35	392.20	0.36
Blind Gabino Tributary	682.668	2838.00	257.25	261.84	261.84	264.03	0.011061	11.88	238.81	374.39	1.01
Blind Gabino Tributary	680	Culvert									
Blind Gabino Tributary	644.729	2838.00	255.77	260.21	260.21	262.39	0.010927	11.84	239.69	345.55	1.00
Blind Gabino Tributary	498.610	2838.00	250.89	253.73	254.07	255.17	0.021351	11.84	310.27	177.80	1.28
Blind Gabino Tributary	306.914	2838.00	249.35	251.68	251.78	252.56	0.020812	9.06			

HEC-RAS Version 3.0.1 Mar 2001
U.S. Army Corp of Engineers
Hydrologic Engineering Center
609 Second Street, Suite D
Davis, California 95616-4687
(916) 756-1104

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X     X  XXXXXX    XXXX        XXXX       XX      XXXX
X     X  X        X    X       X   X     X  X    X
X     X  X        X            X   X    X    X   X
XXXXXXX  XXXX     X       XXX  XXXX     XXXXXX    XXXX
X     X  X        X            X  X     X    X        X
X     X  X        X    X       X   X    X    X        X
X     X  XXXXXX    XXXX        X    X   X    X   XXXXX
```

PROJECT DATA
Project Title: Project Model C
Project File : PMC.prj
Run Date and Time: 11/14/02 8:40:26 AM

Project in English units

Project Description:
FEC Alternative - Blind/Gabino and Cristianitos Creek Crossing

PLAN DATA

Plan Title: Existing Flow/Proposed-Ultimate Geometry
Plan File : p:\2PDA0104\Hydr\LHS\Modeling\Model C\HecRas C\PMC.p03

Geometry Title: Proposed Conditions - Ultimate
Geometry File : p:\2PDA0104\Hydr\LHS\Modeling\Model C\HecRas C\PMC.g03

Flow Title : Existing Conditions
Flow File : p:\2PDA0104\Hydr\LHS\Modeling\Model C\HecRas C\PMC.f01

Plan Summary Information:
Number of: Cross Sections = 112 Mulitple Openings = 0
Culverts = 1 Inline Weirs = 0
Bridges = 3

Computational Information
Water surface calculation tolerance = 0.01
Critical depth calculaton tolerance = 0.01
Maximum number of interations = 20
Maximum difference tolerance = 0.3
Flow tolerance factor = 0.001

Computation Options
Critical depth computed only where necessary
Conveyance Calculation Method: At breaks in n values only
Friction Slope Method: Average Conveyance
Computational Flow Regime: Mixed Flow

FLOW DATA

Flow Title: Existing Conditions
Flow File : p:\2PDA0104\Hydr\LHS\Modeling\Model C\HecRas C\PMC.f01

Flow Data (cfs)

River	Reach	RS	Q2	Q5	Q10	Q25	Q50	Q100	Q100HC
Blind Gabino	Tributary	2618.417	1	133	292	896	1834	2838	9084
Cristianitos	Upper	7542.007	1	32	72	217	461	714	2254
Cristianitos	Lower	4235.234	2	165	364	1113	2295	3552	11338

Boundary Conditions

River	Reach	Profile	Upstream	Downstream
Blind Gabino	Tributary	Q2	Normal S = .02	
Blind Gabino	Tributary	Q5	Normal S = .02	
Blind Gabino	Tributary	Q10	Normal S = .02	
Blind Gabino	Tributary	Q25	Normal S = .02	
Blind Gabino	Tributary	Q50	Normal S = .02	
Blind Gabino	Tributary	Q100	Normal S = .02	
Blind Gabino	Tributary	Q100HC	Normal S = .02	
Cristianitos	Upper	Q2	Normal S = .03	
Cristianitos	Upper	Q5	Normal S = .03	
Cristianitos	Upper	Q10	Normal S = .03	
Cristianitos	Upper	Q25	Normal S = .03	
Cristianitos	Upper	Q50	Normal S = .03	

Cristianitos	Upper	Q100	Normal S = .03
Cristianitos	Upper	Q100HC	Normal S = .03
Cristianitos	Lower	Q2	Normal S = .006
Cristianitos	Lower	Q5	Normal S = .006
Cristianitos	Lower	Q10	Normal S = .006
Cristianitos	Lower	Q25	Normal S = .006
Cristianitos	Lower	Q50	Normal S = .006
Cristianitos	Lower	Q100	Normal S = .006
Cristianitos	Lower	Q100HC	Normal S = .006

GEOMETRY DATA

Geometry Title: Proposed Conditions - Ultimate
Geometry File : p:\2PDA0104\Hydr\LHS\Modeling\Model C\HecRas C\PMC.g03

Reach Connection Table

River	Reach	Upstream Boundary	Downstream Boundary
Blind Gabino	Tributary		2
Cristianitos	Upper		2
Cristianitos	Lower	2	

JUNCTION INFORMATION

Name: 2
Description:
Energy computation Method

Length across Junction River	Reach	Tributary River	Reach	Length	Angle
Blind Gabino	Tributary	to Cristianitos	Lower	306.91	
Cristianitos	Upper	to Cristianitos	Lower	431.78	

CROSS SECTION RIVER: Blind Gabino
REACH: Tributary RS: 2618.417

INPUT
Description:
Station Elevation Data num= 29

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	295.44	15.03	294.28	48.09	289.31	76.95	287.76	77.04	287.75
81.19	287.47	83	287.26	92.45	286.89	113.04	286.09	123.23	285.13
139.31	283.16	161.1	282.05	176.5	281.29	197.73	280.85	237.61	280.36
276.91	279.92	308.16	280.49	310.23	280.53	325.38	280.8	330.61	280.89
363.33	281.28	376.57	281.04	390.77	281.36	417.85	281.95	422.27	283.1
444.11	292.12	447.69	293.6	451.38	295.08	453.18	295.46		

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	77.04	.035	308.16	.05	444.11	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
237.61	308.16	255.48	266.58	227.1	.1	.3

CROSS SECTION RIVER: Blind Gabino
REACH: Tributary RS: 2351.855

INPUT
Description:
Station Elevation Data num= 33

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	295.2	23.36	293.51	46.37	291.85	83.43	289.19	112.66	287.58
152.54	286.57	185.08	284.34	232.66	284.39	249.46	284.26	287.45	282.22
310.71	281.61	318	281.42	365.65	280.18	385.15	279.69	415.54	278.84
425.6	278.69	437.25	278.62	447.85	278.55	448.86	278.54	519.07	278.24
523.91	278.4	534.7	278.75	541.83	279.01	564.16	279.51	587.5	280.15
605.02	280.63	626.99	281.46	633.65	282.45	635.58	282.74	637.02	283.61
639.87	284.88	651.08	291.21	662.5	297.95				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
415.54	534.7	164.1	205.8	231.8	.1	.3

CROSS SECTION RIVER: Blind Gabino
REACH: Tributary RS: 2146.050

INPUT
Description:
Station Elevation Data num= 38

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	295.54	25.58	291.52	46.52	288.79	47.34	288.76	74.51	287.74
119.16	286.19	177.86	286.15	326.22	284.93	350.45	284.14	359.39	282.98
371.81	281.92	378.24	279.38	383.83	277.57	389.25	275.67	394.47	275.28
397.21	275.08	399.74	274.9	402.08	274.72	403.15	274.64	404.54	274.53
494.48	275.08	522.32	275.25	534.9	275.65	538.73	275.77	544.37	275.89
593.71	276.95	614.72	277.47	620.55	277.39	626.75	277.5	709.8	278.67
746.78	280.43	754.68	281.09	758.54	281.64	766.8	284.62	767.9	284.92
768.85	285.51	781.05	293.24	788.94	298.24				

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	47.34	.05	394.47	.035	544.37	.05	781.05	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
397.21	494.48	221.05	188.15	166.7	.1	.3

CROSS SECTION RIVER: Blind Gabino
REACH: Tributary RS: 1957.878

INPUT
Description:
Station Elevation Data num= 44

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	294.35	3.5	293.73	7.9	293.06	26.71	290.17	31.9	288.9
50.24	287.77	70.53	287.87	103.6	287.05	106.74	286.85	205.02	284.16
285.21	283.86	290.15	283.45	300.5	283.86	302.36	283.77	328.71	282.46
330.71	282	339.65	280.24	353.91	277.27	358.88	276.25	390.66	274.21
411.54	272.58	449.98	271.64	451.3	271.63	497.16	271.53	497.95	271.53
538.12	271.44	566.35	271.72	579.49	272.44	655.32	273.83	660.92	274.16
663.21	274.39	663.93	274.47	668.68	274.95	669.71	275.06	692.03	276.06
706.45	278.12	716.8	278.48	729.09	279.05	743.06	281.06	747.67	282.02
761.07	284.73	784.22	292.68	788.15	294.2	790.4	295.01		

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	7.9	.05	497.95	.035	663.93	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
449.98	566.35	29.94	37.51	40.62	.1	.3

CROSS SECTION RIVER: Blind Gabino
REACH: Tributary RS: 1920.36*

INPUT
Description:
Station Elevation Data num= 80

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	293.42	3.51	292.81	7.91	292.14	14.4	291.14	26.75	289.55
31.95	288.49	50.31	287.52	70.63	287.58	101.81	286.91	102.62	286.89
103.1	286.88	103.75	286.86	104.23	286.83	106.89	286.67	122.2	286.23
163.28	285.04	169.58	284.86	173.12	284.76	182.59	284.34	183.89	284.22
185.63	284.09	200.02	282.91	205.32	282.67	208.89	282.58	217.49	282.44
228.92	282.35	236.1	282.31	285.62	281.94	290.57	281.58	300.93	281.88
302.8	281.8	305.41	281.68	328.1	280.74	329.18	280.69	331.19	280.3
340.14	278.8	354.42	276.27	359.4	275.4	391.22	273.59	412.13	272.15
450.63	271.23	451.49	271.22	452.19	271.21	452.29	271.21	453.16	271 2
453.51	271.19	454.07	271.2	506.54	271.13	507.47	271.13	546.16	271.08
549.99	271.04	555.08	270.99	580.66	271.33	585.22	271.61	592.76	272.24
605.01	272.85	610.91	273.06	627.61	273.56	655.91	274.29	662.55	274.44
667.7	274.74	669.81	274.94	670.47	275.01	674.85	275.43	675.79	275.53
678.26	275.64	693.22	276.33	696.34	276.5	697.43	276.65	709.61	278.37
716.04	278.65	719.14	278.77	730.45	279.32	743.31	281.07	747.55	281.9
749.35	282.24	759.88	284.42	781.19	291.56	784.81	292.92	786.88	293.64

Manning's n Values num= 9

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.041	7.91	.053	122.2	.067	450.63	.035	504.23	.035
566.62	.038	580.66	.05	670.47	.05	786.88	.05		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
450.63	580.66	29.94	37.51	40.62	.1	.3

CROSS SECTION RIVER: Blind Gabino
REACH: Tributary RS: 1882.86*

INPUT
Description:
Station Elevation Data num= 80

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	292.48	3.51	291.89	7.92	291.22	14.42	290.22	26.79	288.93
31.99	288.07	50.38	287.28	70.73	287.3	101.95	286.72	102.77	286.7
103.25	286.69	103.9	286.67	104.38	286.64	107.05	286.5	122.38	286.03
163.51	284.76	169.82	284.58	173.37	284.49	182.85	283.9	184.15	283.69
185.9	283.48	200.31	281.51	205.61	281.18	209.19	281.02	217.8	280.76
229.25	280.63	236.44	280.57	286.03	280.03	290.99	279.71	301.37	279.9
303.23	279.82	305.85	279.71	328.57	278.96	329.66	278.92	331.66	278.6
340.63	277.36	354.93	275.27	359.91	274.56	391.79	272.96	412.73	271.72
451.28	270.81	452.28	270.8	453.09	270.78	453.2	270.78	454.2	270.77
454.61	270.76	455.26	270.76	515.92	270.72	517	270.73	561.72	270.69
566.15	270.63	572.03	270.54	594.97	270.93	599.14	271.24	606.02	272.03
617.22	273.01	622.61	273.32	637.86	273.99	663.71	274.89	669.78	275.04
674.49	275.31	676.41	275.49	677.02	275.55	681.01	275.91	681.88	276
684.14	276.1	697.8	276.76	700.65	276.93	701.65	277.07	712.77	278.62
718.64	278.94	721.47	279.06	731.81	279.58	743.55	281.08	747.43	281.78
749.08	282.06	758.7	284.12	778.16	290.45	781.46	291.63	783.36	292.27

Manning's n Values num= 9

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.047	7.92	.057	122.38	.063	451.28	.035	510.51	.035
579.46	.04	594.97	.05	677.02	.05	783.36	.05		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
451.28	594.97	29.94	37.51	40.62	.1	.3

CROSS SECTION RIVER: Blind Gabino
REACH: Tributary RS: 1845.35*

INPUT

Description:
Station Elevation Data num= 80

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	291.54	3.52	290.97	7.93	290.29	14.44	289.3	26.83	288.31
32.04	287.66	50.46	287.03	70.83	287.01	102.1	286.52	102.92	286.51
103.4	286.5	104.05	286.48	104.53	286.45	107.2	286.32	122.55	285.83
163.75	284.49	170.07	284.3	173.62	284.21	183.11	283.46	184.42	283.17
186.17	282.87	200.6	280.11	205.91	279.69	209.49	279.45	218.11	279.09
229.58	278.92	236.78	278.83	286.44	278.11	291.4	277.84	301.8	277.92
303.67	277.85	306.29	277.75	329.04	277.19	330.13	277.15	332.14	276.9
341.12	275.92	355.44	274.27	360.43	273.71	392.35	272.34	413.32	271.29
451.92	270.4	453.06	270.38	453.98	270.36	454.11	270.36	455.25	270.34
455.71	270.33	456.44	270.33	525.29	270.32	526.52	270.32	577.29	270.31
582.31	270.22	588.99	270.1	609.28	270.54	613.06	270.86	619.29	271.83
629.42	273.17	634.3	273.58	648.12	274.42	671.52	275.48	677.01	275.65
681.27	275.89	683.02	276.04	683.56	276.09	687.18	276.4	687.96	276.47
690.01	276.57	702.38	277.18	704.95	277.37	705.86	277.49	715.93	278.88
721.25	279.23	723.81	279.35	733.16	279.85	743.8	281.1	747.31	281.66
748.8	281.89	757.51	283.81	775.13	289.33	778.12	290.35	779.84	290.9

Manning's n Values num= 9

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.053	7.93	.06	122.55	.06	451.92	.035	516.79	.035
592.29	.043	609.28	.05	683.56	.05	779.84	.05		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
451.92	609.28	29.94	37.51	40.62	.1	.3

CROSS SECTION RIVER: Blind Gabino
REACH: Tributary RS: 1807.84*

INPUT
Description:
Station Elevation Data num= 80

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	290.61	3.52	290.04	7.95	289.37	14.46	288.38	26.86	287.69
32.08	287.24	50.53	286.78	70.94	286.73	102.25	286.33	103.06	286.32
103.54	286.31	104.2	286.29	104.68	286.27	107.36	286.14	122.73	285.62
163.98	284.22	170.31	284.03	173.87	283.94	183.37	283.02	184.68	282.64
186.44	282.26	200.88	278.71	206.2	278.2	209.79	277.89	218.42	277.41
229.91	277.2	237.12	277.09	286.85	276.19	291.82	275.97	302.23	275.94
304.1	275.87	306.73	275.79	329.52	275.41	330.6	275.38	332.62	275.19
341.61	274.48	355.95	273.28	360.95	272.86	392.91	271.71	413.91	270.86
452.57	269.98	453.84	269.96	454.87	269.94	455.01	269.94	456.29	269.91
456.8	269.9	457.63	269.9	534.67	269.92	536.05	269.92	592.85	269.93
598.48	269.81	605.95	269.65	623.6	270.14	626.98	270.48	632 55	271.63
641.63	273.33	646	273.84	658.37	274.84	679.32	276.07	684.24	276.25
688.06	276.47	689.62	276.59	690.11	276.63	693.35	276.88	694.05	276.94
695.88	277.03	706.95	277.6	709.26	277.8	710.07	277.91	719.09	279.13
723.85	279.52	726.15	279.64	734.52	280.11	744.05	281.11	747.19	281.53
748.52	281.71	756.32	283.5	772.1	288.21	774.78	289.07	776.31	289.54

Manning's n Values num= 9

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.058	7.95	.063	122.73	.057	452.57	.035	523.07	.035
605.13	.045	623.6	.05	690.11	.05	776.31	.05		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
452.57	623.6	29.94	37.51	40.62	.1	.3

CROSS SECTION RIVER: Blind Gabino
REACH: Tributary RS: 1770.33*

INPUT
Description:
Station Elevation Data num= 80

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	289.67	3.53	289.12	7.96	288.45	14.48	287.45	26.9	287.07
32.13	286.83	50.6	286.54	71.04	286.44	102.39	286.14	103.21	286.13
103.69	286.12	104.35	286.1	104.83	286.08	107.51	285.97	122.9	285.42
164.22	283.94	170.56	283.75	174.12	283.66	183.64	282.58	184.95	282.12
186.7	281.65	201.17	277.32	206.5	276.72	210.09	276.32	218.74	275.74
230.24	275.48	237.46	275.35	287.26	274.28	292.24	274.1	302.66	273.95
614.64	269.4	622.9	269.2	637.91	269.74	640.89	270.11	645.82	271.43
653.83	273.49	657.69	274.1	668.62	275.27	687.13	276.67	691.47	276.86
694.84	277.05	696.22	277.14	696.65	277.17	699.51	277.36	700.13	277.4
701.75	277.49	711.53	278.03	713.57	278.24	714.29	278.33	722.25	279.38
726.46	279.81	728.48	279.93	735.88	280.38	744.29	281.12	747.07	281.41
748.25	281.54	755.13	283.19	769.07	287.09	771.44	287.78	772.79	288.17

Manning's n Values num= 9

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.064	7.96	.067	122.9	.053	453.22	.035	529.35	.035
617.96	.047	637.91	.05	696.65	.05	772.79	.05		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
453.22	637.91	29.94	37.51	40.62	.1	.3

CROSS SECTION RIVER: Blind Gabino
REACH: Tributary RS: 1732.829

INPUT
Description:
Station Elevation Data num= 41

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	288.74	14.5	286.53	102.54	285.95	103.36	285.94	103.84	285.93
104.98	285.89	123.08	285.22	164.45	283.67	170.8	283.47	174.37	283.39
183.9	282.14	185.21	281.59	186.97	281.04	201.46	275.92	210.39	274.76
219.05	274.06	230.57	273.76	237.8	273.61	307.61	271.86	330.46	271.86
453.87	269.15	455.41	269.12	456.83	269.09	458.38	269.05	459	269.03
460	269.04	623.98	269.17	630.8	268.99	639.86	268.75	652.22	269.35
654.81	269.73	666.04	273.65	669.39	274.36	678.87	275.7	694.93	277.26
707.62	277.95	716.11	278.45	718.5	278.75	729.06	280.1	747.97	281.36
769.27	286.8								

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.07	123.08	.05	453.87	.035	630.8	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
453.87	652.22	143.9	223.75	251.1	.1	.3

CROSS SECTION RIVER: Blind Gabino
REACH: Tributary RS: 1509.081

INPUT
Description:
Station Elevation Data num= 30

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	282.27	41.94	281.27	58.19	278.77	69.17	277.31	100.04	271.95
101.49	271.71	102.85	271.23	103.76	271.27	142.63	269.26	214.68	269.36
228.57	269.28	234.91	269.11	359.89	269.29	361.58	269.29	377.88	269.17
387.57	269.1	442.07	268.71	458.98	268.58	477.3	268.37	514.79	267.93
532.54	267.92	542.6	267.68	543.6	267.66	553.15	268.47	560.87	268.88
568.29	273.41	586.72	280.85	588.88	281.89	590.82	282.54	605.58	283.2

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	387.57	.035	442.07	.05	605.58	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
477.3	553.15	44.19	37.91	30.94	.1	.3

CROSS SECTION RIVER: Blind Gabino
REACH: Tributary RS: 1471.17*

INPUT
Description:
Station Elevation Data num= 72

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	282.21	30.9	281.32	32.14	281.25	42.48	280.92	48.88	280.02
58.94	278.62	70.06	277.26	101.32	272.38	102.79	272.16	104.17	271.74
105.09	271.76	118.14	271.03	134.4	270.23	136.85	270.11	144.46	269.75
164.79	269.69	190.08	269.66	196.51	269.69	211.66	269.84	217.43	269.89
231.5	269.94	237.92	269.85	306.08	270.46	308.43	270.47	351.32	270.52
364.5	270.54	366.21	270.54	369.34	270.52	372.02	270.46	382.72	270.09
383.17	270.08	383.29	270.07	392.53	269.38	395.19	269.18	401.55	269.07
410.2	268.84	428.15	268.88	447.73	268.69	464.86	268.51	470.41	268.43
473.84	268.39	483.41	268.26	494.5	268.14	523.83	267.86	542.96	267.84
553.81	267.63	554.89	267.61	564.93	268.33	571.04	268.55	572.04	268.63
573.03	268.71	573.53	268.82	574.35	269.13	575.1	269.4	576.61	269.94
577.54	270.01	578.37	270.09	578.98	270.31	580.63	270.79	584.24	271.83
591.29	273.85	595.42	274.62	603.88	276.38	605.25	276.66	613.93	278.42
623.37	280.3	624.88	280.65	627.13	281.2	630.15	281.72	630.51	281.79
650.81	282.79	656.21	283.03						

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.047	136.85	.038	392.53	.038	447.73	.05	470.41	.047
483.41	.038	564.93	.038	580.63	.05	603.88	.047	656.21	.035
656.21	.035								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
483.41	564.93	44.19	37.91	30.94	.1	.3

CROSS SECTION RIVER: Blind Gabino
REACH: Tributary RS: 1433.26*

INPUT
Description:
Station Elevation Data num= 72

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	282.15	31.29	281.1	32.54	280.99	43.01	280.56	49.5	279.75
59.68	278.47	70.94	277.2	102.6	272.8	104.09	272.6	105.48	272.25
106.42	272.25	119.64	271.46	136.1	270.68	138.58	270.57	146.28	270.25
166.88	270.09	192.49	270	198.99	270.06	214.34	270.33	220.18	270.43
234.42	270.59	240.93	270.58	309.95	271.72	312.33	271.73	355.76	271.77
369.11	271.78	370.84	271.78	374.01	271.77	376.73	271.68	387.56	271.01
388.01	270.98	388.14	270.97	397.5	269.66	400.18	269.29	406.62	269.11
415.39	268.71	433.56	268.92	453.39	268.66	470.73	268.44	476.36	268.35
479.83	268.3	489.52	268.14	501.41	268.04	532.87	267.79	553.39	267.76
565.02	267.58	566.18	267.57	576.71	268.19	585.42	268.45	586.85	268.58
588.26	268.7	588.97	268.9	590.13	269.49	591.21	270.01	593.36	271.05
594.69	271.17	595.87	271.3	596.74	271.53	599.09	271.9	604.23	272.73
614.28	274.29	620.18	274.88	632.24	276.43	634.19	276.68	646.56	278.18
660.03	279.75	662.17	280.04	665.39	280.51	669.69	280.97	670.21	281.04
699.14	282.53	706.84	282.87						

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.045	138.58	.04	397.5	.04	453.39	.05	476.36	.045
489.52	.04	576.71	.04	599.09	.05	632.24	.045	706.84	.035

706.84 .035

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
489.52 576.71 44.19 37.91 30.94 .1 .3

CROSS SECTION RIVER: Blind Gabino
REACH: Tributary RS: 1395.35*

INPUT
Description:
Station Elevation Data num= 72

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	282.09	31.68	280.88	32.95	280.73	43.55	280.21	50.12	279.48
60.43	278.32	71.83	277.15	103.88	273.23	105.39	273.05	106.8	272.75
107.75	272.74	121.13	271.89	137.8	271.13	140.31	271.03	148.11	270.74
168.96	270.48	194.89	270.34	201.48	270.42	217.01	270.82	222.93	270.96
237.35	271.25	243.93	271.32	313.82	272.97	316.23	272.99	360.2	273.03
373.71	273.03	375.47	273.03	378.68	273.02	381.43	272.9	392.4	271.93
392.86	271.89	392.98	271.88	402.46	269.95	405.18	269.39	411.7	269.14
420.57	268.58	438.97	268.95	459.05	268.64	476.61	268.36	482.31	268.26
485.82	268.2	495.63	268.03	508.33	267.93	541.91	267.71	563.81	267.67
576.23	267.53	577.46	267.52	588.48	268.06	599.8	268.35	601.66	268.52
603.49	268.69	604.4	268.99	605.92	269.86	607.32	270.63	610.11	272.16
611.83	272.33	613.37	272.52	614.49	272.75	617.55	273.02	624.23	273.63
637.28	274.73	644.94	275.13	660.6	276.48	663.14	276.69	679.19	277.94
696.68	279.19	699.47	279.43	703.64	279.82	709.23	280.22	709.9	280.29
747.47	282.26	757.47	282.7						

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.043	140.31	.043	402.46	.043	459.05	.05	482.31	.043
495.63	.043	588.48	.043	617.55	.05	660.6	.043	757.47	.035
757.47	.035								

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
495.63 588.48 44.19 37.91 30.94 .1 .3

CROSS SECTION RIVER: Blind Gabino
REACH: Tributary RS: 1357.44*

INPUT
Description:
Station Elevation Data num= 72

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	282.03	32.07	280.66	33.36	280.47	44.09	279.86	50.73	279.21
61.17	278.17	72.71	277.09	105.16	273.65	106.69	273.49	108.12	273.26
109.07	273.23	122.62	272.31	139.5	271.58	142.04	271.5	149.94	271.23
171.04	270.88	197.29	270.68	203.96	270.78	219.69	271.31	225.68	271.49
240.28	271.91	246.94	272.06	317.69	274.23	320.13	274.24	364.65	274.28
378.32	274.28	380.1	274.28	383.35	274.27	386.13	274.12	397.23	272.86
397.7	272.8	397.83	272.78	407.42	270.23	410.18	269.49	416.78	269.18
425.76	268.45	444.38	268.99	464.71	268.62	482.49	268.29	488.26	268.18
491.81	268.11	501.75	267.92	515.24	267.82	550.95	267.64	574.24	267.59
587.44	267.48	588.75	267.47	600.26	267.92	614.18	268.25	616.47	268.47
618.71	268.69	619.84	269.07	621.71	270.23	623.43	271.25	626.86	273.27
628.98	273.49	630.87	273.73	632.25	273.96	636.01	274.14	644.23	274.53
660.28	275.17	669.7	275.39	688.96	276.52	692.08	276.71	711.82	277.7
733.34	278.64	736.76	278.82	741.9	279.13	748.77	279.47	749.59	279.53
795.8	281.99	808.1	282.53						

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.04	142.04	.045	407.42	.045	464.71	.05	488.26	.04
501.75	.045	600.26	.045	636.01	.05	688.96	.04	808.1	.035
808.1	.035								

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
501.75 600.26 44.19 37.91 30.94 .1 .3

CROSS SECTION RIVER: Blind Gabino
REACH: Tributary RS: 1319.53*

INPUT

61.92	278.01	73.6	277.04	106.44	274.08	107.99	273.94	109.43	273.77
110.4	273.72	124.12	272.74	141.2	272.04	143.77	271.96	151.76	271.73
173.13	271.28	199.7	271.02	206.45	271.15	222.36	271.8	228.42	272.03
243.2	272.57	249.95	272.79	321.56	275.48	324.03	275.5	369.09	275.53
382.93	275.53	384.73	275.52	388.02	275.52	390.84	275.33	402.07	273.78
402.55	273.71	402.67	273.69	412.38	270.51	415.17	269.6	421.85	269.21
430.94	268.32	449.8	269.02	470.37	268.6	488.37	268.22	494.2	268.09
497.8	268.02	507.86	267.8	522.16	267.72	559.98	267.57	584.66	267.51
598.65	267.43	600.04	267.43	612.04	267.78	628.56	268.14	631.27	268.41
633.94	268.68	635.28	269.16	637.49	270.6	639.54	271.86	643.61	274.38
646.12	274.65	648.36	274.94	650.01	275.18	654.47	275.25	664.22	275.42
683.28	275.61	694.45	275.64	717.32	276.57	721.02	276.72	744.46	277.46
769.99	278.09	774.06	278.2	780.15	278.44	788.31	278.72	789.28	278.78
844.13	281.73	858.73	282.37						

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.038	143.77	.047	412.38	.047	470.37	.05	494.2	.038
507.86	.047	612.04	.047	654.47	.05	717.32	.038	858.73	.035
858.73	.035								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
507.86	612.04	44.19	37.91	30.94	.1	.3

CROSS SECTION RIVER: Blind Gabino
REACH: Tributary RS: 1281.630

INPUT
Description:
Station Elevation Data num= 47

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	281.91	32.85	280.22	34.17	279.95	51.97	278.66	125.61	273.17
142.9	272.49	145.5	272.42	175.21	271.68	202.1	271.36	208.93	271.51
225.04	272.29	325.43	276.74	327.93	276.76	373.53	276.78	392.69	276.77
395.54	276.55	407.39	274.62	407.52	274.59	420.17	269.7	426.93	269.25
436.13	268.19	455.21	269.06	500.15	268.01	503.79	267.93	513.97	267.69
529.07	267.61	611.33	267.38	623.82	267.64	642.94	268.04	646.08	268.36
649.17	268.67	650.72	269.24	653.28	270.97	655.65	272.48	660.36	275.49
663.27	275.81	667.77	276.4	672.93	276.37	684.22	276.32	719.21	275.9
745.68	276.62	749.96	276.74	777.09	277.22	811.35	277.59	827.85	277.97
892.46	281.46	909.36	282.2						

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	145.5	.05	500.15	.035	672.93	.05	745.68	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
513.97	623.82	72.47	45.74	29.76	.1	.3

CROSS SECTION RIVER: Blind Gabino
REACH: Tributary RS: 1235.88*

INPUT
Description:
Station Elevation Data num= 88

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	282.23	28.31	280.44	29.45	280.2	42.23	279.14	44.79	278.92
108.26	273.52	123.16	272.75	125.4	272.66	126.13	272.64	146.9	271.79
151	271.63	174.18	271.06	180.06	271.1	193.95	271.57	244.96	273.08
267.79	273.98	279.08	274.45	280.47	274.5	282.62	274.52	321.92	274.44
326.15	274.43	338.09	274.25	338.43	274.24	340.89	274.06	350.74	272.48
351.1	272.42	351.22	272.4	362.12	268.3	367.94	267.91	375.87	267.01
392.32	267.7	431.05	266.74	434.18	266.67	442.96	266.45	449.32	266.3
450.39	266.28	457.19	266.2	457.86	266.19	472.24	266.15	494.52	266.07
534.75	265.93	537.98	266.03	548.53	266.36	572.25	267.05	576.15	267.37
579.23	267.63	579.98	267.68	581.91	268.17	585.08	269.62	588.02	270.89
589.31	271.45	593.87	273.41	597.48	273.69	603.06	274.19	609.46	274.17
609.64	274.17	617.68	274.04	623.47	274.03	655.48	273.77	666.57	273.68
666.88	273.68	684.55	274.04	692.14	274.13	699.72	274.23	705.03	274.31
710.93	274.35	720.39	274.86	723.06	275.01	726.81	275.45	738.69	276.17
741.11	276.31	742.04	276.35	745.04	276.49	745.68	276.69	746.87	276.71
754.59	277.12	776.68	277.63	777.91	277.64	779.65	277.67	781.19	277.69
801.66	278.13	802.61	278.17	806.55	278.34	821.75	278.9	868.23	280.65
872.36	280.87	881.82	282.77	902.79	286.83				

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.041	125.4	.053	350.74	.064	431.05	.035	442.96	.05
529.09	.05	548.53	.047	609.46	.047	655.48	.035	699.72	.035
902.79	.035								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
442.96	548.53	72.47	45.74	29.76	.1	.3

CROSS SECTION RIVER: Blind Gabino
REACH: Tributary RS: 1190.13*

INPUT
Description:
Station Elevation Data num= 88

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	282.55	23.77	280.67	24.73	280.46	35.46	279.4	37.61	279.19
90.9	273.86	103.41	273.01	105.29	272.91	105.91	272.88	123.35	271.77
126.79	271.58	146.25	270.75	151.2	270.7	162.86	270.85	205.69	271.24
224.86	271.87	234.34	272.23	235.51	272.27	237.31	272.27	270.31	272.1
273.86	272.08	283.89	271.72	284.18	271.72	286.24	271.56	294.51	270.28
294.82	270.23	294.91	270.21	304.07	266.9	308.96	266.57	315.62	265.83
329.42	266.34	361.95	265.47	364.58	265.41	371.95	265.21	377.92	264.94
378.93	264.92	385.32	264.79	385.94	264.78	399.46	264.74	420.38	264.64
458.17	264.49	461.7	264.63	473.24	265.08	501.57	266.06	506.22	266.39
509.9	266.65	510.79	266.69	513.09	267.09	516.88	268.27	520.39	269.31
521.93	269.76	527.37	271.34	531.68	271.56	538.35	271.97	545.99	271.97
546.21	271.97	555.8	271.75	562.72	271.73	600.94	271.54	614.18	271.47
614.55	271.46	635.65	271.79	644.71	271.81	653.76	271.85	660.1	271.88
667.14	271.88	678.44	272.76	681.63	273.02	686.1	273.85	700.29	275.12
703.17	275.37	704.29	275.45	707.87	275.71	708.63	276.09	710.05	276.13
719.27	276.87	745.64	277.71	747.12	277.73	749.19	277.77	751.04	277.8
775.48	278.3	776.6	278.34	781.31	278.49	799.46	278.96	854.96	280.43
859.89	280.7	871.19	284.08	896.22	291.47				

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.047	105.29	.057	294.51	.058	361.95	.035	371.95	.05
454.59	.05	473.24	.045	545.99	.045	600.94	.035	653.76	.035
896.22	.035								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
371.95	473.24	72.47	45.74	29.76	.1	.3

CROSS SECTION RIVER: Blind Gabino
REACH: Tributary RS: 1144.39*

INPUT
Description:
Station Elevation Data num= 88

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	282.86	19.23	280.89	20.01	280.71	28.69	279.66	30.43	279.45
73.55	274.21	83.67	273.28	85.19	273.15	85.69	273.11	99.8	271.76
102.59	271.54	118.33	270.45	122.33	270.29	131.76	270.13	166.42	269.41
181.93	269.75	189.6	270	190.54	270.03	192.01	270.03	218.71	269.76
221.58	269.73	229.69	269.2	229.92	269.19	231.59	269.07	238.28	268.07
238.53	268.03	238.61	268.02	246.01	265.5	249.97	265.24	255.36	264.66
266.53	264.98	292.84	264.2	294.97	264.14	300.93	263.96	306.52	263.58
307.47	263.55	313.44	263.38	314.03	263.36	326.67	263.32	346.24	263.21
381.59	263.04	385.42	263.22	397.96	263.8	430.88	265.07	436.29	265.4
440.57	265.66	441.61	265.71	444.28	266.02	448.68	266.92	452.77	267.72
454.55	268.07	460.88	269.26	465.89	269.44	473.64	269.76	482.52	269.77
482.77	269.77	493.93	269.45	501.96	269.44	546.4	269.3	561.79	269.25
562.21	269.25	586.75	269.53	597.28	269.48	607.8	269.46	615.17	269.45
623.35	269.41	636.49	270.66	640.2	271.04	645.4	272.25	661.88	274.08
665.24	274.44	666.54	274.55	670.7	274.93	671.59	275.5	673.24	275.55
683.95	276.63	714.61	277.8	716.32	277.81	718.74	277.87	720.88	277.9
749.29	278.46	750.6	278.5	756.07	278.65	777.17	279.02	841.69	280.2
847.42	280.52	860.55	285.39	889.65	296.1				

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.053	85.19	.06	238.28	.053	292.84	.035	300.93	.05
380.09	.05	397.96	.043	482.52	.043	546.4	.035	607.8	.035
889.65	.035								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
300.93	397.96	72.47	45.74	29.76	.1	.3

CROSS SECTION RIVER: Blind Gabino
REACH: Tributary RS: 1098.64*

INPUT
Description:
Station Elevation Data num= 88

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	283.18	14.7	281.11	15.29	280.96	21.92	279.93	23.25	279.72
56.19	274.55	63.93	273.54	65.09	273.4	65.47	273.35	76.25	271.75
78.38	271.49	90.41	270.15	93.46	269.89	100.67	269.41	127.15	267.57
139	267.64	144.86	267.78	145.58	267.79	146.7	267.78	167.1	267.43
169.29	267.39	175.49	266.67	175.67	266.67	176.94	266.57	182.06	265.86
182.25	265.84	182.3	265.83	187.96	264.1	190.99	263.9	195.1	263.48
203.64	263.62	223.74	262.93	225.37	262.88	229.92	262.72	235.13	262.22
236.01	262.19	241.57	261.97	242.11	261.95	253.88	261.91	272.1	261.78
305	261.6	309.15	261.81	322.67	262.52	360.19	264.07	366.36	264.42
371.24	264.68	372.42	264.72	375.46	264.94	380.49	265.57	385.14	266.13
387.18	266.37	394.38	267.19	400.09	267.31	408.92	267.55	419.05	267.58
419.34	267.58	432.05	267.15	441.21	267.15	491.85	267.06	509.4	267.03
509.88	267.03	537.85	267.28	549.85	267.16	561.83	267.08	570.23	267.02
579.56	266.94	594.54	268.56	598.77	269.05	604.69	270.65	623.48	273.03
627.31	273.51	628.78	273.66	633.53	274.15	634.54	274.91	636.42	274.97
648.64	276.39	683.58	277.88	685.53	277.89	688.28	277.97	690.72	278.01
723.1	278.63	724.6	278.66	730.84	278.8	754.88	279.08	828.42	279.98
834.94	280.35	849.91	286.71	883.08	300.73				

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.058	65.09	.063	182.06	.047	223.74	.035	229.92	.05
305.59	.05	322.67	.04	419.05	.04	491.85	.035	561.83	.035
883.08	.035								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
229.92	322.67	72.47	45.74	29.76	.1	.3

CROSS SECTION RIVER: Blind Gabino
REACH: Tributary RS: 1052.90*

0	283.5	10.16	281.34	10.56	281.22	15.15	280.19	16.07	279.98
38.84	274.9	44.18	273.8	44.99	273.64	45.25	273.59	52.7	271.73
54.17	271.44	62.49	269.85	64.6	269.48	69.58	268.69	87.88	265.74
96.07	265.53	100.12	265.56	100.62	265.56	101.39	265.54	115.49	265.09
117.01	265.04	121.29	264.15	121.41	264.14	122.29	264.08	125.83	263.66
125.96	263.64	126	263.63	129.91	262.7	132	262.56	134.84	262.3
140.74	262.26	154.64	261.67	155.76	261.62	158.91	261.48	163.73	260.87
164.54	260.82	169.69	260.56	170.2	260.53	181.09	260.49	197.96	260.35
228.42	260.15	232.87	260.41	247.38	261.24	289.51	263.08	296.42	263.43
301.9	263.7	303.23	263.73	306.65	263.87	312.29	264.23	317.51	264.54
319.8	264.68	327.89	265.11	334.3	265.19	344.21	265.33	355.58	265.38
355.9	265.38	370.18	264.86	380.46	264.86	437.31	264.83	457.01	264 .81
457.55	264.81	488.94	265.03	502.42	264.83	515.87	264.69	525.3	264.59
535.78	264.47	552.59	266.46	557.33	267.07	563.99	269.05	585.08	271.98
589.37	272.57	591.03	272.76	596.36	273.36	597.5	274.31	599.61	274.39
613.32	276.14	652.54	277.96	654.73	277.98	657.83	278.06	660.56	278.11
696.92	278.79	698.59	278.83	705.6	278.96	732.59	279.14	815.14	279.76
822.47	280.17	839.27	288.02	876.51	305.37				

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val

0	.064	44.99	.067	125.83	.041	154.64	.035	158.91	.05
231.09	.05	247.38	.038	355.58	.038	437.31	.035	515.87	.035
876.51	.035								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
158.91	247.38	72.47	45.74	29.76	.1	.3

CROSS SECTION RIVER: Blind Gabino
REACH: Tributary RS: 1007.157

INPUT
Description: CS Modified 2:1 Slope, Station 810
Station Elevation Data num= 46

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	283.82	8.38	280.45	25.03	273.83	29.15	271.72	48.61	263.9
53.14	263.42	55.38	263.34	64.72	262.69	67.09	261.62	69.6	261.45
87.9	260.24	92.33	259.51	93.08	259.46	98.28	259.12	108.3	259.08
123.82	258.92	151.84	258.71	156.59	259	172.09	259.96	232.57	262.72
252.42	262.99	292.47	263.18	308.3	262.56	382.77	262.59	404.62	262.59
440.04	262.78	454.99	262.51	491.99	262	510.64	264.36	515.9	265.08
523.28	267.45	551.44	271.64	553.28	271.86	559.19	272.58	560.45	273.72
562.79	273.81	578	275.9	621.51	278.04	623.94	278.06	627.37	278.16
672.59	278.99	680.36	279.11	710.3	279.2	801.87	279.54	810	280
869.94	310								

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.07	69.6	.035	156.59	.05	382.77	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
87.9	172.09	266.85	204.95	164.4	.1	.3

CROSS SECTION RIVER: Blind Gabino
REACH: Tributary RS: 802.205

INPUT
Description: CS Modified 2:1 Slope, Station 510
Station Elevation Data num= 45

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	282.01	.4	281.88	7.6	277.46	11.63	275.2	26	264.02
26.05	263.98	26.11	263.97	35.45	261.35	39.69	260.83	41.52	260.8
43.16	260.78	44.84	260.71	48.89	260.56	58.44	260.18	95.94	260.78
134.35	261.36	141.16	261.35	153.25	261.33	188.58	261.46	197.03	261.81
207.59	262.69	208.86	262.8	215.58	262.11	223.56	262.64	287.66	262.47
290.5	262.25	295.72	262.21	299.45	262.3	355.24	261.73	387.33	261.42
388.96	261.43	389.42	261.45	415.53	262.78	415.76	262.83	416.4	263.19
426.48	269.58	429.31	270.04	431.54	270.4	438.35	271.64	443.35	272.82
462.5	274.03	477.99	275.4	486.8	275.93	510	277.2	830.38	315

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.07	41.52	.035	141.16	.05	207.59	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
43.16	95.94	188.61	119.55	103.86	.1	.3

CROSS SECTION RIVER: Blind Gabino
REACH: Tributary RS: 682.668

INPUT
Description: CS Modified 2:1 Slope, Station 470, Manual Modification of Manning's N Values
Station Elevation Data num= 35

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	275.8	5.36	275.2	13.63	275.27	27.98	274.99	45.42	273.24
49.7	273.15	62.28	270.77	62.69	270.79	63.29	270.71	66.54	270.18
78.54	268.67	82.82	268.57	93.35	268.39	93.53	268.39	119.02	268.51
128.61	268.01	142.54	267.34	149.41	266.64	170.96	264.18	171.24	264.09
213.19	260.14	225.35	259.43	233.61	258.95	271.72	257.47	282.91	257.34
287.91	257.28	293.83	257.25	301.81	257.41	315.94	257.45	356	257.59
388.5	257.7	448.25	257.8	464.82	258.14	470	258	718.05	382

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	119.02	.07	271.72	.035	315.94	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
271.72	356	37.97	37.94	40.29	.3	.5

Ineffective Flow num= 2

Sta L	Sta R	Elev	Permanent
888	F		
888	F		

CULVERT RIVER: Blind Gabino
REACH: Tributary RS: 680

INPUT
Description:
Distance from Upstream XS = 2.668
Deck/Roadway Width = 20
Weir Coefficient = 2.6
Upstream Deck/Roadway Coordinates
num= 16

Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord
0	270		130	269		189	265.7	
245	264.1		366	262.5		392	260.8	
524	260.8		537	262.5		579	264.1	
599	265.7		616	267.4		635	269	

658	269	678	272.3	691	275.6
711	275.6				

Upstream Bridge Cross Section Data
Station Elevation Data num= 35

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	275.8	5.36	275.2	13.63	275.27	27.98	274.99	45.42	273.24
49.7	273.15	62.28	270.77	62.69	270.79	63.29	270.71	66.54	270.18
78.54	268.67	82.82	268.57	93.35	268.39	93.53	268.39	119.02	268.51
128.61	268.01	142.54	267.34	149.41	266.64	170.96	264.18	171.24	264.09
213.19	260.14	225.35	259.43	233.61	258.95	271.72	257.47	282.91	257.34
287.91	257.28	293.83	257.25	301.81	257.41	315.94	257.45	356	257.59
388.5	257.7	448.25	257.8	464.82	258.14	470	258	718.05	382

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	119.02	.07	271.72	.035	315.94	.035

Bank Sta: Left	Right	Coeff Contr.	Expan.
271.72	356	.3	.5

Ineffective Flow num= 2

Sta L	Sta R	Elev	Permanent
888	F		
888	F		

Downstream Deck/Roadway Coordinates
num= 16

Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord
0	270		130	269		189	265.7	
245	264.1		366	262.5		392	260.8	
524	260.8		537	262.5		579	264.1	
599	265.7		616	267.4		635	269	
658	269		678	272.3		691	275.6	
711	275.6							

Downstream Bridge Cross Section Data
Station Elevation Data num= 42

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	276.29	5.36	276.27	16.91	275.46	18.26	275.29	41.41	274.68
47.51	274.57	52.78	274.32	59.65	273.05	64.13	271.28	66.98	270.56
84.33	269.51	84.63	269.52	87.1	269.62	90.84	269.81	92.02	269.83
97.94	269.53	109.81	269.79	112.78	269.68	124.52	269.28	131.17	268.97
131.88	268.93	144.6	268.27	150.73	268.05	155.76	267.57	169.7	264.65
174.18	263.42	182.55	262.58	188.33	261.67	221.78	258.65	238.17	258.04
271.09	256.9	291.6	256.19	293.07	256.14	299.92	255.91	303.68	255.77
339.13	255.89	356	255.94	388.7	256.04	430.38	256.1	475.45	257.03
490	256.7	732.67	376.7						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.035	131.88	.05	293.07	.035

Bank Sta: Left	Right	Coeff Contr.	Expan.
299.92	356	.3	.5

Ineffective Flow num= 2

Sta L	Sta R	Elev	Permanent
888	F		
888	F		

Upstream Embankment side slope = 0 horiz. to 1.0 vertical
Downstream Embankment side slope = 0 horiz. to 1.0 vertical
Maximum allowable submergence for weir flow = .95
Elevation at which weir flow begins = 261
Energy head used in spillway design =
Spillway height used in design =
Weir crest shape = Broad Crested

Number of Culverts = 1

Culvert Name	Shape	Rise	Span
Culvert #1	Circular	4	

FHWA Chart # 1 - Concrete Pipe Culvert
FHWA Scale # 3 - Groove end entrance; pipe projecting from fill

Upstream Elevation = 257.5
Centerline Stations

Sta.	Sta.	Sta.	Sta.	Sta.	Sta.
303.9	313.7	323.6	333.4	343.3	353.1

Downstream Elevation = 256
Centerline Stations

Sta.	Sta.	Sta.	Sta.	Sta.	Sta.
303.9	313.7	323.6	333.4	343.3	353.1

CROSS SECTION RIVER: Blind Gabino
REACH: Tributary RS: 644.729

INPUT
Description: CS Modified 2:1 Slope, Station 490
Station Elevation Data num= 42

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	276.29	5.36	276.27	16.91	275.46	18.26	275.29	41.41	274.68
47.51	274.57	52.78	274.32	59.65	273.05	64.13	271.28	66.98	270.56
84.33	269.51	84.63	269.52	87.1	269.62	90.84	269.81	92.02	269.83
97.94	269.53	109.81	269.79	112.78	269.68	124.52	269.28	131.17	268.97
131.88	268.93	144.6	268.27	150.73	268.05	155.76	267.57	169.7	264.65

174.18	263.42	182.55	262.58	188.33	261.67	221.78	258.65	238.17	258.04
271.09	256.9	291.6	256.19	293.07	256.14	299.92	255.91	303.68	255.77
339.13	255.89	356	255.94	388.7	256.04	430.38	256.1	475.45	257.03
490	256.7	732.67	376.7						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.035	131.88	.05	293.07	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
299.92	356	59.22	36.53	18.28	.3	.5

Ineffective Flow num= 2

Sta L	Sta R	Elev	Permanent
888	F		
888	F		

CROSS SECTION RIVER: Blind Gabino
REACH: Tributary RS: 608.199*

INPUT
Description:
Station Elevation Data num= 60

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	274.45	.93	274.43	4.88	274.37	15.38	273.64	16.61	273.5
37.67	272.79	43.21	272.64	48.01	272.39	54.26	271.37	58.33	269.99
60.92	269.42	76.71	268.44	76.98	268.44	79.22	268.49	82.63	268.59
83.7	268.6	89.08	268.31	99.88	268.37	102.58	268.26	113.26	267.83
113.64	267.81	119.31	267.48	119.96	267.43	124.52	267.14	131.53	266.41
134.47	266.14	137.1	265.88	141.68	265.21	150.03	263.2	154.36	262.4
158.43	261.42	166.04	260.69	166.3	260.66	167.22	260.52	171.3	259.92
201.73	257.13	204.93	256.98	216.64	256.57	226.29	256.26	229.88	256.14
246.58	255.6	265.23	254.99	266.57	254.95	272.8	254.75	277.17	254.55
290.35	254.63	310.11	254.74	339.76	254.9	356.14	255.01	364.11	255.05
393.73	255.28	394.85	255.29	416.96	255.85	436.7	256.35	439.6	256.32
442.88	256.29	444.02	256.28	450.21	256.17	473.8	265.62	675.54	365.6

Manning's n Values num= 8

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.039	119.96	.05	229.88	.046	266.57	.035	272.8	.039
310.11	.039	439.6	.05	675.54	.039				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
272.8	310.11	59.22	36.53	18.28	.3	.5

Ineffective Flow num= 2

Sta L	Sta R	Elev	Permanent
888	F		
888	F		

CROSS SECTION RIVER: Blind Gabino
REACH: Tributary RS: 571.669*

INPUT
Description:
Station Elevation Data num= 60

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	272.61	.83	272.58	4.39	272.48	13.85	271.82	14.96	271.7
33.92	270.89	38.92	270.71	43.24	270.47	48.86	269.68	52.53	268.7
54.87	268.28	69.08	267.37	69.33	267.37	71.35	267.37	74.41	267.38
75.38	267.36	80.23	267.08	89.95	266.96	92.39	266.84	102	266.38
102.34	266.36	107.45	265.98	108.03	265.93	112.15	265.61	118.45	264.54
121.1	264.12	123.47	263.71	127.59	262.85	135.12	260.76	139.01	260.15
142.68	259.43	149.54	258.81	149.77	258.78	150.59	258.67	154.27	258.17
181.68	255.62	184.56	255.44	195.1	255.11	203.8	254.85	207.03	254.75
222.07	254.3	238.87	253.79	240.07	253.76	245.68	253.59	250.67	253.33
262.84	253.44	281.1	253.6	308.47	253.81	323.58	253.98	330.94	254.05
358.28	254.46	359.31	254.48	379.72	255.11	397.94	255.67	400.62	255.68
403.65	255.69	404.7	255.7	410.41	255.64	432.2	261.98	618.42	354.5

Manning's n Values num= 8

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.043	108.03	.05	207.03	.043	240.07	.035	245.68	.043
281.1	.043	400.62	.05	618.42	.043				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
245.68	281.1	59.22	36.53	18.28	.3	.5

Ineffective Flow num= 2

Sta L	Sta R	Elev	Permanent
888	F		
888	F		

CROSS SECTION RIVER: Blind Gabino
REACH: Tributary RS: 535.139*

INPUT
Description:
Station Elevation Data num= 60

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	270.76	.74	270.72	3.91	270.58	12.32	270	13.31	269.91
30.18	269	34.62	268.77	38.46	268.54	43.47	268	46.73	267.41
48.81	267.13	61.46	266.3	61.67	266.29	63.47	266.24	66.2	266.16
67.06	266.13	71.37	265.86	80.02	265.54	82.19	265.41	90.74	264.93
91.05	264.91	95.59	264.49	96.11	264.44	99.77	264.09	105.38	262.68
107.74	262.1	109.84	261.54	113.51	260.49	120.2	258.31	123.67	257.9
126.93	257.43	133.03	256.92	133.24	256.9	133.97	256.81	137.25	256.43
161.62	254.1	164.19	253.9	173.57	253.64	181.3	253.43	184.18	253.35
197.56	252.99	212.5	252.59	213.58	252.56	218.57	252.43	224.17	252.11
235.33	252.26	252.08	252.45	277.17	252.72	291.03	252.94	297.77	253.05
322.83	253.65	323.78	253.68	342.49	254.37	359.19	254.98	361.65	255.04

```
  364.42   255.1  365.39  255.13  370.62  255.11  390.59  258.34  561.29   343.4

Manning's n Values          num=       8
     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val
       0    .046   96.11     .05  184.18    .039  213.58    .035  218.57    .046
  252.08    .046  361.65     .05  561.29    .046

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
        218.57  252.08            59.22   36.53   18.28              .3       .5
Ineffective Flow     num=       2
   Sta L   Sta R    Elev  Permanent
888        F
888        F

CROSS SECTION          RIVER: Blind Gabino
REACH: Tributary          RS: 498.610

INPUT
Description: CS Modified 2:1 Slope, Station 350
Station Elevation Data    num=      24
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  268.92     .65  268.87   79.75  263.46   87.39  262.56   94.37  260.08
  105.29  255.87  116.71  255.02  117.35  254.96  143.82  252.36  158.81  252.02
  161.33  251.96  191.45  251.27  197.66  250.89  207.82  251.07  223.06   251.3
  245.87  251.63   264.6  252.05  287.38  252.83  305.25  253.63  322.67   254.4
  325.19  254.51  326.07  254.55  348.98   254.7  504.17   332.3

Manning's n Values          num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .05  161.33    .035  322.67     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
        191.45  223.06           183.75   191.7  232.45              .3       .5
Ineffective Flow     num=       2
   Sta L   Sta R    Elev  Permanent
8-88       F
888        F

BRIDGE                 RIVER: Blind Gabino
REACH: Tributary          RS: 496

INPUT
Description:
Distance from Upstream XS =     2.61
Deck/Roadway Width        =   159.68
Weir Coefficient          =      2.6
Upstream  Deck/Roadway Coordinates
    num=       6
     Sta Hi Cord Lo Cord     Sta Hi Cord Lo Cord     Sta Hi Cord Lo Cord
    -100  301.19       0-72.1776  301.19       0-72.1776  301.19  292.79
  351.05  307.75  299.35  351.05  307.75       0     600  307.75       0

Upstream Bridge Cross Section Data
Station Elevation Data    num=      24
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  268.92     .65  268.87   79.75  263.46   87.39  262.56   94.37  260.08
  105.29  255.87  116.71  255.02  117.35  254.96  143.82  252.36  158.81  252.02
  161.33  251.96  191.45  251.27  197.66  250.89  207.82  251.07  223.06   251.3
  245.87  251.63   264.6  252.05  287.38  252.83  305.25  253.63  322.67   254.4
  325.19  254.51  326.07  254.55  348.98   254.7  504.17   332.3

Manning's n Values          num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .05  161.33    .035  322.67     .05

Bank Sta: Left   Right    Coeff Contr.   Expan.
        191.45  223.06              .3       .5
Ineffective Flow     num=       2
   Sta L   Sta R    Elev  Permanent
8-88       F
888        F

Downstream  Deck/Roadway Coordinates



Downstream Bridge Cross Section Data
Station Elevation Data    num=      20
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0   310.9     120   250.9  122.23  250.77   154.8  250.49  238.79  249.97
   255.7  249.61  267.72  249.35  281.06  249.41  314.69  249.54  327.15  249.76
  332.21  249.73  337.14  249.89  349.61  250.36  359.21  250.73  422.36  253.15
  476.11  255.57  477.98  255.61  487.01  255.85     540     257  685.51     330

Manning's n Values          num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .05  281.06    .035  349.61     .05

Bank Sta: Left   Right    Coeff Contr.   Expan.
         255.7  314.69              .3       .5
Ineffective Flow     num=       2
   Sta L   Sta R    Elev  Permanent
888        F
888        F

Upstream Embankment side slope              =        0 horiz. to 1.0 vertical
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Downstream Embankment side slope            =       0 horiz. to 1.0 vertical
Maximum allowable submergence for weir flow =     .95
Elevation at which weir flow begins         =     302
Energy head used in spillway design         =
Spillway height used in design              =
Weir crest shape                            = Broad Crested

Number of Abutments =  1

Abutment Data
Upstream     num=        6
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
     -72  301.18  -39.19  200.78  -31.19       0  301.13       0  301.13  205.16
  370.03  307.74
Downstream     num=        6
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
   95.14  301.18  160.76  200.78  160.76       0  492.12       0  492.12  205.16
  561.02  307.74

Number of Piers =  2

Pier Data
Pier Station     Upstream=   49.21    Downstream=   239.5
Upstream     num=        2
    Width   Elev    Width   Elev
   9.499       0   9.499     408
Downstream     num=        2
    Width   Elev    Width   Elev
   9.499       0   9.499     408

Pier Data
Pier Station     Upstream=  200.13    Downstream=  390.42
Upstream     num=        2
    Width   Elev    Width   Elev
   9.499       0   9.499     408
Downstream     num=        2
    Width   Elev    Width   Elev
   9.499       0   9.499     408

Number of Bridge Coefficient Sets =  1

Low Flow Methods and Data
       Energy
Selected Low Flow Methods = Energy

High Flow Method
       Energy Only

Additional Bridge Parameters
       Add Friction component to Momentum
       Do not add Weight component to Momentum
       Class B flow critical depth computations use critical depth
           inside the bridge at the upstream end
       Criteria to check for pressure flow = Upstream energy grade line

CROSS SECTION           RIVER: Blind Gabino
REACH: Tributary           RS: 306.914

INPUT
Description: CS Modified 2:1 Slope, Stations 120 and 540
Station Elevation Data     num=       20
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0   310.9     120   250.9  122.23  250.77   154.8  250.49  238.79  249.97
   255.7  249.61  267.72  249.35  281.06  249.41  314.69  249.54  327.15  249.76
  332.21  249.73  337.14  249.89  349.61  250.36  359.21  250.73  422.36  253.15
  476.11  255.57  477.98  255.61  487.01  255.85     540     257  685.51     330

Manning's n Values         num=        3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .05  281.06    .035  349.61     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         255.7  314.69           105.13  306.91  129.05              .3       .5
Ineffective Flow     num=        2
   Sta L   Sta R    Elev  Permanent
888        F
888        F

CROSS SECTION           RIVER: Cristianitos
REACH: Upper               RS: 7542.007

INPUT
Description:
Station Elevation Data     num=       25
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  314.87   18.38  313.25   31.02  312.27   58.16  310.16   87.34  307.92
  113.66  304.31  134.08  302.37  135.11  302.04  135.13  302.03  151.03  295.89
  152.41  295.44  164.67  295.89  168.36  295.85  173.61  297.25  188.34  301.94
  191.63  302.16  197.14  302.55  231.27  301.74  248.83  301.27  254.63  301.22
   259.4  301.33  282.32  302.47  314.55  306.64  326.16  308.64  344.66  314.42

Manning's n Values         num=        2
     Sta   n Val     Sta   n Val
       0     .02   31.02     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         151.03  164.67           136.98  234.48  286.68              .1       .3
```

CROSS SECTION RIVER: Cristianitos
REACH: Upper RS: 7307.535

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 41

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	310.99	6.84	309.32	23.14	306.75	31.88	304.6	39.14	301.85
60.82	296.51	65.52	295.36	66.42	295.07	68.17	294.82	70.11	294.94
70.73	294.98	81.17	294.25	85.36	293.97	87.62	294.13	103.28	294.22
125.57	295.46	129.46	295.64	131.97	295.68	137.44	297.13	145.24	299.2
145.56	299.3	145.94	299.29	150.87	300.71	152.51	300.32	157.35	296.83
160.74	295.86	194.58	296.2	203.39	296.55	205.24	296.66	220.82	296.01
235.2	295.73	244.1	295.6	247.39	295.11	286.77	295.25	318.68	295.45
329.34	296.34	350.56	300.28	362.09	303	381.58	306.49	392.27	308.08
394.95	308.79								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.05	203.39	.035	350.56	.07

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
81.17	103.28	31.68	39.54	25.34	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: Cristianitos
REACH: Upper RS: 7267.99*

INPUT
Description:
Station Elevation Data num= 67

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	309.99	6.05	308.7	7.65	308.35	7.82	308.3	10.52	307.65
17.9	306.21	18.89	306	19.65	305.88	26.44	304.86	36.43	302.69
44.72	300.06	45.5	299.89	55.63	297.71	56.1	297.61	57.92	297.22
69.5	294.76	74.87	293.62	75.9	293.34	77.9	293.07	79.66	293.1
80.11	293.12	80.82	293.14	92.75	292.34	96.72	292.08	98.87	292.22
113.72	292.31	120.31	292.75	126.7	293.2	132.45	293.88	134.52	294.09
138.15	294.44	140.5	294.6	145.6	296.12	152.88	298.29	153.18	298.39
153.54	298.4	154.98	298.86	155.41	299	158.14	299.83	158.32	299.8
159.67	299.53	164.19	296.62	165.06	296.4	167.35	295.8	188.18	295.99
198.94	296.08	207.16	296.37	208.89	296.46	223.43	295.88	236.86	295.62
245.17	295.5	248.24	295.07	285	295.14	304.82	295.23	308.24	295.24
308.98	295.25	310.83	295.28	314.78	295.33	318.2	295.63	324.73	296.18
344.54	299.73	350.92	301.16	352.89	301.63	355.3	302.2	373.5	305.58
383.47	307.15	385.98	307.81						

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	92.75	.035	113.72	.04	207.16	.04	344.54	.07
352.89	.07	385.98	.07						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
92.75	113.72	31.68	39.54	25.34	.1	.3

CROSS SECTION RIVER: Cristianitos
REACH: Upper RS: 7228.45*

INPUT
Description:
Station Elevation Data num= 67

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	308.99	6.81	307.71	8.6	307.35	8.79	307.29	11.83	306.36
20.14	304.49	21.25	304.2	22.1	304.08	29.74	302.96	40.98	300.77
50.31	298.26	51.18	298.09	62.57	295.91	63.1	295.81	65.15	295.43
78.17	293	84.21	291.88	85.37	291.61	87.62	291.32	89.61	291.29
90.11	291.3	90.91	291.31	104.33	290.43	108.09	290.19	110.11	290.31
124.15	290.41	130.27	290.89	136.21	291.41	141.55	292.41	143.48	292.73
146.85	293.24	149.03	293.53	153.77	295.11	160.53	297.37	160.81	297.48
161.14	297.51	162.47	297.98	162.88	298.12	165.41	298.95	165.57	298.94
166.83	298.74	171.03	296.41	171.84	296.25	173.97	295.75	193.31	295.9
374.68	306.22	377	306.83						

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	104.33	.035	124.15	.045	210.94	.045	338.52	.07
346.28	.07	377	.07						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
104.33	124.15	31.68	39.54	25.34	.1	.3

CROSS SECTION RIVER: Cristianitos
REACH: Upper RS: 7188.91*

INPUT
Description:
Station Elevation Data num= 67

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	307.99	7.57	306.72	9.56	306.35	9.77	306.27	13.15	305.07
22.37	302.76	23.61	302.41	24.56	302.27	33.04	301.07	45.52	298.86
55.89	296.47	56.86	296.3	69.52	294.12	70.1	294.02	72.38	293.64
86.85	291.25	93.56	290.14	94.85	289.89	97.35	289.58	99.56	289.48

100.12	289.48	101	289.47	115.91	288.52	119.45	288.3	121.36	288.4
134.59	288.5	140.24	289.02	145.72	289.61	150.65	290.95	152.43	291.36
155.54	292.05	157.55	292.45	161.93	294.1	168.17	296.46	168.43	296.56
168.73	296.61	169.97	297.1	170.34	297.25	172.68	298.07	172.83	298.07
173.99	297.95	177.87	296.2	178.61	296.09	180.58	295.69	198.44	295.81
207.66	295.83	214.71	296	216.19	296.05	228.66	295.62	240.17	295.4
247.3	295.29	249.93	295	281.45	294.92	298.44	294.91	301.38	294.9
302.01	294.92	303.6	294.98	306.99	295.1	309.92	295.36	315.52	295.86
332.5	298.62	337.97	299.7	339.66	300.1	341.73	300.6	357.33	303.75
365.88	305.29	368.03	305.85						

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	115.91	.035	134.59	.05	214.71	.05	332.5	.07
339.66	.07	368.03	.07						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
115.91	134.59	31.68	39.54	25.34	.1	.3

CROSS SECTION RIVER: Cristianitos
REACH: Upper RS: 7149.37*

INPUT
Description:
Station Elevation Data num= 67

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	306.98	8.32	305.73	10.51	305.35	10.74	305.26	14.46	303.77
24.61	301.04	25.96	300.61	27.01	300.47	36.34	299.17	50.07	296.94
61.48	294.68	62.54	294.5	76.46	292.32	77.11	292.23	79.61	291.85
95.53	289.49	102.91	288.4	104.32	288.16	107.07	287.83	109.5	287.67
110.12	287.66	111.09	287.63	127.49	286.62	130.81	286.4	132.6	286.48
145.03	286.6	150.21	287.16	155.24	287.82	159.76	289.49	161.38	289.99
164.24	290.85	166.08	291.37	170.09	293.09	175.82	295.54	176.05	295.65
176.33	295.72	177.46	296.22	177.81	296.38	179.95	297.19	180.09	297.21
181.15	297.15	184.7	295.98	185.39	295.93	187.19	295.63	203.57	295.72
212.02	295.71	218.49	295.81	219.85	295.85	231.28	295.49	241.83	295.29
248.36	295.19	250.77	294.96	279.67	294.81	295.25	294.75	297.95	294.73
298.52	294.75	299.98	294.84	303.09	294.98	305.78	295.23	310.91	295.7
326.48	298.06	331.49	298.97	333.05	299.33	334.94	299.8	349.24	302.83
357.09	304.35	359.05	304.87						

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	127.49	.035	145.03	.055	218.49	.055	326.48	.07
333.05	.07	359.05	.07						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
127.49	145.03	31.68	39.54	25.34	.1	.3

CROSS SECTION RIVER: Cristianitos
REACH: Upper RS: 7109.83*

INPUT
Description:
Station Elevation Data num= 67

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	305.98	9.08	304.73	11.47	304.35	11.72	304.24	15.77	302.48
26.84	299.32	28.32	298.82	29.46	298.66	39.65	297.28	54.62	295.03
67.06	292.88	68.22	292.71	83.41	290.53	84.11	290.44	86.84	290.07
104.2	287.74	112.26	286.66	113.8	286.43	116.8	286.08	119.45	285.86
120.12	285.84	121.18	285.79	139.07	284.71	142.17	284.51	143.85	284.57
155.47	284.69	160.18	285.3	164.75	286.03	168.86	288.03	170.34	288.62
172.93	289.65	174.61	290.29	178.26	292.08	183.46	294.63	183.68	294.74
183.93	294.83	184.96	295.35	185.27	295.51	187.22	296.32	187.35	296.34
188.31	296.36	191.54	295.77	192.17	295.77	193.81	295.57	208.69	295.63
216.38	295.59	222.26	295.63	223.5	295.65	233.89	295.36	243.49	295.18
249.43	295.08	251.62	294.92	277.9	294.7	292.07	294.6	294.51	294.57
295.04	294.59	296.36	294.69	299.19	294.87	301.63	295.1	306.3	295.55
320.46	297.51	325.02	298.24	326.43	298.57	328.15	299	341.16	301.92
348.29	303.42	350.08	303.89						

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	139.07	.035	155.47	.06	222.26	.06	320.46	.07
326.43	.07	350.08	.07						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
139.07	155.47	31.68	39.54	25.34	.1	.3

CROSS SECTION RIVER: Cristianitos
REACH: Upper RS: 7070.29*

INPUT
Description:
Station Elevation Data num= 67

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	304.98	9.83	303.74	12.42	303.35	12.69	303.22	17.09	301.18
29.08	297.6	30.68	297.02	31.92	296.86	42.95	295.39	59.17	293.11
72.64	291.09	73.9	290.91	90.35	288.73	91.12	288.64	94.07	288.28
112.88	285.98	121.6	284.92	123.27	284.7	126.52	284.33	129.39	284.05
130.12	284.01	131.27	283.96	150.65	282.8	153.54	282.62	155.1	282.66
165.9	282.79	170.14	283.43	174.26	284.23	177.96	286.57	179.29	287.26
181.63	288.45	183.14	289.22	186.42	291.07	191.11	293.72	191.3	293.83
191.53	293.94	192.45	294.47	192.74	294.63	194.49	295.44	194.6	295.48
195.47	295.57	198.38	295.56	198.94	295.62	200.42	295.52	213.82	295.54
220.75	295.46	226.04	295.44	227.15	295.44	236.51	295.23	245.15	295.07
250.49	294.98	252.47	294.89	276.12	294.59	288.88	294.44	291.08	294.4
291.55	294.42	292.75	294.55	295.29	294.75	297.49	294.97	301.69	295.39

314.44	296.96	318.54	297.51	319.82	297.8	321.37	298.2	333.07	301
339.49	302.49	341.1	302.91						

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	150.65	.035	165.9	.065	226.04	.065	314.44	.07
319.82	.07	341.1	.07						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
150.65	165.9	31.68	39.54	25.34	.1	.3

CROSS SECTION RIVER: Cristianitos
REACH: Upper RS: 7030.755

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 31

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	303.98	10.59	302.75	13.38	302.35	18.4	299.89	31.31	295.88
33.04	295.23	34.37	295.05	79.58	289.12	97.3	286.94	98.12	286.85
101.3	286.49	139.34	282.24	162.23	280.89	164.9	280.73	176.34	280.88
180.11	281.57	183.77	282.44	187.06	285.11	199.95	293.59	200.2	293.76
201.86	294.61	205.72	295.46	218.95	295.45	285.69	294.28	287.65	294.23
288.07	294.26	289.13	294.4	293.35	294.84	312.07	296.78	313.2	297.04
332.13	301.93								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.05	162.23	.035	313.2	.07

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
162.23	176.34	33.68	41.34	37.89	.1	.3

CROSS SECTION RIVER: Cristianitos
REACH: Upper RS: 6989.41*

INPUT
Description:
Station Elevation Data num= 68

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	303.51	10.92	302.33	11.04	302.32	13.79	301.97	18.96	299.92
31.21	296.79	32.27	296.52	34.05	295.97	35.43	295.81	39.39	295.34
74.12	291.48	82.02	290.61	89.21	289.85	96.53	289.1	98.69	288.87
100.29	288.69	101.13	288.6	101.17	288.6	104.41	288.15	105.33	288.02
105.98	287.93	106.7	287.85	111.25	287.29	115.22	286.75	126.45	285.21
134.3	284.13	138.49	283.4	143.62	282.52	148.83	281.83	162.72	280.2
167.21	279.85	171.33	279.63	181.48	279.83	185.63	280.81	188.46	281.59
189.66	281.9	193.29	284.34	195	285.3	206.35	291.34	207.48	291.93
207.75	292.08	209.58	292.85	213.83	293.73	215.72	293.82	216.03	293.83
219.91	294.02	222.38	294.08	227.21	294.09	228.4	294.1	240.15	294.01
269.63	293.67	285.13	293.43	288.75	293.4	301.89	293.36	304.05	293.35
304.51	293.37	305.12	293.44	305.67	293.5	310.32	293.9	310.45	293.91
326.83	295.42	330.93	295.86	331.29	295.93	332.18	296.13	335.99	297.04
343.79	298.89	346.92	299.93	353.02	301.91				

Manning's n Values num= 10

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.047	31.21	.038	74.12	.044	105.33	.026	167.21	.035
181.48	.063	215.72	.035	305.12	.042	332.18	.07	353.02	.07

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
167.21	181.48	33.68	41.34	37.89	.1	.3

CROSS SECTION RIVER: Cristianitos
REACH: Upper RS: 6948.06*

INPUT
Description:
Station Elevation Data num= 68

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	303.04	11.24	301.91	11.37	301.9	14.2	301.59	19.53	299.96
32.14	297.38	33.23	297.15	35.07	296.71	36.48	296.56	40.56	296.14
76.33	292.84	84.47	292.09	91.87	291.44	99.41	290.82	101.63	290.61
195.56	281.36	199.51	283.57	201.38	284.48	213.77	289.77	215.01	290.28
215.31	290.41	217.3	291.09	221.94	292	224	292.18	224.34	292.21
228.58	292.58	231.28	292.7	236.55	292.74	237.85	292.75	250.68	292.75
282.86	292.55	299.79	292.31	303.74	292.32	318.08	292.45	320.44	292.46
320.95	292.49	321.62	292.54	322.22	292.6	327.29	292.95	327.43	292.96
345.32	294.45	349.8	294.95	350.18	295.01	351.16	295.22	355.32	296.15
363.84	298.01	367.25	299.36	373.91	301.89				

Manning's n Values num= 10

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.044	32.14	.041	76.33	.038	108.47	.032	172.19	.035
186.62	.056	224	.035	321.62	.049	351.16	.07	373.91	.07

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
172.19	186.62	33.68	41.34	37.89	.1	.3

CROSS SECTION RIVER: Cristianitos
REACH: Upper RS: 6906.72*

INPUT
Description:

Station Elevation Data num= 68

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	302.56	11.57	301.5	11.7	301.48	14.61	301.21	20.09	299.99
33.07	297.96	34.19	297.79	36.08	297.45	37.54	297.32	41.73	296.94
78.53	294.2	86.91	293.58	94.53	293.03	102.28	292.53	104.57	292.34
106.26	292.19	107.16	292.11	107.19	292.11	110.63	291.47	111.61	291.29
112.3	291.16	113.05	291.05	117.87	290.37	122.09	289.6	133.98	287.41
142.3	285.88	146.74	284.62	152.17	283.07	157.69	281.6	172.41	278.3
177.17	277.77	184.2	277.42	191.77	277.72	196.68	279.29	200.02	280.42
201.45	280.82	205.74	282.81	207.76	283.65	221.2	288.19	222.54	288.62
222.86	288.73	225.03	289.33	230.06	290.27	232.29	290.54	232.65	290.58
237.25	291.14	240.18	291.32	245.89	291.38	247.3	291.4	261.21	291.5
296.1	291.43	314.45	291.19	318.73	291.23	334.28	291.53	336.84	291.58
337.38	291.6	338.11	291.65	338.76	291.69	344.26	292.01	344.41	292.02
363.81	293.48	368.66	294.03	369.08	294.09	370.13	294.31	374.64	295.26
383.88	297.13	387.59	298.78	394.81	301.87				

Manning's n Values num= 10

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.041	33.07	.044	78.53	.032	111.61	.038	177.17	.035
191.77	.049	232.29	.035	338.11	.056	370.13	.07	394.81	.07

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
177.17	191.77	33.68	41.34	37.89	.1	.3

CROSS SECTION RIVER: Cristianitos
REACH: Upper RS: 6865.37*

INPUT
Description:
Station Elevation Data num= 68

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	302.09	11.89	301.08	12.03	301.07	15.02	300.83	20.66	300.02
34	298.55	35.15	298.42	37.1	298.19	38.59	298.07	42.91	297.73
80.74	295.56	89.35	295.06	97.18	294.62	105.16	294.25	107.51	294.08
109.25	293.94	110.17	293.87	110.21	293.87	113.74	293.13	114.74	292.92
115.45	292.77	116.23	292.66	121.19	291.91	125.52	291.03	137.74	288.52
146.3	286.76	150.87	285.23	156.45	283.35	162.13	281.49	177.25	277.35
182.15	276.73	190.63	276.31	196.91	276.67	202.2	278.53	205.81	279.83
207.34	280.29	211.96	282.04	214.15	282.82	228.62	286.62	230.07	286.96
230.42	287.05	232.75	287.57	238.17	288.54	240.57	288.9	240.97	288.96
245.92	289.71	249.07	289.94	255.23	290.03	256.75	290.05	271.74	290.24
309.33	290.31	329.11	290.08	333.72	290.15	350.48	290.62	353.23	290.69
353.82	290.72	354.61	290.75	355.31	290.79	361.24	291.07	361.4	291.07
382.29	292.5	387.53	293.11	387.97	293.17	389.11	293.39	393.97	294.37
403.93	296.26	407.92	298.21	415.7	301.85				

Manning's n Values num= 10

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.038	34	.047	80.74	.026	114.74	.044	182.15	.035
196.91	.042	240.57	.035	354.61	.063	389.11	.07	415.7	.07

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
182.15	196.91	33.68	41.34	37.89	.1	.3

CROSS SECTION RIVER: Cristianitos
REACH: Upper RS: 6824.032

INPUT
Description:
Station Elevation Data num= 42

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	301.62	12.36	300.65	34.93	299.14	44.08	298.53	82.95	296.92
99.84	296.21	108.03	295.96	110.45	295.82	113.22	295.62	117.88	294.55
118.61	294.38	119.41	294.26	124.5	293.45	128.95	292.46	141.51	289.62
150.3	287.64	154.99	285.84	166.56	281.38	182.1	276.4	187.13	275.69
197.06	275.21	202.05	275.62	211.59	279.24	220.53	281.99	236.05	285.04
248.86	287.26	249.28	287.33	254.59	288.27	257.97	288.56	264.57	288.67
282.27	288.99	322.57	289.19	343.77	288.96	348.71	289.06	371.1	289.86
378.38	290.13	400.78	291.53	406.87	292.25	413.3	293.48	423.97	295.38
428.25	297.64	436.59	301.83						

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	34.93	.05	82.95	.02	117.88	.05	248.86	.035
371.1	.07								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
187.13	202.05	247.74	274.55	224.1	.1	.3

CROSS SECTION RIVER: Cristianitos
REACH: Upper RS: 6549.504

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 36

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	302.18	.68	301.93	7.44	300.75	31.22	295.87	45.01	295.38
72.87	294.38	75.02	294.26	101.69	292.81	113.02	292.19	120.76	291.77
125.34	291.22	137.27	288.99	140.65	288.21	144.3	286.8	157.17	282.05
168.07	278.03	181.91	274.69	183.47	274.35	184.44	274.17	189.35	274.3
209.04	274.63	211.09	274.78	212.57	275.36	215.65	276.16	220.45	277.28
222.89	278.05	230.41	281.51	235.57	282.91	245.09	285.48	251.96	288.79
308.56	291.39	324.9	292.63	329.94	293.04	361.43	299.34	369.18	300.75
375.11	302.47								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val

0	.05	45.01	.02	75.02	.05	251.96	.035	361.43	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
181.91	209.04	205.05	204.05	201.6	.1	.3

CROSS SECTION RIVER: Cristianitos
REACH: Upper RS: 6345.465

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 31

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	295.28	2.85	295.04	27.05	292.96	39.87	291.63	40.22	291.59
53.2	290.2	61.12	288.73	62.2	288.39	71.93	283.17	75.76	281.52
76	281.42	89.2	276.75	115.04	274.04	118.23	273.71	122.99	273.44
127.77	274.02	148.88	276.66	149.44	276.93	153.07	278.44	160.86	281.85
162.91	282.01	167.32	282.36	169.78	282.83	200.39	283.99	217.15	284.49
240.82	285.24	246.54	285.95	269.26	289.31	269.65	289.4	272.87	290.2
284.81	293.06								

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	2.85	.02	39.87	.05	200.39	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
115.04	127.77	204.5	201.3	197.95	.1	.3

CROSS SECTION RIVER: Cristianitos
REACH: Upper RS: 6144.174

INPUT
Description:
Station Elevation Data num= 31

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	288.97	6.47	288.5	10.52	288.2	34.2	286.29	36.98	285.81
37.63	285.58	38.8	285.3	41	284.77	52.7	281.83	63.68	275.92
70.47	271.27	73.35	270.03	79.54	268.89	82.78	268.87	97.4	268.77
109.57	268.42	127.77	268.12	129.87	268.41	134.89	269.05	157.14	272.61
162.57	273.97	172.02	275.51	175.62	276.1	184.56	277.49	218.81	280.72
225.14	281.83	240.5	282.99	247.12	283.51	252.21	283.73	287.61	285.23
323.35	289.27								

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	6.47	.02	38.8	.05	252.21	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
109.57	129.87	183.85	189.1	195.8	.1	.3

CROSS SECTION RIVER: Cristianitos
REACH: Upper RS: 5955.087

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 36

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	287.39	10.15	286.65	40.58	284.44	44	284.19	79.24	281.74
79.88	281.71	81	281.59	106.55	276.82	108.3	276.55	109.23	276.2
113.25	274.68	121.12	269.41	128.54	264.28	131.27	262.61	131.96	262.57
134.28	262.58	136.52	264.25	141.39	267.33	143.28	268.61	144.29	268.71
165.4	271.67	167.31	272.19	177.87	274.7	181.27	274.95	186	275.27
199.19	276.17	211.92	276.24	221.38	275.98	222.3	275.95	245	275.28
261.89	274.79	274.74	276.22	308.23	279.16	328.1	280.98	333	281.81
338.17	283.27								

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	10.15	.02	40.58	.05	245	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
128.54	136.52	214.85	210.7	206.15	.1	.3

CROSS SECTION RIVER: Cristianitos

Station Elevation Data num= 31

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	329.5	100	279.5	119.49	279.1	140.93	276.58	148.44	275.8
156.1	272.64	161.16	270.21	172.36	264.81	175.3	263.19	178.17	262.33
186.41	262.55	187.53	262.6	188.56	263.19	193.17	265.89	193.85	266.32
196.08	266.88	202.76	268.89	204.13	269.31	232.37	269.57	232.64	269.57
233.64	269.61	236.3	269.6	238.49	269.67	268.05	271.2	296.38	273.37
316.49	275.27	316.8	275.3	340.16	276.54	364.56	277.65	371.19	278.31
374.79	278.95								

Manning's n Values num= 2

Sta	n Val	Sta	n Val
0	.05	232.37	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
175.3	188.56	250.55	220.45	190.35	.1	.3

CROSS SECTION RIVER: Cristianitos
REACH: Upper RS: 5523.938

INPUT

Description: CS Modified 2:1 Slope, Station 120, Manual Modification of Manning's N Values

Station Elevation Data num= 23

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	321.2	120	261.2	124.23	261.22	128.45	261.5	132.45	261.75
145.11	262.45	147.45	263.04	151.49	264.05	167.36	267.07	172.74	268.37
194.25	269.62	201.48	270.04	209.45	270.28	230	270.28	263.05	270.28
293.09	270.27	301	270.62	314.54	271.41	337.46	272.72	348.15	273.86
363.06	276.29	367.93	277.65	374.23	279.71				

Manning's n Values num= 2

Sta	n Val	Sta	n Val
0	.05	230	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
120	128.45	214.2	224.45	225.15	.1	.3

CROSS SECTION RIVER: Cristianitos
REACH: Upper RS: 5299.501

INPUT
Description: CS Modified 2:1 Slope, Station 120

Station Elevation Data num= 26

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	326.4	120	266.4	126.37	265.84	163.27	263.48	168.16	262.59
170.5	262.13	170.8	261.99	174.43	260.24	179.55	257.71	186.46	256.51
191.03	255.7	195.46	254.89	200.41	256.49	202.43	256.83	208.36	261.28
211.46	263.98	214.59	266.7	217.15	267.98	219.78	269.15	229.11	270.45
231.09	270.77	232.06	271.01	234.36	271.53	239.66	272.78	248.07	274.78
254.16	275.75								

Manning's n Values num= 1

Sta	n Val
0	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
186.46	200.41	34.32	37.87	38.81	.1	.3

CROSS SECTION RIVER: Cristianitos
REACH: Upper RS: 5261.63*

INPUT
Description:

Station Elevation Data num= 31

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	328.88	115.87	270.98	122.03	270.1	157.66	265.7	162.38	264.64
164.64	264.1	164.93	263.97	168.43	262.27	173.38	259.82	180.05	258.37
184.95	257.15	189.69	255.95	195.97	258.28	197.8	258.65	201.34	261.26
203.18	262.59	205.99	264.93	208.83	267.29	211.15	268.44	213.54	269.49
222	270.86	223.79	271.18	224.67	271.41	224.78	271.44	226.76	271.9
231.56	273.08	231.63	273.1	238.87	274.84	239.19	274.91	240.66	275.13
244.71	275.73								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	180.05	.047	195.97	.047	240.66	.035	244.71	.047

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
180.05	195.97	34.32	37.87	38.81	.1	.3

CROSS SECTION RIVER: Cristianitos
REACH: Upper RS: 5223.76*

INPUT
Description:

Station Elevation Data num= 31

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	331.35	111.75	275.56	117.68	274.35	152.04	267.92	156.6	266.69
158.78	266.07	159.06	265.94	162.44	264.3	167.21	261.94	173.64	260.23
178.86	258.6	183.93	257.01	191.53	260.06	193.18	260.47	196.35	262.76
198	263.9	200.52	265.89	203.07	267.89	205.15	268.9	207.29	269.83
214.88	271.26	216.5	271.59	217.29	271.81	217.39	271.84	219.16	272.28
223.47	273.38	223.53	273.39	230.03	274.98	230.31	275.04	231.63	275.22
235.27	275.71								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	173.64	.045	191.53	.045	231.63	.035	235.27	.045

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
173.64	191.53	34.32	37.87	38.81	.1	.3

CROSS SECTION RIVER: Cristianitos
REACH: Upper RS: 5185.89*

INPUT
Description:

Station Elevation Data num= 31

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	333.83	107.62	280.15	113.34	278.61	146.43	270.15	150.82	268.74
152.92	268.04	153.19	267.92	156.44	266.32	161.03	264.05	167.23	262.09
172.78	260.06	178.16	258.08	187.1	261.85	188.55	262.29	191.36	264.27
192.82	265.21	195.06	266.84	197.31	268.48	199.16	269.36	201.05	270.18
207.77	271.67	209.2	272.01	209.9	272.21	209.99	272.24	211.55	272.65
215.37	273.67	215.43	273.69	221.18	275.12	221.43	275.17	222.6	275.31
225.82	275.69								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	167.23	.043	187.1	.043	222.6	.035	225.82	.043

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
167.23	187.1	34.32	37.87	38.81	.1	.3

CROSS SECTION RIVER: Cristianitos
REACH: Upper RS: 5148.02*

INPUT
Description:
Station Elevation Data num= 31

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	336.31	103.5	284.73	108.99	282.87	140.82	272.37	145.04	270.79
147.05	270.02	147.31	269.89	150.44	268.35	154.86	266.16	160.82	263.94
166.7	261.51	172.39	259.14	182.66	263.64	183.92	264.11	186.37	265.77
187.64	266.52	189.59	267.8	191.55	269.08	193.16	269.81	194.81	270.52
200.66	272.07	201.9	272.42	202.51	272.62	202.59	272.64	203.95	273.02
207.28	273.97	207.33	273.99	212.33	275.27	212.55	275.3	213.57	275.4
216.37	275.67								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	160.82	.04	182.66	.04	213.57	.035	216.37	.04

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
160.82	182.66	34.32	37.87	38.81	.1	.3

CROSS SECTION RIVER: Cristianitos
REACH: Upper RS: 5110.15*

INPUT
Description:
Station Elevation Data num= 31

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	338.78	99.37	289.31	104.65	287.12	135.21	274.59	139.26	272.83
141.19	271.99	141.44	271.87	144.45	270.38	148.69	268.27	154.41	265.8
160.61	262.96	166.63	260.2	178.22	265.42	179.3	265.93	181.38	267.28
182.46	267.83	184.12	268.75	185.79	269.67	187.16	270.27	188.56	270.86
193.55	272.48	194.6	272.83	195.12	273.02	195.19	273.04	196.35	273.4
199.18	274.27	199.22	274.28	203.49	275.41	203.67	275.43	204.54	275.49
206.93	275.65								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	154.41	.038	178.22	.038	204.54	.035	206.93	.030

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
154.41	178.22	34.32	37.87	38.81	.1	.3

CROSS SECTION RIVER: Cristianitos
REACH: Upper RS: 5072.281

INPUT
Description: CS Modified 2:1 Slope, Station 160
Station Elevation Data num= 10

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	341.26	148	267.66	160.86	261.26	173.78	267.21	176.39	268.78
187.79	273.44	191.12	274.58	194.64	275.55	195.51	275.58	197.48	275.63

Manning's n Values num= 2

Sta	n Val	Sta	n Val
0	.05	195.51	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
148	173.78	50.75	42.38	33.15	.1	.3

CROSS SECTION RIVER: Cristianitos
REACH: Upper RS: 5029.90*

INPUT
Description:
Station Elevation Data num= 30

157.18	268.85	158.91	269.86	159.13	269.99	161.08	270.82	162.42	271.38
166.11	272.4	166.44	272.48	167.47	272.72	167.67	272.79	169.69	273.41
173.04	274.28	173.49	274.4	174.43	274.47	176.04	274.59	176.55	274.64

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	129.27	.038	151	.038	174.43	.038	176.55	.038

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
129.27	151	50.75	42.38	33.15	.1	.3

CROSS SECTION RIVER: Cristianitos
REACH: Upper RS: 4987.52*

INPUT
Description:
Station Elevation Data num= 30

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	313.09	22.59	303.94	32.02	300.08	44.69	294.67	56.81	289.42
78.93	278.3	80.42	277.55	82.79	276.36	99.95	267.86	106.83	264.87
110.55	263.23	119.58	259.08	128.23	262.97	129.88	263.74	131.24	264.91

134.85	267.64	136.7	269.01	136.95	269.19	139.03	270.1	140.47	270.73
144.42	271.36	144.78	271.41	145.88	271.57	146.1	271.64	148.27	272.25
151.86	273.13	152.34	273.24	153.34	273.36	155.07	273.55	155.62	273.64

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	110.55	.041	128.23	.041	153.34	.041	155.62	.041

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
110.55	128.23	50.75	42.38	33.15	.1	.3

CROSS SECTION RIVER: Cristianitos
REACH: Upper RS: 4945.14*

INPUT
Description:
Station Elevation Data num= 30

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	299.01	18.76	292.81	26.6	290.15	37.12	286.25	47.19	282.42
65.56	273.09	66.79	272.47	68.77	271.47	83.02	264.44	88.73	262.24
91.82	261.01	98.93	258	105.45	260.85	107.22	261.58	108.67	262.97
112.52	266.43	114.5	268.16	114.76	268.39	116.99	269.39	118.52	270.07
122.74	270.32	123.12	270.34	124.29	270.42	124.52	270.49	126.84	271.08
130.68	271.98	131.19	272.09	132.26	272.25	134.1	272.52	134.69	272.65

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	91.82	.044	105.45	.044	132.26	.044	134.69	.044

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
91.82	105.45	50.75	42.38	33.15	.1	.3

CROSS SECTION RIVER: Cristianitos
REACH: Upper RS: 4902.76*

INPUT
Description:
Station Elevation Data num= 30

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	284.92	14.94	281.67	21.17	280.22	29.55	277.83	37.56	275.41
52.19	267.89	53.17	267.38	54.74	266.58	66.09	261.01	70.64	259.61
73.1	258.8	78.29	256.91	82.68	258.73	84.55	259.41	86.1	261.04
90.19	265.22	92.29	267.31	92.57	267.58	94.94	268.67	96.57	269.41
101.05	269.28	101.46	269.27	102.71	269.27	102.95	269.35	105.42	269.92
109.49	270.82	110.04	270.94	111.18	271.14	113.14	271.49	113.76	271.65

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	73.1	.047	82.68	.047	111.18	.047	113.76	.047

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
73.1	82.68	50.75	42.38	33.15	.1	.3

CROSS SECTION RIVER: Cristianitos
REACH: Upper RS: 4860.382

INPUT
Description:
Station Elevation Data num= 25

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	270.84	11.11	270.53	15.75	270.29	21.98	269.41	27.94	268.4
38.82	262.68	39.55	262.3	40.72	261.69	49.16	257.59	52.54	256.98
54.37	256.58	57.65	255.82	59.9	256.61	61.89	257.25	67.86	264.01
70.09	266.46	70.38	266.78	72.89	267.96	74.62	268.75	79.8	268.2
81.12	268.12	81.38	268.2	88.31	269.67	92.17	270.46	92.83	270.66

Manning's n Values num= 1

Sta	n Val
0	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
54.37	59.9	35.73	38.67	40.52	.1	.3

CROSS SECTION RIVER: Cristianitos
REACH: Upper RS: 4821.70*

INPUT
Description:
Station Elevation Data num= 41

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	270.49	7.32	270.14	10.12	269.95	11.12	269.88	15.76	269.47
22	268.47	27.96	267.38	29.3	266.75	31.64	265.51	38.85	261.75
39.58	261.37	39.91	261.2	40.36	260.97	40.75	260.76	49.19	256.64
49.97	256.45	52.58	255.92	52.77	255.87	54.41	255.47	56.95	254.8
57.95	254.53	57.98	254.53	62.64	255.51	64.1	255.95	64.83	256.19
71.43	262.14	73.89	264.31	74.22	264.59	75.6	265.18	76.99	265.77
77.54	266	78.9	266.6	81.78	266.71	84.62	266.83	86.08	266.94
86.37	267.04	87.05	267.22	94.03	268.91	95.22	269.19	98.29	270.03
99.02	270.28								

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	54.41	.05	62.64	.05	99.02	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
54.41	62.64	35.73	38.67	40.52	.1	.3

CROSS SECTION RIVER: Cristianitos

REACH: Upper RS: 4783.03*

INPUT
Description:
Station Elevation Data num= 41

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	270.14	7.32	269.65	10.13	269.35	11.13	269.24	15.77	268.65
22.01	267.53	27.98	266.36	29.32	265.81	31.66	264.56	38.87	260.82
39.61	260.44	39.94	260.27	40.39	260.04	40.78	259.84	49.23	255.69
50.01	255.45	52.61	254.86	52.81	254.81	54.45	254.35	57.17	253.56
58.25	253.24	58.31	253.24	65.37	254.41	66.98	254.87	67.78	255.12
75	260.28	77.7	262.16	78.05	262.4	79.57	262.99	81.09	263.57
81.7	263.8	83.18	264.45	86.34	264.94	89.45	265.46	91.04	265.76
91.36	265.88	92.1	266.11	99.74	268.15	101.05	268.49	104.41	269.6
105.21	269.9								

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	54.45	.05	65.37	.05	105.21	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
54.45	65.37	35.73	38.67	40.52	.1	.3

CROSS SECTION RIVER: Cristianitos
REACH: Upper RS: 4744.36*

INPUT
Description:
Station Elevation Data num= 41

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	269.8	7.33	269.15	10.14	268.75	11.13	268.59	15.78	267.84
22.03	266.59	28	265.34	29.34	264.87	31.69	263.6	38.9	259.88
39.63	259.51	39.96	259.34	40.41	259.11	40.81	258.91	49.26	254.74
50.04	254.45	52.65	253.8	52.85	253.75	54.48	253.24	57.4	252.32
58.55	251.96	58.64	251.96	68.11	253.31	69.85	253.79	70.72	254.06
78.57	258.41	81.5	260	81.89	260.21	83.54	260.79	85.19	261.38
85.85	261.61	87.46	262.3	90.89	263.17	94.27	264.09	96.01	264.58
96.35	264.72	97.15	265.01	105.46	267.39	106.88	267.8	110.53	269.16
111.4	269.51								

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	54.48	.05	68.11	.05	111.4	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
54.48	68.11	35.73	38.67	40.52	.1	.3

CROSS SECTION RIVER: Cristianitos
REACH: Upper RS: 4705.68*

INPUT
Description:
Station Elevation Data num= 42

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	269.45	7.33	268.66	10.14	268.14	11.14	267.95	15.79	267.02
22.04	265.66	28.02	264.32	29.36	263.92	31.71	262.65	38.93	258.95
39.66	258.58	39.99	258.41	40.44	258.18	40.83	257.98	49.3	253.79
50.08	253.45	52.69	252.74	52.88	252.68	54.52	252.12	57.62	251.08
58.85	250.67	58.97	250.67	70.84	252.21	72.73	252.7	73.67	252.99
82.14	256.54	85.31	257.85	85.72	258.02	87.5	258.6	89.28	259.18
90	259.41	91.74	260.14	95.45	261.41	99.09	262.72	100.97	263.4
100.98	263.41	101.34	263.55	102.21	263.9	111.17	266.63	112.71	267.1
116.65	268.73	117.59	269.13						

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	54.52	.05	70.84	.05	117.59	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
54.52	70.84	35.73	38.67	40.52	.1	.3

CROSS SECTION RIVER: Cristianitos
REACH: Upper RS: 4667.013

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	269.1	7.34	268.16	10.15	267.54	29.38	262.98	31.73	261.69
40.02	257.48	40.47	257.25	50.11	252.45	52.92	251.62	54.56	251.01
57.85	249.84	59.15	249.38	59.3	249.38	73.58	251.11	75.6	251.62
91.47	256.41	94.15	257.22	100	259.64	105.94	262.23	107.26	262.79
118.54	266.4	123.78	268.75						

Manning's n Values num= 1

Sta	n Val
0	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
54.56	73.58	102.41	431.78	280.69	.1	.3

CROSS SECTION RIVER: Cristianitos
REACH: Lower RS: 4235.234

INPUT
Description: CS Modified 2:1 Slope, Station 280
Station Elevation Data num= 24

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev

0	391.2	279.86	251.2	285.91	251.17	320.15	249.62	364.39	247.8
387.31	247.22	401.23	246.98	453.17	246.1	455.32	246.07	456.02	246.05
456.78	246.06	485.37	245.97	486.34	245.97	521.51	245.92	528.78	246.06
555.11	247.52	564.76	248.25	565.37	248.3	568.67	248.55	571	248.82
574.41	249.65	576.77	250.45	582.33	252.01	607.93	262.73		

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	401.23	.035	486.34	.05	565.37	.07

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
456.78	528.78	142.68	162.76	168.52	.1	.3

CROSS SECTION RIVER: Cristianitos
REACH: Lower RS: 4072.483

INPUT
Description:
Station Elevation Data num= 24

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	262.64	.66	262.54	4.93	260.61	12.16	252.5	14.31	250.22
19.65	248.9	44.15	247.56	51.53	247.26	53.98	246.98	66.29	246.16
80.29	245.1	107.88	243.94	109.39	243.88	123.85	243.27	133.39	242.91
142.85	242.54	153.23	242.24	154.21	242.48	159.69	243.77	170.71	252.35
176.01	256.48	176.2	256.63	182.13	261.1	189.26	266.62		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.05	107.88	.035	176.01	.07

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
109.39	159.69	133.31	169.92	180.4	.1	.3

CROSS SECTION RIVER: Cristianitos
REACH: Lower RS: 3902.554

INPUT
Description:
Station Elevation Data num= 27

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	263.07	1.33	262.91	3.09	262.32	7.3	258.82	14.65	255.57
21.06	252.22	25.1	249.43	31.12	249.23	44.41	247.36	49.2	246.69
56.89	245.7	61.29	245.09	66.55	244.8	73.23	244.36	77.58	244.08
96.71	242.7	120.7	243.63	121.97	243.68	124.1	243.69	124.79	243.69
153.98	243.63	159.06	244.19	163.7	243.82	165.13	244.51	170.09	249.35
178.27	257.33	185.69	264.58						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.05	120.7	.035	178.27	.07

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
77.58	159.06	222.54	246.18	257.52	.1	.3

CROSS SECTION RIVER: Cristianitos
REACH: Lower RS: 3656.363

INPUT
Description:
Station Elevation Data num= 26

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	262.7	.65	262.64	8.27	259.77	14.3	256.9	26.01	250.01
31.98	248.89	42.71	248.32	65.92	246.96	105.18	244.67	110.36	244.35
144.8	242.26	151.74	241.94	165.39	241.89	173.14	241.86	176.81	241.81
190.77	241.62	216.27	241.29	232.3	241.9	239.38	242.17	241.44	242.25
242.63	242.27	244.55	242.72	248.81	243.69	250.1	244.43	254.58	248.66
272.02	263.42								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.05	176.81	.035	239.38	.07

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
173.14	232.3	44.98	44.9	43.86	.1	.3

CROSS SECTION RIVER: Cristianitos
REACH: Lower RS: 3611.46*

INPUT
Description:
Station Elevation Data num= 68

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	262.66	.74	262.59	5.91	261.01	9.42	259.82	11.09	259.13
16.29	257.12	24.98	253.02	25.82	252.62	29.18	251.09	29.63	250.88
36.43	249.81	37.07	249.78	37.79	249.73	39.18	249.65	48.65	248.85
56.35	248.17	63.59	247.83	71.18	247.47	75.08	247.29	78.34	247.14
105.06	245.89	113.62	245.34	119.8	245.01	125.7	244.67	129.67	244.45
148.28	243.41	164.93	242.5	168.77	242.33	169.11	242.31	172.83	242.1
177.27	241.99	184.5	241.61	185.86	241.55	187.56	241.47	188.38	241.45
197.21	241.18	200.75	241.09	204.6	240.99	205.61	240.98	214.22	240.87
234.54	240.62	238.81	240.57	246.39	240.88	253.79	241.19	261.95	241.61
262.01	241.61	262.03	241.61	263.98	241.75	264.43	241.78	265.81	241.85
268.05	242.33	270.38	242.82	272.64	243.3	273	243.39	274.5	244.16
276.91	246.06	277.18	246.27	277.57	246.58	277.79	246.77	279.72	248.42
286.02	253.35	288.51	255.23	289.86	256.3	291.34	257.46	291.63	257.66
292.4	258.22	295.64	260.53	300.01	263.48				

Manning's n Values num= 9

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	78.34	.048	129.67	.037	197.21	.035	200.72	.035
253.79	.067	261.95	.05	262.03	.067	300.01	.067		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
197.21	253.79	44.98	44.9	43.86	.1	.3

CROSS SECTION RIVER: Cristianitos
REACH: Lower RS: 3566.55*

INPUT
Description:
Station Elevation Data num= 68

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	262.63	.83	262.55	6.63	261.09	10.57	259.87	12.45	259.19
18.28	257.34	28.03	253.63	28.97	253.26	32.74	251.93	33.24	251.76
40.87	250.74	41.59	250.69	42.4	250.63	43.96	250.54	54.59	249.38
63.23	248.41	71.35	248.1	79.87	247.78	84.25	247.62	87.9	247.48
117.88	246.36	127.49	245.7	134.42	245.35	141.04	245	145.5	244.77
166.37	243.68	185.06	242.74	189.37	242.56	189.76	242.53	193.93	242.26
198.9	242.06	207.02	241.32	208.54	241.2	210.46	241.05	211.38	241.01
221.28	240.49	224.69	240.37	228.4	240.23	229.37	240.22	237.66	240.12
257.24	239.89	261.36	239.84	268.4	240.17	275.28	240.49	284.59	241.05
284.66	241.05	284.68	241.05	286.91	241.26	287.41	241.31	288.99	241.43
291.54	241.94	294.21	242.46	296.79	242.97	297.2	243.09	298.91	243.9
301.65	245.74	301.96	245.95	302.41	246.25	302.66	246.45	304.86	248.18
312.04	253.45	314.89	255.41	316.43	256.55	318.12	257.81	318.44	258.01
319.32	258.55	323.02	260.83	328.01	263.54				

Manning's n Values num= 9

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	87.9	.046	145.5	.039	221.28	.035	224.63	.035
275.28	.064	284.59	.05	284.68	.064	328.01	.064		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
221.28	275.28	44.98	44.9	43.86	.1	.3

CROSS SECTION RIVER: Cristianitos
REACH: Lower RS: 3521.65*

INPUT
Description:
Station Elevation Data num= 68

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	262.59	.92	262.5	7.35	261.17	11.72	259.93	13.8	259.25
20.26	257.56	31.08	254.24	32.12	253.91	36.3	252.78	36.86	252.63
45.32	251.66	46.11	251.61	47.01	251.53	48.74	251.43	60.52	249.91
70.11	248.65	79.11	248.38	88.56	248.09	93.41	247.95	97.46	247.82
130.7	246.82	141.36	246.06	149.05	245.69	156.39	245.32	161.32	245.08
184.47	243.95	205.19	242.98	209.97	242.78	210.4	242.75	215.02	242.42
220.54	242.12	229.54	241.04	231.22	240.85	233.35	240.64	234.37	240.57
245.35	239.81	248.63	239.65	252.19	239.47	253.13	239.46	261.11	239.37
279.94	239.16	283.9	239.12	290.41	239.45	296.77	239.78	307.23	240.48
307.3	240.49	307.33	240.49	309.83	240.77	310.4	240.83	312.17	241.02
315.04	241.55	318.03	242.1	320.93	242.65	321.39	242.79	323.31	243.63
326.4	245.43	326.74	245.63	327.24	245.92	327.53	246.13	330	247.94
338.07	253.56	341.27	255.59	343	256.81	344.89	258.16	345.25	258.35
346.25	258.88	350.4	261.12	356	263.6				

Manning's n Values num= 9

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	97.46	.044	161.32	.041	245.35	.035	248.54	.035
296.77	.061	307.23	.05	307.33	.061	356	.061		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
245.35	296.77	44.98	44.9	43.86	.1	.3

CROSS SECTION RIVER: Cristianitos
REACH: Lower RS: 3476.75*

INPUT
Description:
Station Elevation Data num= 68

76.99	248.89	86.87	248.65	97.25	248.41	102.58	248.28	107.03	248.17
143.52	247.29	155.23	246.41	163.67	246.02	171.73	245.65	177.15	245.4
202.57	244.22	225.32	243.22	230.57	243.01	231.04	242.97	236.12	242.58
242.17	242.19	252.05	240.75	253.91	240.5	256.24	240.22	257.36	240.12
269.42	239.12	272.57	238.92	275.99	238.71	276.9	238.69	284.55	238.62
302.64	238.43	306.44	238.39	312.42	238.74	318.26	239.08	329.87	239.92
329.95	239.93	329.98	239.93	332.76	240.28	333.39	240.36	335.36	240.6
338.53	241.16	341.86	241.74	345.07	242.32	345.58	242.49	347.72	243.37
351.14	245.11	351.52	245.3	352.08	245.58	352.4	245.8	355.13	247.69
364.09	253.66	367.64	255.76	369.56	257.07	371.67	258.51	372.07	258.69
373.17	259.22	377.78	261.41	384	263.65				

Manning's n Values num= 9

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	107.03	.041	177.15	.044	269.42	.035	272.45	.035
318.26	.059	329.87	.05	329.98	.059	384	.059		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
269.42	318.26	44.98	44.9	43.86	.1	.3

CROSS SECTION RIVER: Cristianitos

REACH: Lower RS: 3431.85*

INPUT
Description:
Station Elevation Data num= 68

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	262.51	1.1	262.41	8.79	261.32	14.02	260.03	16.51	259.37
24.24	258	37.17	255.45	38.42	255.19	43.43	254.48	44.09	254.37
54.21	253.51	55.16	253.45	56.24	253.33	58.31	253.21	72.4	250.97
83.86	249.14	94.63	248.93	105.93	248.72	111.74	248.61	116.59	248.51
156.35	247.76	169.09	246.77	178.29	246.36	187.07	245.97	192.98	245.71
220.67	244.48	245.45	243.46	251.17	243.24	251.68	243.19	257.21	242.74
263.81	242.25	274.57	240.46	276.59	240.15	279.13	239.8	280.35	239.68
293.49	238.44	296.51	238.2	299.79	237.94	300.66	237.93	308	237.86
325.34	237.71	328.98	237.67	334.43	238.02	339.75	238.37	352.5	239.36
352.6	239.37	352.63	239.37	355.68	239.8	356.37	239.89	358.54	240.18
362.03	240.77	365.68	241.38	369.21	242	369.78	242.19	372.12	243.1
375.88	244.79	376.3	244.98	376.92	245.25	377.26	245.48	380.27	247.45
390.12	253.77	394.02	255.94	396.13	257.33	398.44	258.85	398.88	259.03
400.09	259.55	405.16	261.7	411.99	263.71				

Manning's n Values num= 9

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	116.59	.039	192.98	.046	293.49	.035	296.36	.035
339.75	.056	352.5	.05	352.63	.056	411.99	.056		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
293.49	339.75	44.98	44.9	43.86	.1	.3

CROSS SECTION RIVER: Cristianitos
REACH: Lower RS: 3386.94*

INPUT
Description:
Station Elevation Data num= 68

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	262.48	1.19	262.37	9.51	261.4	15.17	260.08	17.87	259.43
26.23	258.22	40.22	256.06	41.57	255.84	46.99	255.32	47.71	255.25
58.66	254.43	59.69	254.36	60.85	254.23	63.09	254.1	78.34	251.5
90.74	249.38	102.39	249.2	114.62	249.03	120.91	248.93	126.15	248.86
169.17	248.22	182.96	247.12	192.91	246.7	202.41	246.3	208.8	246.03
238.76	244.75	265.58	243.7	271.77	243.46	272.32	243.41	278.31	242.9
285.44	242.32	297.09	240.17	299.28	239.8	302.03	239.38	303.35	239.24
317.56	237.75	320.45	237.48	323.59	237.18	324.42	237.17	331.44	237.11
348.04	236.98	351.53	236.94	356.44	237.31	361.24	237.67	375.14	238.8
375.24	238.81	375.28	238.81	378.61	239.31	379.36	239.42	381.72	239.76
385.53	240.38	389.51	241.02	393.36	241.67	393.97	241.89	396.53	242.84
400.63	244.47	401.08	244.65	401.75	244.91	402.13	245.15	405.41	247.21
416.14	253.87	420.39	256.11	422.69	257.58	425.22	259.2	425.7	259.38
427.02	259.89	432.54	262	439.99	263.77				

Manning's n Values num= 9

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	126.15	.037	208.8	.048	317.56	.035	320.27	.035
361.24	.053	375.14	.05	375.28	.053	439.99	.053		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
317.56	361.24	44.98	44.9	43.86	.1	.3

CROSS SECTION RIVER: Cristianitos
REACH: Lower RS: 3342.045

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 47

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	262.44	10.23	261.48	19.22	259.49	43.27	256.67	44.72	256.48
50.55	256.17	64.21	255.28	65.46	255.13	67.87	254.99	97.62	249.62
110.15	249.48	123.31	249.34	135.71	249.2	181.99	248.69	196.83	247.48
224.63	246.34	256.86	245.02	292.37	243.69	292.96	243.63	307.08	242.38
319.61	239.88	321.96	239.45	324.92	238.96	341.63	237.07	347.39	236.42
348.18	236.41	370.74	236.25	374.07	236.22	378.45	236.59	382.73	236.96
397.78	238.24	397.89	238.25	401.53	238.82	413.33	240.66	417.5	241.35
425.37	244.15	425.86	244.33	426.59	244.58	427	244.83	442.17	253.98
446.77	256.29	449.26	257.84	451.99	259.55	452.51	259.72	453.94	260.22
459.92	262.29	467.98	263.83						

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	135.71	.035	224.63	.05	341.63	.035	397.78	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
341.63	382.73	166.75	215.2	256.05	.1	.3

CROSS SECTION RIVER: Cristianitos
REACH: Lower RS: 3126.861

INPUT
Description:
Station Elevation Data num= 50

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	262.45	.87	262.44	4.2	262.21	7.77	261.89	38.36	258.93
50.05	257.49	68.62	256.66	73.82	255.98	113.37	253.6	132.62	252.38
163.35	250.43	168.39	250	180.63	249.87	211.24	249.87	250.39	249.51
257.17	249.18	272.27	248.63	290.56	244.28	295.54	243.09	296.27	242.97
296.84	242.7	297.16	242.67	318.65	242.02	337.98	241.64	340.22	241.46
344.98	241.14	348.11	240.9	394.72	237.33	403.37	237.23	412.21	237.13
419.33	237.04	433.7	236.69	447.58	236.34	450.27	236.27	451.44	236.22

456.08	236.03	465.44	236.72	468.5	237.04	476.35	237.73	480.67	238.1
482.18	238.43	488.02	239.61	492.17	240.51	503.78	242.88	510.64	246.03
518.5	249.8	524.29	252.43	544.65	260.79	548.04	262.06	552.56	262.7

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	132.62	.035	348.11	.05	403.37	.035	447.58	.07

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
419.33	468.5	75.06	94.26	108.69	.1	.3

CROSS SECTION RIVER: Cristianitos
REACH: Lower RS: 3032.611

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 65

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	262.42	6.06	262.24	13.02	262.04	15.92	261.95	19.03	261.45
36.36	260.49	52.77	259.57	72.71	257.95	88.18	256.69	90.06	256.53
90.92	256.43	94.23	256.3	109.78	255.95	111.53	255.9	126.36	255.79
156.05	253.35	169.67	252.46	188.31	251.24	208.02	249.47	247.25	248.97
273.69	248.58	286.71	248.47	292.36	248.52	329.35	246.41	330.09	246.47
331.26	245.99	332.02	245.94	345.3	244.82	368.75	244.96	387.81	244.77
388.31	244.77	432.06	244.45	432.74	244.44	443.26	243.59	451.45	242.73
455.04	242.47	463.26	239.57	465.42	238.88	466.58	238.22	469.38	236.62
469.61	236.48	469.77	236.39	476.48	235	483.85	234.46	499.91	234.98
501.24	235.03	504.48	235.24	506.63	235.66	509	236.22	510.14	236.49
517.47	240.38	525.77	245.15	530.02	247.88	533.24	249.65	533.33	249.7
533.81	249.9	537.83	251.66	550.23	255.67	550.74	255.77	553.65	255.88
564.14	257.14	588.66	259.59	593.17	260.72	604.58	262.24	605.95	262.43

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	6.06	.05	169.67	.035	387.81	.05	466.58	.035
509	.07	533.24	.05						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
476.48	499.91	49.43	46.02	52.03	.3	.5

BRIDGE RIVER: Cristianitos
REACH: Lower RS: 3020

INPUT
Description:
Distance from Upstream XS = 12
Deck/Roadway Width = 32
Weir Coefficient = 2.6
Upstream Deck/Roadway Coordinates
num= 6

Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord
0	249		365	249		457	249.3	244.4
522	249.3	244.4	542	249.3		700	249.3	

Upstream Bridge Cross Section Data
Station Elevation Data num= 65

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	262.42	6.06	262.24	13.02	262.04	15.92	261.95	19.03	261.45
36.36	260.49	52.77	259.57	72.71	257.95	88.18	256.69	90.06	256.53
90.92	256.43	94.23	256.3	109.78	255.95	111.53	255.9	126.36	255.79
156.05	253.35	169.67	252.46	188.31	251.24	208.02	249.47	247.25	248.97
273.69	248.58	286.71	248.47	292.36	248.52	329.35	246.41	330.09	246.47
331.26	245.99	332.02	245.94	345.3	244.82	368.75	244.96	387.81	244.77
388.31	244.77	432.06	244.45	432.74	244.44	443.26	243.59	451.45	242.73
455.04	242.47	463.26	239.57	465.42	238.88	466.58	238.22	469.38	236.62
469.61	236.48	469.77	236.39	476.48	235	483.85	234.46	499.91	234.98
501.24	235.03	504.48	235.24	506.63	235.66	509	236.22	510.14	236.49
517.47	240.38	525.77	245.15	530.02	247.88	533.24	249.65	533.33	249.7
533.81	249.9	537.83	251.66	550.23	255.67	550.74	255.77	553.65	255.88
564.14	257.14	588.66	259.59	593.17	260.72	604.58	262.24	605.95	262.43

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val

476.48	499.91	.3	.5

Downstream Deck/Roadway Coordinates
num= 6

Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord
0	249		365	249		457	249.3	244.4
522	249.3	244.4	542	249.3		700	249.3	

Downstream Bridge Cross Section Data
Station Elevation Data num= 83

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	262.3	9.71	262.21	36.1	260.5	40.1	260.38	40.94	260.35
65.21	256.56	70.57	256.12	102.15	255.79	120.03	255.41	145.85	255.58
156.55	255.45	175	254.48	187.11	254.83	195.7	252.51	201.55	251.99
206.71	251.79	215.26	251.43	218.53	250.93	226.68	249.78	230.86	249.72
246.04	249.58	247.76	249.37	250.94	249.34	262.15	249.23	282.51	249.04
304.66	246.21	310.65	245.9	317.56	245.77	341.76	245.01	351.12	244.8
360.17	244.59	369.25	244.78	415.1	245.64	421.61	245.6	430.98	245.22
440.04	244.64	450.64	243.99	458.12	243.3	458.29	243.26	464.72	239.97
466.54	239.08	468.16	238.05	472.98	235	480.99	229.91	481.18	229.89
485.07	229.81	494.23	229.65	494.55	229.71	494.8	229.85	499.15	231.29

509.47	239.12	509.91	239.46	510.16	239.65	510.46	239.89	510.71	240.02
512.94	241.05	517.18	242.96	517.35	242.99	523.24	243.33	530.56	243.75
537.01	244.14	541.52	244.42	543.69	244.52	544.13	244.54	544.36	244.64
562.91	247.98	568.19	248.72	575.71	249.18	588.17	249.62	592.08	250.62
593.96	251.1	596.78	251.46	611.41	251.37	622.03	251.98	633.74	253.15
642.14	254.98	642.37	255.03	642.52	255.14	642.63	255.16	663.28	255.87
674.62	255.2	682.22	254.94	688.47	254.84				

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	102.15	.05	468.16	.035	509.47	.05	592.08	.035

Bank Sta: Left	Right	Coeff Contr.	Expan.
480.99	494.8	.3	.5

Upstream Embankment side slope = 0 horiz. to 1.0 vertical
Downstream Embankment side slope = 0 horiz. to 1.0 vertical
Maximum allowable submergence for weir flow = .95
Elevation at which weir flow begins = 250
Energy head used in spillway design =
Spillway height used in design =
Weir crest shape = Broad Crested

Number of Bridge Coefficient Sets = 1

Low Flow Methods and Data
Energy
Selected Low Flow Methods = Energy

High Flow Method
Energy Only

Additional Bridge Parameters
Add Friction component to Momentum
Do not add Weight component to Momentum
Class B flow critical depth computations use critical depth inside the bridge at the upstream end
Criteria to check for pressure flow = Upstream energy grade line

BRIDGE OUTPUT Profile #Q100
Opening : Single BR

E.G. US. (ft)	244.10	Element	Inside BR US	Inside BR DS
W.S. US. (ft)	242.56	E.G. Elev (ft)	243.72	242.55
Q Total (cfs)	3552.00	W.S. Elev (ft)	241.19	240.58
Q Bridge (cfs)	3552.00	Crit W.S. (ft)	241.19	239.[illegible]1
Q Weir (cfs)		Max Chl Dpth (ft)	6.73	10.93
Weir Sta Lft (ft)		Vel Total (ft/s)	12.22	10.45
Weir Sta Rgt (ft)		Flow Area (sq ft)	290.72	339.90
Weir Submerg		Froude # Chl	0.99	0.71
Weir Max Depth (ft)		Specif Force (cu ft)	2214.37	2735.38
Min El Weir Flow (ft)	250.00	Hydr Depth (ft)	4.83	7.03
Min El Prs (ft)	244.40	W.P. Total (ft)	62.76	54.72
Delta EG (ft)	1.86	Conv. Total (cfs)	36688.3	55712.9
Delta WS (ft)	3.36	Top Width (ft)	60.21	48.38
BR Open Area (sq ft)	496.33	Frctn Loss (ft)	0.19	0.36
BR Open Vel (ft/s)	12.22	C & E Loss (ft)	0.27	0.69
Coef of Q		Shear Total (lb/sq ft)	2.71	1.58
Br Sel Method	Energy only	Power Total (lb/ft s)	33.12	16.47

Warning: The energy equation could not be balanced within the specified number of iterations. The program used critical depth for the water surface and continued on with the calculations.
Warning: The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Warning: During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated water surface came back below critical depth. This indicates that there is not a valid subcritical answer. The program defaulted to critical depth.
Warning: The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: Cristianitos
REACH: Lower RS: 2986.590

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 83

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	262.3	9.71	262.21	36.1	260.5	40.1	260.38	40.94	260.35
65.21	256.56	70.57	256.12	102.15	255.79	120.03	255.41	145.85	255.58
156.55	255.45	175	254.48	187.11	254.83	195.7	252.51	201.55	251.99
206.71	251.79	215.26	251.43	218.53	250.93	226.68	249.78	230.86	249.72
246.04	249.58	247.76	249.37	250.94	249.34	262.15	249.23	282.51	249.04
304.66	246.21	310.65	245.9	317.56	245.77	341.76	245.01	351.12	244.8
360.17	244.59	369.25	244.78	415.1	245.64	421.61	245.6	430.98	245.22
440.04	244.64	450.64	243.99	458.12	243.3	458.29	243.26	464.72	239.97
466.54	239.08	468.16	238.05	472.98	235	480.99	229.91	481.18	229.89
485.07	229.81	494.23	229.65	494.55	229.71	494.8	229.85	499.15	231.29
509.47	239.12	509.91	239.46	510.16	239.65	510.46	239.89	510.71	240.02
512.94	241.05	517.18	242.96	517.35	242.99	523.24	243.33	530.56	243.75
537.01	244.14	541.52	244.42	543.69	244.52	544.13	244.54	544.36	244.64
562.91	247.98	568.19	248.72	575.71	249.18	588.17	249.62	592.08	250.62

593.96	251.1	596.78	251.46	611.41	251.37	622.03	251.98	633.74	253.15
642.14	254.98	642.37	255.03	642.52	255.14	642.63	255.16	663.28	255.87
674.62	255.2	682.22	254.94	688.47	254.84				

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	102.15	.05	468.16	.035	509.47	.05	592.08	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
480.99	494.8	13.88	13.99	13.09	.3	.5

CROSS SECTION RIVER: Cristianitos
REACH: Lower RS: 2972.60*

INPUT
Description:
Station Elevation Data num= 137

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	262.32	7.3	262.18	9.16	262.14	34.05	260.57	37.82	260.43
38.61	260.4	61.5	257.48	66.55	257.1	67.39	257.08	96.34	256.24
101.79	256.04	113.2	255.68	119.73	255.6	137.55	255.46	140.4	255.4
147.64	255.18	156.26	254.68	165.04	254.1	176.46	254	184.56	252.22
190.08	251.71	194.95	251.44	198.13	251.25	200.85	251.1	203.01	250.98
206.09	250.56	213.78	249.58	217.72	249.44	232.04	248.96	233.66	248.78
236.66	248.68	236.74	248.67	247.23	248.36	250.54	248.27	259.47	247.91
266.43	247.7	281.77	245.95	287.32	245.41	292.97	245.16	296.42	245.09
299.49	245.03	314.06	244.63	322.31	244.39	331.14	244.19	339.68	244
348.24	244.07	357.75	244.13	364.86	244.2	367.96	244.2	374.54	244.08
391.48	244.1	397.62	244.01	399.57	243.93	406.46	243.17	407.05	243.1
412.8	242.5	415	242.13	416.5	241.88	423.18	240.42	425	239.95
427.87	239.16	429.58	239.01	432.05	238.8	432.21	238.77	438.28	236.45
439.99	235.82	440.7	235.49	441.52	235.11	446.07	233.02	453.62	229.54
453.9	229.52	455.82	229.46	459.73	229.33	471.59	228.97	473.46	228.89
473.86	228.94	475.07	229.1	476.22	229.2	477.39	229.33	477.56	229.35
478.37	229.46	482.5	230.55	484.22	231.53	486.77	232.97	488.42	234.08
491.99	236.62	492.3	236.85	492.72	237.16	492.96	237.33	493.24	237.55
493.48	237.68	493.82	237.85	495.31	238.86	495.6	239.06	499.62	241.79
499.78	241.87	505.24	244.06	505.38	244.1	508.78	245.11	512.33	245.33
518.45	245.72	518.76	245.74	522.74	245.98	523.7	246.03	524.8	246.09
525.21	246.12	525.43	246.19	528.39	246.65	534.44	247.84	543.05	249.43
548.06	250.22	549.11	250.32	555.2	250.85	565.02	251.53	567.03	251.62
570.75	252.37	572.53	252.72	573.59	252.84	575.21	253.02	586.93	253.22
589.1	253.22	590.74	253.3	595.03	253.46	597.68	253.55	599.19	253.63
603.78	254	610.31	254.59	618.1	255.94	618.28	255.98	618.5	256.02
618.65	256.11	618.75	256.12	638.14	257.72	638.36	257.73	649.13	257.5
656.34	257.48	662.28	257.53						

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.04	96.34	.05	441.52	.04	453.62	.045	455.56	.035
471.75	.04	478.37	.045	492.3	.045	570.75	.035	573.59	.035
662.28	.035								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
453.62	478.37	13.88	13.99	13.09	.3	.5

CROSS SECTION RIVER: Cristianitos
REACH: Lower RS: 2958.61*

INPUT
Description:
Station Elevation Data num= 137

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	262.33	6.86	262.13	8.6	262.06	31.99	260.65	35.54	260.48
36.28	260.44	57.79	258.41	62.54	258.09	63.33	258.06	90.52	256.69
95.65	256.42	106.37	255.94	112.5	255.74	129.25	255.33	131.93	255.25
138.73	254.91	146.83	254.39	155.08	253.72	165.82	253.17	173.43	251.92
178.61	251.43	183.18	251.08	186.17	250.85	188.73	250.67	190.76	250.52
193.66	250.19	200.88	249.39	204.59	249.16	218.04	248.34	219.56	248.18
222.38	248.01	222.45	248.01	232.32	247.5	235.43	247.34	243.82	246.7
250.36	246.36	264.77	244.95	269.99	244.61	275.3	244.42	278.54	244.34
281.42	244.29	295.11	243.97	302.87	243.78	311.16	243.59	319.18	243.41
327.23	243.36	336.17	243.3	342.84	243.29	345.76	243.24	351.04	[illegible]
426.63	229.14	429.18	229.05	434.4	228.85	450.19	228.26	452.69	228.13
453.45	228.23	455.73	228.52	457.88	228.69	460.09	228.88	460.42	228.9
461.94	229.07	465.85	229.82	467.48	230.39	469.9	231.23	471.45	232.14
474.83	234.38	475.13	234.58	475.53	234.86	475.75	235.01	476.02	235.2
476.25	235.34	476.57	235.52	477.98	236.81	478.25	237.07	482.06	240.61
482.22	240.74	487.39	244.8	487.51	244.87	490.73	246.69	494.1	246.91
499.9	247.31	500.18	247.33	503.95	247.54	504.87	247.59	505.9	247.67
506.3	247.7	506.5	247.74	509.3	248.09	515.04	249.34	523.19	250.88
527.93	251.71	528.92	251.86	534.7	252.53	543.99	253.51	545.9	253.62
549.42	254.11	551.11	254.35	552.1	254.44	553.64	254.58	564.74	255.05
566.8	255.07	568.34	255.13	572.41	255.18	574.92	255.22	576.35	255.28
580.7	255.54	586.88	256.03	594.26	256.94	594.43	256.97	594.64	257.02
594.77	257.07	594.87	257.09	613.23	259.58	613.44	259.59	623.64	259.81
630.47	260.02	636.09	260.23						

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.045	90.52	.05	414.88	.045	426.25	.04	429.05	.035
452.39	.045	461.94	.04	475.13	.04	549.42	.035	552.1	.035
636.09	.035								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
426.25	461.94	13.88	13.99	13.09	.3	.5

CROSS SECTION RIVER: Cristianitos
REACH: Lower RS: 2944.635

INPUT
Description:
Station Elevation Data num= 59

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	262.35	6.42	262.08	59.26	259.03	89.51	256.79	105.28	255.88
123.46	255.1	137.4	254.1	174.22	250.45	176.61	250.24	208.17	247.34
220.31	246.41	228.16	245.5	247.77	243.94	260.65	243.6	276.16	243.32
314.58	242.46	320.83	242.38	323.56	242.27	329.34	241.63	351.35	240.75
357.93	238.93	362.99	237.92	366.24	236.56	372.11	233.03	376.24	230.07
377.74	229.95	387.52	229.26	398.88	228.79	402.54	228.64	428.8	227.56
431.92	227.37	433.03	227.51	436.38	227.94	442.79	228.42	443.28	228.45
445.51	228.68	450.74	229.25	453.02	229.5	454.49	230.2	457.68	232.13
459.32	233.19	460.65	234.76	469.53	245.54	472.69	248.26	481.61	248.91
486.03	249.15	490.22	249.54	495.63	250.83	508.74	253.39	522.96	255.5
530.62	256.04	542.55	256.88	545.95	256.96	549.79	256.91	552.16	256.88
557.61	257.08	570.41	257.94	588.32	261.44	609.9	262.92		

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	402.54	.035	433.03	.05	530.62	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
398.88	445.51	190.75	191.25	194.75	.3	.5

BRIDGE RIVER: Cristianitos
REACH: Lower RS: 2924

INPUT
Description:
Distance from Upstream XS = 20.635
Deck/Roadway Width = 159.68
Weir Coefficient = 2.6
Upstream Deck/Roadway Coordinates
num= 5

Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord
-107.7	294.6	0	-107.7	294.6	283.61	801.08	280.53	269.54
801.08	280.53	0	900	280.53	0			

Upstream Bridge Cross Section Data
Station Elevation Data num= 59

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	262.35	6.42	262.08	59.26	259.03	89.51	256.79	105.28	255.88
123.46	255.1	137.4	254.1	174.22	250.45	176.61	250.24	208.17	247.34
220.31	246.41	228.16	245.5	247.77	243.94	260.65	243.6	276.16	243.32
314.58	242.46	320.83	242.38	323.56	242.27	329.34	241.63	351.35	240.75
357.93	238.93	362.99	237.92	366.24	236.56	372.11	233.03	376.24	230.07
377.74	229.95	387.52	229.26	398.88	228.79	402.54	228.64	428.8	227.56
431.92	227.37	433.03	227.51	436.38	227.94	442.79	228.42	443.28	228.45
445.51	228.68	450.74	229.25	453.02	229.5	454.49	230.2	457.68	232.13
459.32	233.19	460.65	234.76	469.53	245.54	472.69	248.26	481.61	248.91
486.03	249.15	490.22	249.54	495.63	250.83	508.74	253.39	522.96	255.5
530.62	256.04	542.55	256.88	545.95	256.96	549.79	256.91	552.16	256.88
557.61	257.08	570.41	257.94	588.32	261.44	609.9	262.92		

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	402.54	.035	433.03	.05	530.62	.035

Bank Sta: Left	Right	Coeff Contr.	Expan.
398.88	445.51	.3	.5

Downstream Deck/Roadway Coordinates
num= 5

Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord
-197.7	294.6	0	-197.7	294.6	283.61	711.08	280.53	269.54
711.08	280.53	0	800	280.53	0			

Downstream Bridge Cross Section Data
Station Elevation Data num= 52

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	262.47	5.3	262.3	34.87	262.01	69.43	260.58	116.29	260.94
133.54	260.86	157.28	260.92	181.95	261	187.62	260.86	192.56	260.22
221.69	257.12	225.84	256.17	230.76	253.38	233.77	251.47	241.72	248.8
248.63	247.41	258.74	244.6	267.7	242.15	282.73	240.23	311.89	236.91
323.32	236.22	347.73	235.11	358.31	234.38	374.24	232.37	385.31	231.18
402.54	229.37	403.43	229.32	413.89	228.67	417.87	228.6	440.44	228.21
442.93	228.19	452.53	228.45	457.95	228.65	486.24	229.61	490.01	229.74
493.84	230.38	522.27	235.17	524.15	235.4	525.14	235.59	526.18	235.71
566.39	236.42	576.17	237.03	584.81	238.3	615.57	247.21	620.28	248.5
622.18	249.15	623.95	249.49	647.75	254.22	672.1	256.31	691.38	257.76
714.11	259.48	759.76	262.51						

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	417.87	.035	486.24	.05	691.38	.035

Bank Sta: Left	Right	Coeff Contr.	Expan.
413.89	457.95	.3	.5

Upstream Embankment side slope = 0 horiz. to 1.0 vertical
Downstream Embankment side slope = 0 horiz. to 1.0 vertical
Maximum allowable submergence for weir flow = .95

```
Elevation at which weir flow begins          =     282
Energy head used in spillway design          =
Spillway height used in design               =
Weir crest shape                             = Broad Crested

Number of Abutments =  1

Abutment Data
Upstream     num=        6
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
 -127.38  294.91  -68.33  260.82  -68.33       0  761.71       0  761.71   255.9
  827.33  278.87
Downstream     num=        6
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
 -217.38  294.91 -158.33  260.82 -158.33       0  671.71       0  671.71   255.9
  737.33  278.87

Number of Piers =  3

Pier Data
Pier Station     Upstream=   79.31    Downstream=   -10.7
Upstream     num=        2
    Width   Elev    Width   Elev
     9.5       0      9.5    395
Downstream     num=        2
    Width   Elev    Width   Elev
     9.5       0      9.5    395

Pier Data
Pier Station     Upstream=  358.17    Downstream=  268.17
Upstream     num=        2
    Width   Elev    Width   Elev
     9.5       0      9.5    395
Downstream     num=        2
    Width   Elev    Width   Elev
     9.5       0      9.5    395

Pier Data
Pier Station     Upstream=  604.23    Downstream=  514.23
Upstream     num=        2
    Width   Elev    Width   Elev
     9.5       0      9.5    395
Downstream     num=        2
    Width   Elev    Width   Elev
     9.5       0      9.5    395

Number of Bridge Coefficient Sets =  1

Low Flow Methods and Data
      Energy
Selected Low Flow Methods = Energy

High Flow Method
      Energy Only

Additional Bridge Parameters
      Add Friction component to Momentum
      Do not add Weight component to Momentum
      Class B flow critical depth computations use critical depth
          inside the bridge at the upstream end
      Criteria to check for pressure flow = Upstream energy grade line

BRIDGE OUTPUT    Profile #Q100
Opening : Single BR

 E.G. US. (ft)                 238.81   Element                 Inside BR US  Inside BR DS
 W.S. US. (ft)                 230.75   E.G. Elev (ft)               235.22        234.27
 Q Total (cfs)                3552.00   W.S. Elev (ft)               234.12        233.40
 Q Bridge (cfs)               3552.00   Crit W.S. (ft)               232.80        232.49
 Q Weir (cfs)                           Max Chl Dpth (ft)              6.75          5.21
 Weir Sta Lft (ft)                      Vel Total (ft/s)               7.78          6.84
 Weir Sta Rgt (ft)                      Flow Area (sq ft)            456.61        519.31
 Weir Submerg                           Froude # Chl                [illegible]

 [illegible]                            Conv. Total (cfs)           48318.1       49791.8
 Delta WS (ft)                  -1.74   Top Width (ft)                89.81        143.38
 BR Open Area (sq ft)        17066.62   Frctn Loss (ft)                1.19          2.94
 BR Open Vel (ft/s)              7.78   C & E Loss (ft)                2.11          1.17
 Coef of Q                              Shear Total (lb/sq ft)         1.66          1.14
 Br Sel Method            Energy only   Power Total (lb/ft s)         12.93          7.82

Note:    Momentum answer is not valid if the water surface is above the low chord or if there is weir
         flow.  The momentum answer has been disregarded.
Warning: The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need for
         additional cross sections.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less
         than 0.7 or greater than 1.4.  This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.
Warning: The energy equation could not be balanced within the specified number of iterations.  The
         program used critical depth for the water surface and continued on with the calculations.
Warning: The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need for
         additional cross sections.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less
         than 0.7 or greater than 1.4.  This may indicate the need for additional cross sections.
```

Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: Cristianitos
REACH: Lower RS: 2753.405

INPUT
Description:
Station Elevation Data num= 52

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	262.47	5.3	262.3	34.87	262.01	69.43	260.58	116.29	260.94
133.54	260.86	157.28	260.92	181.95	261	187.62	260.86	192.56	260.22
221.69	257.12	225.84	256.17	230.76	253.38	233.77	251.47	241.72	248.8
248.63	247.41	258.74	244.6	267.7	242.15	282.73	240.23	311.89	236.91
323.32	236.22	347.73	235.11	358.31	234.38	374.24	232.37	385.31	231.18
402.54	229.37	403.43	229.32	413.89	228.67	417.87	228.6	440.44	228.21
442.93	228.19	452.53	228.45	457.95	228.65	486.24	229.61	490.01	229.74
493.84	230.38	522.27	235.17	524.15	235.4	525.14	235.59	526.18	235.71
566.39	236.42	576.17	237.03	584.81	238.3	615.57	247.21	620.28	248.5
622.18	249.15	623.95	249.49	647.75	254.22	672.1	256.31	691.38	257.76
714.11	259.48	759.76	262.51						

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	417.87	.035	486.24	.05	691.38	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
413.89	457.95	337.47	285.6	234.57	.3	.5

CROSS SECTION RIVER: Cristianitos
REACH: Lower RS: 2467.829

INPUT
Description: CS Modified 2:1 Slope, Station 340
Station Elevation Data num= 29

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	256.15	3.09	255.85	41.45	255.76	69.25	255.59	87.06	254.69
109.88	253.6	128.46	252.72	152.61	251.2	154.14	251.1	156.79	250.39
164.19	248.6	177.08	238.46	181.92	234.3	186.9	230.01	190.49	227.8
199.7	223.28	206.73	223.09	210.3	222.83	232.47	223.15	251.48	223.27
261.01	224.99	286.31	227.39	286.92	227.45	300.97	228.78	309.11	229.33
313.41	229.38	340	230.08	490	305.08	610.46	305.08		

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	109.88	.05	152.61	035	286.92	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
199.7	251.48	250.26	259.56	250.68	.1	.3

CROSS SECTION RIVER: Cristianitos
REACH: Lower RS: 2208.250

INPUT
Description: CS Modified 2:1 Slope, Station 330
Station Elevation Data num= 30

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	249.66	4.9	249.21	7	248.39	17.52	242.38	21.02	240.38
25.86	238.46	34.81	235.4	40.22	234.44	56.34	228.69	61.31	226.9
64.23	225.85	66.9	224.9	69.03	224.1	72.6	223.82	79.23	223.22
89.72	222.34	94.23	222.01	107.43	222.14	163.47	223.29	179.84	225.03
181.01	225.16	186.21	225.71	218.91	229.03	226.21	229.76	245.27	229.69
270.49	229.36	327.49	226.57	330	226.5	520	321.5	583.91	321.5

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	17.52	.05	64.23	.035	181.01	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
79.23	163.47	249.05	212.25	182.45	.1	.3

CROSS SECTION RIVER: Cristianitos
REACH: Lower RS: 1996.005

INPUT
Description: CS Modified 2:1 Slope, Station 420
Station Elevation Data num= 30

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	251.22	17.26	241.16	23.55	237.54	27.83	235.01	32.8	232.86
41.05	229.28	53.5	225.98	56.83	225.07	72.81	223.01	75.9	222.63
78.28	222.31	78.71	222.29	81.89	222.1	83.22	222.16	84.89	222.09
111.74	222.4	132.58	222.62	192.84	223.21	196.77	223.25	203.66	223.32
213.3	223.55	243.09	223.1	244.6	223.1	263.12	222.52	269.89	222.33
285.79	222.36	391.08	223.36	420	223.72	600	313.72	655.91	313.72

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	32.8	.05	78.71	.035	196.77	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
72.81	192.84	245.2	225	211.55	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: Cristianitos
REACH: Lower RS: 1770.999

INPUT
Description: CS Modified 2:1 Slope, Station 410
Station Elevation Data num= 25

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	252.24	9.7	246.73	17.93	241.37	34.24	232.27	44.97	226.3
48.12	224.55	50.14	223.9	54.58	222.91	64.25	223.62	66.82	223.81
67.81	223.88	84.62	224.58	102.39	225.23	117.95	224.49	140.5	224
150.99	223.7	154.2	223.61	188.28	222.65	195.39	222.44	206.65	222.18
274.26	222.33	292.86	222.85	408.66	223.18	588.66	313.18	642.49	313.18

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.07	44.97	.05	64.25	.035	154.2	.05

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
48.12 84.62 39.32 36.34 35.99 .1 .3
Ineffective Flow num= 1
Sta L Sta R Elev Permanent
888 F

CROSS SECTION RIVER: Cristianitos
REACH: Lower RS: 1734.65*

INPUT
Description:
Station Elevation Data num= 48

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	250.03	5.3	247.43	7.15	246.47	8.68	245.64	15.46	241.51
16.05	241.08	20.73	238.08	27.68	233.77	30.65	231.93	37.98	227.4
39.73	226.3	40.16	226.04	40.26	225.99	43.08	224.44	44.83	223.83
46.99	223.26	47.63	223.1	48.69	222.89	54.48	223.19	55.99	223.26
61.4	223.53	64.78	223.7	66.08	223.76	78.36	224.15	88.18	224.49
100.05	224.79	104.29	224.91	118.41	224.34	133.5	224.06	138.86	223.96
139.99	223.93	148.37	223.72	151.28	223.65	182.19	222.9	188.64	222.74
198.85	222.54	234.1	222.57	260.17	222.6	277.04	222.98	296.09	223.01
299.42	223.02	301.95	223.01	377.99	222.52	382.06	222.51	404.51	231.7
422.77	239.31	545.31	300.58	594.12	304.8				

Manning's n Values num= 9

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.065	27.68	.046	40.26	.046	43.08	.039	63.01	.039
88.18	.05	139.99	.05	151.28	.05	594.12	.05		

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
43.08 88.18 39.32 36.34 35.99 .1 .3
Ineffective Flow num= 1
Sta L Sta R Elev Permanent
888 F

CROSS SECTION RIVER: Cristianitos
REACH: Lower RS: 1698.31*

INPUT
Description:
Station Elevation Data num= 48

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	247.81	4.68	245.99	6.31	245.24	7.67	244.56	13.65	241.21
14.17	240.79	18.3	237.7	24.44	233.42	27.06	231.59	33.53	227.08
35.08	225.98	35.46	225.73	35.55	225.68	38.03	224.33	39.52	223.76
41.36	223.17	41.9	223.01	42.8	222.86	49.97	223.14	51.85	223.2
58.55	223.44	62.74	223.59	64.35	223.64	79.56	224.02	91.74	224.4
102.39	224.51	106.2	224.59	118.86	224.2	132.41	223.99	137.21	223.91
138.23	223.89	145.75	223.74	148.36	223.69	176.1	223.16	181.89	223.04
191.05	222.89	222.69	222.87	246.07	222.87	261.21	223.11	278.31	223.11
281.3	223.12	283.57	223.1	351.81	221.88	355.46	221.85	375.6	227.84
391.99	232.99	501.95	287.97	545.76	296.42				

Manning's n Values num= 9

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.06	24.44	.043	35.55	.043	38.03	.043	61.77	.043
91.74	.05	138.23	.05	148.36	.05	545.76	.05		

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.

CROSS SECTION RIVER: Cristianitos
REACH: Lower RS: 1661.97*

INPUT
Description:
Station Elevation Data num= 48

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	245.6	4.06	244.54	5.48	244.01	6.65	243.47	11.84	240.92
12.29	240.5	15.88	237.32	21.2	233.06	23.48	231.24	29.09	226.76
30.43	225.66	30.76	225.41	30.83	225.38	32.99	224.23	34.22	223.69
35.72	223.09	36.17	222.93	36.91	222.83	45.47	223.1	47.7	223.15
55.7	223.35	60.7	223.47	62.62	223.52	80.77	223.9	95.29	224.3
104.73	224.24	108.1	224.27	119.32	224.05	131.31	223.92	135.57	223.87
136.47	223.86	143.13	223.77	145.44	223.74	170.01	223.41	175.13	223.34
183.25	223.25	211.27	223.18	231.98	223.14	245.39	223.23	260.53	223.21
263.18	223.22	265.19	223.18	325.62	221.23	328.85	221.18	346.7	223.99
361.21	226.68	458.6	275.37	497.39	288.04				

Manning's n Values num= 9

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val

```
      0     .055    21.2     .039   30.83     .039   32.99     .046   60.52     .046
  95.29      .05  136.47      .05  145.44      .05  497.39      .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         32.99   95.29             39.32   36.34   35.99            .1        .3
Ineffective Flow      num=        1
   Sta L   Sta R    Elev  Permanent
888        F

CROSS SECTION           RIVER: Cristianitos
REACH: Lower               RS: 1625.629

INPUT
Description: CS Modified 2:1 Slope, Station 330
Station Elevation Data    num=       28
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  243.38    3.44   243.1    4.64  242.78   10.03  240.62   13.45  236.94
   17.96  232.71   24.64  226.44   25.78  225.34   26.06   225.1   27.95  224.12
   30.09     223   30.44  222.84   31.02  222.81   40.96  223.05   43.56  223.09
   81.98  223.78   98.85  224.21  107.07  223.97  130.22  223.85  134.71  223.82
  199.85  223.48  242.75  223.31  245.06  223.32  246.81  223.27  299.44  220.59
  317.79  220.13  330.43  220.36  449.03  279.66

Manning's n Values        num=        3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .05   17.96    .035  134.71     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         27.95   98.85             34.28   39.33   40.32            .1        .3
Ineffective Flow      num=        1
   Sta L   Sta R    Elev  Permanent
888        F

CROSS SECTION           RIVER: Cristianitos
REACH: Lower               RS: 1586.29*

INPUT
Description:
Station Elevation Data    num=       51
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  243.28    5.39  242.31    6.79  241.92    7.27  241.78   10.48  240.59
   13.41  239.61   14.69  239.27   15.71  239.01   21.07  235.64    25.6  233.14
   28.14  231.76   34.63  228.24   36.43  227.16   38.61  225.97   39.99   225.2
   40.39  224.83   40.83  224.45   41.85  223.76   41.98  223.71   42.29  223.53
   43.41  223.17   43.79  223.05   45.48  222.48   46.42  222.17   47.31  221.92
   47.88  221.78    48.7  221.75   48.84  221.74   58.82  221.98   61.43  222.02
   75.13  222.26  100.02  222.71  116.97  223.12  124.99  222.91  147.59   222.8
  151.98  222.77  169.12  222.68  202.44  222.56  204.27  222.55  215.57  222.51
   219.9   222.5  239.68  222.45  257.45   222.4   259.7  222.41  261.41  222.37
  264.33  222.24  285.97  221.32  312.79  221.76  330.71  222.45  343.05   223.4
  458.83   281.3

Manning's n Values        num=        9
     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val
       0    .053   14.69    .067   28.14    .037   43.79    .048   57.65    .035
  116.97     .05  151.98     .05  204.27     .05  458.83     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         43.79  116.97             34.28   39.33   40.32            .1        .3

CROSS SECTION           RIVER: Cristianitos
REACH: Lower               RS: 1546.96*

INPUT
Description:
Station Elevation Data    num=       51
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  243.18    7.34  241.53    9.25  240.98     9.9  240.78   14.27  239.23
   18.27     238   20.01  237.67    21.4   237.4    28.7  234.34   34.86  232.05
   38.32  230.81   47.15  227.66    49.6  226.57   52.57   225.5   54.45   224.8
      55  224.31    55.6   223.8   56.99  222.76   57.17   222.7   57.59  222.44
   59.11  222.09   59.63  221.97   61.98  221.37   63.29  221.05   64.53  220.84
   65.33  220.71   66.47  220.68   66.65  220.68   76.68   220.9    79.3  220.95
   93.06  221.19  118.06  221.64  135.08  222.04  142.91  221.86  164.96  221.75
  169.24  221.72  185.97  221.63  218.48  221.56  220.26  221.56  231.29  221.54
  235.52  221.53  254.81  221.52  272.15  221.49  274.35   221.5  276.02  221.47
  278.86  221.36  299.97  220.65  326.15  222.92  343.62  224.78  355.66  226.45
  468.63  282.93

Manning's n Values        num=        9
     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val
       0    .056   20.01    .064   38.32    .039   59.63    .046   73.93    .035
  135.08     .05  169.24     .05  220.26     .05  468.63     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         59.63  135.08             34.28   39.33   40.32            .1        .3

CROSS SECTION           RIVER: Cristianitos
REACH: Lower               RS: 1507.63*

INPUT
Description:
Station Elevation Data    num=       51
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  243.08    9.29  240.74   11.71  240.04   12.53  239.78   18.06  237.86
   23.12   236.4   25.33  236.06   27.08  235.79   36.32  233.05   44.12  230.96
    48.5  229.86   59.68  227.07   62.78  225.99   66.54  225.03   68.92  224.41
   69.61   223.8   70.37  223.15   72.13  221.76   72.35  221.69   72.89  221.35
```

74.82	221.02	75.47	220.9	78.48	220.27	80.16	219.93	81.74	219.75
82.77	219.65	84.23	219.62	84.47	219.61	94.54	219.83	97.17	219.87
110.99	220.12	136.11	220.57	153.2	220.95	160.84	220.8	182.34	220.69
186.51	220.67	202.82	220.59	234.52	220.57	236.26	220.57	247	220.57
251.13	220.57	269.94	220.58	286.85	220.58	288.99	220.59	290.62	220.57
293.39	220.49	313.98	219.98	339.5	224.09	356.54	227.1	368.28	229.49
478.43	284.57								

Manning's n Values num= 9

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.059	25.33	.061	48.5	.041	75.47	.044	90.2	.035
153.2	.05	186.51	.05	236.26	.05	478.43	.05		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
75.47	153.2	34.28	39.33	40.32	.1	.3

CROSS SECTION RIVER: Cristianitos
REACH: Lower RS: 1468.30*

INPUT
Description:
Station Elevation Data num= 51

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	242.99	11.24	239.96	14.17	239.1	15.16	238.78	21.86	236.5
27.97	234.8	30.64	234.45	32.77	234.18	43.94	231.75	53.38	229.86
58.68	228.92	72.2	226.49	75.96	225.4	80.5	224.56	83.38	224.02
84.23	223.28	85.14	222.49	87.26	220.76	87.54	220.67	88.19	220.26
90.52	219.94	91.32	219.83	94.98	219.16	97.03	218.82	98.96	218.67
100.21	218.59	102	218.55	102.28	218.55	112.4	218.76	115.05	218.8
128.92	219.05	154.15	219.5	171.32	219.87	178.76	219.75	199.71	219.64
203.77	219.62	219.67	219.54	250.56	219.58	252.25	219.58	262.72	219.6
266.74	219.6	285.07	219.65	301.55	219.67	303.64	219.68	305.22	219.67
307.92	219.61	327.98	219.31	352.85	225.26	369.46	229.43	380.9	232.54
488.23	286.21								

Manning's n Values num= 9

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.061	30.64	.059	58.68	.044	91.32	.041	106.47	.035
171.32	.05	203.77	.05	252.25	.05	488.23	.05		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
91.32	171.32	34.28	39.33	40.32	.1	.3

CROSS SECTION RIVER: Cristianitos
REACH: Lower RS: 1428.97*

INPUT
Description:
Station Elevation Data num= 51

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	242.89	13.19	239.17	16.62	238.16	17.79	237.78	25.65	235.13
32.82	233.2	35.96	232.84	38.45	232.57	51.57	230.45	62.64	228.77
68.86	227.97	84.73	225.91	89.14	224.81	94.47	224.09	97.85	223.63
98.84	222.77	99.91	221.84	102.4	219.76	102.73	219.66	103.49	219.17
106.22	218.86	107.16	218.76	111.48	218.06	113.9	217.7	116.18	217.59
117.65	217.53	119.76	217.49	120.1	217.48	130.26	217.68	132.92	217.73
146.86	217.98	172.19	218.44	189.44	218.78	196.68	218.69	217.08	218.59
221.04	218.57	236.51	218.49	266.59	218.59	268.24	218.59	278.44	218.62
282.35	218.64	300.21	218.72	316.25	218.76	318.28	218.77	319.82	218.77
322.46	218.73	341.99	218.64	366.2	226.42	382.38	231.75	393.51	235.58
498.03	287.84								

Manning's n Values num= 9

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.064	35.96	.056	68.86	.046	107.16	.039	122.74	.035
189.44	.05	221.04	.05	268.24	.05	498.03	.05		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
107.16	189.44	34.28	39.33	40.32	.1	.3

CROSS SECTION RIVER: Cristianitos
REACH: Lower RS: 1389.64*

0	242.79	15.14	238.39	19.08	237.22	20.42	236.78	29.44	233.77
37.68	231.59	41.27	231.24	44.14	230.96	59.19	229.15	71.9	227.68
79.04	227.02	97.25	225.32	102.31	224.23	108.43	223.62	112.31	223.23
113.45	222.25	114.68	221.19	117.54	218.76	117.91	218.65	118.79	218.08
121.93	217.79	123	217.68	127.98	216.95	130.77	216.59	133.4	216.51
135.1	216.46	137.53	216.42	137.91	216.42	148.12	216.61	150.79	216.66
164.79	216.91	190.23	217.37	207.55	217.7	214.6	217.63	234.45	217.54
238.3	217.52	253.36	217.45	282.63	217.59	284.24	217.6	294.16	217.65
297.97	217.67	315.34	217.78	330.95	217.85	332.93	217.86	334.43	217.87
336.99	217.86	355.99	217.97	379.56	227.59	395.29	234.08	406.13	238.63
507.83	289.48								

Manning's n Values num= 9

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.067	41.27	.053	79.04	.048	123	.037	139.02	.035
207.55	.05	238.3	.05	284.24	.05	507.83	.05		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
123	207.55	34.28	39.33	40.32	.1	.3

CROSS SECTION RIVER: Cristianitos

REACH: Lower RS: 1350.312

INPUT
Description: CS Modified 2:1 Slope, Station 370
Station Elevation Data num= 28

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	242.69	21.54	236.28	33.23	232.4	42.53	229.99	46.59	229.63
81.16	226.59	109.78	224.74	115.49	223.64	126.78	222.84	132.68	217.76
133.1	217.64	134.09	216.99	137.63	216.71	138.84	216.61	144.48	215.85
147.64	215.47	155.29	215.36	155.73	215.35	182.72	215.84	225.67	216.61
270.21	216.4	298.67	216.6	300.23	216.61	313.58	216.71	330.47	216.85
351.52	216.98	370	217.3	517.63	291.115				

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.07	46.59	.05	155.29	.035	300.23	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
138.84	225.67	23.13	38.05	47.34	.1	.3

CROSS SECTION RIVER: Cristianitos
REACH: Lower RS: 1312.26*

INPUT
Description:
Station Elevation Data num= 74

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	241.49	.4	241.37	9.63	238.62	16.59	236.84	22.78	235.26
25.55	234.56	27.73	233.95	34.96	231.96	37.41	231.32	39.42	230.84
39.48	230.82	50.46	228.76	50.98	228.72	55.27	228.43	55.3	228.42
66.5	227.66	73.67	227.11	76.09	226.83	79.99	226.47	81.69	226.21
83.89	225.94	88.26	225.44	91.24	225.22	96.29	224.85	103.13	224.47
106.02	224.3	107.47	224.22	112.68	223.93	130.24	223.01	137.01	222.05
137.74	222.01	150.41	221.28	157.41	217	157.91	216.89	159.08	216.34
163.28	216.08	164.72	215.99	170.37	215.37	170.71	215.33	174.07	215.01
182.2	214.92	182.67	214.91	207.24	215.33	219.48	215.53	246.33	215.98
265.21	216.01	287.11	216.05	313.17	216.36	314.6	216.38	326.82	216.54
333.36	216.62	337.08	216.69	342.28	216.8	351.14	216.96	361.56	217.16
367.98	217.34	375.27	217.54	378.48	217.62	385.35	220.83	407.94	231.35
419.39	236.72	430.38	241.71	434.05	243.36	439.23	245.94	443.09	247.92
448.79	251.31	449.42	251.69	450.52	252.35	450.92	252.59	452.22	253.25
462.82	258.67	466.22	260.21	469.69	261.76	513.64	283.74		

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.067	16.59	.053	55.27	.053	55.3	.067	91.24	.047
164.72	.038	180.18	.038	246.33	.05	314.6	.05	385.35	.05
513.64	.05								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
164.72	246.33	23.13	38.05	47.34	.1	.3

CROSS SECTION RIVER: Cristianitos
REACH: Lower RS: 1274.21*

INPUT
Description:
Station Elevation Data num= 74

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	240.28	.46	240.16	11.14	236.96	19.2	235.16	26.36	233.55
29.57	232.84	32.09	232.23	40.45	230.26	43.29	229.68	45.62	229.27
45.69	229.26	58.38	227.52	58.99	227.49	63.96	227.22	63.99	227.22
76.95	226.53	85.25	225.94	88.04	225.57	92.56	225.15	94.53	224.74
97.07	224.37	102.12	223.7	105.57	223.48	111.41	223.12	119.33	222.71
122.67	222.54	124.35	222.46	130.38	222.17	150.7	221.28	158.54	220.45
159.38	220.41	174.04	219.73	182.14	216.24	182.71	216.15	184.07	215.7
188.93	215.45	190.59	215.36	196.58	214.84	196.94	214.81	200.5	214.56
209.11	214.48	209.61	214.47	231.76	214.82	242.79	214.98	267	215.36
284.13	215.51	304.02	215.69	327.67	216.13	328.97	216.15	340.06	216.36
346	216.48	349.37	216.58	354.1	216.75	362.14	217.02	371.59	217.34
377.42	217.58	384.04	217.84	386.95	217.95	393.19	220.6	413.7	229.31
424.09	233.81	434.07	237.77	437.4	239.06	442.1	241.41	445.61	243.25
450.78	246.93	451.35	247.34	452.35	248.06	452.72	248.32	453.9	248.92
463.52	253.98	466.6	255.2	469.75	256.41	509.65	276.36		

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.063	19.2	.057	63.96	.057	63.99	.063	105.57	.045
190.59	.04	205.07	.04	267	.05	328.97	.05	393.19	.05
509.65	.05								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
190.59	267	23.13	38.05	47.34	.1	.3

CROSS SECTION RIVER: Cristianitos
REACH: Lower RS: 1236.17*

INPUT
Description:
Station Elevation Data num= 74

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	239.08	.52	238.94	12.65	235.31	21.8	233.47	29.94	231.84
33.58	231.12	36.45	230.52	45.94	228.57	49.17	228.04	51.81	227.71
51.89	227.7	66.31	226.29	66.99	226.26	72.64	226.02	72.68	226.01
87.4	225.39	96.82	224.78	100	224.31	105.13	223.83	107.36	223.28
110.25	222.8	115.99	221.96	119.91	221.74	126.54	221.38	135.53	220.96
139.33	220.78	141.23	220.7	148.08	220.4	171.16	219.55	180.06	218.86
181.01	218.82	197.67	218.17	206.87	215.47	207.52	215.4	209.06	215.05

214.58	214.82	216.47	214.74	222.8	214.32	223.18	214.29	226.93	214.1
236.03	214.04	236.55	214.04	256.28	214.3	266.1	214.44	287.67	214.73
303.06	215.01	320.92	215.34	342.17	215.89	343.33	215.92	353.3	216.19
358.64	216.33	361.67	216.47	365.91	216.69	373.14	217.07	381.63	217.51
386.87	217.83	392.82	218.13	395.43	218.27	401.03	220.37	419.45	227.27
428.79	230.89	437.75	233.84	440.75	234.77	444.97	236.87	448.12	238.57
452.77	242.54	453.28	242.99	454.18	243.77	454.51	244.05	455.57	244.59
464.21	249.29	466.98	250.19	469.81	251.06	505.65	268.98		

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.06	21.8	.06	72.64	.06	72.68	.06	119.91	.043
216.47	.043	229.96	.043	287.67	.05	343.33	.05	401.03	.05
505.65	.05								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
216.47	287.67	23.13	38.05	47.34	.1	.3

CROSS SECTION RIVER: Cristianitos
REACH: Lower RS: 1198.12*

INPUT
Description:
Station Elevation Data num= 74

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	237.87	.59	237.72	14.17	233.65	24.41	231.79	33.52	230.13
37.6	229.4	40.81	228.8	51.44	226.88	55.05	226.4	58	226.14
58.09	226.14	74.24	225.05	75	225.02	81.32	224.81	81.36	224.81
97.85	224.25	108.39	223.62	111.95	223.06	117.7	222.51	120.19	221.81
123.43	221.24	129.85	220.22	134.24	220	141.67	219.65	151.74	219.21
155.98	219.03	158.11	218.93	165.79	218.64	191.62	217.82	201.59	217.27
202.65	217.23	221.3	216.61	231.59	214.71	232.33	214.66	234.06	214.41
240.23	214.19	242.35	214.12	249.01	213.79	249.41	213.78	253.36	213.65
262.94	213.6	263.49	213.6	280.79	213.79	289.42	213.89	308.33	214.1
321.98	214.5	337.82	214.98	356.67	215.66	357.7	215.7	366.54	216.02
371.28	216.19	373.96	216.35	377.73	216.64	384.14	217.12	391.67	217.69
396.31	218.07	401.59	218.43	403.9	218.59	408.88	220.14	425.21	225.23
433.5	227.97	441.44	229.9	444.1	230.47	447.85	232.33	450.64	233.9
454.76	238.16	455.22	238.63	456.01	239.47	456.3	239.78	457.24	240.26
464.91	244.6	467.36	245.18	469.88	245.7	501.66	261.6		

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.057	24.41	.063	81.32	.063	81.36	.057	134.24	.04
242.35	.045	254.85	.045	308.33	.05	357.7	.05	408.88	.05
501.66	.05								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
242.35	308.33	23.13	38.05	47.34	.1	.3

CROSS SECTION RIVER: Cristianitos
REACH: Lower RS: 1160.07*

INPUT
Description:
Station Elevation Data num= 74

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	236.67	.65	236.51	15.68	232	27.01	230.1	37.1	228.42
41.61	227.68	45.16	227.08	56.93	225.18	60.92	224.76	64.2	224.58
64.3	224.57	82.16	223.82	83.01	223.79	90.01	223.61	90.05	223.6
108.29	223.12	119.97	222.46	123.91	221.8	130.26	221.18	133.03	220.35
136.61	219.67	143.72	218.47	148.58	218.26	156.79	217.91	167.94	217.46
172.64	217.27	175	217.17	183.49	216.87	212.08	216.1	223.11	215.67
224.29	215.64	244.92	215.05	256.32	213.95	257.13	213.91	259.05	213.76
265.89	213.56	268.22	213.49	275.22	213.27	275.64	213.26	279.79	213.19
289.85	213.16	290.43	213.16	305.31	213.28	312.73	213.34	328.99	213.48
340.91	214	354.73	214.63	371.17	215.42	372.07	215.47	379.78	215.84
383.91	216.04	386.26	216.24	389.54	216.59	395.13	217.18	401.7	217.87
405.76	218.31	410.36	218.73	412.38	218.91	416.72	219.91	430.97	223.19
438.2	225.05	445.13	225.97	447.45	226.18	450.72	227.8	453.15	229.23
456.75	233.77	457.15	234.28	457.84	235.18	458.1	235.51	458.92	235.94
465.6	239.91	467.75	240.17	469.94	240.35	497.67	254.22		

497.67 .05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
268.22	328.99	23.13	38.05	47.34	.1	.3

CROSS SECTION RIVER: Cristianitos
REACH: Lower RS: 1122.028

INPUT
Description: CS Modified 2:1 Slope, Station 470
Station Elevation Data num= 51

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	235.46	.71	235.29	17.19	230.34	29.62	228.42	40.68	226.71
49.52	225.36	62.42	223.49	66.8	223.12	70.5	223.01	91.02	222.56
98.74	222.4	118.74	221.98	131.54	221.3	135.86	220.54	142.83	219.86
145.86	218.88	149.79	218.1	157.58	216.73	162.91	216.52	184.14	215.71
189.29	215.51	191.88	215.41	201.19	215.11	245.93	214.05	294.1	212.87
301.43	212.74	317.37	212.72	336.04	212.79	349.66	212.85	359.83	213.5
396.55	215.9	398.55	216.13	406.13	217.23	415.2	218.55	419.13	219.03
424.56	219.68	436.73	221.15	442.9	222.13	448.82	222.03	450.8	221.88
453.59	223.26	455.67	224.56	458.74	229.39	459.08	229.93	459.67	230.89

459.89	231.24	460.59	231.61	466.3	235.22	468.13	235.16	470	235
493.68	246.84								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	29.62	.07	98.74	.05	162.91	.035	424.56	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
294.1	349.66	189.78	237.42	313.14	.1	.3

CROSS SECTION RIVER: Cristianitos
REACH: Lower RS: 884.628

INPUT
Description:
Station Elevation Data num= 33

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	243.97	7.33	241.23	10.28	238.68	17	234.43	45.43	217.37
46.91	216.86	57.79	216.72	61.9	216.57	64.33	216.5	65.44	216.42
69.7	216.19	75.1	215.51	88.35	213.84	105.44	211.68	136.9	209.93
168.96	209.84	176.74	210.3	193.55	211.56	206.45	212.5	209.1	212.7
225.38	213.91	230.6	214.29	245.06	215.3	250.36	216.63	253.79	216.51
256.65	216.85	258.05	217.63	261.55	221.09	269.79	228.54	276.23	231.32
280.91	233.58	291.43	235.27	294.51	235.98				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.05	88.35	.035	209.1	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
105.44	193.55	238.8	227.34	193.44	.1	.3

CROSS SECTION RIVER: Cristianitos
REACH: Lower RS: 657.311

INPUT
Description:
Station Elevation Data num= 39

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	244.11	1.67	243.7	11.8	241.61	17.35	239	25	234.52
42.86	219.39	47.13	216.51	52.23	211.6	54.93	210.59	56.58	209.94
56.86	209.81	57.16	209.82	58.76	210.03	59.46	210.13	67.99	211.17
74.49	211.97	105.61	210.85	116.55	210.19	117.03	210.16	118.58	210.07
124.44	210.58	139.03	211.76	158.81	213.27	179.37	214.78	211.77	217.44
222.54	218.41	231.4	219.74	259.14	223.62	271.95	226.68	280.51	228.72
282.15	229.09	283.84	229.24	285.61	229.35	340.27	233.8	362.4	234.53
416.44	234.78	466.81	235.15	481.13	236.22	485.62	236.24		

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	67.99	.035	116.55	.05	271.95	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
105.61	124.44	252.65	221.75	184	.1	.3

CROSS SECTION RIVER: Cristianitos
REACH: Lower RS: 435.541

INPUT
Description: CS Modified 2:1 Slope, Station 600
Station Elevation Data num= 33

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	239.01	36.12	236.83	42.69	236.3	49.05	235.76	49.44	235.66
59.63	232.9	70.41	230.21	73.3	228.73	85.89	218.91	99.21	210.03
99.35	209.95	100.99	209.93	107.35	209.8	113	209.69	123.71	209.49
148.02	209.02	155.37	209.4	158.19	209.55	177.35	210.55	190.16	211.03
201.2	212.58	203.69	212.92	240.12	216.98	289.19	222.45	313.47	225.97
316.04	226.15	347.14	229.17	363.66	229.39	540.81	232.16	553.27	232.5
573.06	232.47	600	233.33	706.22	286.44				

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	49.44	.05	113	.035	155.37	.05	240.12	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
123.71	158.19	179.7	195.75	193.7	.1	.3

CROSS SECTION RIVER: Cristianitos
REACH: Lower RS: 239.788

INPUT
Description: CS Modified 2:1 Slope, Station 630
Station Elevation Data num= 43

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	229.71	4.19	229.42	17.17	229.08	40.16	225.87	59.63	222.38
63.07	221.76	72.78	220.61	74.83	220.05	84.25	216.85	84.59	216.7
89.59	214.76	97.13	210.9	100.56	210.17	106.01	209.42	106.4	209.37
113.3	209.14	150.69	207.91	165.64	207.7	166.31	207.69	168.29	207.66
197.73	209.43	214.38	210.39	217.04	210.87	220.5	211.47	245.64	216.53
259.78	216.45	294.08	216.47	301.77	217.99	327.17	221.57	331.29	221.89
337.04	222.35	400.68	223.93	410.24	224.15	417.4	224.23	505.62	226.02
515.74	226.29	547.61	227.79	575.93	228.67	589.69	228.95	593.55	229.04
625.33	229.25	630	229.3	662.57	245.6				

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	59.63	.05	106.01	.035	165.64	.05	331.29	.035
589.69	.02	630	.035						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
106.4	197.73	183.12	173.64	180.36	.1	.3

CROSS SECTION RIVER: Cristianitos
REACH: Lower RS: 66.136

INPUT
Description:
Station Elevation Data num= 42

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	229.47	2.45	228.85	19.35	223.65	46.47	219.66	51.83	219.16
59.55	218.26	74.15	217.33	98.75	216.95	130.73	214.92	164.5	211.14
166.88	211.1	184.15	210.82	187.9	210.68	195.28	210.4	229.68	209.09
236.41	208.81	261.72	208.87	265.08	208.88	277.85	208.91	330.01	209.13
333.98	209.15	355.11	209.65	395	210.02	415.69	210.46	432.52	211.6
436.2	212.14	467.39	216.75	469.76	217	472.73	217.32	480.26	219.56
480.5	219.64	480.62	219.66	502	223.18	516.73	223.57	523.87	223.76
559.64	225.51	570.42	226.08	595.05	227.37	597.26	227.52	620.66	229.07
637.53	229.27	671.08	229.68						

Manning's n Values num= 9

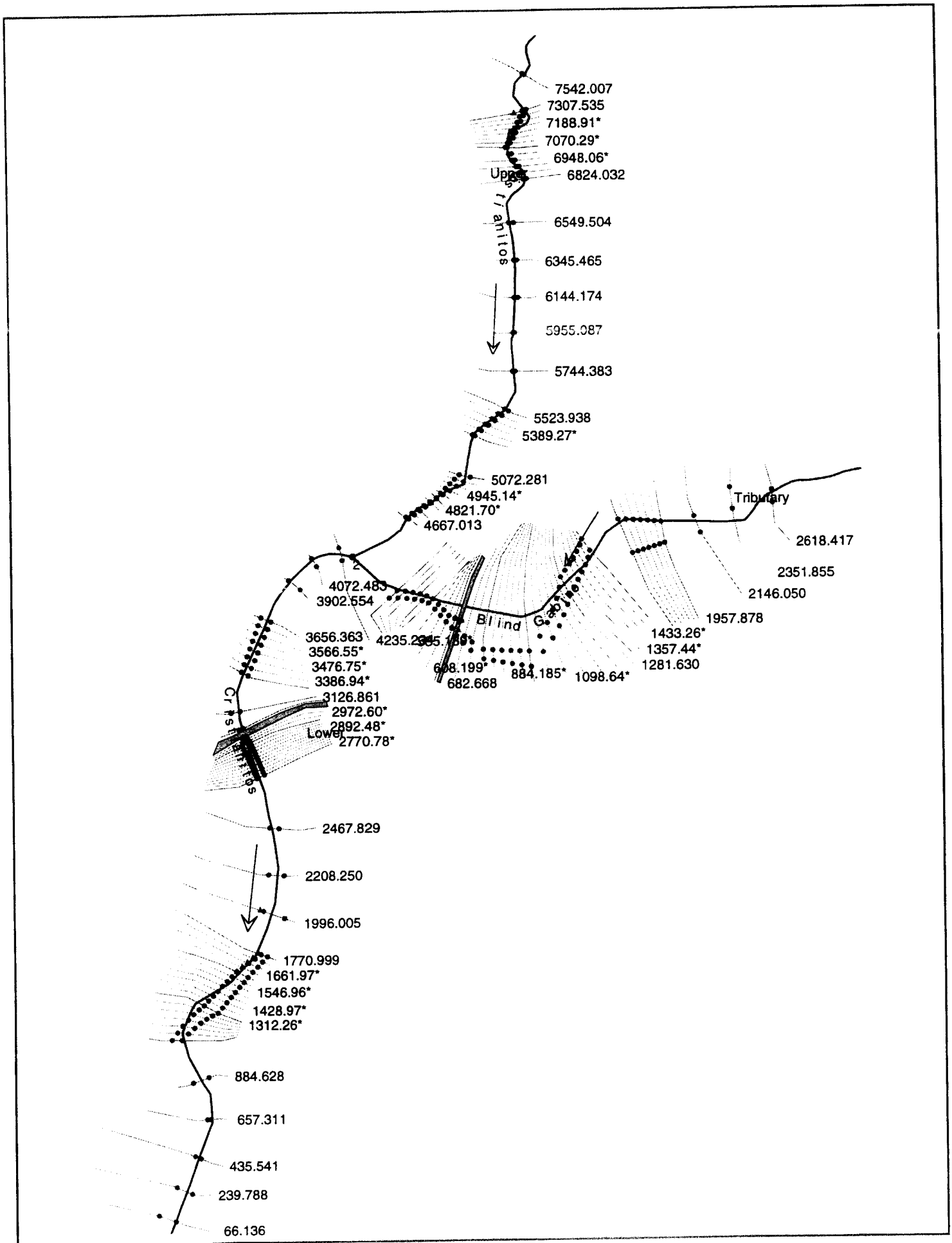
Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	187.9	.035	261.72	.05	436.2	.035	469.76	.05
516.73	.035	570.42	.05	597.26	.035	637.53	.02		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
229.68	330.01	50.56	66.14	29.35	.1	.3

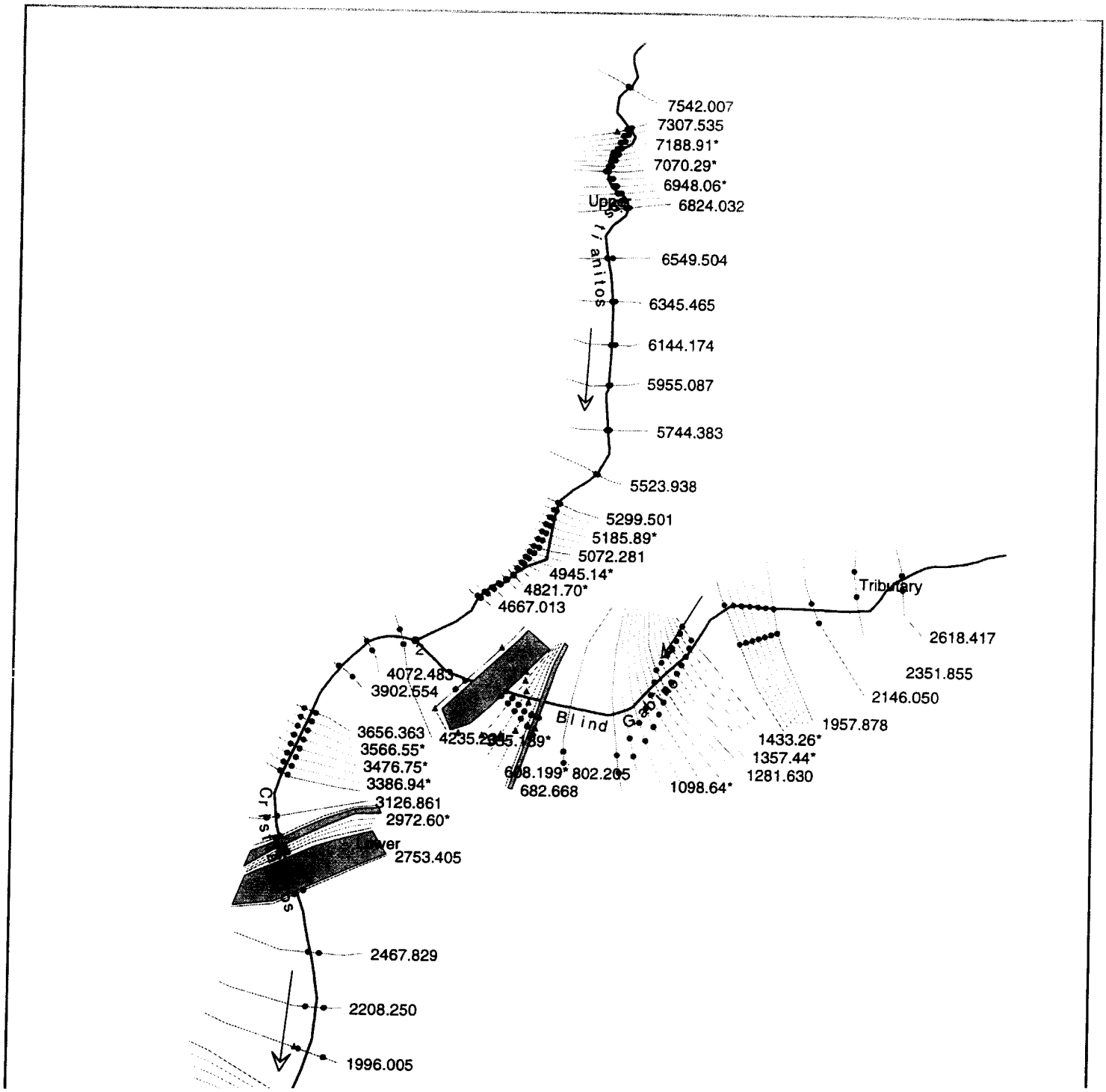
Profile Output Table - Standard Table 1

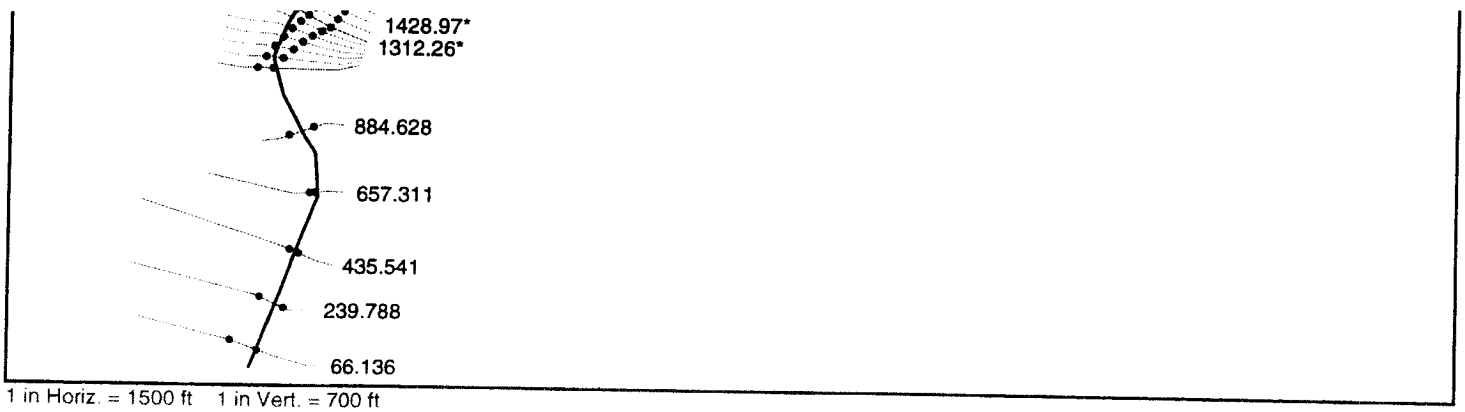
River	Reach	River Sta	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(cfs)	(ft)	(ft)	(ft)	(ft)	(ft/ft)	(ft/s)	(sq ft)	(ft)	
Cristianitos	Upper	7542.007	714.00	295.44	299.79	298.95	300.44	0.009452	7.40	117.39	40.63	0.64
Cristianitos	Upper	7307.535	714.00	293.97	296.27	296.27	297.00	0.025899	7.88	109.34	223.20	0.95
Cristianitos	Upper	7030.755	714.00	280.73	282.77	283.55	285.33	0.052321	15.24	65.40	49.61	1.92
Cristianitos	Upper	6824.032	714.00	275.21	279.77	278.79	280.37	0.007990	7.05	123.71	41.71	0.60
Cristianitos	Upper	6549.504	714.00	274.17	278.76		279.01	0.003131	4.42	187.53	58.33	0.37
Cristianitos	Upper	6345.465	714.00	273.44	276.83	276.83	277.65	0.019629	8.86	108.20	60.25	0.88
Cristianitos	Upper	6144.174	714.00	268.12	271.69	270.29	271.88	0.003437	3.95	211.48	81.51	0.38
Cristianitos	Upper	5955.087	714.00	262.57	269.71		270.77	0.009606	9.45	100.96	30.74	0.65
Cristianitos	Upper	5744.383	714.00	262.33	269.09		269.50	0.003188	5.78	157.22	39.92	0.40
Cristianitos	Upper	5523.938	714.00	261.20	269.07		269.14	0.000637	2.94	350.00	80.51	0.19
Cristianitos	Upper	5299.501	714.00	254.89	269.07		269.09	0.000084	1.50	707.27	104.93	0.07
Cristianitos	Upper	5072.281	714.00	261.26	267.15	267.15	268.66	0.029776	9.84	72.57	24.63	1.01
Cristianitos	Upper	4860.382	714.00	255.82	260.53	261.10	262.89	0.036836	14.75	62.54	21.68	1.25
Cristianitos	Upper	4667.013	714.00	249.38	253.12	253.59	255.01	0.037443	11.52	68.75	31.80	1.19
Cristianitos	Lower	4235.234	3552.00	245.92	250.12	248.79	250.45	0.003360	5.21	787.70	266.62	0.45
Cristianitos	Lower	4072.483	3552.00	242.24	248.79	247.77	249.79	0.004396	9.04	531.48	144.41	0.66
Cristianitos	Lower	3902.554	3552.00	242.70	247.79	247.07	248.81	0.008236	8.48	459.80	127.15	0.72
Cristianitos	Lower	3656.363	3552.00	241.29	245.44		246.63	0.009670	10.11	463.11	159.22	0.91
Cristianitos	Lower	3342.045	3552.00	236.22	244.23		244.77	[illegible]	[illegible]	377.84	67.54	0.71
Cristianitos	Lower	3020	Bridge									
Cristianitos	Lower	2986.590	3552.00	229.65	239.21	239.21	242.24	0.007344	16.21	277.24	43.30	0.93
Cristianitos	Lower	2944.635	3552.00	227.37	230.75	232.80	238.81	0.107942	24.26	169.87	80.11	2.63
Cristianitos	Lower	2924	Bridge									
Cristianitos	Lower	2753.405	3552.00	228.19	232.49	232.49	234.00	0.011196	11.18	393.43	133.09	0.98
Cristianitos	Lower	2467.829	3552.00	222.83	227.25	227.96	229.93	0.016127	13.92	287.56	93.18	1.20
Cristianitos	Lower	2208.250	3552.00	222.01	226.20	226.20	227.68	0.010375	10.16	375.23	127.76	0.94
Cristianitos	Lower	1996.005	3552.00	222.09	226.57	224.46	226.70	0.001086	3.43	1335.14	374.43	0.31
Cristianitos	Lower	1770.999	3552.00	222.91	226.19	225.24	226.36	0.002428	3.11	1093.18	369.52	0.36
Cristianitos	Lower	1625.629	3552.00	222.81	224.97	224.55	225.47	0.011556	5.94	629.35	313.34	0.86
Cristianitos	Lower	1350.312	3552.00	215.35	219.34	218.39	219.77	0.004236	5.87	698.45	243.24	0.56

Cristianitos Lower	1122.028	3552.00	212.72	217.29		217.66	0.002506	5.81	762.79	252.15	0.48
Cristianitos Lower	884.628	3552.00	209.84	216.98		217.28	0.001038	4.78	883.47	210.32	0.33
Cristianitos Lower	657.311	3552.00	210.07	216.11		216.81	0.004559	7.93	577.39	147.98	0.59
Cristianitos Lower	435.541	3552.00	209.02	213.95		215.32	0.009235	11.17	423.59	119.63	0.91
Cristianitos Lower	239.788	3552.00	207.66	212.99	211.95	213.82	0.005373	7.64	515.69	134.97	0.63
Cristianitos Lower	66.136	3552.00	208.81	212.28	211.50	212.70	0.006001	5.86	705.58	282.75	0.57
Blind Gabino Tributary	2618.417	2838.00	279.92	283.27	282.55	283.64	0.004212	5.87	646.02	284.32	0.59
Blind Gabino Tributary	2351.855	2838.00	278.24	280.78	280.78	281.57	0.019649	7.73	419.15	266.12	0.90
Blind Gabino Tributary	2146.050	2838.00	274.53	277.14	277.23	278.15	0.013982	8.82	368.69	216.15	1.02
Blind Gabino Tributary	1957.878	2838.00	271.44	274.30	273.86	274.79	0.007058	6.16	543.77	273.15	0.65
Blind Gabino Tributary	1732.829	2838.00	268.75	271.96		272.23	0.002780	4.37	765.20	357.62	0.45
Blind Gabino Tributary	1509.081	2838.00	267.66	271.73		271.81	0.001376	2.63	1242.98	464.15	0.24
Blind Gabino Tributary	1281.630	2838.00	267.38	269.75	269.75	270.63	0.012816	8.21	405.98	231.44	0.97
Blind Gabino Tributary	1007.157	2838.00	258.71	264.41		264.54	0.000850	3.58	1205.63	463.69	0.27
Blind Gabino Tributary	802.205	2838.00	260.18	264.19		264.34	0.001536	3.98	970.81	392.19	0.36
Blind Gabino Tributary	682.668	2838.00	257.25	264.21	261.84	264.26	0.000170	1.98	1755.65	311.73	0.13
Blind Gabino Tributary	680	Culvert									
Blind Gabino Tributary	644.729	2838.00	255.77	260.21	260.21	262.39	0.010927	11.84	239.69	292.64	1.00
Blind Gabino Tributary	498.610	2838.00	250.89	254.85	254.07	255.33	0.004562	6.92	532.69	230.79	0.63
Blind Gabino Tributary	496	Bridge									
Blind Gabino Tributary	306.914	2838.00	249.35	251.78	251.78	252.55	0.016889	8.42	435.28	268.42	0.97



1 in Horiz = 1500 ft 1 in Vert = 700 ft

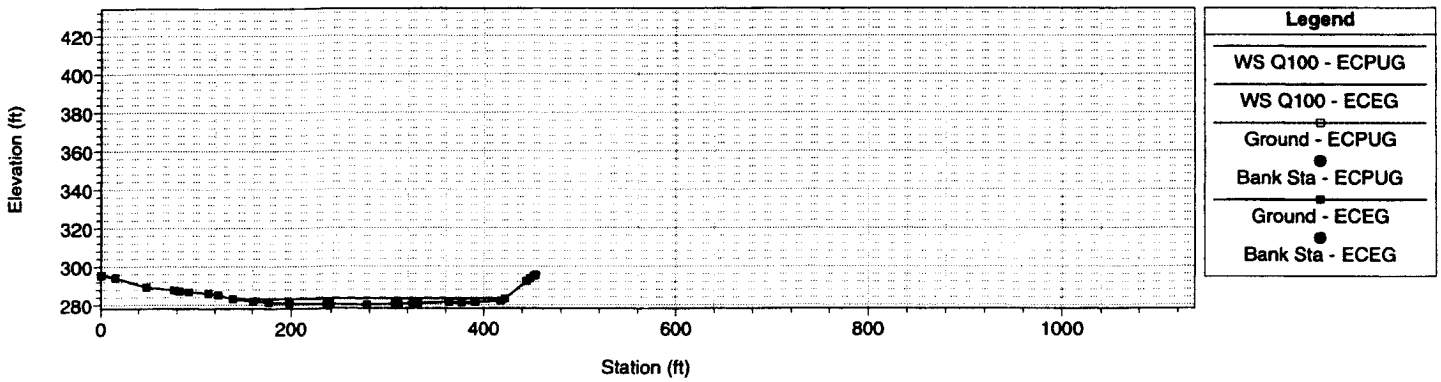




1 in Horiz. = 1500 ft 1 in Vert. = 700 ft

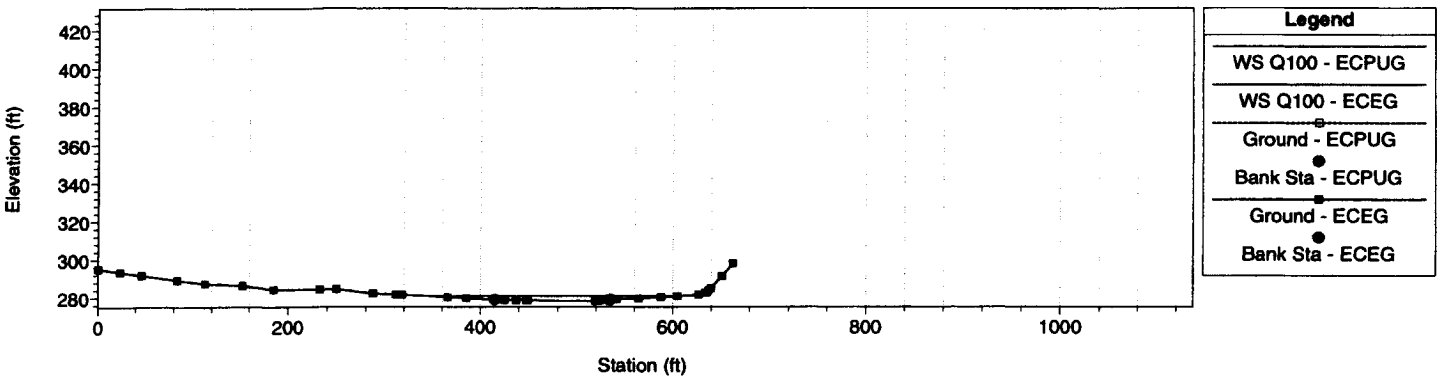
Project Model C

RS = 2618.417 FEC Alternative - Blind Gabino and Cristianitos Creek Crossing



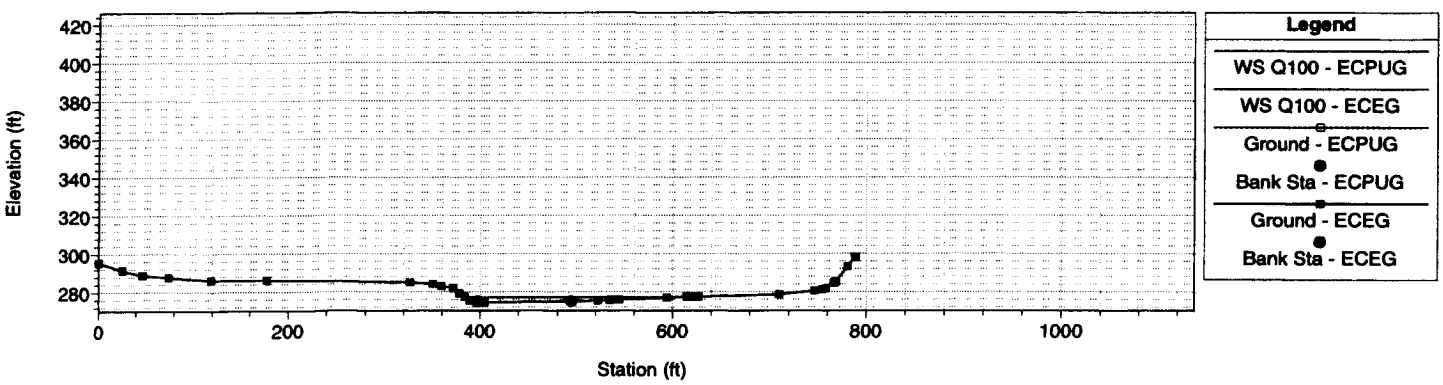
Project Model C

RS = 2351.855 FEC Alternative - Blind Gabino and Cristianitos Creek Crossing



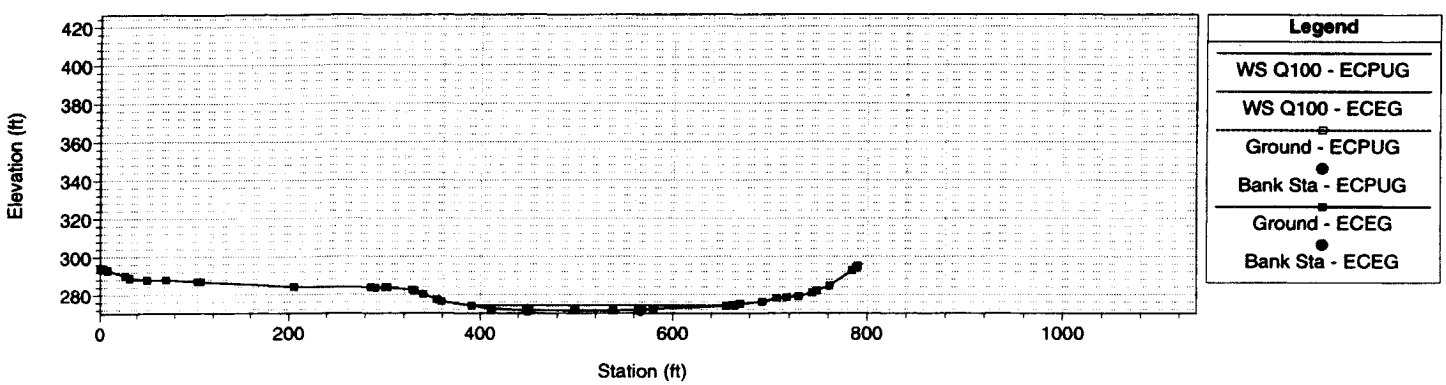
Project Model C

RS = 2146.050 FEC Alternative - Blind Gabino and Cristianitos Creek Crossing



Project Model C

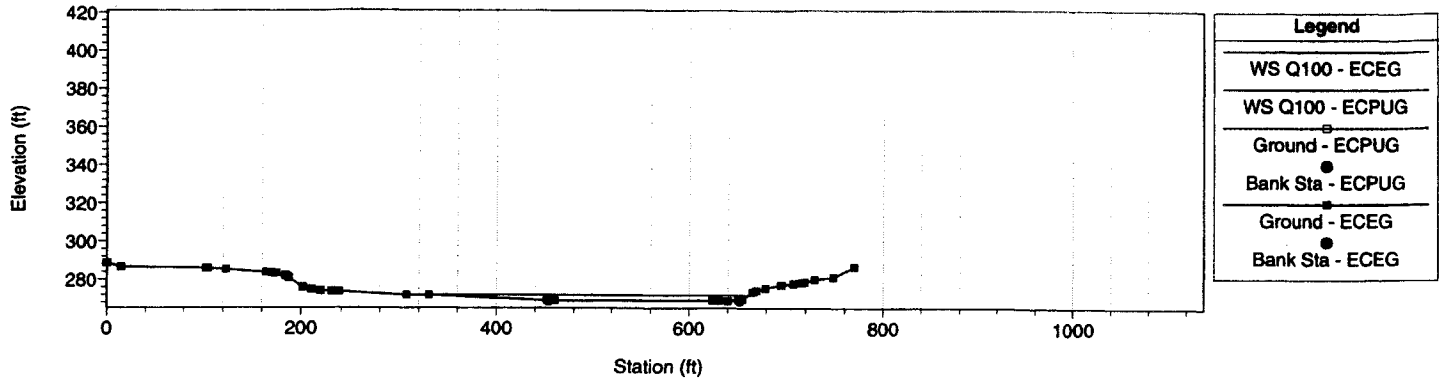
RS = 1957.878 FEC Alternative - Blind Gabino and Cristianitos Creek Crossing



1 in Horiz. = 200 ft 1 in Vert. = 100 ft

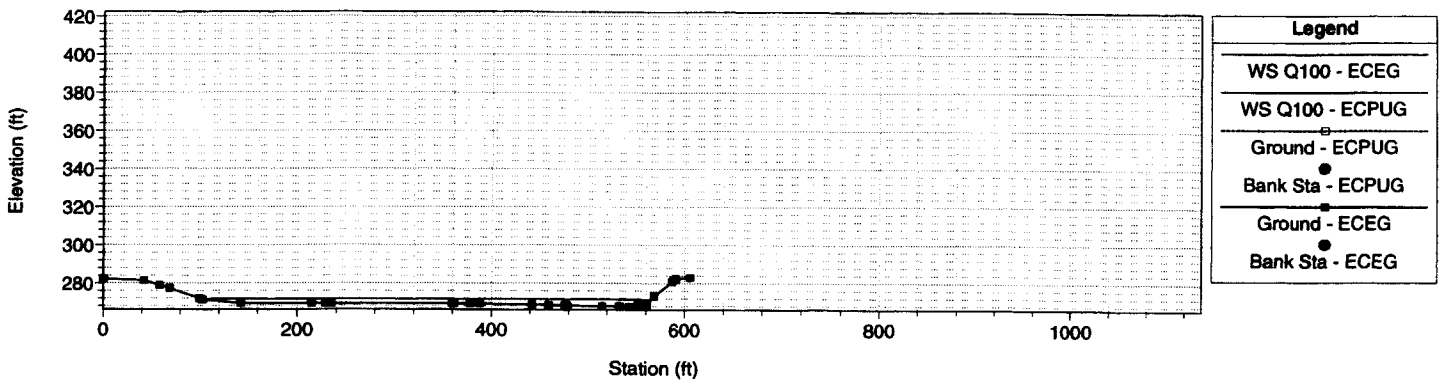
Project Model C

RS = 1732.829 FEC Alternative - Blind Gabino and Cristianitos Creek Crossing



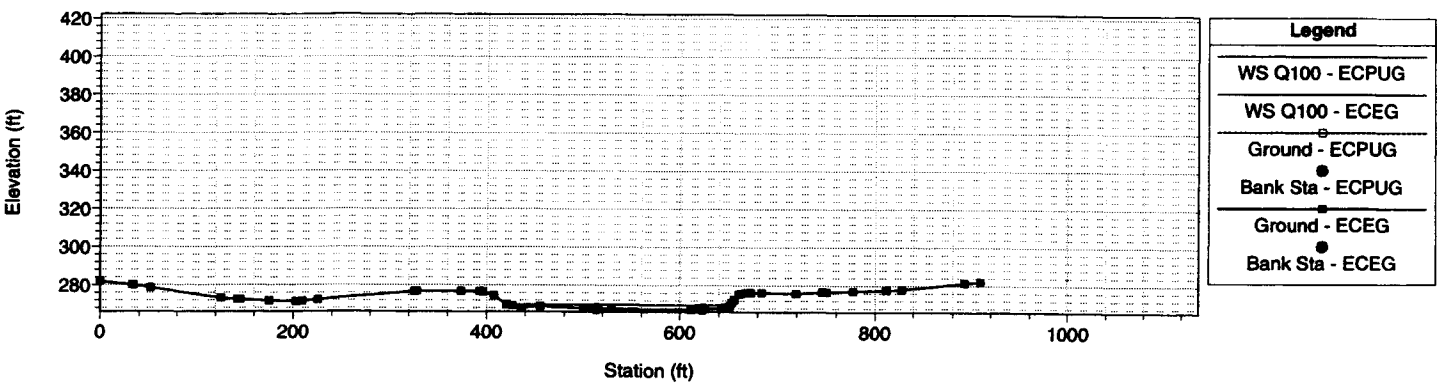
Project Model C

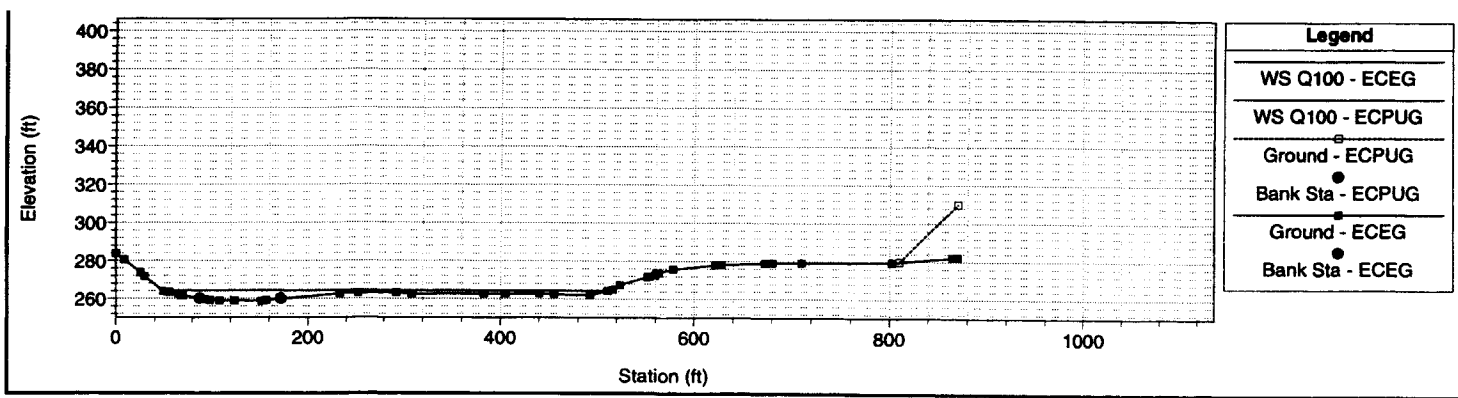
RS = 1509.081 FEC Alternative - Blind Gabino and Cristianitos Creek Crossing



Project Model C

RS = 1281.630 FEC Alternative - Blind Gabino and Cristianitos Creek Crossing

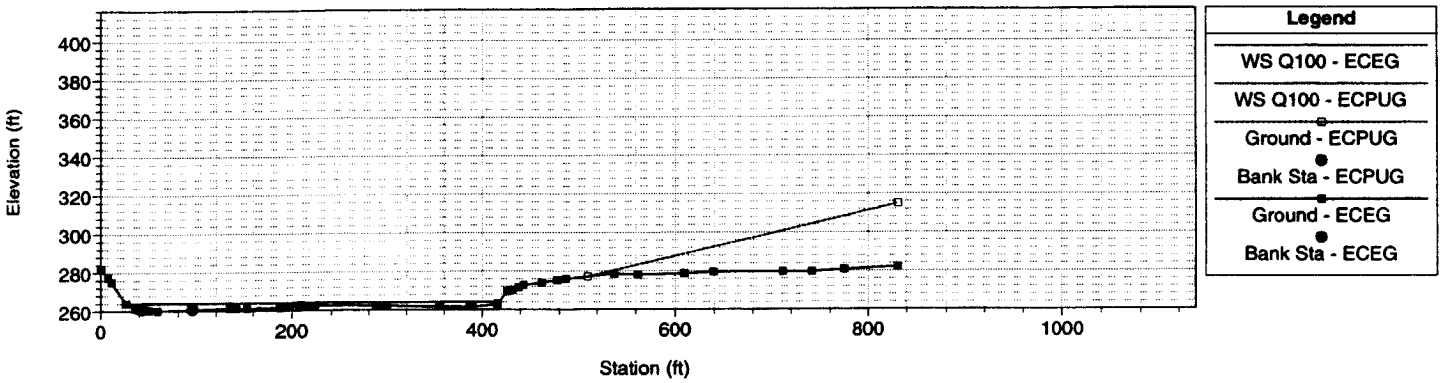




1 in Horiz. = 200 ft 1 in Vert. = 100 ft

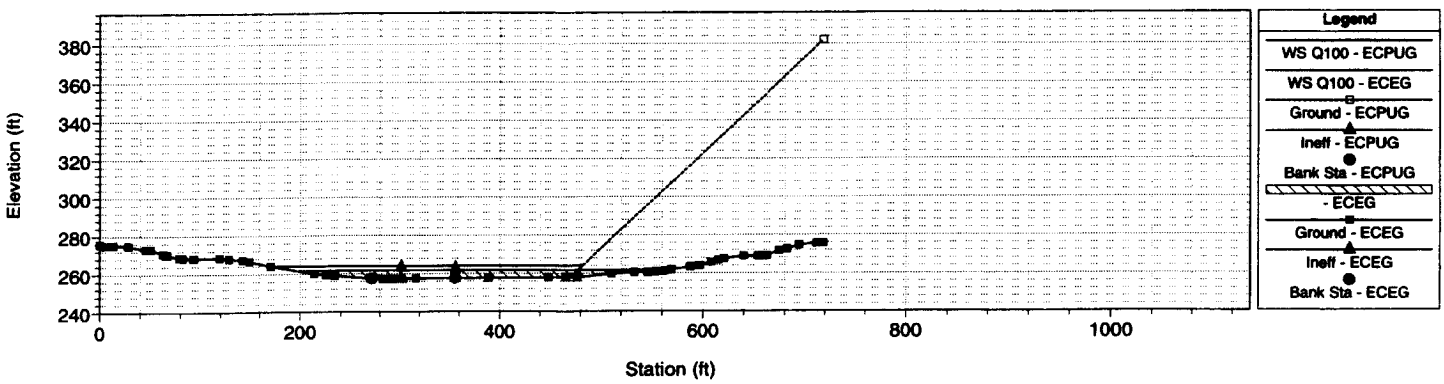
Project Model C

RS = 802.205 FEC Alternative - Blind Gabino and Cristianitos Creek Crossing



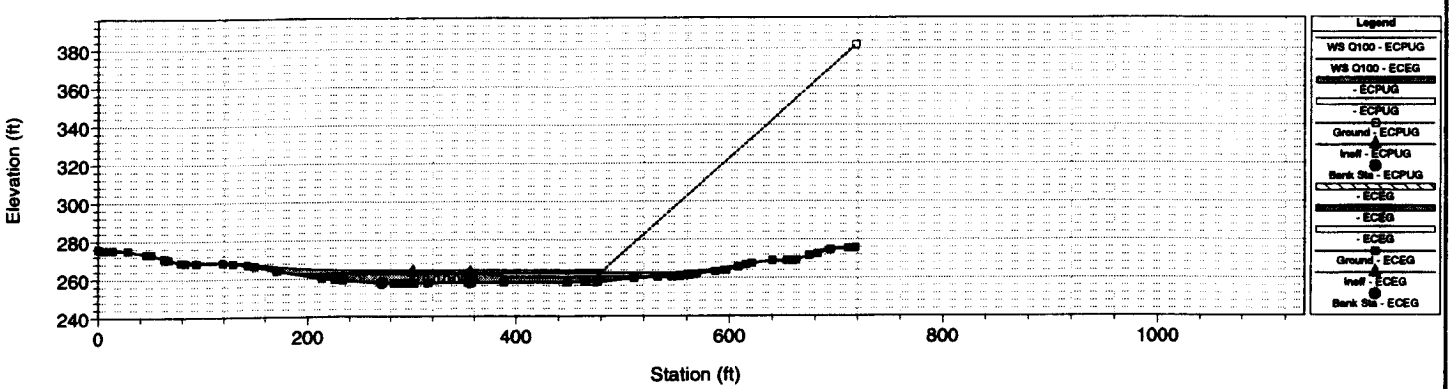
Project Model C

RS = 682.668 FEC Alternative - Blind Gabino and Cristianitos Creek Crossing



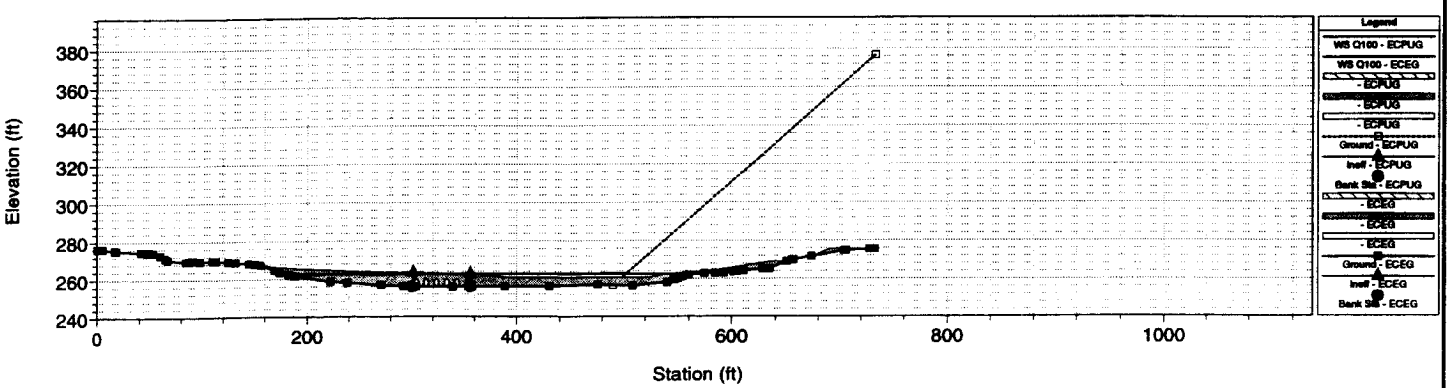
Project Model C

RS = 680 FEC Alternative - Blind Gabino and Cristianitos Creek Crossing



Project Model C

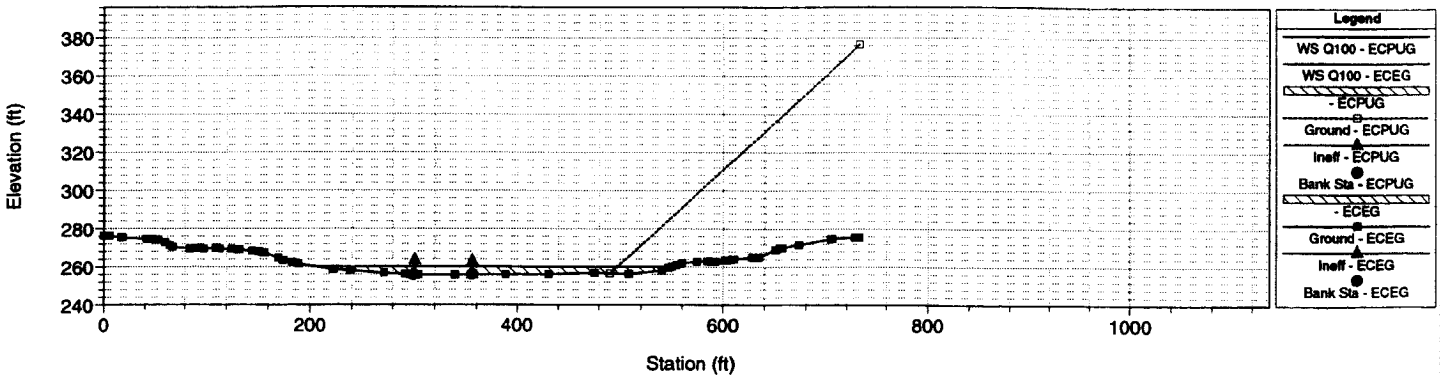
RS = 680 FEC Alternative - Blind Gabino and Cristianitos Creek Crossing



1 in Horiz. = 200 ft 1 in Vert. = 100 ft

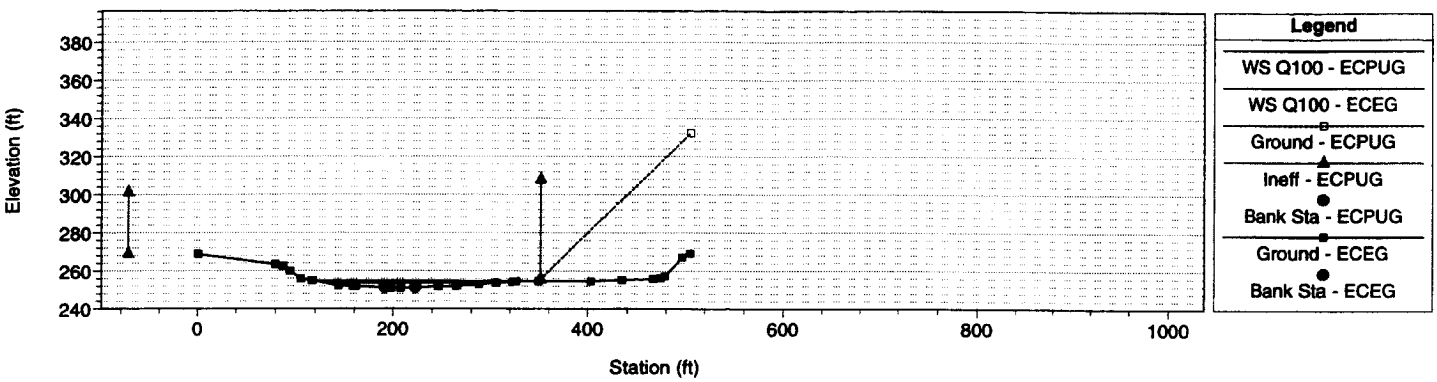
Project Model C

RS = 644.729 FEC Alternative - Blind Gabino and Cristianitos Creek Crossing



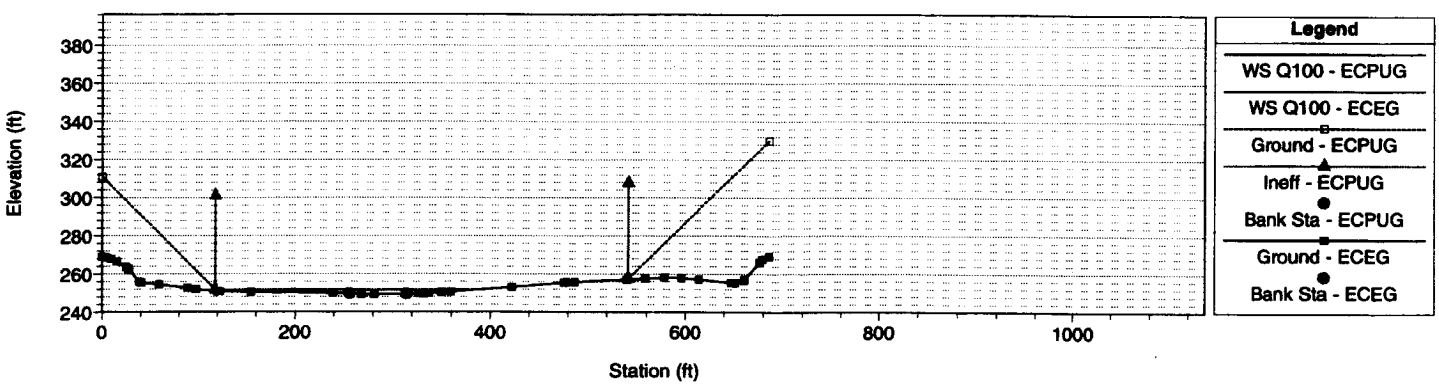
Project Model C

RS = 498.610 FEC Alternative - Blind Gabino and Cristianitos Creek Crossing



Project Model C

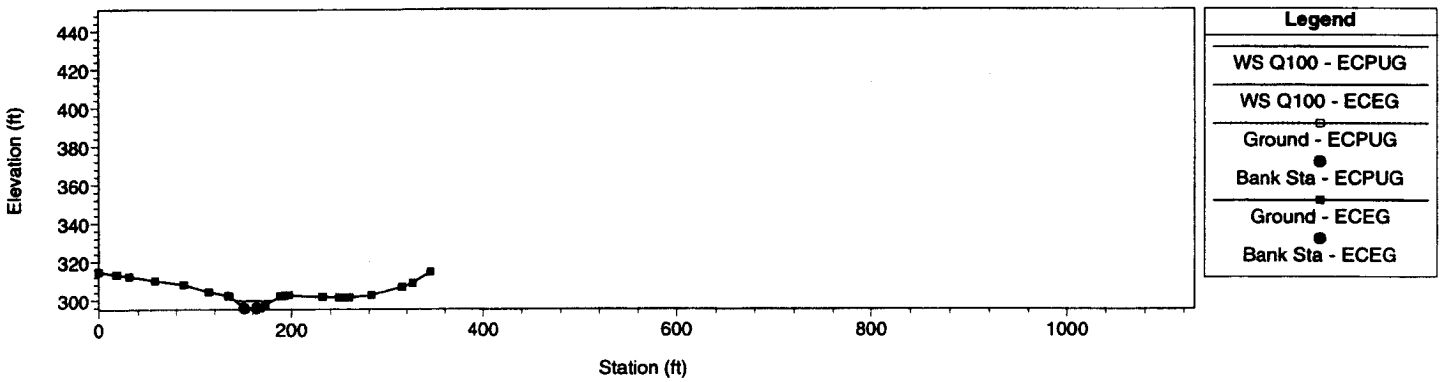
RS = 306.914 FEC Alternative - Blind Gabino and Cristianitos Creek Crossing



1 in Horiz. = 200 ft 1 in Vert. = 100 ft

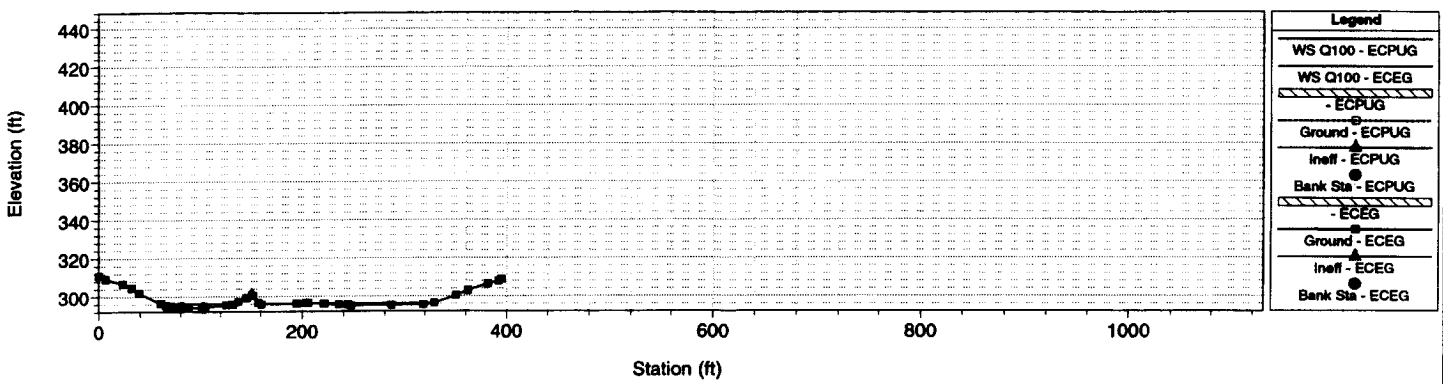
Project Model C

RS = 7542.007 FEC Alternative - Blind Gabino and Cristianitos Creek Crossing



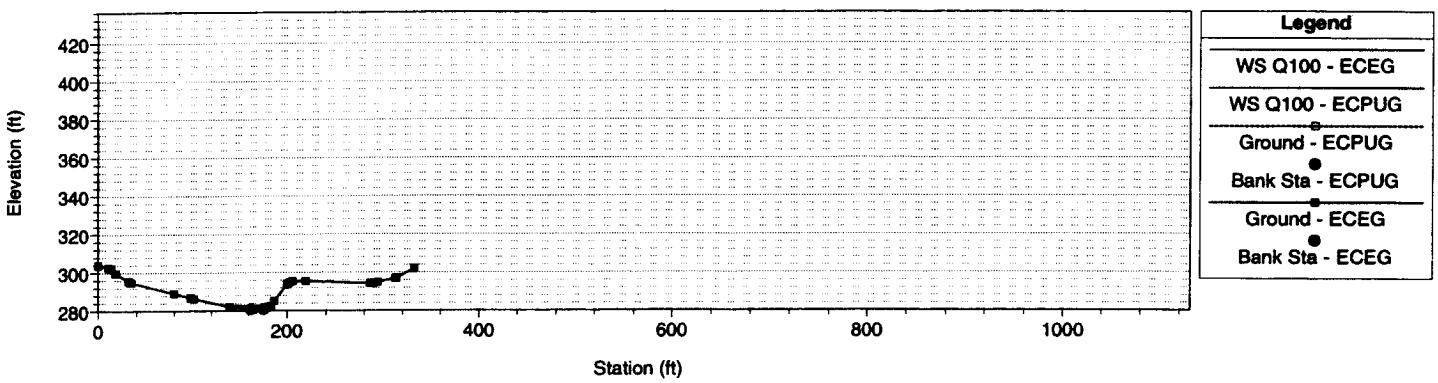
Project Model C

RS = 7307.535 FEC Alternative - Blind Gabino and Cristianitos Creek Crossing



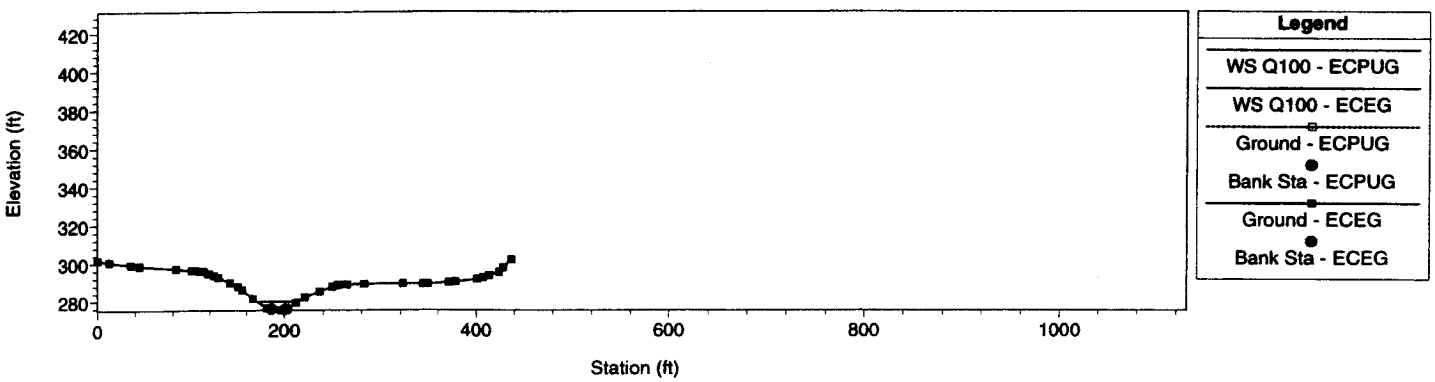
Project Model C

RS = 7030.755 FEC Alternative - Blind Gabino and Cristianitos Creek Crossing



Project Model C

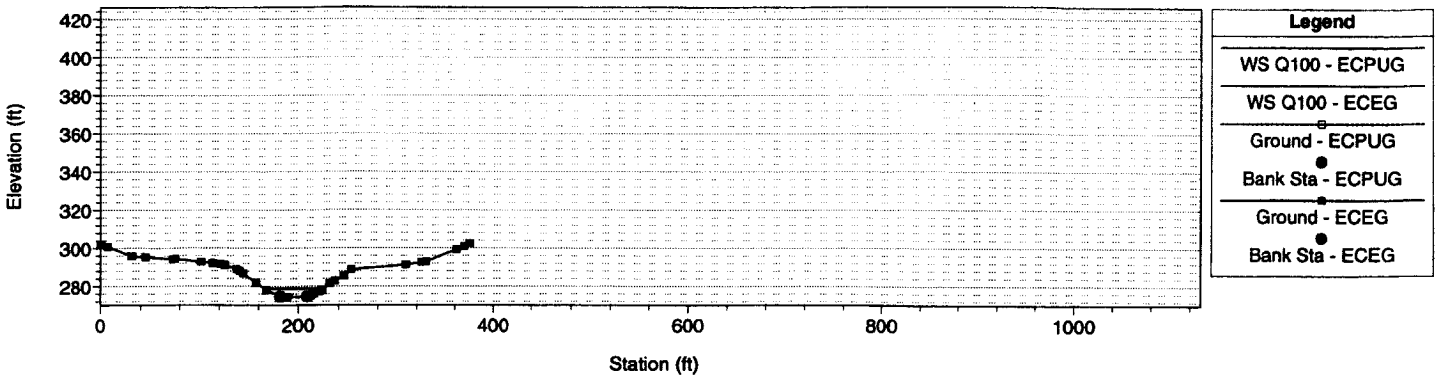
RS = 6824.032 FEC Alternative - Blind Gabino and Cristianitos Creek Crossing



1 in Horiz. = 200 ft 1 in Vert. = 100 ft

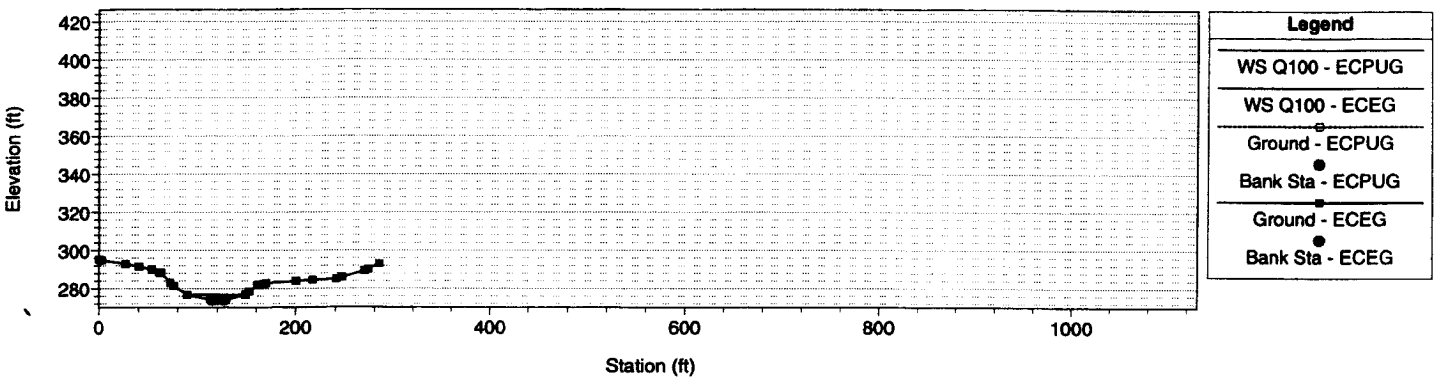
Project Model C

RS = 6549.504 FEC Alternative - Blind Gabino and Cristianitos Creek Crossing



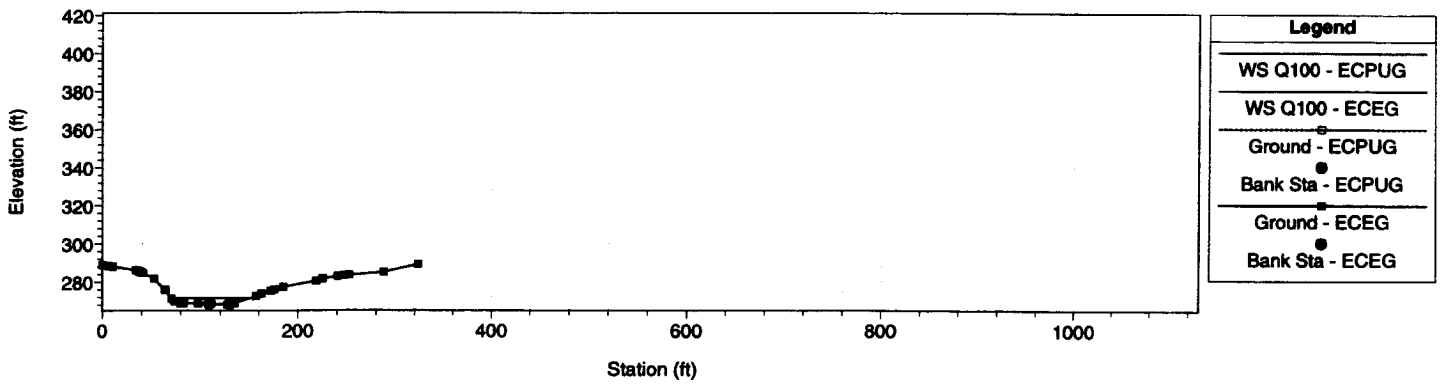
Project Model C

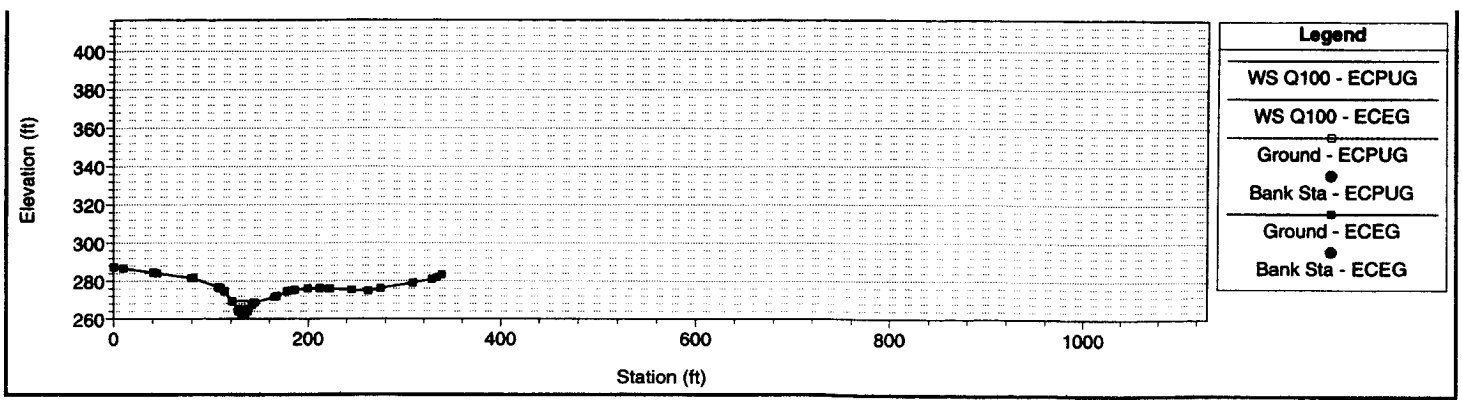
RS = 6345.465 FEC Alternative - Blind Gabino and Cristianitos Creek Crossing



Project Model C

RS = 6144.174 FEC Alternative - Blind Gabino and Cristianitos Creek Crossing

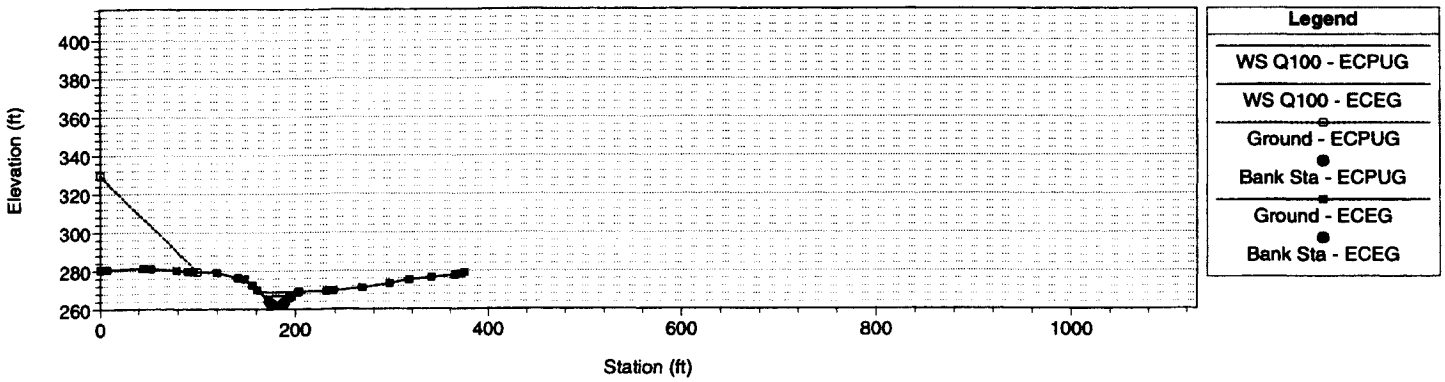




1 in Horiz. = 200 ft 1 in Vert. = 100 ft

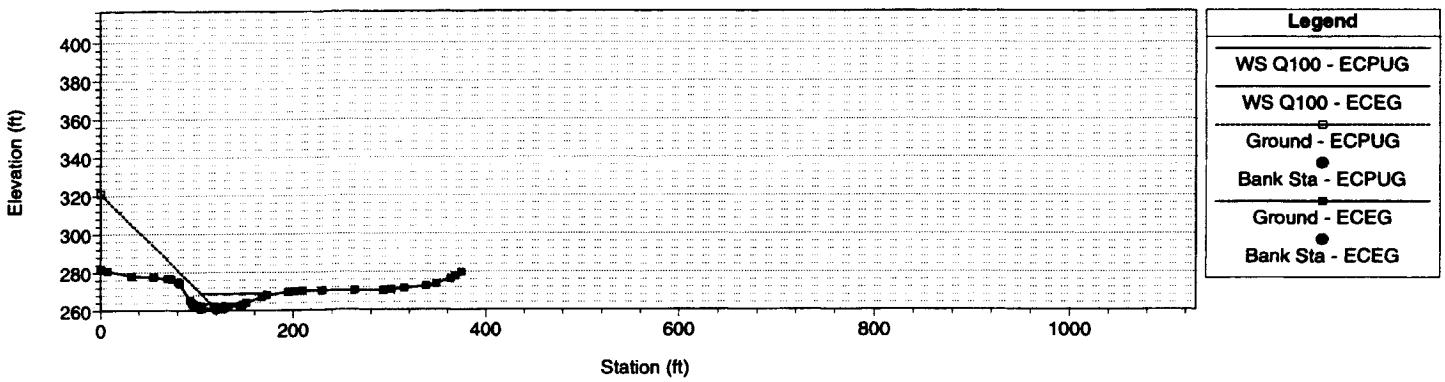
Project Model C

RS = 5744.383 FEC Alternative - Blind Gabino and Cristianitos Creek Crossing



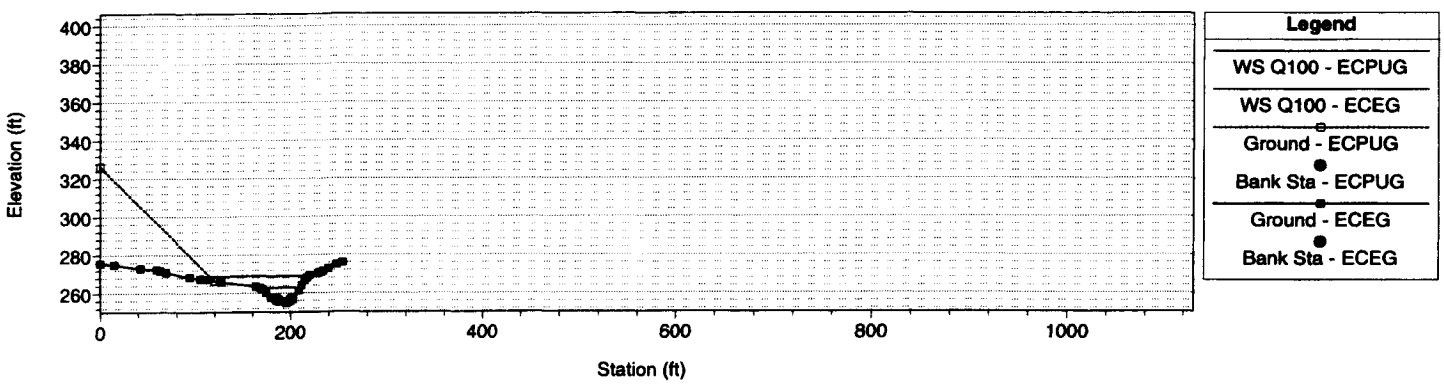
Project Model C

RS = 5523.938 FEC Alternative - Blind Gabino and Cristianitos Creek Crossing



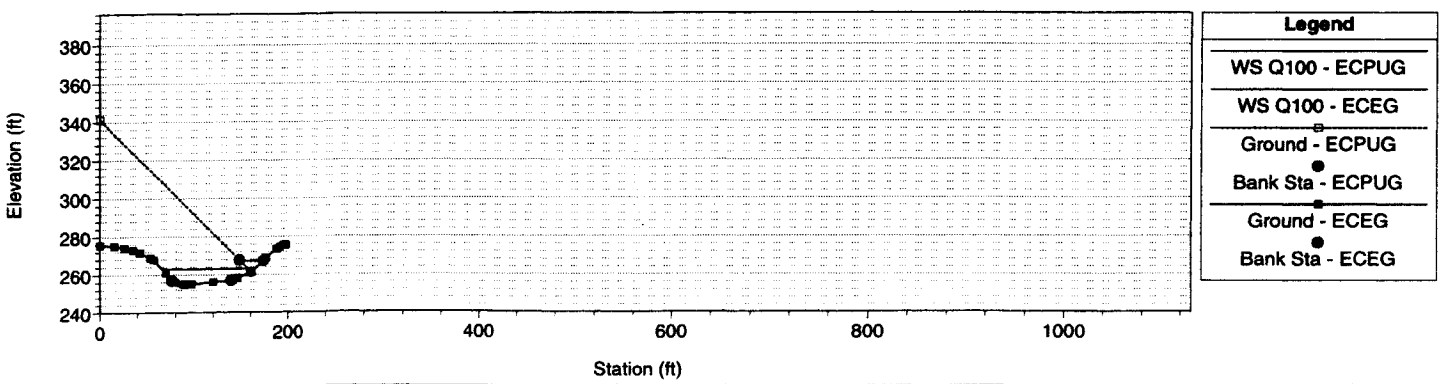
Project Model C

RS = 5299.501 FEC Alternative - Blind Gabino and Cristianitos Creek Crossing



Project Model C

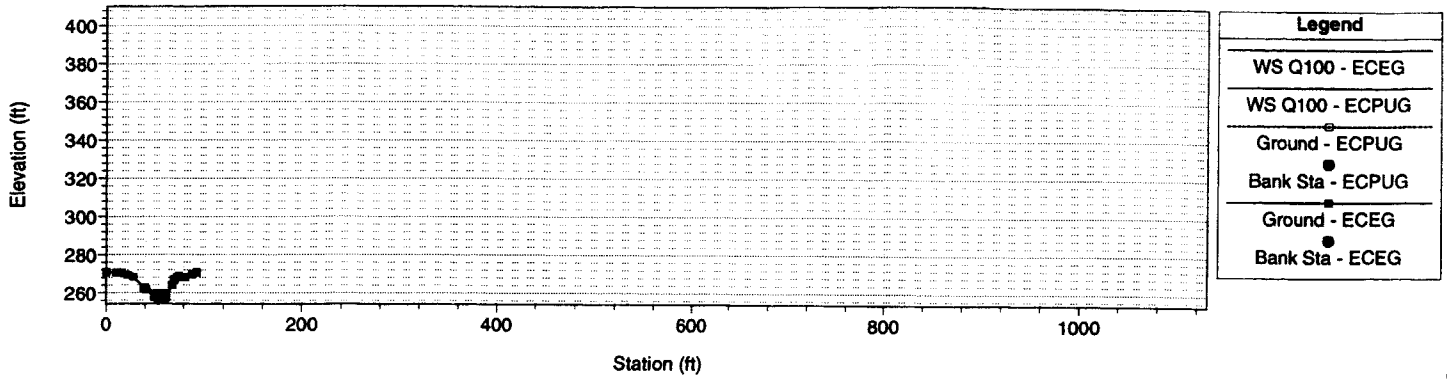
RS = 5072.281 FEC Alternative - Blind Gabino and Cristianitos Creek Crossing



1 in Horiz. = 200 ft 1 in Vert. = 100 ft

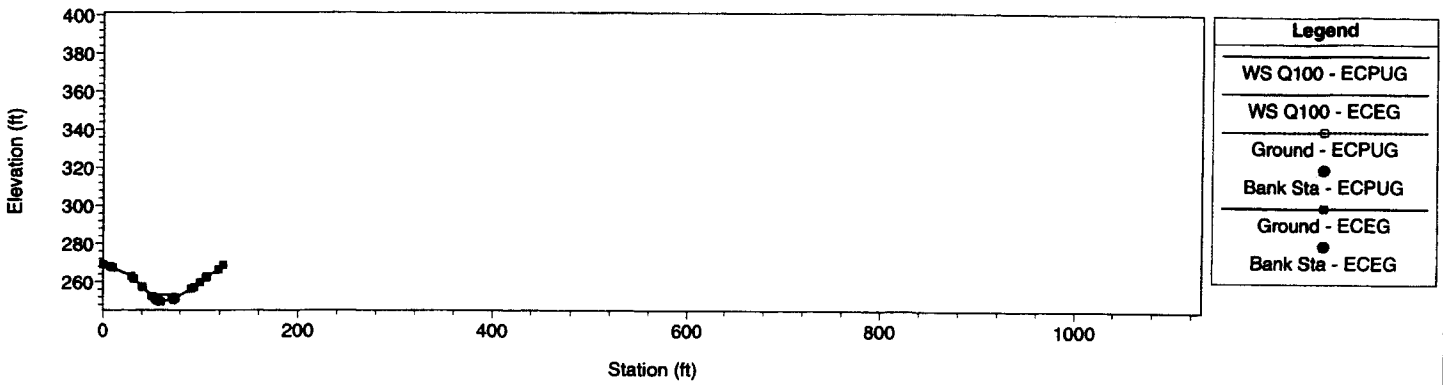
Project Model C

RS = 4860.382 FEC Alternative - Blind Gabino and Cristianitos Creek Crossing



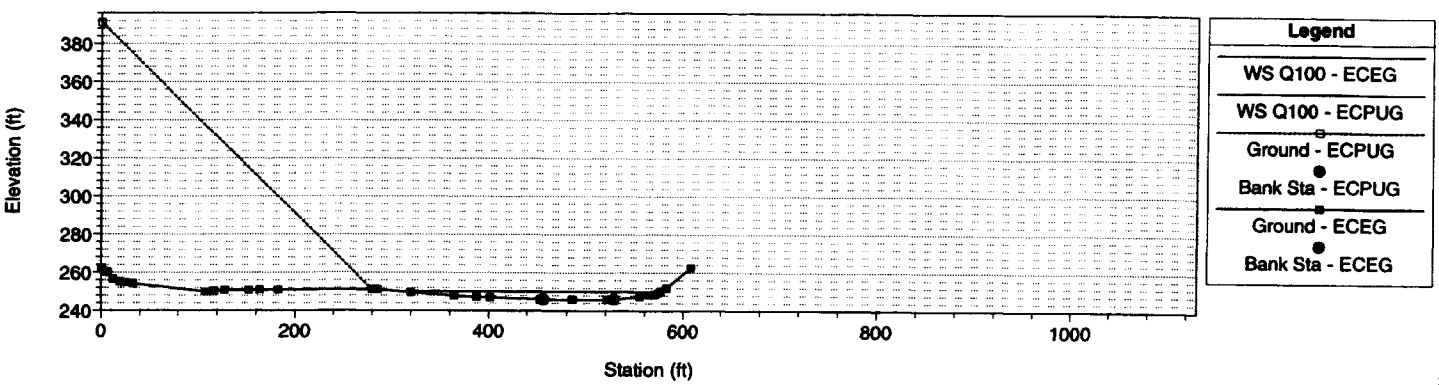
Project Model C

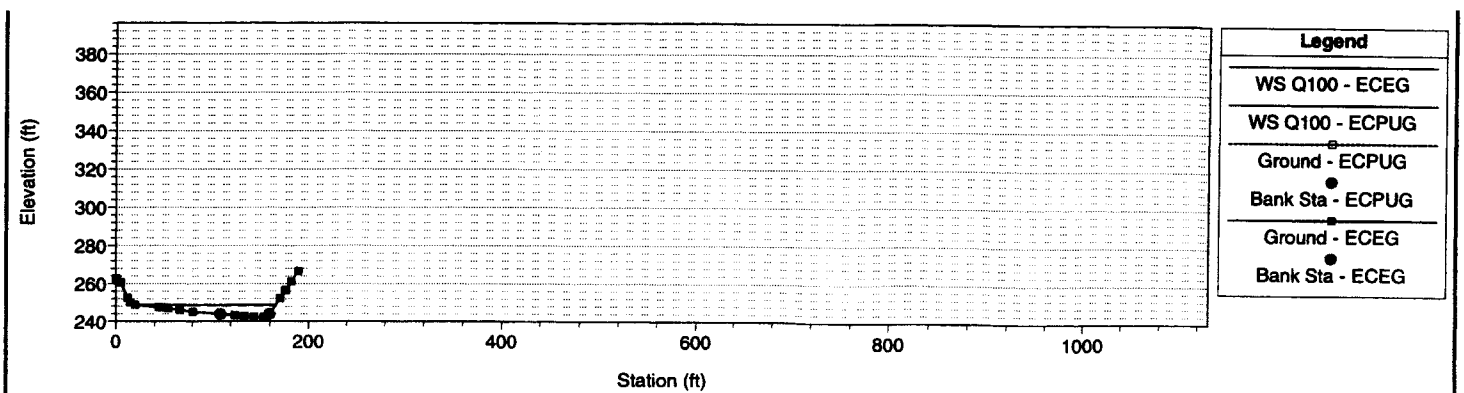
RS = 4667.013 FEC Alternative - Blind Gabino and Cristianitos Creek Crossing



Project Model C

RS = 4235.234 FEC Alternative - Blind Gabino and Cristianitos Creek Crossing

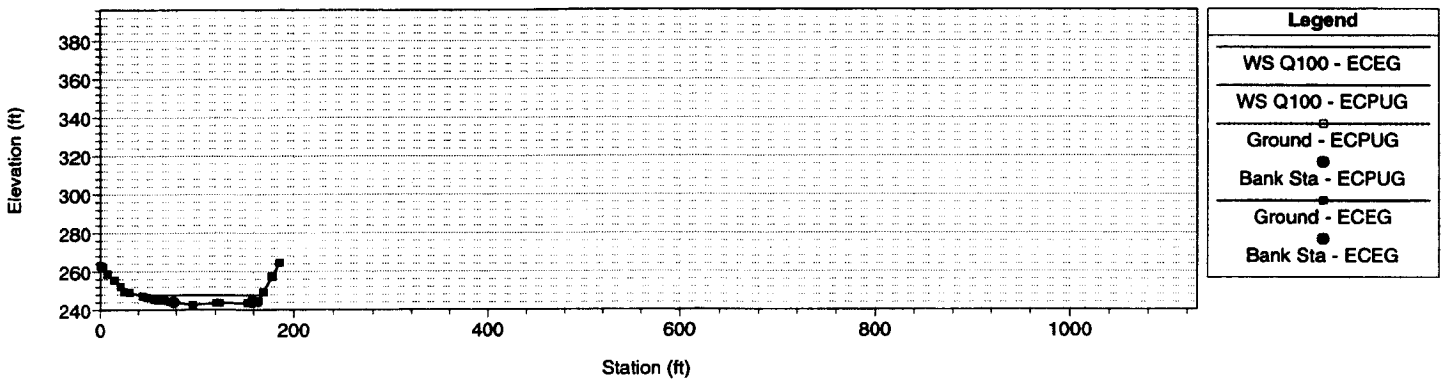




1 in Horiz. = 200 ft 1 in Vert. = 100 ft

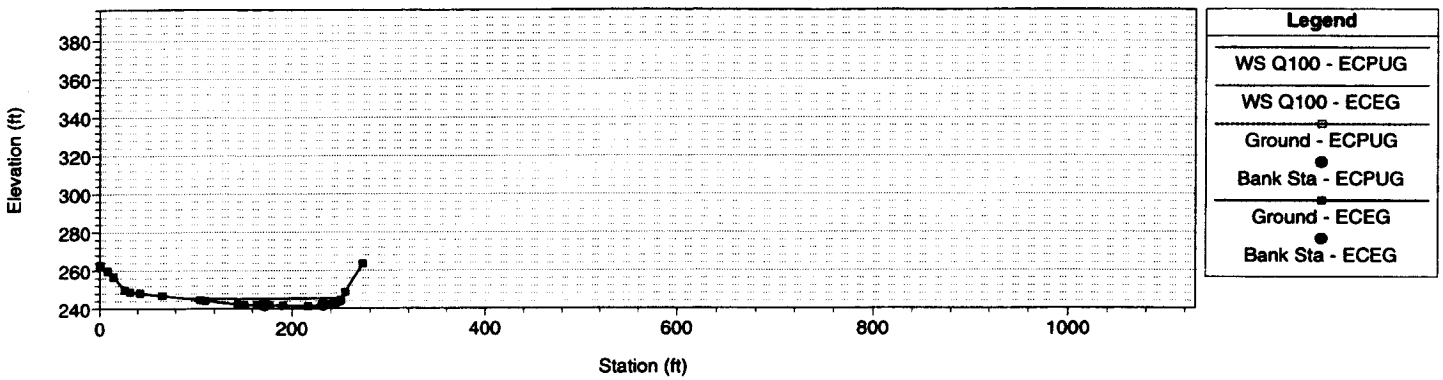
Project Model C

RS = 3902.554 FEC Alternative - Blind Gabino and Cristianitos Creek Crossing



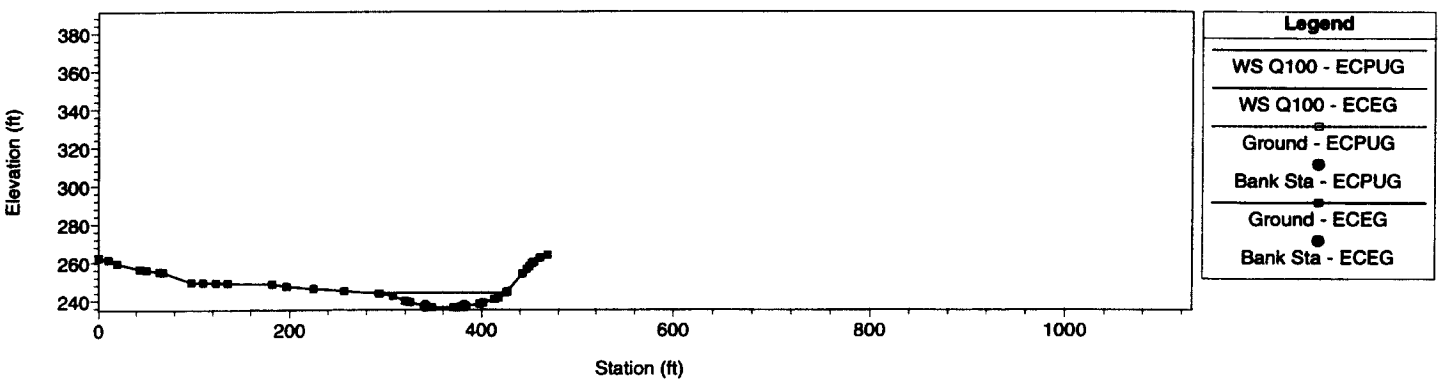
Project Model C

RS = 3656.363 FEC Alternative - Blind Gabino and Cristianitos Creek Crossing



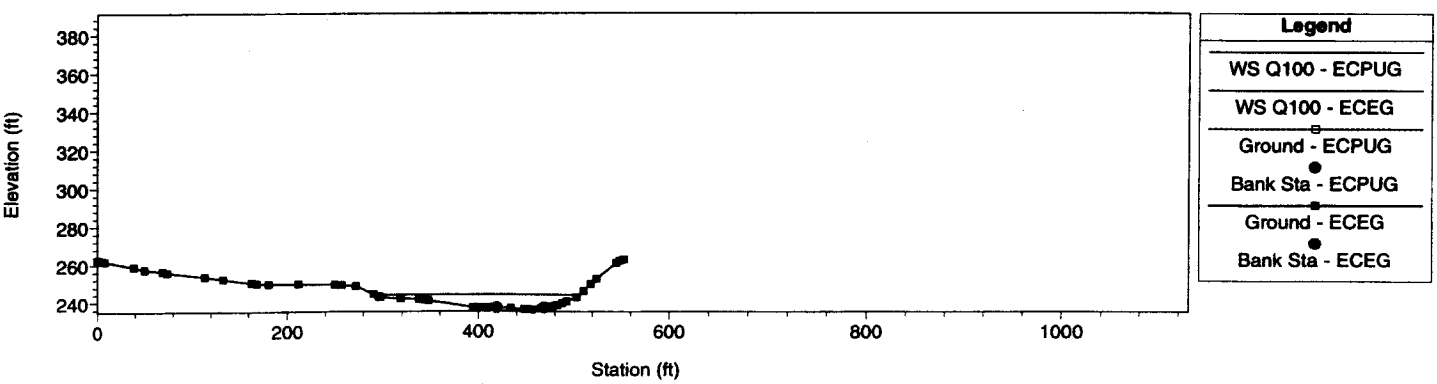
Project Model C

RS = 3342.045 FEC Alternative - Blind Gabino and Cristianitos Creek Crossing



Project Model C

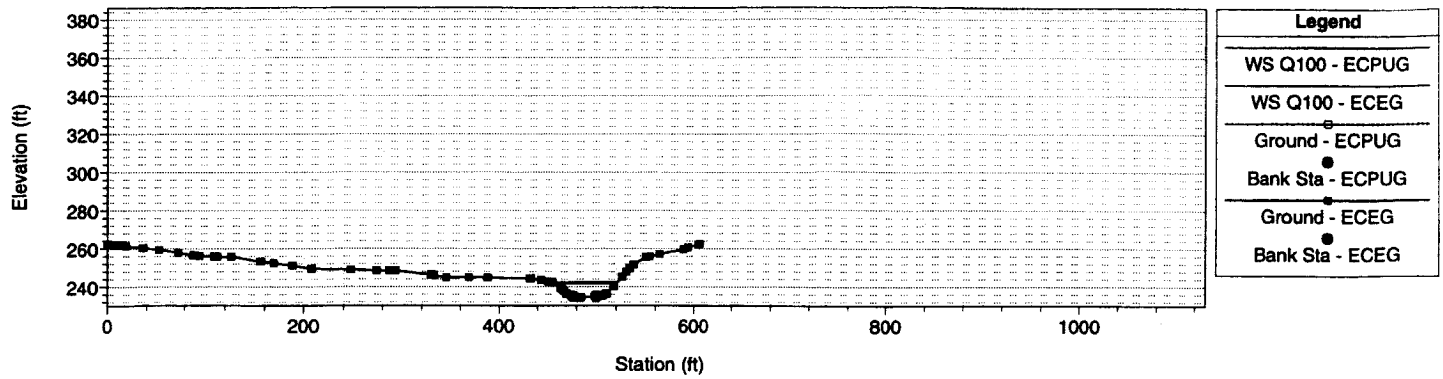
RS = 3126.861 FEC Alternative - Blind Gabino and Cristianitos Creek Crossing



1 in Horiz. = 200 ft 1 in Vert. = 100 ft

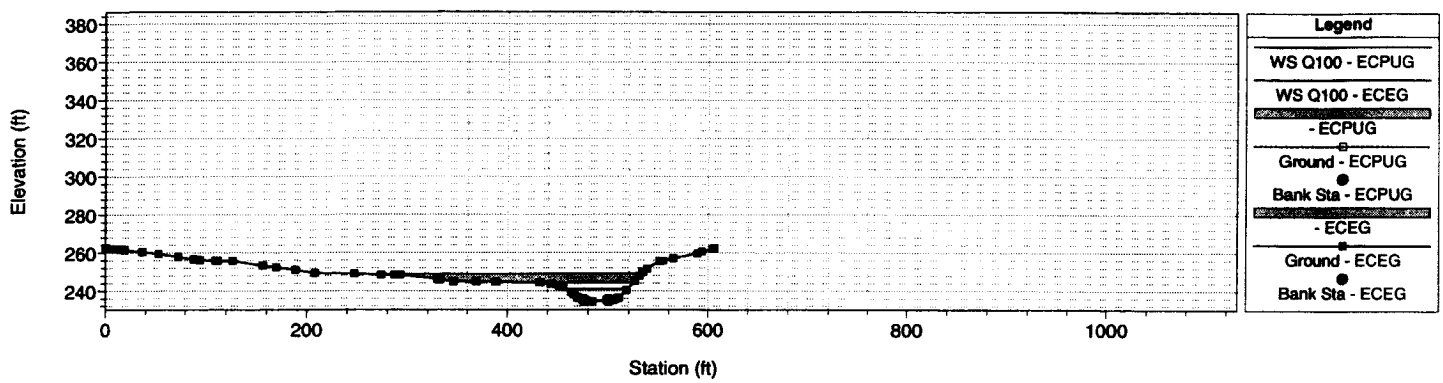
Project Model C

RS = 3032.611 FEC Alternative - Blind Gabino and Cristianitos Creek Crossing



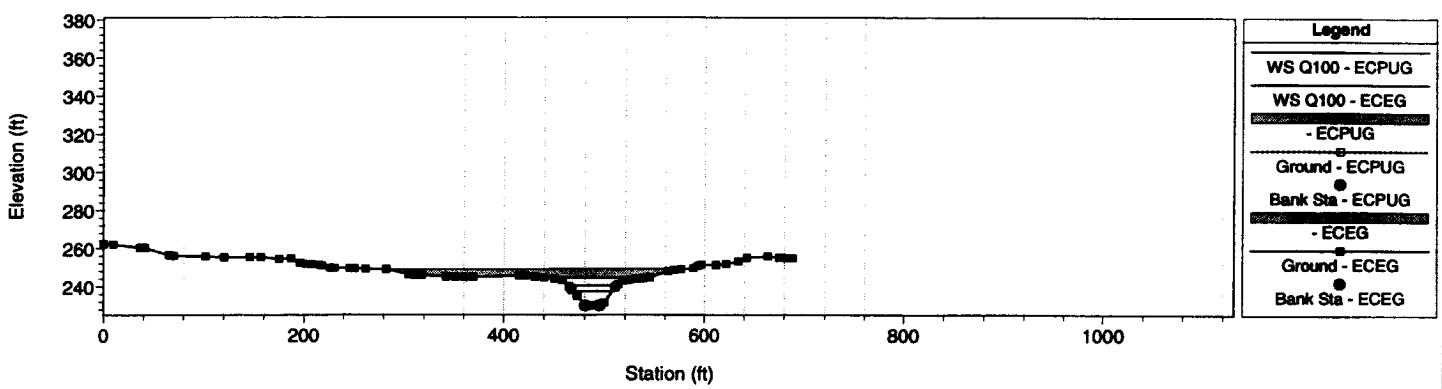
Project Model C

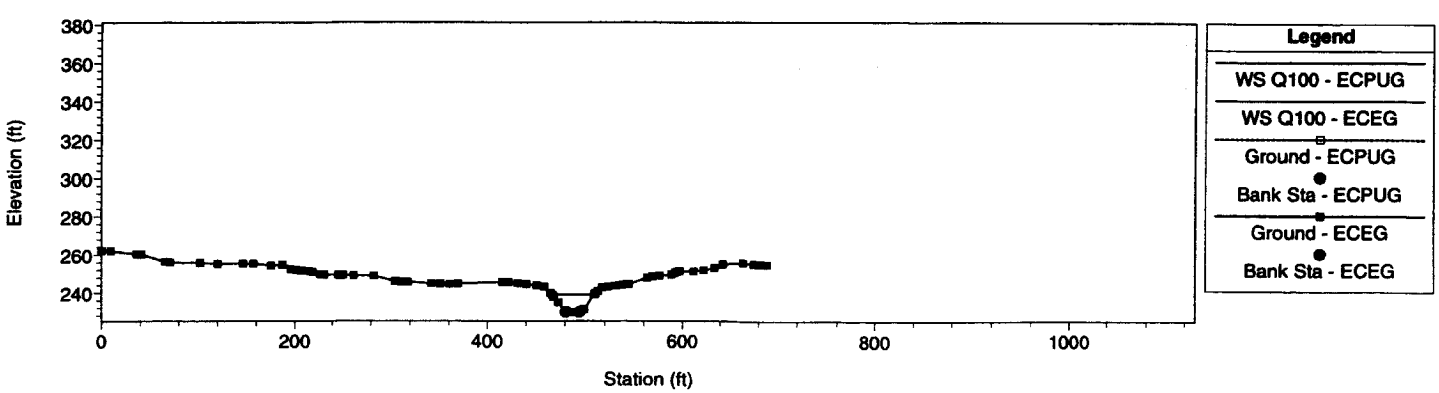
RS = 3020 FEC Alternative - Blind Gabino and Cristianitos Creek Crossing



Project Model C

RS = 3020 FEC Alternative - Blind Gabino and Cristianitos Creek Crossing

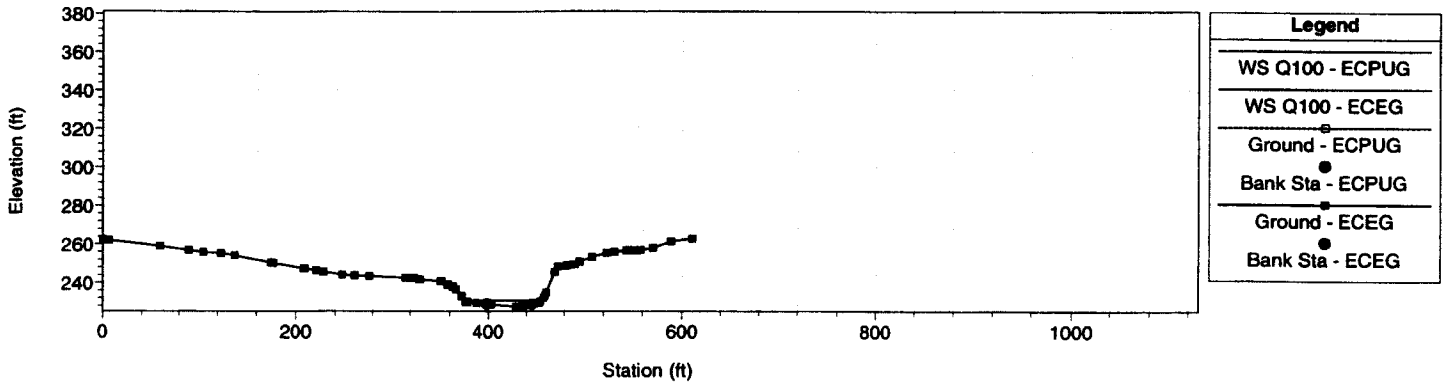




1 in Horiz. = 200 ft 1 in Vert. = 100 ft

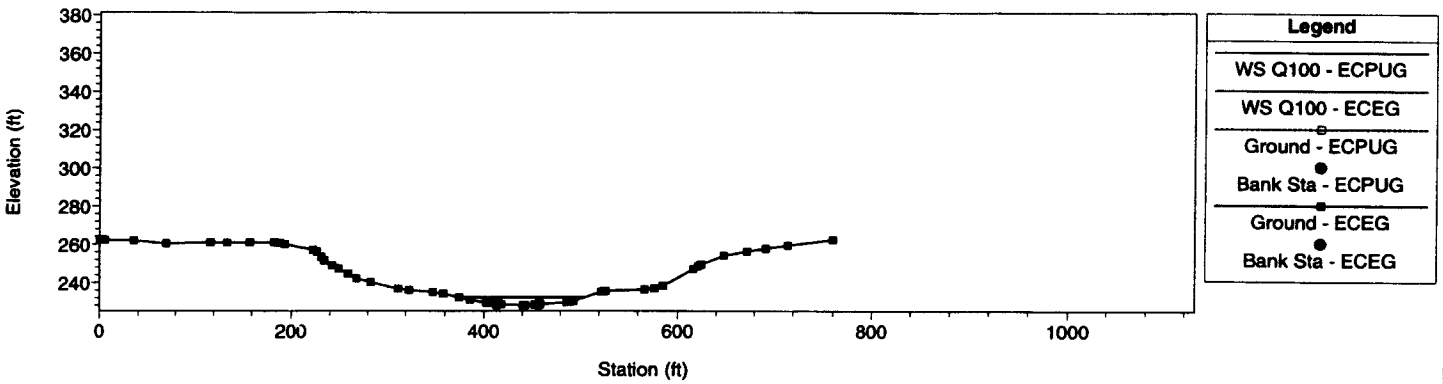
Project Model C

RS = 2944.635 FEC Alternative - Blind Gabino and Cristianitos Creek Crossing



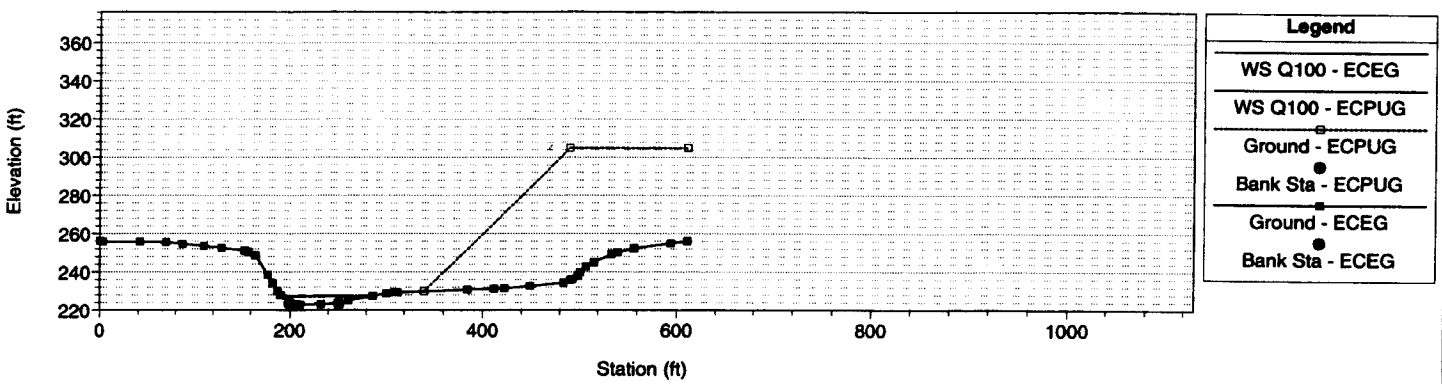
Project Model C

RS = 2753.405 FEC Alternative - Blind Gabino and Cristianitos Creek Crossing



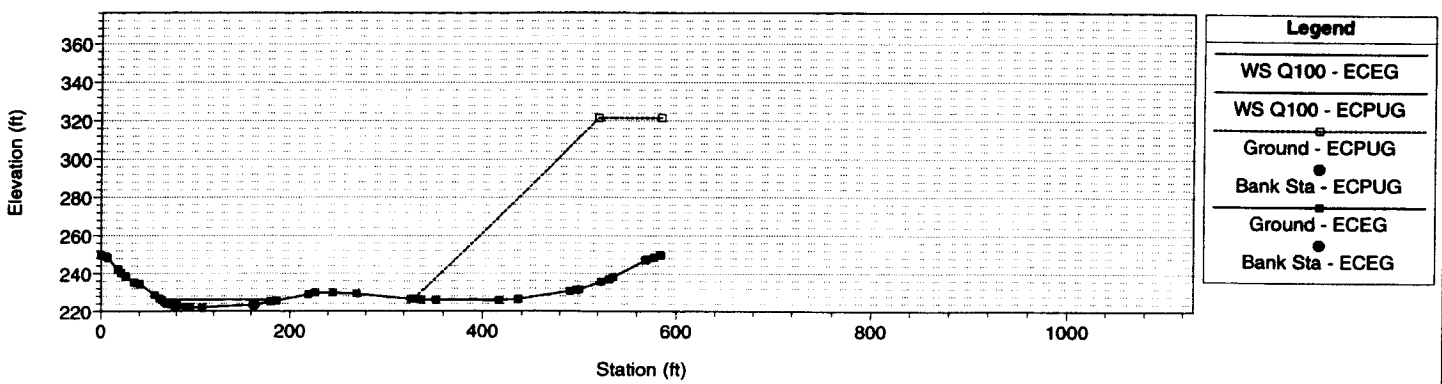
Project Model C

RS = 2467.829 FEC Alternative - Blind Gabino and Cristianitos Creek Crossing



Project Model C

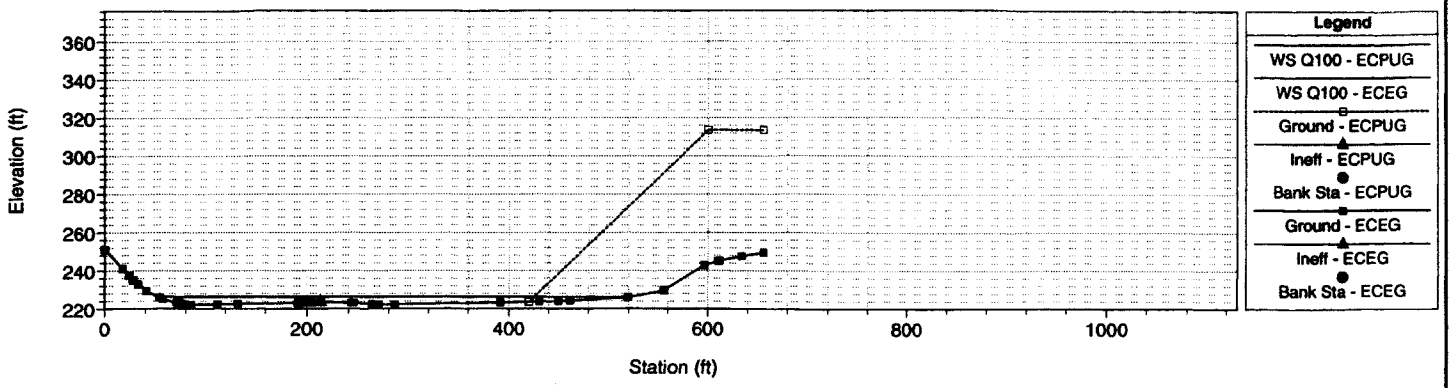
RS = 2208.250 FEC Alternative - Blind Gabino and Cristianitos Creek Crossing



1 in Horiz. = 200 ft 1 in Vert. = 100 ft

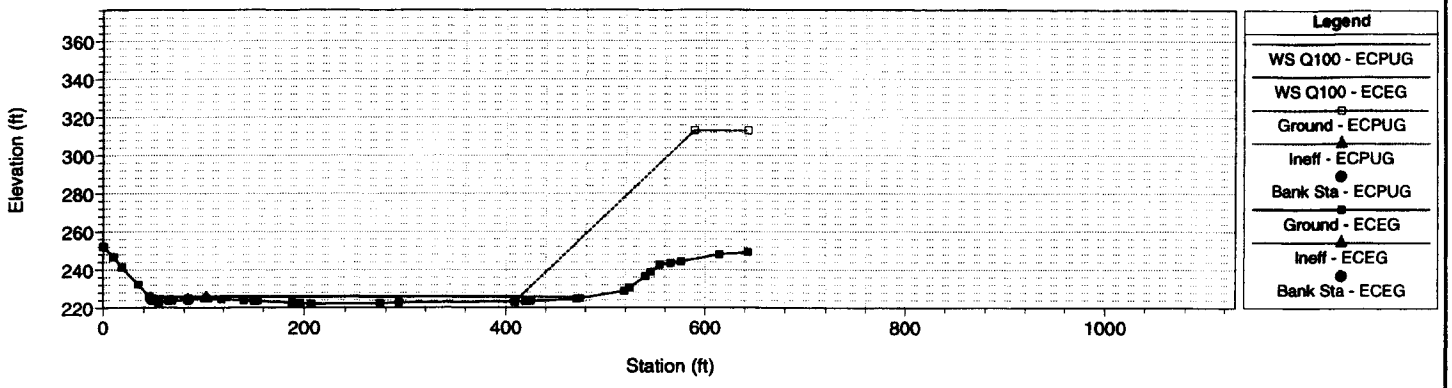
Project Model C

RS = 1996.005 FEC Alternative - Blind Gabino and Cristianitos Creek Crossing



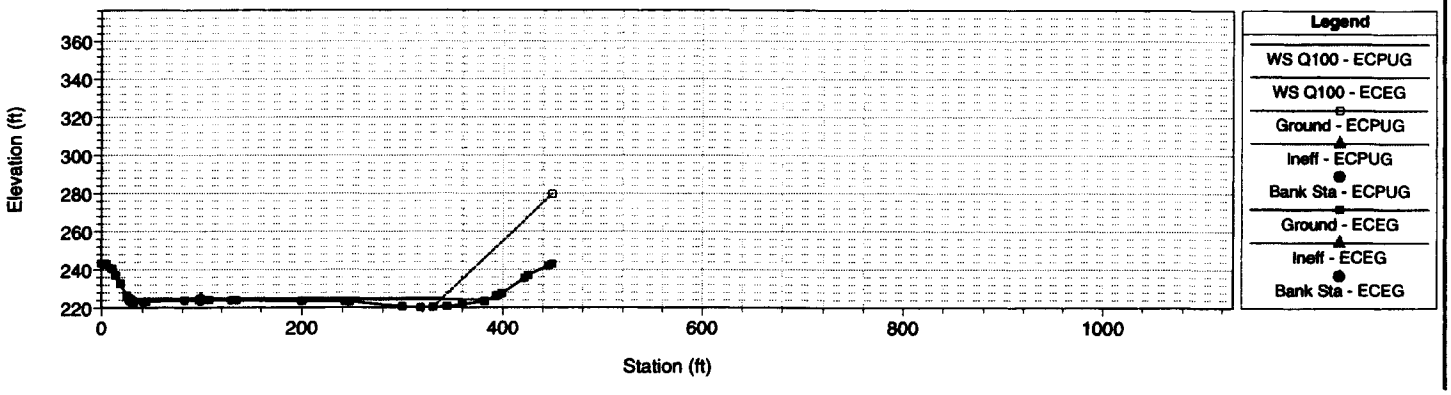
Project Model C

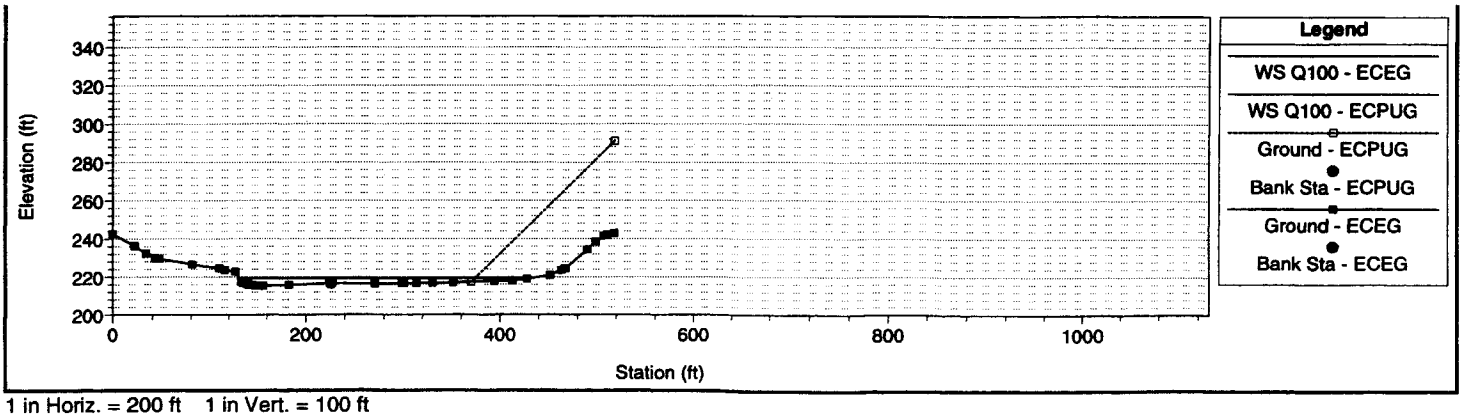
RS = 1770.999 FEC Alternative - Blind Gabino and Cristianitos Creek Crossing



Project Model C

RS = 1625.629 FEC Alternative - Blind Gabino and Cristianitos Creek Crossing

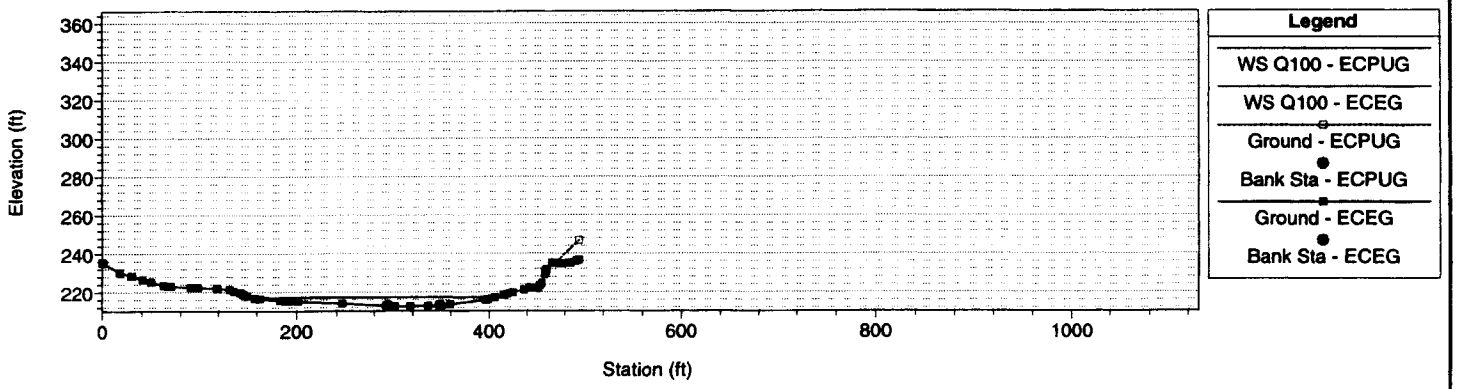




1 in Horiz. = 200 ft 1 in Vert. = 100 ft

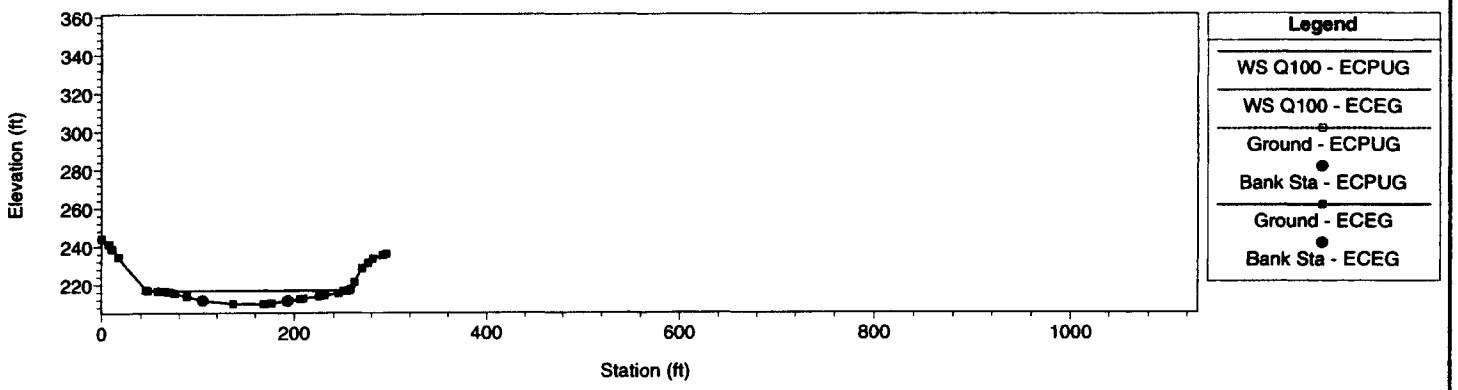
Project Model C

RS = 1122.028 FEC Alternative - Blind Gabino and Cristianitos Creek Crossing



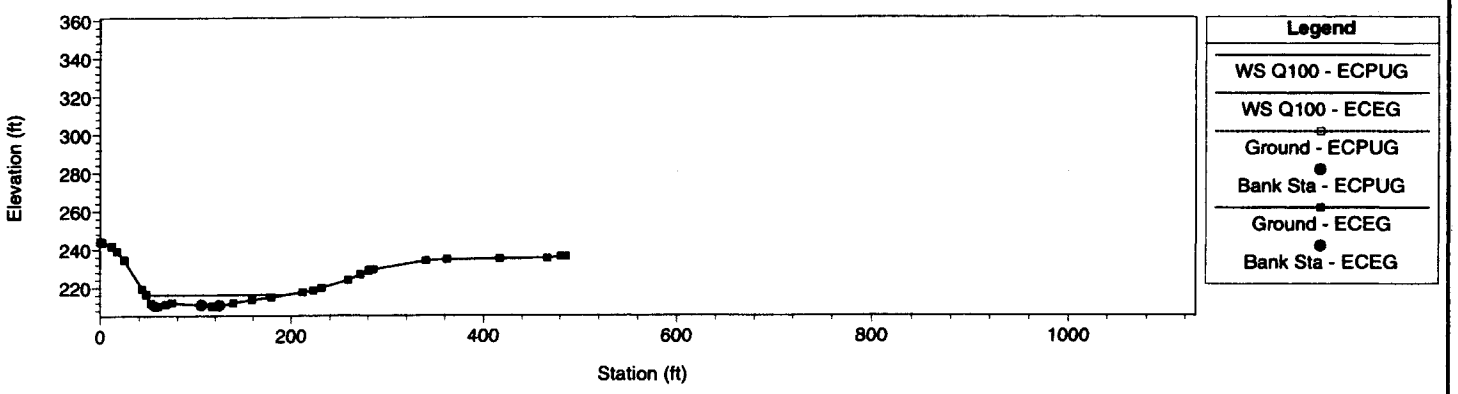
Project Model C

RS = 884.628 FEC Alternative - Blind Gabino and Cristianitos Creek Crossing



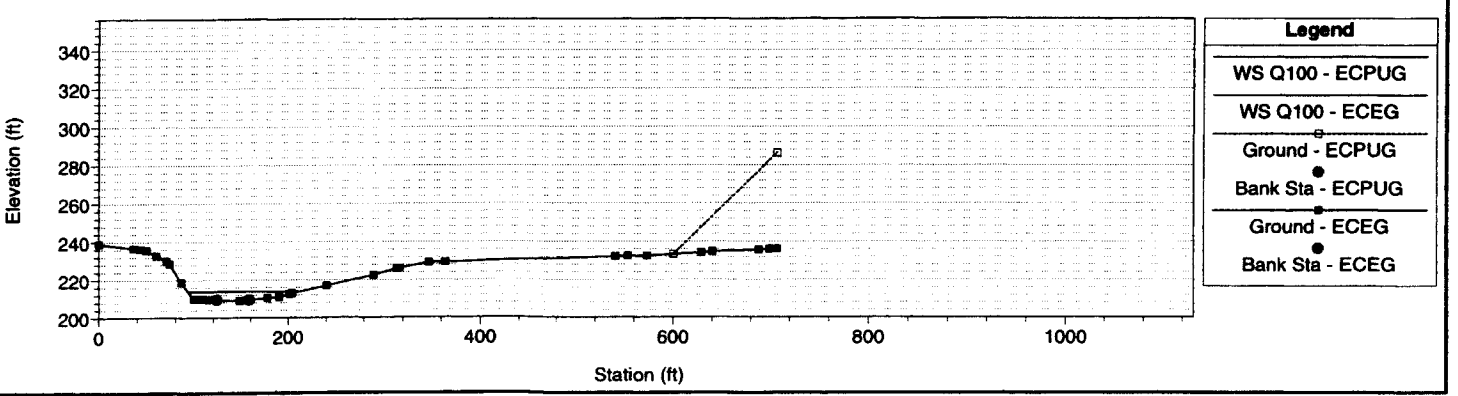
Project Model C

RS = 657.311 FEC Alternative - Blind Gabino and Cristianitos Creek Crossing



Project Model C

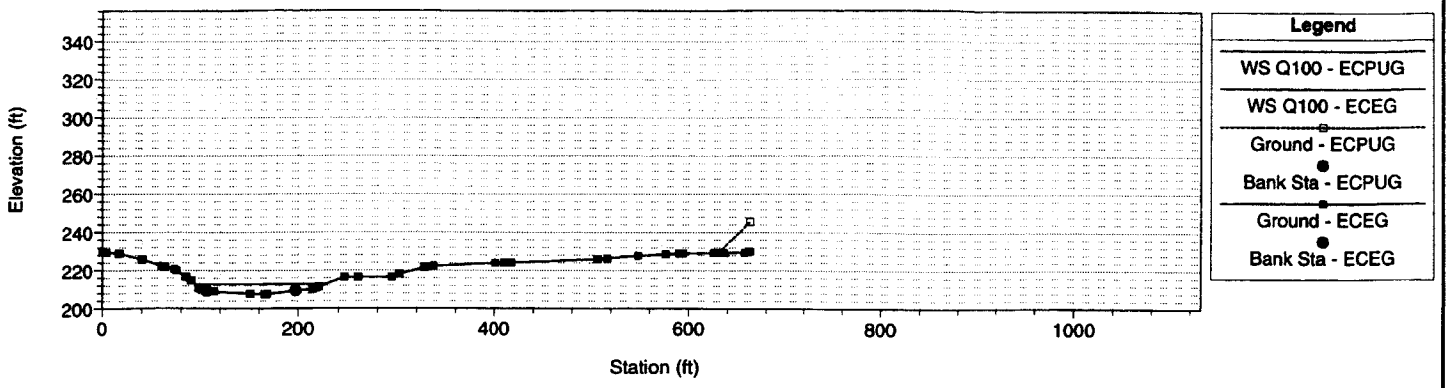
RS = 435.541 FEC Alternative - Blind Gabino and Cristianitos Creek Crossing



1 in Horiz. = 200 ft 1 in Vert. = 100 ft

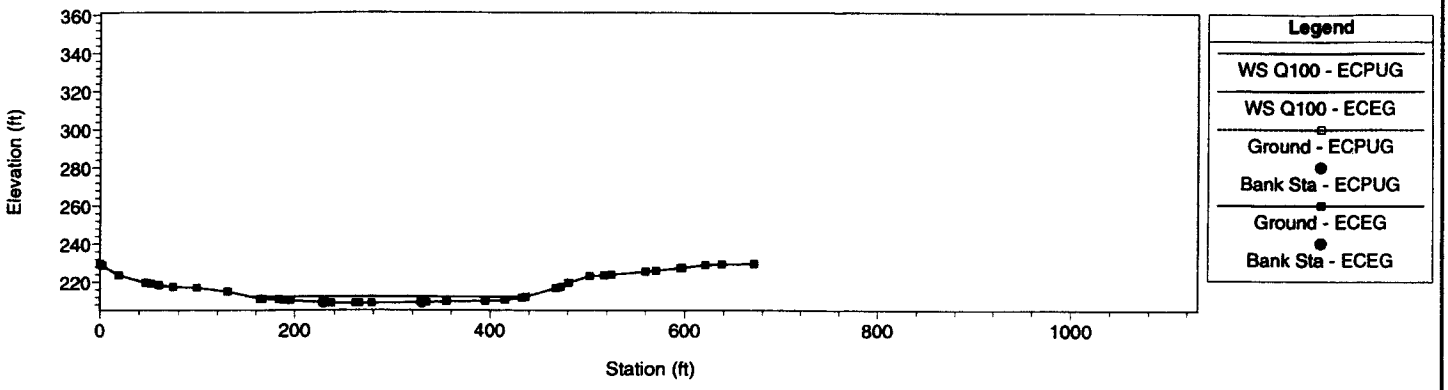
Project Model C

RS = 239.788 FEC Alternative - Blind Gabino and Cristianitos Creek Crossing

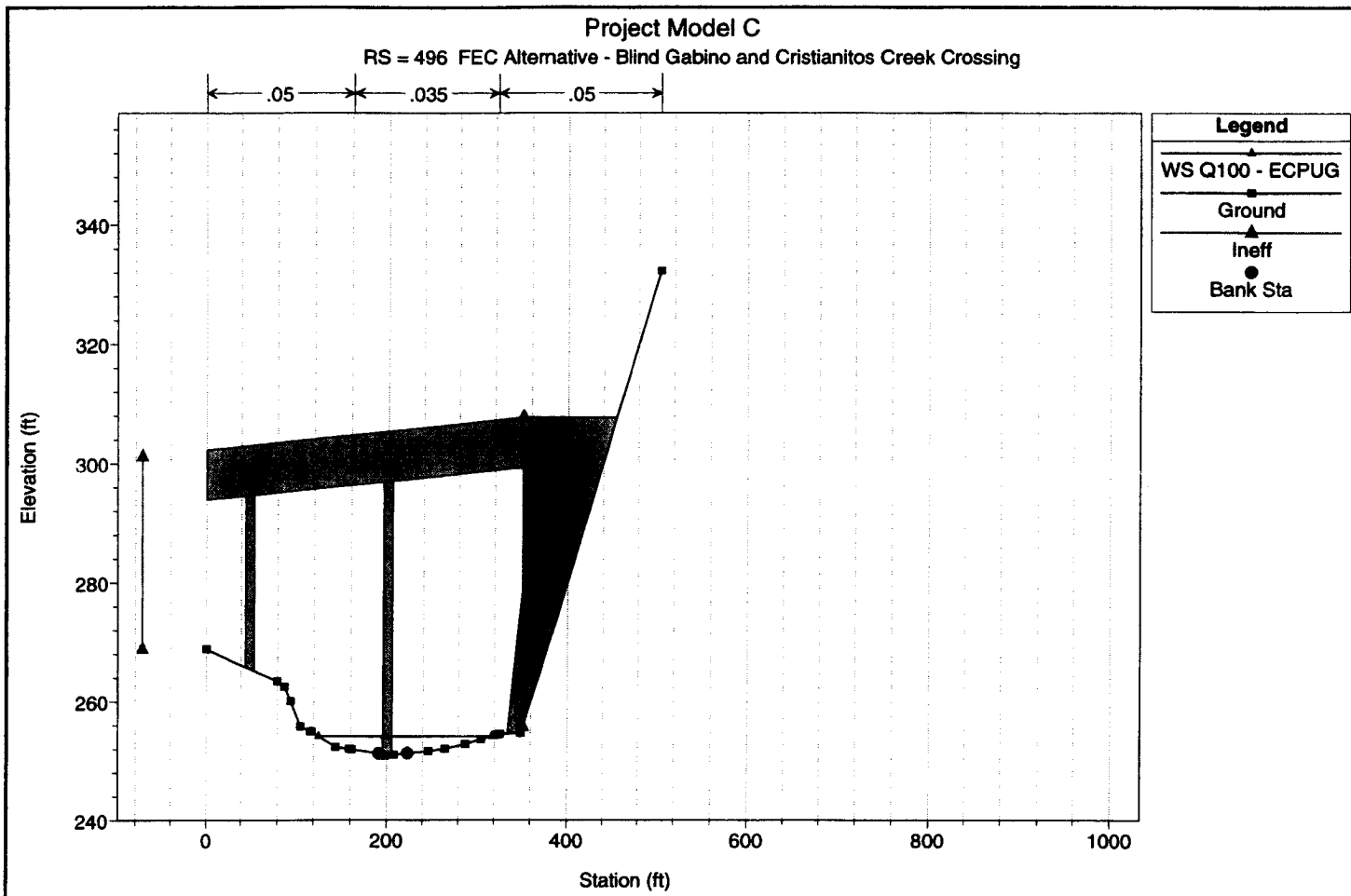


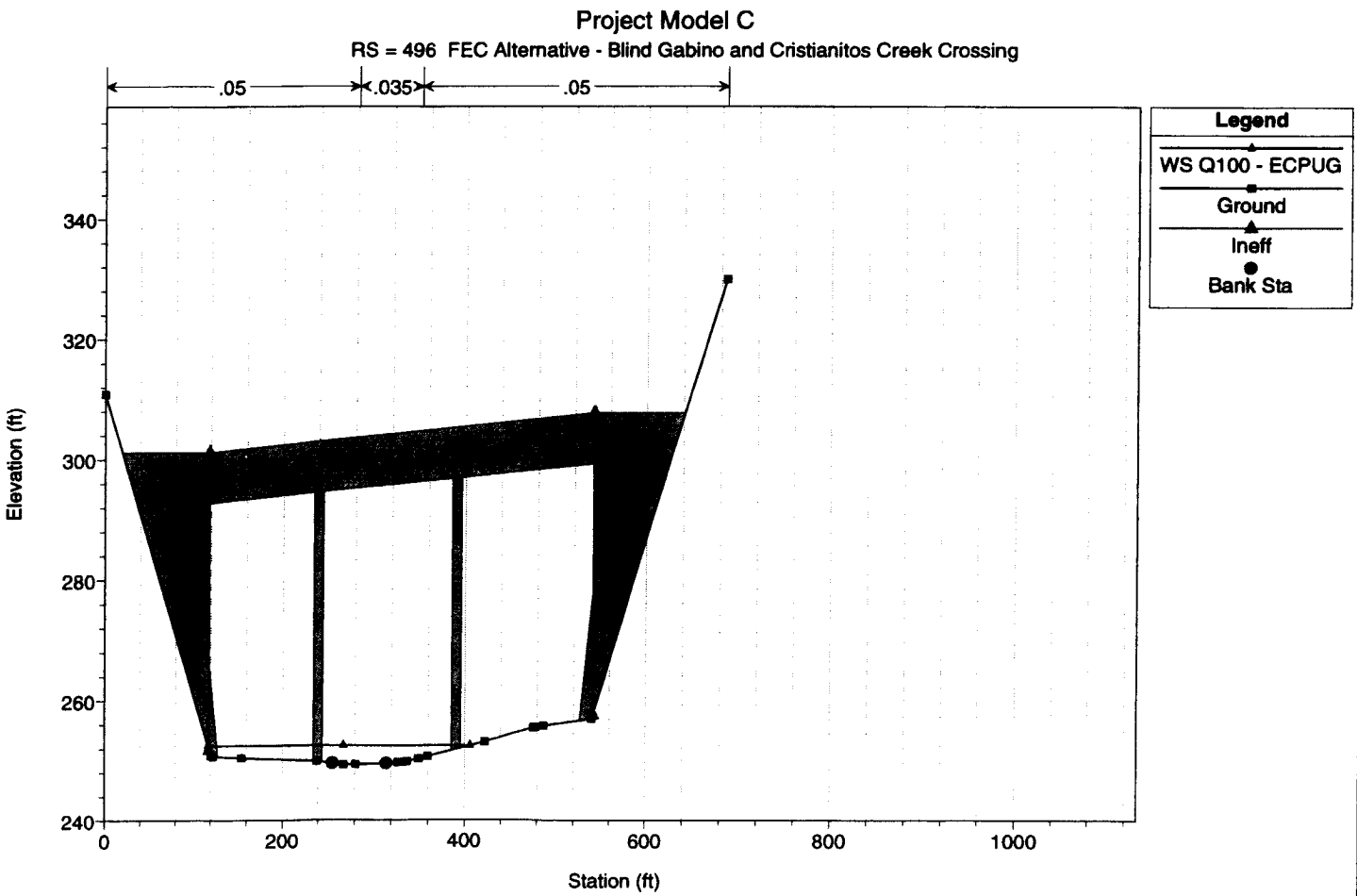
Project Model C

RS = 66.136 FEC Alternative - Blind Gabino and Cristianitos Creek Crossing

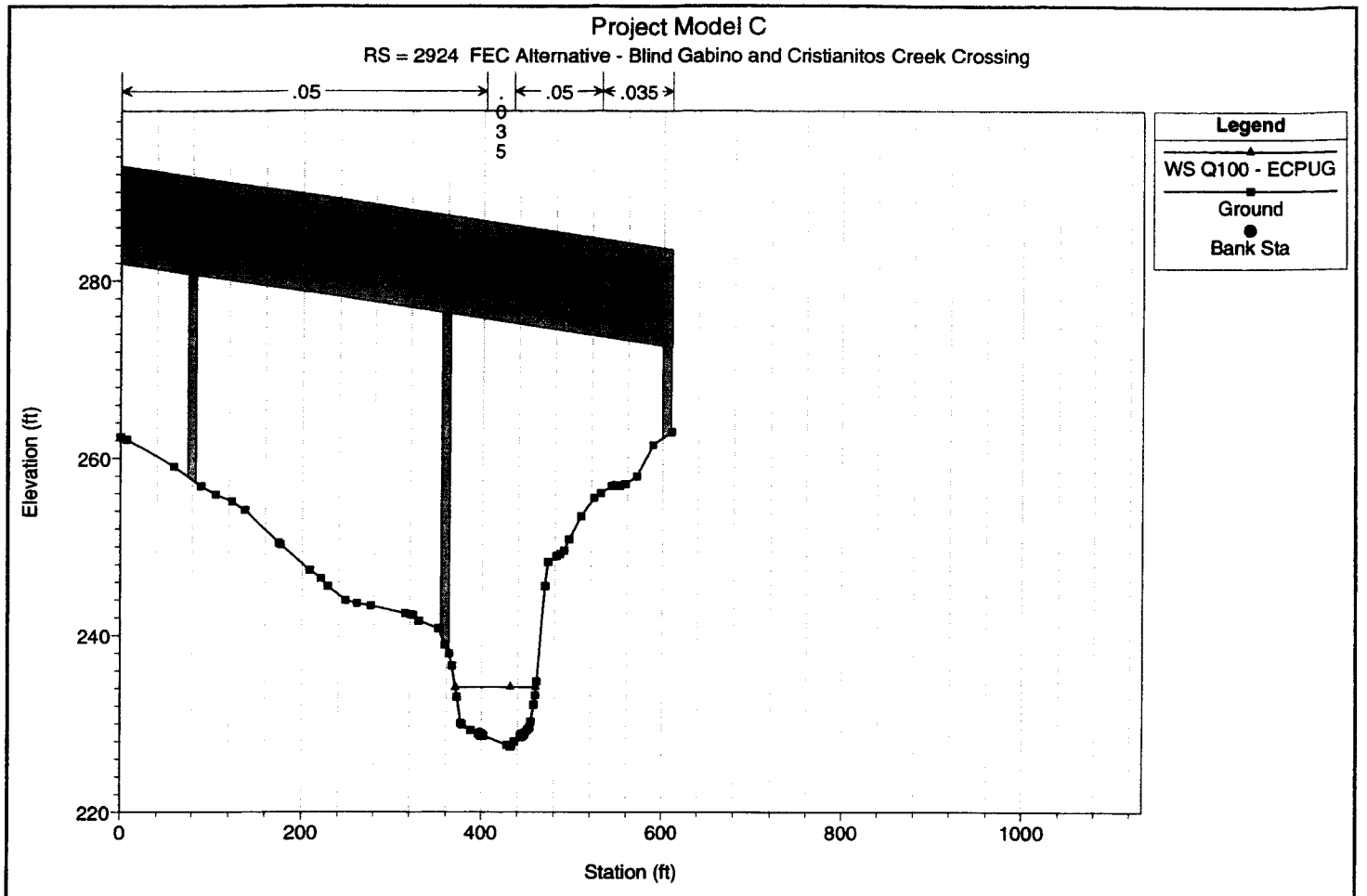


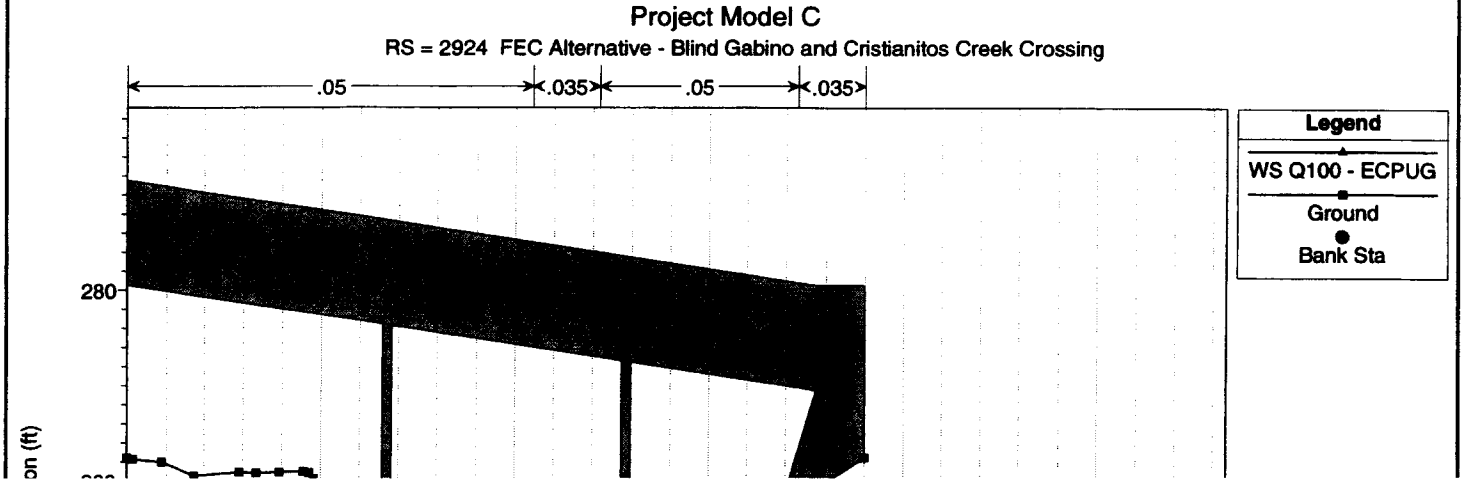
1 in Horiz. = 200 ft 1 in Vert. = 100 ft

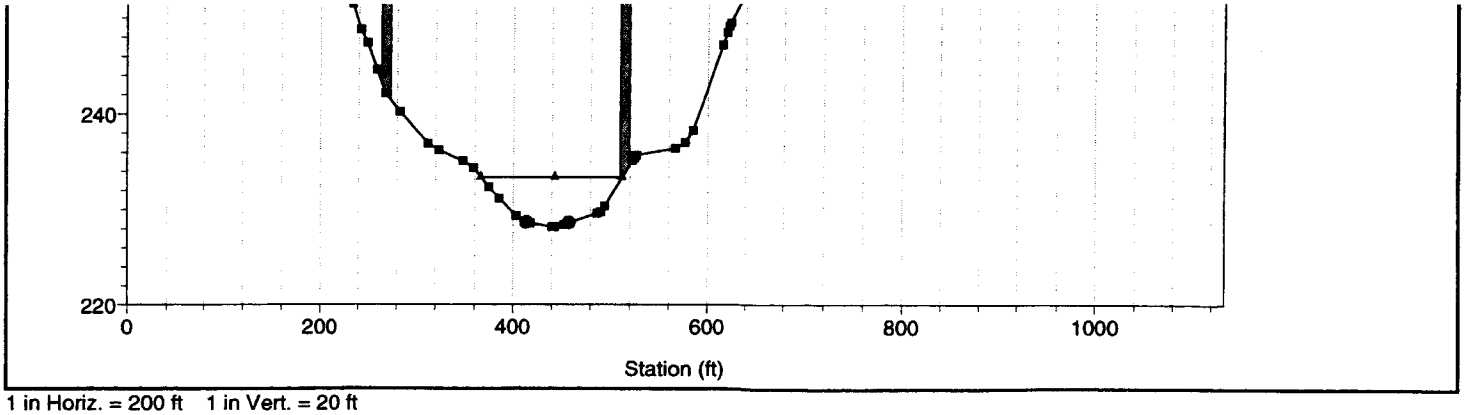




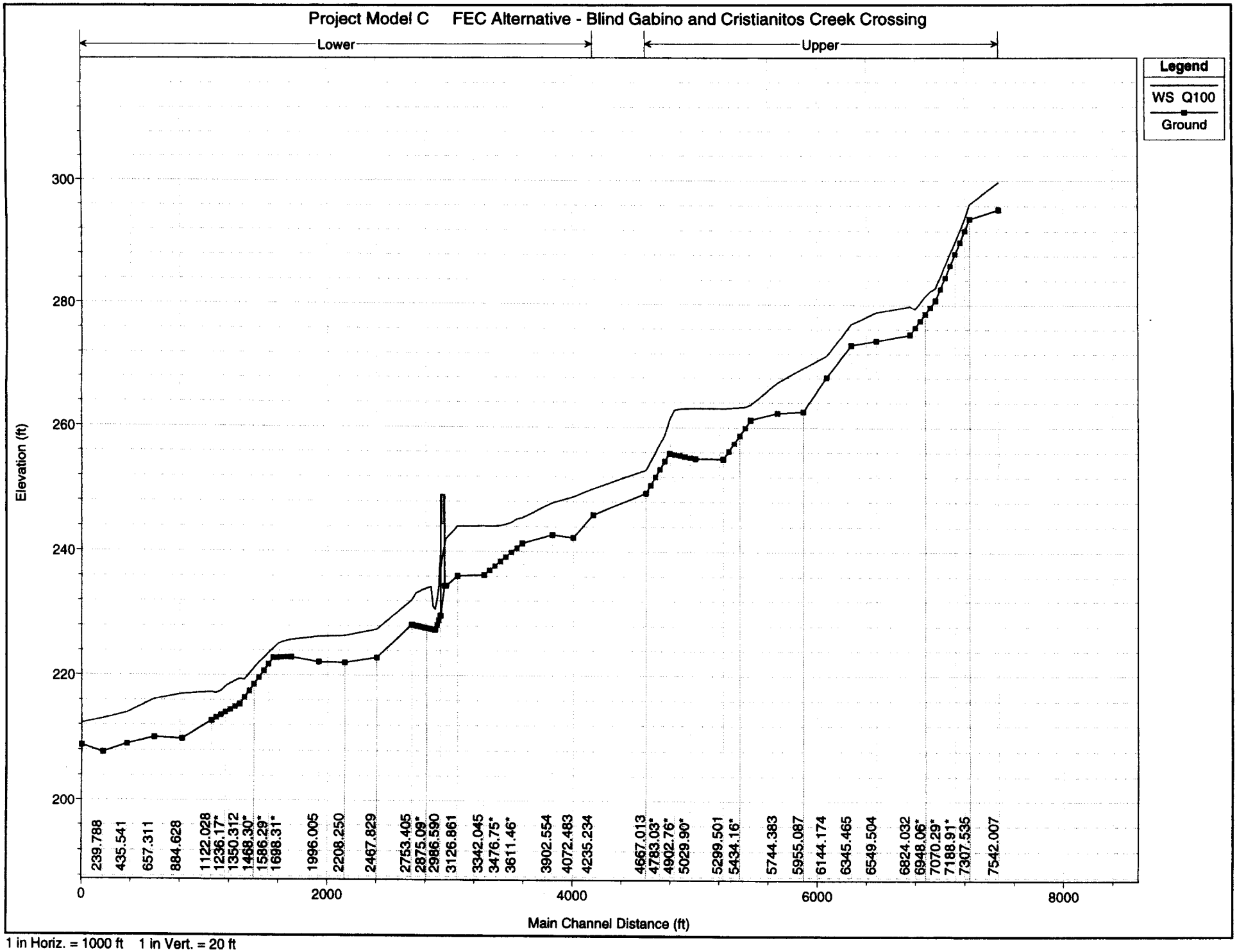
1 in Horiz. = 200 ft 1 in Vert. = 30 ft





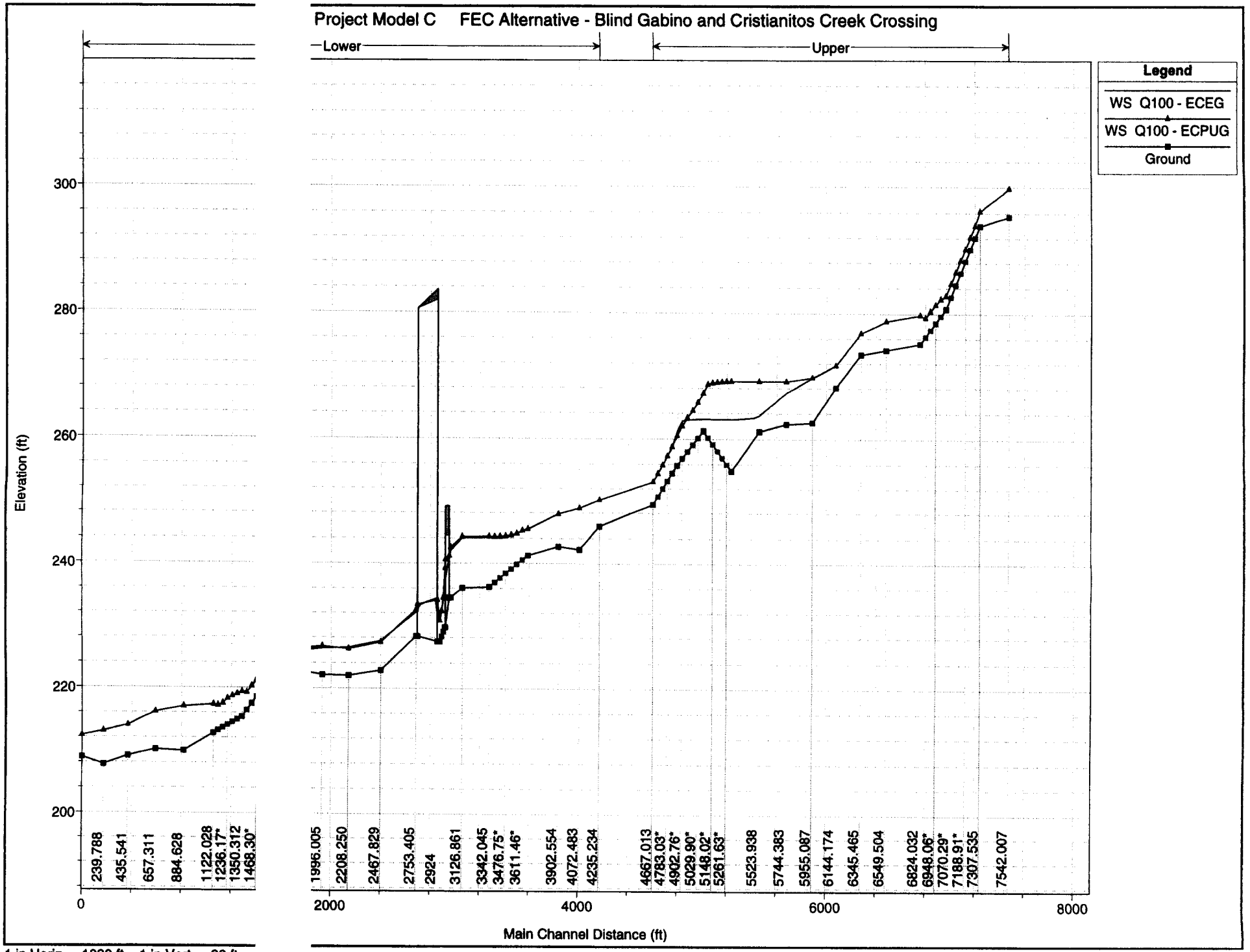


1 in Horiz. = 200 ft 1 in Vert. = 20 ft

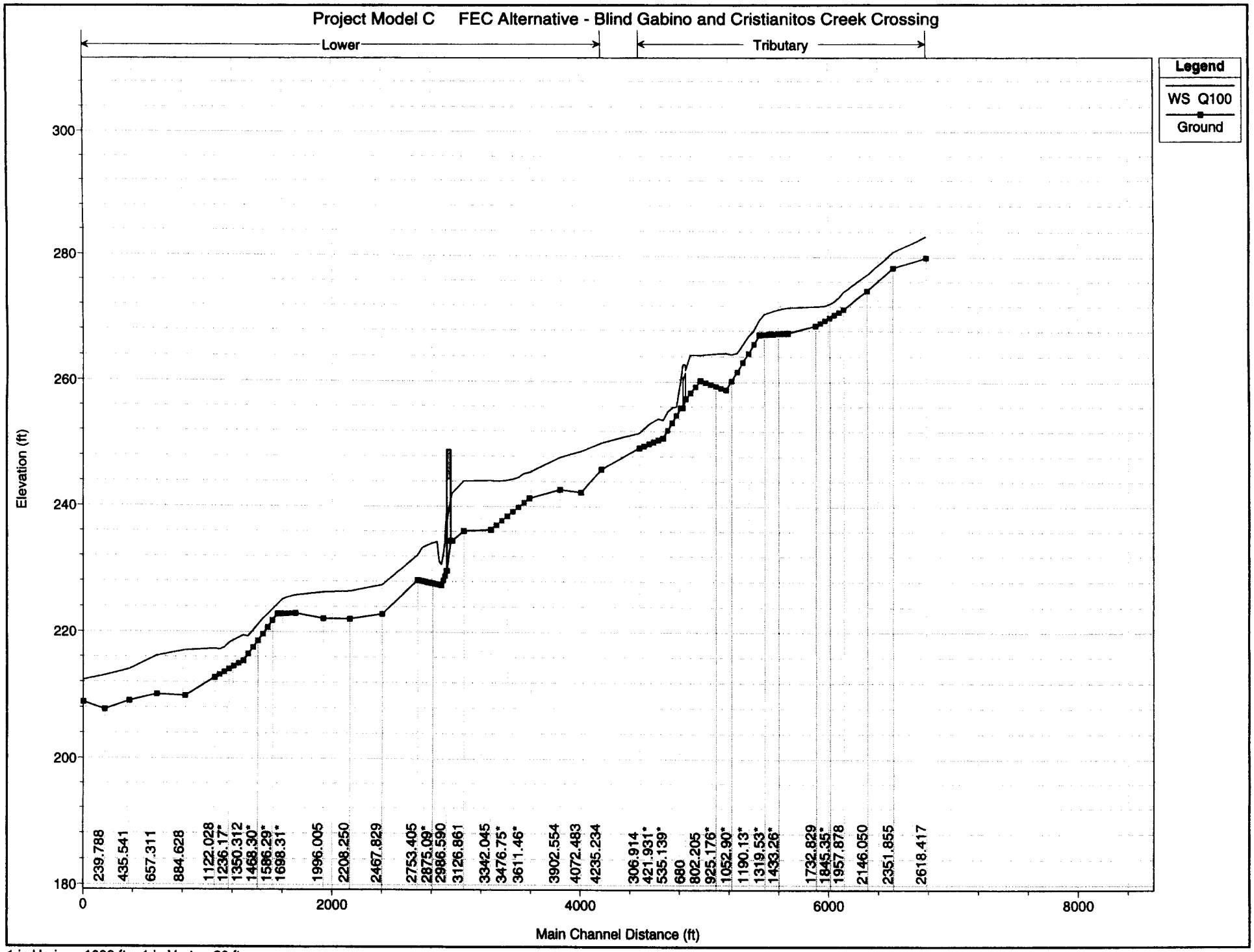


1 in Horiz. = 1000 ft 1 in Vert. = 20 ft

Project Model C FEC Alternative - Blind Gabino and Cristianitos Creek Crossing

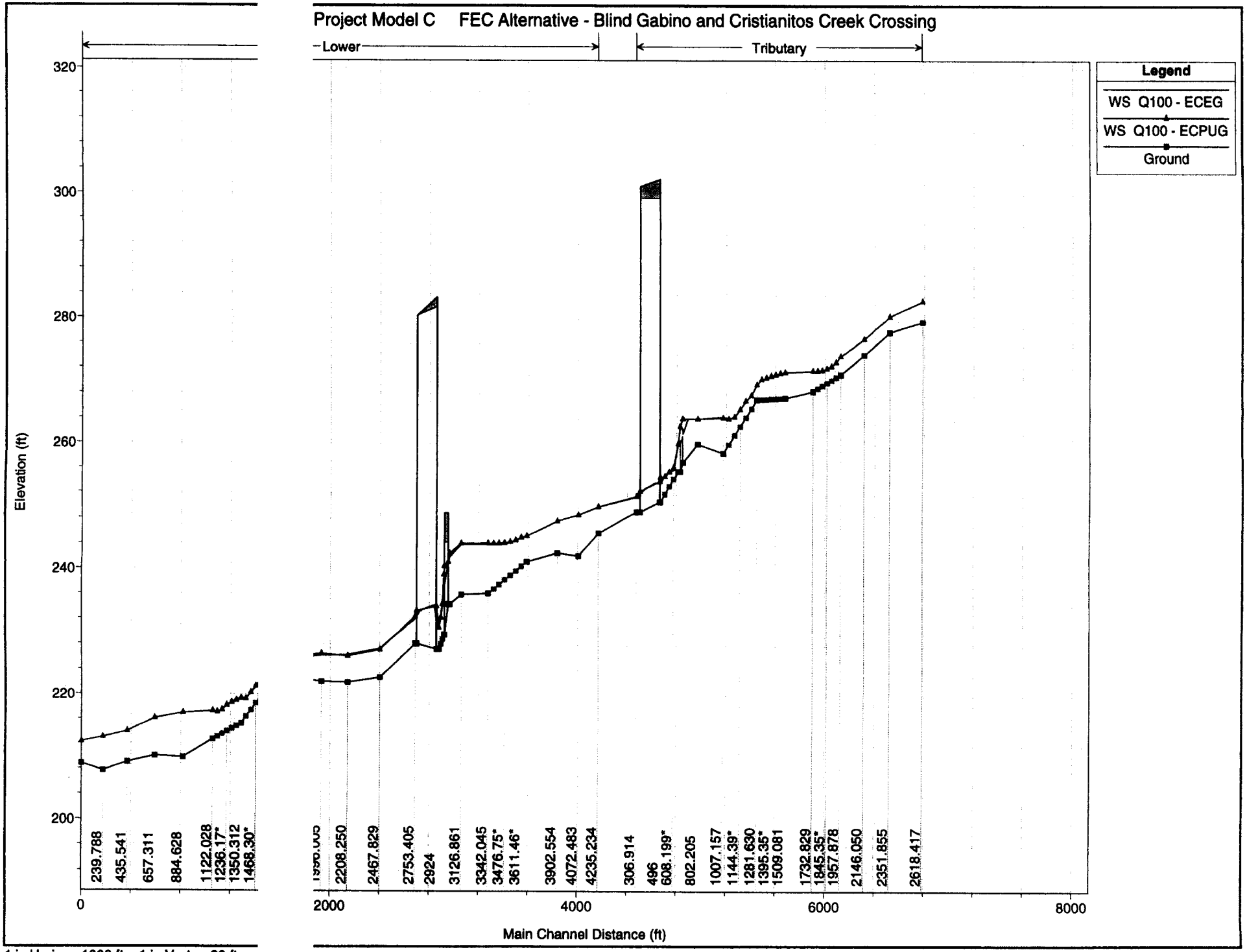


1 in Horiz. = 1000 ft 1 in Vert. = 20 ft



1 in Horiz. = 1000 ft 1 in Vert. = 20 ft

Project Model C FEC Alternative - Blind Gabino and Cristianitos Creek Crossing



1 in Horiz. = 1000 ft 1 in Vert. = 20 ft

APPENDIX E
HYDRAULIC MODEL INPUT & RESULTS
FEC ALTERNATIVE AT SAN MATEO CREEK
(MODEL "F2")

Appendix E. **Hydraulic Model Input & Results**

FEC Alternative at San Mateo Creek (Model F2)

- Model Report
- Project geometry, plan view
- Cross Sections comparing 100-yr existing and project geometries and water surface elevations
- Geometry and water surface elevation profile

Cross sections associated with the proposed bridge structure include:

398	(1307)
321	(1053)

HEC-RAS Version 3.0.1 Mar 2001
U.S. Army Corp of Engineers
Hydrologic Engineering Center
609 Second Street, Suite D
Davis, California 95616-4687
(916) 756-1104

```
X     X  XXXXXX    XXXX        XXXX       XX      XXXX
X     X  X        X    X       X   X     X  X    X
X     X  X        X            X   X    X    X   X
XXXXXXX  XXXX     X       XXX  XXXX     XXXXXX    XXXX
X     X  X        X            X  X     X    X        X
X     X  X        X    X       X   X    X    X        X
X     X  XXXXXX    XXXX        X    X   X    X   XXXXX
```

PROJECT DATA
Project Title: Project Model - Model F2
Project File : PMF2.prj
Run Date and Time: 2/21/03 9:38:26 AM

Project in English units

Project Description:
FEC Alternative - San Mateo Creek Crossing

PLAN DATA

Plan Title: Existing Flow/Existing Geometry
Plan File : p:\2PDA0104\Hydr\LHS\Modeling\Model F\HecRas F\PMF2.p01

Geometry Title: Existing Conditions
Geometry File : p:\2PDA0104\Hydr\LHS\Modeling\Model F\HecRas F\PMF2.g01

Flow Title : Existing Conditions
Flow File : p:\2PDA0104\Hydr\LHS\Modeling\Model F\HecRas F\PMF2.f01

Plan Summary Information:
Number of: Cross Sections = 65 Mulitple Openings = 0
Culverts = 0 Inline Weirs = 0
Bridges = 2

Computational Information
Water surface calculation tolerance = 0.01
Critical depth calculaton tolerance = 0.01
Maximum number of interations = 20
Maximum difference tolerance = 0.3
Flow tolerance factor = 0.001

Computation Options
Critical depth computed only where necessary
Conveyance Calculation Method: At breaks in n values only
Friction Slope Method: Average Conveyance
Computational Flow Regime: Mixed Flow

FLOW DATA

Flow Title: Existing Conditions
Flow File : p:\2PDA0104\Hydr\LHS\Modeling\Model F\HecRas F\PMF2.f01

Flow Data (cfs)

River	Reach	RS	Q2	Q5	Q10	Q25	Q50	Q100	Q100HC
San Mateo Creek	Lower	17108.89	406	3317	6999	18122	31354	47312	118891

Boundary Conditions

River	Reach	Profile	Upstream	Downstream
San Mateo Creek	Lower	Q2	Normal S = .006	Normal S = .02
San Mateo Creek	Lower	Q5	Normal S = .006	Normal S = .02
San Mateo Creek	Lower	Q10	Normal S = .006	Normal S = .02
San Mateo Creek	Lower	Q25	Normal S = .006	Normal S = .02
San Mateo Creek	Lower	Q50	Normal S = .006	Normal S = .02
San Mateo Creek	Lower	Q100	Normal S = .006	Normal S = .02
San Mateo Creek	Lower	Q100HC	Normal S = .006	Normal S = .02

GEOMETRY DATA

Geometry Title: Existing Conditions
Geometry File : p:\2PDA0104\Hydr\LHS\Modeling\Model F\HecRas F\PMF2.g01

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 17108.89

Description:
Station Elevation Data num= 46

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	120.75	.81	121.04	1.78	120.67	4.05	120.84	13.67	119.46
14.81	119.29	20.35	118.29	33.94	112.82	36.33	111.61	53.11	108.38
60.66	106.83	64.52	105.74	76.4	101.3	80.08	99.85	85.2	99.46
94.94	97.68	123.07	96.44	130.94	96.19	180.28	94.67	237.64	92.32
262.46	91.83	287.07	91.35	296	91.17	314.51	90.89	336.36	90.54
396.81	91.24	451.1	91.74	478.44	92	500.45	92.2	559.42	92.73
615.14	93.98	665.2	95.1	697.16	95.7	805.4	97.75	927.5	98.02
990	98.16	1068.09	98.36	1093.95	98.45	1161.3	99.85	1251.51	103.52
1276.7	105.53	1306.04	108.99	1323.44	112.19	1343.95	115.78	1366.42	122.23
1366.98	122.41								

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	13.67	.05	287.07	.035	451.1	.05	615.14	.02
697.16	.05								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
262.46	478.44	209.32	199.68	212.7	.1	.3

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 16909.21

INPUT
Description:
Station Elevation Data num= 55

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	128.27	15.8	125.94	45.09	120.69	49.9	117.6	54.91	117.56
60.95	114.45	74.12	114.82	82.19	115.04	99.57	111.74	104.05	111.28
120.9	105.64	124.97	105.79	128.5	105.6	156.37	97.99	161.01	97.09
165.78	97.01	259.66	95.8	260.54	95.81	264.29	95.82	267.37	95.76
280.36	95.25	347.94	92.57	364.69	91.85	367.53	91.73	370.62	91.54
378.08	91.08	404.48	90.32	452.34	89.19	474.39	88.74	482.51	88.57
508.49	89.06	553.83	89.9	603.88	90.41	688.67	91.27	720.78	91.84
745.93	92.31	978.43	97.79	992.93	98.14	1006.63	98.39	1010.32	98.4
1020.37	98.42	1037.73	98.47	1056.47	98.51	1119.87	98.68	1188.69	100.01
1264.05	101.26	1295.7	102.31	1381.31	105.51	1417.66	109.47	1423.04	110.44
1434.43	113.59	1442.99	115.48	1452.2	118.19	1459.29	120.37	1482.47	126.98

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	74.12	.05	370.62	.035	474.39	.05	978.43	.02
1037.73	.05								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
404.48	603.88	217.14	203.08	206.1	.1	.3

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 16706.13

INPUT
Description: Updated Manning's N Distribution
Station Elevation Data num= 67

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	119.46	.74	119.19	12.87	122.22	35.59	121.32	44.35	120.03
79.73	113.67	85.54	109.9	87.26	109.89	94.61	106.07	104.53	106.36
120.48	106.83	123.01	106.35	125.76	105.96	134.54	104.98	134.66	104.96
136.65	104.68	182.14	99.73	188.3	99.49	203.1	98.83	241.84	97.17
278.97	94.53	285.87	93.89	289.69	93.35	294.06	92.73	294.15	92.68
294.66	92.43	298.65	90.52	305.48	87.25	308.4	85.64	309.72	85.24
314.43	84.65	318.21	84.71	333.12	85.47	356.07	86.29	356.99	86.26
373.31	85.83	395.71	85.24	441.59	84.03	444.45	83.98	449.64	84.03
547.17	85.18	553.94	85.27	581.73	86.67	638.41	89.62	669.45	90.87
784.96	92.7	786.01	92.71	789.56	92.71	880.25	94.36	1096.03	98.28
1104.6	98.39	1119.92	98.6	1128.3	98.72	1148.02	99.39	1179.65	101.72
1201.75	103.35	1222.95	103.37	1297.84	105.36	1355.02	107.33	1363.25	107.79
1380.87	108.65	1413.42	110.59	1428.19	111.98	1438.13	113.88	1456.27	119.5
1471.55	123.36	1493.23	127.77						

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val

305.48	581.73	213.02	200.49	184.93	.1	.3

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 16505.64

INPUT
Description:
Station Elevation Data num= 77

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	126.05	1.37	125.54	27.32	125.58	32.56	124.47	47.84	124.04
52.45	121.86	101.03	112.23	107.32	112.47	116.54	115.88	125.08	115.62
134.89	112.2	149.97	115.61	178.34	114.4	179.93	114.17	193.76	111.79
194.09	113.24	195.06	113.95	197.6	113.81	205.11	113.44	215.48	112.84
234.81	111.52	243.48	110.93	252.97	109.06	261.15	106.09	280.99	101.05
289.72	98.62	298.84	97.6	348.04	94.87	362.25	94.03	368.98	93.43
370.83	93.26	376.84	91.85	379.04	91.89	379.19	91.89	383.5	90.52
386.37	88.58	387.58	87.58	390.78	85.27	393.04	84.68	395.94	84.58
406.89	85.17	429.58	85.69	452.84	85.14	456.19	85.06	476.82	84.57
508.12	84.72	571.38	85.04	669.78	85.12	697.85	86.32	705.27	86.39
719.01	87.62	732.71	88.8	741.95	89.84	756.7	91	759.88	91.2
767.73	91.75	775.18	91.78	777.34	91.81	800.99	91.21	903.4	91.42

984.69	91.8	1176.72	96.13	1202.67	96.91	1266.47	98.82	1295.94	101.4
1341.75	103.58	1363.77	104.63	1374.75	105.12	1395.49	106.07	1401.08	106.05
1408.84	106.43	1420.89	107.02	1461.65	109.91	1468.94	110.12	1593.75	115.6
1653.58	117.97	1677.19	119.45						

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	234.81	.05	368.98	.035	452.84	.05	1341.75	.02
1408.84	.05								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
387.58	719.01	199.4	206.45	210.25	.1	.3

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 16299.19

INPUT
Description:
Station Elevation Data num= 56

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	107.69	14.56	107.33	24.8	106.81	35.8	106.73	54.63	107.1
97.11	104.72	104.21	104.33	113.06	103.81	114.46	103.65	135.06	100.95
140.46	99.93	151.97	96.7	154.75	95.42	161.68	91.9	166.47	91.38
169.28	91.08	179.69	88.6	189.53	88.36	197.37	86.84	199.55	86.04
208.09	85.5	208.95	85.45	219.51	84.99	223.92	84.8	291.32	84.9
292.25	84.9	320.46	85.22	325.71	85.28	326.87	85.29	487.99	85.64
530.99	85.72	570.95	86.84	598.43	87.62	630.44	89.51	733.82	90.23
891.53	92.46	991.05	95.5	1009.17	96.06	1043.73	96.94	1081.09	97.81
1203.26	100.69	1260.4	102.31	1271.03	102.61	1287.28	103.08	1298.69	103.74
1305.61	104.68	1317.89	108.46	1320.57	109.28	1324.84	110.4	1343.79	115.41
1346.55	116.65	1361.13	118.6	1364.78	119.14	1373.38	119.65	1379.73	120.03
1387.25	120.43								

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	97.11	.05	166.47	.035	291.32	.05	1317.89	.02
1373.38	.05								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
197.37	570.95	219.05	193.6	180.85	.1	.3

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 16105.61

INPUT
Description:
Station Elevation Data num= 57

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	108.95	22.96	103.79	23.91	103.32	25.91	102.75	27.73	102.03
56.88	102.5	57.63	102.33	74.85	102.03	75.07	101.92	82.62	100.38
82.83	100.3	83.13	101.07	83.64	101.46	91.47	101.33	93.4	101.3
102.48	101.13	114.12	100.45	138.5	99.54	157.57	98.29	166.14	98.34
189.61	94.26	195.98	92.55	232.82	89.59	242.41	88.39	246	88.14
250.29	88.17	276.94	86.02	278.97	85.87	343.02	84.71	345.68	84.67
372.51	84.59	423.9	84.43	448.61	84.46	476.5	84.48	493.68	84.49
512.2	84.52	600.56	84.68	644.89	85.93	740.98	87.69	850.33	87.85
973.35	89.62	1086.6	91.69	1118.02	92.45	1127.42	92.65	1197.77	93.96
1252.48	94.79	1274.34	96.5	1375.35	99.54	1377.18	99.61	1391.33	101.05
1439.07	105.7	1440.92	105.88	1489.04	112.49	1504.66	114.2	1516.2	115.67
1549.94	119.93	1552.11	120.25						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.05	372.51	.035	512.2	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
278.97	644.89	33.01	38.98	40.87	.1	.3

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 16066.6*

INPUT
Description:
Station Elevation Data num= 115

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	110.25	26.62	105.38	27.72	104.97	30.04	104.45	30.77	104.23
32.15	103.76	65.94	101.79	66.81	101.59	74.99	100.92	75.18	100.89
75.58	100.85	75.95	100.8	86.44	100.71	86.77	100.7	87.02	100.6
95.73	99.18	95.77	99.17	96.02	99.1	96.37	99.71	96.96	100
106.03	99.66	108.27	99.58	111.91	99.44	114	99.37	118.8	99.18
122.27	98.95	132.29	98.31	154.13	97.24	160.55	96.94	169.04	96.37
182.66	95.76	192.59	95.8	219.8	92.55	227.18	91.18	268.94	88.88
269.89	88.82	272.96	88.54	281.01	87.82	284.62	87.63	285.17	87.61
290.14	87.61	310.04	86.43	316.06	86.04	317.34	85.97	317.62	85.95
319.03	85.64	321.03	85.35	323.39	85.02	324.69	85.23	329.41	85.66
329.82	85.66	332.33	85.41	338.71	85.3	344.66	85.19	371.58	84.7
398.55	84.2	401.67	84.15	433.15	83.9	440.13	83.85	459.01	83.4
473.53	83.34	491.31	83.23	492.37	83.22	493.46	83.22	516.56	83.26
531.77	83.29	542.63	83.31	558.69	83.33	566.05	83.35	576.01	83.41
645.29	83.82	658.61	83.9	670.42	84.25	700.06	85.07	789.97	86.97
840.12	87.32	865.86	87.41	888.14	87.54	892.3	87.58	919.43	88.16
978.94	89.48	998.26	89.91	1004.86	90.05	1007.42	90.11	1018.67	90.4
1079.58	92.34	1093.28	92.77	1096.66	92.88	1113.39	93.28	1135.7	93.93
1142.79	94.12	1151.59	94.35	1217.42	95.87	1249.1	96.51	1268.61	96.91
1270.07	97.01	1289.07	98.36	1292.58	98.47	1346.8	99.96	1353.23	100.13
1356.04	100.22	1358.35	100.29	1383.59	101.06	1385.3	101.12	1398.54	102.34
1443.22	106.27	1444.95	106.42	1448.91	106.91	1489.98	112.13	1504.59	113.64
1506.03	113.81	1515.39	114.92	1532.36	116.91	1546.97	118.63	1549	118.91

Manning's n Values num= 9

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	317.34	.047	323.39	.038	433.15	.038	566.05	.05
700.06	.047	998.26	.035	1358.35	.038	1549	.05		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
329.82	700.06	33.01	38.98	40.87	.1	.3

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 16027.6*

INPUT
Description:
Station Elevation Data num= 115

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	111.55	30.27	106.97	31.52	106.63	34.16	106.15	34.99	105.96
36.56	105.49	74.99	101.07	75.98	100.85	85.29	99.64	85.51	99.58
85.96	99.5	86.38	99.41	98.31	99.38	98.69	99.36	98.98	99.29
108.88	97.97	108.93	97.96	109.21	97.9	109.6	98.35	110.27	98.55
120.6	98	123.14	97.87	127.29	97.64	129.66	97.53	135.11	97.23
139.07	96.94	150.46	96.17	175.3	94.73	182.6	94.33	192.26	93.68
207.75	93.23	219.05	93.27	249.99	90.83	258.39	89.81	305.88	88.1
306.96	88.05	310.45	87.83	319.6	87.25	323.71	87.1	324.34	87.07
329.99	87.05	352.63	86.08	359.47	85.72	360.93	85.65	361.24	85.64
362.84	85.12	365.13	84.68	367.81	84.18	369.3	84.61	374.72	85.55
375.19	85.56	378.07	85.09	385.39	84.96	392.22	84.83	423.12	84.26
454.07	83.7	457.66	83.64	493.79	83.22	501.8	83.12	523.47	82.27
540.14	82.21	560.55	82.03	561.76	82.02	563.01	82.01	584.5	82.07
598.66	82.11	608.76	82.14	623.71	82.18	630.55	82.2	639.81	82.3
704.27	82.98	716.67	83.13	727.65	83.46	755.23	84.2	838.97	86.26
885.67	86.87	909.64	87.01	930.39	87.23	934.27	87.31	959.54	88.06
1014.96	89.78	1032.95	90.33	1039.1	90.52	1041.48	90.6	1051.97	90.95
1108.69	93.65	1121.45	94.25	1124.6	94.39	1140.18	94.87	1160.96	95.58
1167.57	95.8	1175.76	96.04	1237.07	97.78	1266.58	98.55	1284.75	99.02
1286.1	99.11	1303.8	100.22	1307.07	100.32	1357.57	101.56	1363.55	101.7
1366.17	101.78	1368.33	101.84	1391.83	102.57	1393.43	102.63	1405.76	103.62
1447.37	106.84	1448.98	106.97	1452.67	107.35	1490.92	111.78	1504.53	113.09
1505.86	113.23	1514.59	114.17	1530.38	115.87	1543.99	117.33	1545.88	117.56

Manning's n Values num= 9

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	360.93	.044	367.81	.041	493.79	.041	623.71	.05
755.23	.044	1032.95	.035	1368.33	.041	1545.88	.05		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
375.19	755.23	33.01	38.98	40.87	.1	.3

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 15988.6*

INPUT
Description:
Station Elevation Data num= 115

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	112.86	33.93	108.56	35.33	108.28	38.29	107.86	39.22	107.7
40.98	107.22	84.05	100.36	85.16	100.11	95.59	98.35	95.84	98.27
96.34	98.16	96.81	98.02	110.18	98.05	110.6	98.03	110.93	97.97
122.03	96.76	122.08	96.75	122.39	96.7	122.84	96.98	123.59	97.09
135.16	96.33	138.01	96.15	142.66	95.84	145.31	95.69	151.43	95.28
155.86	94.93	168.63	94.03	196.47	92.22	204.66	91.73	215.47	91
232.84	90.7	245.5	90.73	280.18	89.12	289.59	88.44	342.82	87.32
344.03	87.28	347.95	87.12	358.2	86.68	362.8	86.56	363.51	86.54
369.84	86.5	395.21	85.73	402.88	85.4	404.52	85.34	404.87	85.33
406.66	84.59	409.22	84.01	412.22	83.33	413.91	83.98	420.03	85.44
420.56	85.45	423.81	84.77	432.07	84.62	439.79	84.48	474.66	83.83
509.6	83.19	513.65	83.12	554.44	82.53	563.47	82.4	587.93	81.15
606.75	81.07	629.79	80.82	631.16	80.81	632.57	80.79	652.45	80.87
665.54	80.92	674.89	80.96	688.72	81.02	695.05	81.05	703.62	81.19
763.26	82.14	774.72	82.35	784.89	82.67	810.39	83.34	887.96	85.54
931.23	86.41	953.43	86.6	972.65	86.93	976.24	87.05	999.65	87.95
1050.99	90.08	1067.65	90.76	1073.34	90.99	1075.55	91.08	1085.26	91.51
1137.8	94.96	1149.63	95.72	1152.54	95.9	1166.97	96.45	1186.22	97.24
1505.7	112.65	1513.78	113.43	1528.41	114.82	1541.02	116.03	1542.77	116.22

Manning's n Values num= 9

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	404.52	.041	412.22	.044	554.44	.044	674.89	.05
810.39	.041	1067.65	.035	1378.3	.044	1542.77	.05		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
420.56	810.39	33.01	38.98	40.87	.1	.3

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 15949.6*

INPUT
Description:
Station Elevation Data num= 115

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	114.16	37.58	110.15	39.14	109.93	42.41	109.56	43.44	109.43
45.39	108.95	93.11	99.64	94.33	99.37	105.89	97.07	106.16	96.95
106.72	96.81	107.24	96.63	122.06	96.73	122.52	96.7	122.88	96.65
135.18	95.55	135.24	95.54	135.58	95.5	136.07	95.62	136.91	95.64

149.73	94.67	152.89	94.43	158.03	94.04	160.97	93.86	167.75	93.33
172.66	92.92	186.8	91.89	217.64	89.72	226.71	89.13	238.69	88.31
257.92	88.17	271.95	88.19	310.37	87.4	320.8	87.07	379.76	86.54
381.1	86.51	385.44	86.4	396.8	86.11	401.9	86.02	402.67	86
409.7	85.94	437.8	85.38	446.29	85.07	448.1	85.03	448.49	85.02
450.48	84.07	453.32	83.34	456.64	82.49	458.52	83.36	465.34	85.32
465.93	85.35	469.55	84.45	478.76	84.29	487.35	84.12	526.2	83.4
565.13	82.68	569.64	82.6	615.08	81.84	625.15	81.67	652.4	80.02
673.36	79.93	699.03	79.62	700.55	79.6	702.12	79.58	720.4	79.68
732.43	79.74	741.03	79.79	753.73	79.87	759.55	79.9	767.43	80.08
822.24	81.31	832.78	81.58	842.12	81.89	865.56	82.47	936.96	84.83
976.78	85.96	997.21	86.2	1014.9	86.62	1018.21	86.78	1039.75	87.85
1087.01	90.38	1102.34	91.18	1107.59	91.46	1109.62	91.57	1118.56	92.06
1166.92	96.27	1177.8	97.2	1180.48	97.42	1193.77	98.04	1211.48	98.9
1217.11	99.14	1224.1	99.44	1276.37	101.6	1301.53	102.62	1317.02	103.25
1318.17	103.32	1333.26	103.95	1336.05	104.03	1379.1	104.76	1384.2	104.84
1386.44	104.9	1388.28	104.96	1408.32	105.61	1409.68	105.65	1420.19	106.2
1455.66	107.98	1457.04	108.05	1460.18	108.24	1492.79	111.06	1504.4	111.98
1505.53	112.07	1512.97	112.68	1526.44	113.78	1538.04	114.73	1539.65	114.87

Manning's n Values num= 9

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	448.1	.038	456.64	.047	565.13	.047	720.4	.05
865.56	.038	1102.34	.035	1388.28	.047	1539.65	.05		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
465.93	865.56	33.01	38.98	40.87	.1	.3

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 15910.69

INPUT
Description:
Station Elevation Data num= 63

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	115.46	47.67	111.16	116.19	95.78	116.49	95.64	117.1	95.46
117.67	95.24	133.93	95.4	148.33	94.34	173.4	92.24	176.63	92.02
189.45	90.91	238.81	87.21	261.91	85.62	416.7	85.76	422.93	85.69
440.99	85.48	480.38	85.03	489.7	84.75	491.69	84.72	492.12	84.71
494.3	83.55	501.06	81.64	503.13	82.74	510.65	85.21	511.3	85.24
515.29	84.13	525.44	83.95	534.91	83.77	577.74	82.97	686.82	80.95
716.86	78.9	739.97	78.79	768.27	78.41	769.95	78.39	771.68	78.37
799.32	78.56	824.05	78.75	881.22	80.47	899.35	81.1	920.73	81.61
1022.33	85.51	1041	85.8	1057.16	86.32	1079.86	87.74	1123.03	90.68
1137.04	91.61	1141.83	91.93	1151.85	92.62	1196.03	97.58	1205.97	98.67
1208.42	98.93	1236.74	100.56	1319	104.66	1334.21	105.42	1350.54	105.88
1389.87	106.36	1394.53	106.41	1396.57	106.46	1398.25	106.52	1463.94	108.69
1505.37	111.49	1524.47	112.73	1536.54	113.53				

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	491.69	.035	768.27	.05	1137.04	.035	1398.25	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
511.3	920.73	44.06	38.94	33.57	.1	.3

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 15871.7*

INPUT
Description:
Station Elevation Data num= 115

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	114.46	47.13	110.2	114.87	96.4	115.16	96.28	115.77	96.12
116.33	95.93	132.41	95.83	146.64	94.74	171.43	92.64	173.33	92.5
174.62	92.34	176.75	92.05	184.81	91.43	186.62	91.31	187.29	91.26
192.54	90.97	218.92	89.25	236.09	87.93	244.65	87.32	255.72	86.45
258.93	86.19	279.53	85.72	284.53	85.61	296.86	85.48	328.74	85.3
400.54	85.31	411.96	85.26	418.12	85.17	435.97	84.9	437.88	84.87
444.57	84.91	448.14	84.81	458.05	84.6	474.92	84.34	484.13	84.05
486.1	84.02	486.52	84.01	488.68	83.03	495.36	81.4	497.86	82.29
506.93	84.25	507.72	84.27	512.53	83.3	514.13	83.26	515.55	83.22
518.37	83.15	520.89	83.09	522.26	83.08	524.78	83.05	524.85	83.05
528.01	83	536.21	82.9	567.47	82.5	586.58	82.26	587.9	82.24
598.24	82.14	599.25	82.12	641.07	81.69	719.54	80.69	722.56	80.54
748.96	79.26	755.79	78.93	771.8	78.85	783.68	78.79	797.63	78.64
797.89	78.63	803.63	78.57	812.08	78.47	817.84	78.4	819.87	78.38
821.95	78.36	845.8	78.57	867.13	78.79	916.44	80.34	932.08	80.91
950.52	81.38	958.09	81.69	975.01	82.5	1007.47	84.14	1011.93	84.37
1023.16	84.81	1041.69	85.73	1045.25	85.91	1061.05	86.37	1062.65	86.42
1077.72	87.06	1079.29	87.16	1088.35	87.75	1098.88	88.46	1139.13	91.4
1152.19	92.33	1156.66	92.65	1162.26	93.06	1166	93.33	1195.79	96.6
1207.19	97.88	1216.46	98.89	1218.74	99.14	1244.01	100.73	1245.15	100.8
1302.23	103.68	1321.84	104.66	1336.02	105.37	1351.25	105.83	1376.53	106.24
1387.92	106.47	1392.26	106.55	1394.16	106.61	1395.73	106.68	1437.2	108.28
1456.97	109.01	1467.16	109.7	1495.6	111.56	1513.41	112.68	1524.66	113.4

Manning's n Values num= 13

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	486.1	.038	495.36	.047	567.47	.035	598.24	.038
797.63	.05	845.8	.047	932.08	.038	950.52	.035	1041.69	.035
1152.19	.035	1395.73	.047	1524.66	.047				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
507.72	950.52	44.06	38.94	33.57	.1	.3

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 15832.8*

INPUT
Description:
Station Elevation Data num= 115

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	113.46	46.59	109.23	113.55	97.03	113.84	96.92	114.44	96.79
114.99	96.62	130.88	96.27	144.96	95.15	169.45	93.03	171.34	92.89
172.61	92.66	174.72	92.26	182.69	91.73	184.47	91.64	185.14	91.61
190.32	91.43	216.4	89.98	233.38	88.66	241.83	88.03	252.78	87.05
255.95	86.75	276.32	85.8	281.26	85.57	293.44	85.31	324.96	84.91
395.94	84.87	407.22	84.75	413.31	84.64	430.96	84.31	432.84	84.28
439.45	84.43	442.99	84.29	452.78	83.97	469.45	83.65	478.56	83.36
480.5	83.32	480.92	83.31	483.05	82.51	489.66	81.16	492.59	81.84
503.22	83.3	504.14	83.3	509.78	82.46	511.64	82.41	513.32	82.36
516.61	82.26	519.57	82.18	521.18	82.17	524.13	82.14	524.21	82.14
527.91	82.11	537.51	82.03	574.13	81.71	596.51	81.52	598.06	81.51
610.17	81.46	611.35	81.45	660.35	81.22	752.26	80.42	755.8	80.31
786.72	79.23	794.73	78.95	813.48	78.86	827.4	78.79	843.73	78.64
844.04	78.63	850.77	78.57	860.66	78.46	867.41	78.39	869.78	78.37
872.23	78.34	892.27	78.59	910.2	78.82	951.66	80.21	964.81	80.71
980.31	81.14	987.33	81.47	1003.02	82.38	1033.13	84.33	1037.26	84.6
1047.68	85.02	1064.86	86.11	1068.16	86.31	1082.82	86.98	1084.31	87.04
1098.28	87.79	1099.74	87.9	1108.14	88.46	1117.91	89.19	1155.23	92.12
1167.35	93.05	1171.49	93.37	1176.69	93.79	1180.15	94.04	1207.78	96.99
1218.35	98.18	1226.95	99.12	1229.07	99.35	1252.5	100.98	1253.55	101.04
1306.49	103.76	1324.68	104.66	1337.83	105.32	1351.95	105.79	1375.41	106.27
1385.96	106.58	1389.99	106.7	1391.75	106.76	1393.21	106.83	1431.67	108.58
1450.01	109.33	1459.46	109.97	1485.83	111.62	1502.34	112.63	1512.78	113.27

Manning's n Values num= 13

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	480.5	.04	489.66	.045	537.51	.035	596.51	.04
813.48	.05	860.66	.045	951.66	.04	980.31	.035	1064.86	.035
1167.35	.035	1393.21	.045	1512.78	.045				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
504.14	980.31	44.06	38.94	33.57	.1	.3

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 15793.8*

INPUT
Description:
Station Elevation Data num= 115

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	112.46	46.04	108.27	112.22	97.65	112.51	97.57	113.1	97.45
113.65	97.31	129.36	96.7	143.27	95.55	167.48	93.43	169.34	93.28
170.6	92.99	172.68	92.47	180.56	92.04	182.32	91.98	182.98	91.97
188.11	91.9	213.88	90.72	230.66	89.38	239.02	88.74	249.84	87.65
252.97	87.32	273.1	85.88	277.98	85.54	290.03	85.14	321.18	84.52
391.33	84.43	402.48	84.25	408.5	84.12	425.94	83.73	427.81	83.68
434.34	83.96	437.83	83.76	447.51	83.34	463.99	82.96	472.99	82.66
474.91	82.62	475.33	82.6	477.43	81.99	483.96	80.92	487.31	81.39
499.5	82.34	500.55	82.33	507.02	81.63	509.16	81.56	511.08	81.49
514.85	81.37	518.24	81.27	520.09	81.26	523.47	81.24	523.56	81.24
527.8	81.21	538.81	81.15	580.79	80.92	606.45	80.79	608.22	80.79
622.1	80.79	623.46	80.78	679.62	80.75	784.98	80.16	789.04	80.07
824.48	79.2	833.66	78.98	855.16	78.87	871.11	78.79	889.84	78.64
890.19	78.63	897.9	78.56	909.25	78.46	916.97	78.38	919.7	78.36
922.5	78.33	938.75	78.6	953.28	78.86	986.88	80.09	997.54	80.52
1010.1	80.91	1016.57	81.24	1031.04	82.26	1058.78	84.52	1062.6	84.83
1072.2	85.24	1088.04	86.48	1091.08	86.71	1104.59	87.58	1105.96	87.65
1118.84	88.53	1120.18	88.64	1127.93	89.18	1136.93	89.91	1171.34	92.84
1182.5	93.78	1186.32	94.1	1191.11	94.51	1194.31	94.75	1219.77	97.39
1229.52	98.47	1237.44	99.34	1239.39	99.55	1260.99	101.22	1261.96	101.28
1310.76	103.83	1327.52	104.67	1339.64	105.27	1352.66	105.74	1374.28	106.31
1384.01	106.69	1387.72	106.84	1389.35	106.92	1390.68	106.99	1426.14	108.87
1443.04	109.65	1451.75	110.23	1476.06	111.69	1491.28	112.57	1500.9	113.14

Manning's n Values num= 13

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	474.91	.043	483.96	.043	538.81	.035	606.45	.043
824.48	.05	889.84	.043	986.88	.043	1010.1	.035	1088.04	.035

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 15754.9*

INPUT
Description:
Station Elevation Data num= 115

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	111.45	45.5	107.3	110.9	98.27	111.19	98.21	111.77	98.11
112.32	98.01	127.84	97.13	141.58	95.96	165.51	93.83	167.35	93.68
168.59	93.31	170.65	92.68	178.43	92.34	180.17	92.32	180.83	92.32
185.89	92.36	211.36	91.46	227.94	90.1	236.2	89.44	246.9	88.25
249.99	87.88	269.88	85.97	274.71	85.5	286.61	84.96	317.4	84.13
386.72	83.99	397.74	83.75	403.69	83.59	420.92	83.14	422.77	83.09
429.22	83.49	432.67	83.24	442.24	82.71	458.52	82.27	467.42	81.97
469.32	81.92	469.73	81.9	471.81	81.47	478.26	80.68	482.04	80.94
495.78	81.38	496.97	81.36	504.26	80.79	506.68	80.72	508.84	80.63
513.09	80.48	516.92	80.36	519	80.35	522.81	80.34	522.92	80.34
527.7	80.32	540.12	80.28	587.44	80.14	616.38	80.05	618.38	80.06
634.04	80.11	635.56	80.11	698.89	80.28	817.71	79.9	822.28	79.84
862.24	79.18	872.6	79	896.83	78.88	914.83	78.79	935.94	78.64

936.34	78.63	945.03	78.56	957.83	78.45	966.54	78.37	969.61	78.34
972.77	78.32	985.22	78.62	996.36	78.89	1022.1	79.96	1030.27	80.32
1039.9	80.68	1045.81	81.01	1059.05	82.14	1084.44	84.7	1087.93	85.07
1096.72	85.45	1111.21	86.85	1114	87.12	1126.36	88.18	1127.61	88.27
1139.4	89.26	1140.63	89.38	1147.71	89.89	1155.95	90.63	1187.44	93.56
1197.66	94.5	1201.15	94.82	1205.53	95.23	1208.46	95.46	1231.76	97.78
1240.68	98.77	1247.93	99.57	1249.72	99.76	1269.48	101.46	1270.37	101.51
1315.02	103.9	1330.36	104.67	1341.46	105.22	1353.37	105.69	1373.15	106.34
1382.05	106.81	1385.45	106.98	1386.94	107.07	1388.16	107.15	1420.6	109.16
1436.07	109.96	1444.04	110.5	1466.29	111.75	1480.22	112.52	1489.02	113.01

Manning's n Values num= 13

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	469.32	.045	478.26	.04	540.12	.035	616.38	.045
862.24	.05	896.83	.04	1022.1	.045	1039.9	.035	1111.21	.035
1197.66	.035	1388.16	.04	1489.02	.04				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
495.78	1039.9	44.06	38.94	33.57	.1	.3

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 15716.0*

INPUT
Description:
Station Elevation Data num= 115

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	110.45	44.96	106.34	109.58	98.89	109.86	98.85	110.44	98.78
110.98	98.7	126.31	97.57	139.89	96.36	163.54	94.23	165.35	94.07
166.58	93.63	168.61	92.9	176.31	92.65	178.03	92.65	178.67	92.67
183.68	92.82	208.84	92.19	225.23	90.83	233.39	90.15	243.95	88.86
247.01	88.45	266.67	86.05	271.43	85.47	283.2	84.79	313.61	83.75
382.11	83.55	393	83.25	398.87	83.07	415.91	82.56	417.73	82.5
424.11	83.01	427.52	82.71	436.97	82.09	453.06	81.58	461.85	81.27
463.72	81.21	464.13	81.2	466.18	80.95	472.56	80.44	476.77	80.49
492.07	80.43	493.39	80.39	501.51	79.96	504.19	79.87	506.6	79.76
511.34	79.59	515.59	79.44	517.91	79.44	522.15	79.43	522.27	79.43
527.59	79.42	541.42	79.41	594.1	79.35	626.32	79.32	628.54	79.33
645.97	79.44	647.67	79.44	718.17	79.81	850.43	79.63	855.52	79.6
900.01	79.15	911.53	79.03	938.51	78.89	958.54	78.79	982.05	78.65
982.49	78.63	992.17	78.56	1006.41	78.45	1016.11	78.36	1019.53	78.33
1023.05	78.3	1031.7	78.63	1039.43	78.93	1057.32	79.83	1063	80.13
1069.69	80.44	1075.06	80.79	1087.07	82.02	1110.1	84.89	1113.27	85.3
1121.24	85.66	1134.39	87.22	1136.91	87.52	1148.13	88.78	1149.27	88.89
1159.96	90	1161.07	90.12	1167.5	90.61	1174.98	91.36	1203.54	94.28
1212.81	95.22	1215.98	95.54	1219.96	95.95	1222.61	96.17	1243.75	98.18
1251.84	99.07	1258.42	99.79	1260.04	99.97	1277.97	101.71	1278.78	101.75
1319.29	103.98	1333.2	104.67	1343.27	105.17	1354.07	105.65	1372.02	106.37
1380.1	106.92	1383.18	107.13	1384.53	107.22	1385.64	107.3	1415.07	109.46
1429.1	110.28	1436.34	110.77	1456.52	111.82	1469.15	112.47	1477.14	112.88

Manning's n Values num= 13

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	463.72	.048	472.56	.037	541.42	.035	626.32	.048
855.52	.05	938.51	.037	1031.7	.048	1069.69	.035	1134.39	.035
1212.81	.035	1385.64	.037	1477.14	.037				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
476.77	1069.69	44.06	38.94	33.57	.1	.3

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 15677.08

INPUT
Description:
Station Elevation Data num= 57

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	109.45	163.36	94.46	166.58	93.11	174.18	92.95	175.88	92.99
181.46	93.28	206.32	92.93	230.57	90.86	241.01	89.46	263.45	86.13
268.16	85.43	279.78	84.62	309.83	83.36	377.5	83.11	412.69	81.91
418.99	82.54	422.36	82.19	431.7	81.46	466.86	80.2	501.71	79.02
504.36	78.9	509.58	78.7	514.27	78.53	516.82	78.53	521.63	78.53
527.49	78.53	600.76	78.56	636.25	78.58	657.9	78.76	659.77	78.77
737.44	79.34	888.76	79.37	937.77	79.12	980.19	78.9	1028.15	78.65
1028.64	78.63	1039.3	78.56	1054.99	78.44	1073.32	78.29	1099.48	80.21
1104.3	80.56	1115.08	81.9	1135.76	85.08	1138.6	85.53	1145.76	85.87
1157.56	87.59	1169.9	89.38	1181.52	90.86	1187.29	91.32	1234.38	96.67
1255.74	98.57	1286.46	101.95	1323.55	104.05	1370.89	106.4	1409.54	109.75
1428.63	111.04	1465.26	112.75						

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	527.49	.035	600.76	.05	937.77	.035	1054.99	.05
1157.56	.035								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
466.86	1099.48	229.4	221.5	185.6	.1	.3

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 15455.59

INPUT
Description:
Station Elevation Data num= 59

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	103.47	148.03	89.5	151.79	87.95	155.29	89.39	162.5	89.98
163.5	89.86	164.28	88.85	165.22	88.54	174.14	89.25	177.38	88.84
190.1	88.38	227.99	87.78	257.22	88.02	310.79	86.75	344.65	86.45

344.8	86.43	344.99	86.41	353.69	85.2	364.24	80.91	369.99	79.11
372.44	78.61	375.87	78.39	393.22	78.38	394.28	78.43	414.05	81.65
421.98	82.99	435.46	83.47	448.43	82.56	468.78	82.25	527.06	80.29
587.08	79.88	603.56	79.81	619.51	79.46	620.85	79.43	693.92	77.81
700.31	77.82	750.85	77.87	759.57	77.95	777.49	78.11	799.72	78.29
996.6	78.49	1078.38	78.57	1111.65	78.42	1139.72	77.64	1151.85	77.87
1158.21	77.93	1191.98	78.25	1195.12	78.5	1212.5	79.92	1223.08	80.71
1232.14	82.47	1251.76	85.3	1265.05	88.28	1265.95	88.51	1293.69	95.43
1299.46	96.69	1330.26	101.19	1339.88	102.24	1346.75	102.68		

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	619.51	.035	700.31	.05	996.6	.035	1158.21	.05
1265.95	.035								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
620.85	1212.5	159.78	172.75	206.99	.1	.3

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 15282.84

INPUT
Description:
Station Elevation Data num= 46

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	99.77	79.19	91.79	163.92	83.84	165.72	83.12	173.95	86.37
176.04	86.53	176.09	86.54	179.99	86.12	183.03	82.6	185.78	81.8
190.97	81.5	263.66	80.17	317.75	79.37	326.51	79.33	360.01	79.15
445.67	79.87	467.64	79.2	531.25	78.92	618.07	78.97	629.39	79.25
645.34	78.82	674.47	78.63	683.23	78.57	754.21	78.05	822.24	77.56
842.94	77.41	859.25	77.29	894.35	76.95	946.46	76.79	1046.88	76.48
1055.15	76.42	1109.14	77.46	1171.17	78.65	1180.15	78.79	1185.6	78.84
1189.7	78.88	1290.61	79.29	1381.99	83.75	1394.14	84.34	1398.84	84.96
1419.07	90.82	1419.69	90.98	1433.7	94.54	1448.51	97.68	1472.52	101.46
1478.85	102.36								

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	754.21	.035	842.94	.05	946.46	.035	1109.14	.05
1419.69	.035								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
683.23	1171.17	247.92	206.82	172.28	.1	.3

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 15076.02

INPUT
Description: Updated Manning's N Distribution
Station Elevation Data num= 57

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	90.8	1.69	90.63	13.58	87.59	13.79	87.42	14.49	87.6
15.22	88.14	15.91	88.28	41.76	78.13	41.94	78.1	42.19	78.01
42.28	77.99	55.3	77.02	115.81	78.15	126.67	78.13	155.44	78.25
199.32	77.85	223.18	78.41	278.75	78.69	331.77	78.96	347.59	79.04
353.33	78.98	471.93	78.78	517.94	78.76	530.82	78.75	650.81	78.12
742.79	77.53	766.68	76.98	791.33	76.73	803.9	76.67	828.76	76.53
832.3	76.51	870.05	76.38	877.4	76.34	921.58	76.01	922.42	76
1000.08	75.56	1086.41	74.9	1110.54	74.89	1130.87	74.89	1241.57	74.4
1242.24	74.4	1242.61	74.4	1247.69	74.45	1352.49	76.06	1368.28	76.29
1386.22	76.94	1444.46	79.49	1478.6	82.25	1493.34	83.8	1537.29	85.57
1574.24	86.1	1583.51	88.28	1588.7	88.99	1599.75	90.43	1620.49	93.87
1624.37	94.75	1657.52	102.33						

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	828.76	.035	1110.54	.05	1624.37	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
766.68	1386.22	240.22	232.69	186.85	.1	.3

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 14843.33

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	85.71	12.02	85.54	84.69	84.01	115.69	84.58	122.25	84.06
135.89	84.25	140.72	84.13	148.96	84.22	163.53	83.46	170.14	83.69
180.94	84.32	188.18	84.35	203.22	85.3	214.01	86.68	227.06	88.59
233.92	89.04	244.06	88.98	255.48	88.64	274.96	85.55	279.95	85.37
285.41	85.38	345.12	85.24	358.94	84.14	368.61	84.17	379.99	84.1
394.43	82.83	407.08	81.79	411.48	81.5	413.55	81.42	415.79	81.2
436.02	78.75	456.72	75.67	467.78	74.19	482.26	73	498.77	71.6
498.88	71.59	498.98	71.59	499.26	71.58	543.54	71.16	545.95	71.12
557.88	69.94	573.39	70.17	600.68	71.01	611.99	72.36	618.47	72.86
626.92	74.37	632.61	75.49	646.15	77.94	672.57	79.06	673.13	79.12
673.38	79.12	673.91	79.12	717.83	80.5	721.69	81.14	731.52	82.22
735.62	83.38	745.68	85.33	752.97	85.22	766.99	85.79	769.73	85.33
774.17	84.21	782.63	81.2	786.14	79.37	788.83	78.86	797.92	78.63
799.44	78.58	830.86	77.57	854.94	75.75	869.77	74.3	871.02	74.05
876.56	72.94	884.68	72.79	927.26	71.32	936.34	71.44	973.58	71.92
1063.37	72.93	1070.28	73	1101.46	73.44	1161.36	72.65	1197.58	72.17
1201.91	72.11	1249.77	73.25	1258.24	73.29	1269.35	73.28	1331.21	73.32
1508.61	74.05	1540.15	75.26	1556.07	75.63	1588.29	76.78	1601.93	78.41
1619.6	78.68	1628.2	79.54	1638.14	80.8	1664.12	82.56	1667.77	82.9
1678.11	83.03	1734.35	86.27	1741.16	86.8	1747.77	87.5	1791.04	94.49

1792.03	94.77	1814.62	100.63

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	871.02	.035	1161.36	.05	1814.62	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
871.02	1508.61	230.23	202.58	217.82	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 14640.75

INPUT
Description:
Station Elevation Data num= 87

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	78.41	17.94	78.88	40.67	79.7	90.61	81.17	138.03	82.4
146.04	83.25	160	84.44	162.45	85.4	176.19	91.96	195.58	96.33
210.45	98.33	211.77	98.47	213.87	98.58	215.99	98.71	222.02	99.07
223.99	98.74	231.75	97.7	237.74	94.84	256.35	85.77	262.42	84.67
276.58	83.42	324.2	82.2	382.56	81.2	386.06	81.07	428.68	79.58
470.85	78.72	482.36	78.44	490.35	78.43	559.67	79.16	605.61	79.57
611.79	79.04	628.24	78.14	644.17	77.61	654.59	77.36	685	76.25
710.13	74.66	712.25	74.49	714.16	74	798.82	70.79	805.49	70.45
820.16	70.6	827.56	70.69	895.57	71.62	903.17	72.18	931.44	76.2
940.83	77.72	945.2	79.46	953.88	82.79	959.1	84.66	960.81	85.18
962.3	85.3	976.01	85.63	982.58	84.9	990.45	83.3	1009.76	78.74
1014.64	78.62	1028	78.56	1038.03	78.46	1050.69	78.32	1056.04	78.28
1061.36	77.78	1092.37	74.85	1112.5	74.06	1126.06	72.97	1130.35	72.62
1134.8	72.25	1135.37	72.2	1141.04	71.87	1189.06	72.15	1241.8	72.44
1266.91	72.58	1309.02	72.55	1408.2	72.46	1573.59	72.7	1619.99	73.21
1648.69	73.64	1672.47	74.07	1694.78	75.87	1711.39	77.4	1718.87	79.1
1728.33	83.61	1730.68	84.61	1735.89	88.04	1748.19	95.79	1757.16	99.5
1759.66	100.4	1768.94	102.99						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.05	1061.36	.035	1309.02	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
1112.5	1672.47	142.45	166.43	154.49	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 14474.32

INPUT
Description:
Station Elevation Data num= 78

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	108.23	7.05	108.12	14.85	108.01	19.46	107.52	32.2	105.34
43.5	100.08	55.52	94.24	60.33	91.88	64.41	91.25	94	87.21
95.64	87.03	136.25	82.08	140.72	81.63	152.05	79.6	153.84	79.51
176.78	78.22	213.92	77.71	306.58	77.97	334.86	78.81	385.42	78.75
494.34	78.64	516.51	78.62	568.95	78.46	639.11	78.26	667.2	78.23
695.34	77.02	722.47	75.87	749.21	74.93	795.77	75.99	822.43	76.68
843.49	77.7	868.21	78.93	873.36	79.24	881.73	79.29	890.57	78.45
893.93	75.8	898.72	72.54	904.92	71.28	911.85	70.69	944.2	70.48
976.68	70.98	1001.51	71.13	1014.62	71.21	1035.38	71.3	1051.2	71.82
1084.53	76.22	1100.85	77.95	1106.06	78.15	1121.94	79.13	1122.26	79.15
1122.38	79.16	1152.01	79.26	1161.52	79.17	1192.95	76.51	1212.88	74.82
1217.7	74.42	1239.31	73.21	1263.85	71.95	1265.85	71.96	1288.45	71.95
1306.74	71.94	1446.22	71.84	1486.6	71.82	1517.38	71.8	1554.33	71.86
1588.08	71.93	1700.47	73.17	1711.72	73.34	1761.27	75.3	1766.78	75.48
1768.31	75.68	1786.6	79.01	1794.15	84.11	1811.94	93.98	1817.4	96.95
1819.42	97.87	1826.77	100.04	1835.31	102.7				

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.02	385.42	.035	568.95	.05	1192.95	.035	1486.6	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
1239.31	1700.47	199.28	178.47	167.43	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 14295.85

INPUT
Description: Updated Manning's N Distribution
Station Elevation Data num= 83

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	114.43	9.24	113.91	14.57	113.39	23.2	111.82	25.07	111.38
39.73	104.24	46.74	99.88	54.3	97.23	60.26	95.57	70.78	92.65
96.37	88.99	118.4	87.41	132.59	85.93	152.52	85.29	171.21	85.2
182.49	84.43	192.33	83.73	199.7	83.4	260.19	79.39	288.49	78.81
327.06	78.42	334.41	78.38	360.28	78.49	521.98	79.07	548.04	79.04
767.17	78.75	779.9	78.72	879.98	78.5	882.5	78.5	886.03	78.49
890.19	78.4	1028.06	76.75	1031.78	76.64	1034.63	76.55	1039.64	76.43
1123.57	74.47	1153.45	74.06	1220.01	76.92	1230.33	76.95	1240.38	78.18
1254.54	78.73	1263.32	79.1	1275.86	78.62	1288.88	78.59	1307.3	78.72

1309.61	78.43	1323.37	76.46	1335.24	75.44	1353.82	73.39	1354.64	73.29
1379.68	73.45	1401.56	73.4	1440.37	72.72	1453.85	72.82	1469.98	72.75
1517.64	72.3	1618.82	71.34	1655.06	71	1738.96	70.82	1783.15	70.72
1793.46	70.81	1811.86	70.96	1833.82	71.13	1897.96	71.64	1906.52	71.68
1907.25	71.75	1980.28	71.46	1986.91	71.94	2015.83	72.5	2018.94	73.36
2022.54	75.23	2029.21	78.48	2038.38	84.77	2043.31	87.7	2063.23	103.36
2063.55	103.64	2063.7	103.71	2082.33	109.85	2083.02	110.14	2085.68	110.87
2096.86	114.2	2104.03	117.4	2107.83	117.84				

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.02	548.04	.035	779.9	.05	1517.64	.035	1833.82	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
1469.98	2015.83	93.39	88.97	84.07	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 14206.87

INPUT
Description: Updated Manning's N Distribution
Station Elevation Data num= 73

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	97.26	10.99	96.35	24.79	95.13	47.53	92.21	49.01	92.13
49.31	92.11	116.41	88.21	125.61	87.46	158.8	84.42	192.35	83.87
241.23	80.8	258.87	80.03	263.37	79.91	264.72	79.93	300.98	79.3
310.07	79.32	382.89	78.58	404.15	78.46	480.32	78.78	595.77	79.2
677.87	79.09	800.58	78.94	830.93	78.83	859.8	78.73	920.82	78.54
993.7	78.44	1057.97	77.67	1249.46	76.59	1255.01	76.46	1260.41	76.39
1265.26	76.29	1330.37	75.31	1336.95	75.49	1354.86	75.65	1357.26	75.91
1374.71	77.27	1394.77	78.32	1405.67	78.83	1437.21	78.7	1452.51	78.72
1478.81	76.15	1489.92	73.88	1514.82	73.71	1521.78	73.57	1545.64	73.1
1575.12	73.03	1661.87	72.2	1744.96	71.41	1865.23	70.26	1878.99	70.13
1904.13	70.42	1953.89	72.32	1968	72.12	1981.53	71.92	2008	71.67
2047.55	71.3	2058.03	72.18	2079.75	71.88	2087.59	70.84	2096.76	71.68
2104.16	72.17	2116.03	73.23	2116.47	73.29	2117.01	73.65	2121.09	78.53
2129.6	88.28	2132.86	90.96	2142.46	97.96	2147.9	101.53	2154.06	104.41
2160.17	107.51	2166.98	111.04	2186.67	115.76				

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.02	677.87	.035	830.93	.05	1661.87	.035	1968	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
1575.12	2116.03	100.64	98.26	92.36	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 14108.61

INPUT
Description: Updated Manning's N Distribution
Station Elevation Data num= 65

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	94.25	6.24	93.65	10.28	93.31	11.98	93.09	85.53	89.28
127.3	86.83	186.6	81.95	189.42	81.69	192.16	81.64	196.74	81.35
251.96	79.52	266.27	79.14	300.67	79.54	321.81	79.17	355.6	79.25
404.74	78.75	440.89	78.54	572.84	79.1	636.92	79.33	746.5	79.2
839.37	78.88	879.42	78.74	927.02	78.59	1044.69	78.41	1059.49	78.25
1109.86	77.81	1356.83	75.43	1395.3	75.27	1418.29	75.26	1467.57	78.22
1477.69	78.67	1502.54	77.91	1516.45	76.46	1572.62	73.24	1583	73.02
1604.35	72.6	1767.6	72.19	1769.49	72.18	1844.35	71.46	1932.03	70.62
1962.32	70.97	1980.79	71.18	2041.72	71.86	2083.83	72.33	2087.39	72.34
2088.14	72.34	2093.25	72.24	2171.96	70.83	2177.82	70.82	2190.76	71.52
2196.59	71.69	2198.69	72.45	2201.28	73.39	2211.12	76.42	2217.93	79.73
2220.7	81.53	2225.41	85.44	2241.36	100.33	2246.92	105.53	2251.34	108.23
2254.53	110.31	2255.46	111.08	2261.26	112.84	2262.75	113.48	2268.58	115.16

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
1604.35	2198.69	93.54	99.45	106.38	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 14009.16

INPUT
Description:
Station Elevation Data num= 66

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	93.29	7.72	92.32	62.52	90.8	132.12	86.6	149.89	85.68
158.74	85.16	173.07	83.98	232.69	79.87	255.75	79.13	265.77	78.81
297.43	78.03	335.32	78.89	357.02	79.14	362.56	79.04	422.01	79.18
446.54	78.93	498.12	78.63	690.12	79.44	698.83	79.48	713.17	79.46
875.56	78.9	923.79	78.73	954.2	78.64	1030.24	78.52	1117.03	77.56
1426.08	74.84	1472.13	74.39	1479.08	74.36	1483.21	74.36	1491.98	74.89
1555.9	77.71	1577.05	78.68	1579.07	78.75	1648.33	74.68	1673.87	72.27
1688.14	72.2	1705.24	72.13	1868.98	71.68	1893.1	71.62	1959.36	71.43

1971.74	71.4	2001.53	71.12	2024.5	71.39	2080.05	71.47	2168.6	71.6
2177.07	71.61	2241.75	71.72	2266.51	71.73	2272.94	72.17	2279.11	72.89
2287.03	72.97	2291.6	73.07	2294.64	74.83	2295.96	75.73	2312.73	97.79
2315.5	101.44	2315.72	101.72	2316.74	102.67	2322.85	108.42	2324.94	109.94
2337.52	115.66	2342.69	117.62	2346.03	117.54	2360.58	118.46	2363.08	118.74
2366.38	118.7								

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.02	875.56	.05	1893.1	.035	2177.07	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
1673.87	2272.94	100.03	103.03	102.07	.1	.3

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 13906.13

INPUT
Description:
Station Elevation Data num= 76

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	92.54	5.96	92.16	14.1	91.4	14.65	91.37	15.11	91.34
15.49	91.31	23.03	91.22	82.25	89.97	107.38	88.4	162.65	85
180.35	84.65	209.77	82.61	267.6	79.07	281.9	78.01	312.97	75.46
325.14	75.19	352.53	74.24	379.51	75.7	384.55	75.3	393.62	75.99
402	76.8	430.21	78.73	441.39	78.8	459.71	79.08	463.86	79.09
472.95	79.11	475.87	79.08	541.11	78.7	612.9	79.01	714.38	79.21
747.77	79.17	825.98	79.17	927.71	78.82	951.83	78.74	970.64	78.68
1008.39	78.62	1123.02	77.31	1160.28	76.88	1220.67	76.32	1416.22	74.52
1594.78	72.94	1626.09	74.6	1652.51	74.95	1670.3	74.33	1697.19	73.46
1712.24	72.03	1757.27	71.8	1845.23	71.43	1994.38	71	2001.9	70.98
2060.05	70.77	2065.38	70.82	2156.22	71.71	2187.44	71.73	2216.87	71.76
2281.67	71.79	2294.86	71.52	2308.13	71.24	2318.98	71.96	2335.46	71.67
2350.65	70.56	2359.01	70.89	2369.1	72.27	2371.4	72.66	2378.54	78.57
2378.75	78.74	2379.61	79.32	2387.68	84.68	2398.09	88.77	2398.61	88.95
2399.29	89.07	2401.06	89.44	2401.09	89.45	2423.44	96.8	2432.18	99.53
2441.34	101.86								

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.02	463.86	.02	927.71	.05	1123.02	.035	1220.67	.05
2001.9	.035	2294.86	.05						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
1712.24	2369.1	92.63	93.13	94.58	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 13813.01

INPUT
Description:
Station Elevation Data num= 79

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	90.43	46.07	88.91	114.69	85.85	118.94	85.75	122.66	85.6
159.5	84.03	195.94	79.72	201.81	79.01	209.78	78.25	245.97	76.05
266.61	73.93	285.45	73.75	326.82	71.64	333.67	71.75	375.69	72.47
445.49	72.53	550.13	72.09	620.9	71	656.67	71.04	711.19	71.03
718.16	70.94	731.07	71.06	739.91	71.67	743.89	72.44	745.13	72.67
750.49	74.78	765.8	77.26	766.52	77.35	768.87	76.86	784.64	74.93
816.22	76.55	817.91	76.62	831.36	78.54	857.99	78.51	971.85	78.7
977.08	78.7	998.84	78.73	1016.4	78.19	1037.65	78.21	1052.24	78.04
1223.56	76.05	1338.8	74.98	1478.15	73.72	1505.61	73.47	1578.36	72.98
1686.09	72.24	1720.96	72.19	1830.79	72.17	1836.11	72.17	1868.32	72.11
1999.95	70.82	2002.4	70.81	2003.94	70.75	2104.48	70.37	2128.22	70.29
2146.2	70.26	2155.3	70.3	2189.66	70.59	2312.43	71.63	2325.19	71.74
2342.82	72.01	2389.64	70.97	2410.55	70.56	2411.18	70.55	2411.33	70.56
2411.6	70.54	2430.18	70.28	2436.8	70.19	2462.58	71.71	2462.84	71.79
2463.83	72.47	2464.05	72.19	2469.44	75.54	2482.82	87.24	2485.38	89.34
2487.8	91.33	2498.73	97.95	2500.37	98.5	2505.34	99.05		

Manning's n Values num= 8

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	977.08	.05	1052.24	.035	1478.15	.02	1578.36	.05
2104.48	.035	2430.18	.05	2505.34	.07				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
1868.32	2464.05	96.66	91.12	77.43	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 13721.89

INPUT
Description:
Station Elevation Data num= 90

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	90.28	24.23	89.47	70.68	88.17	86.02	86.92	114.97	85.99
139.93	84.78	145.11	84.27	148.3	83.92	183.76	78.12	202.89	74.51
214.49	72.52	228.47	70.92	252.92	70.57	297.87	71.4	337.91	72.06
384.48	72.82	391.81	72.76	409.01	72.93	569.03	72.42	633.84	72.16
649.31	71.94	656.83	71.92	704.02	71.52	707.56	71.5	714.34	73.04
722.66	74.99	724.91	75.44	727.08	76.17	734.66	78.44	736.91	78.12
748.66	75.71	759.32	72.77	762.57	72.39	788.31	71.03	791.65	70.85

793.61	70.71	794.7	70.74	814.87	70.89	868.87	71.37	872.51	71.28
877.29	71.39	911.66	72.31	913.77	72.68	930.02	73.56	931.36	73.5
940.33	73.62	944.5	73.81	973.65	75.4	986.82	75.23	1023.97	74.38
1052.35	74.83	1192.68	74.83	1201.55	75	1234.43	75.25	1247.95	75.21
1644.56	72.51	1670.3	72.34	1764.51	72.2	1773.04	72.2	1888.95	72.18
1895.47	72.01	1915.14	71.61	1959.71	70.65	1974.64	71.04	1979.44	70.33
2093.85	70.04	2132.78	69.97	2227.8	69.82	2230.8	69.82	2258.7	69.96
2358.2	70.45	2379.47	70.65	2385.16	70.71	2394.71	70.87	2405.93	71.07
2433.02	71.17	2449.26	71.56	2457.25	71.74	2466.83	71.66	2494.92	71.44
2512.08	71.93	2514.62	72.56	2523.68	79.04	2538.85	92.04	2545.46	98.14
2554.03	105.93	2559.41	110.87	2564.42	112.19	2564.78	112.23	2569.62	111.96

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	1644.56	.02	1773.04	.05	2132.78	.035	2466.83	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
1915.14	2449.26	104.34	105.73	83.35	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 13616.16

INPUT
Description:
Station Elevation Data num= 95

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	95.01	15.77	94.44	34.73	94.26	63.86	92.57	92.64	90.27
100.55	89.27	153.81	82.69	179.27	78.86	190.9	75.98	195.5	75.49
211.74	72.15	233.92	70.7	273.77	70.47	322.28	71.21	358.12	71.82
379.11	71.93	408.3	71.7	512.29	72.71	644.61	72.29	691.05	72.28
701.3	72.3	718.18	71.43	735.63	71.52	739.28	71.58	744.9	71.94
754.05	76.6	758.51	78.58	759.54	78.86	761.42	78.81	773.81	78.48
780.8	76.21	785.34	74.89	796.4	71.76	799.94	71.43	809.31	71.73
836.65	71.9	892.27	72.77	930.42	71.77	951.08	71.17	960.83	72.14
962.75	72.77	965.32	73.68	974.83	77.41	983.99	78.89	985.37	79.01
987.44	78.45	1007.92	72.09	1018.18	71.38	1024.04	70.97	1031.04	71.25
1064.23	72.32	1093.85	72.87	1325.6	74.67	1415.22	74.44	1710.54	72.44
1802.82	72.3	1856.63	72.22	1867.61	72.21	1911.84	72.2	1932.71	71.68
1938.19	71.56	2035.15	69.85	2233.34	69.59	2308.39	69.49	2349.11	69.38
2379.02	69.33	2402.86	69.42	2406.17	69.43	2410.53	69.46	2484.49	69.46
2507.8	69.32	2508.7	69.32	2511.82	69.3	2555.84	68.35	2573.55	67.23
2583.14	66.29	2586.46	65.96	2590.24	65.67	2601.22	66.68	2611.07	67.65
2616.44	68.56	2619.87	69.14	2626.5	69.81	2632.67	71.05	2636.99	71.41
2642.67	75.18	2647.19	77.16	2651.48	79.87	2657.93	82.83	2670.46	89.09
2672.78	90.02	2675.05	90.48	2682.44	91.86	2688.41	92.83	2690.77	92.84

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	1802.82	.02	1856.63	.05	2233.34	.035	2583.14	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
2035.15	2626.5	106.9	107.52	109.59	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 13508.64

INPUT
Description:
Station Elevation Data num= 94

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	95.93	6.15	95.74	39.53	94.35	48.72	93.72	57.1	93.23
61.06	92.91	102.02	87.74	144.07	82.09	151.59	80.64	183.13	72.99
191.78	72.16	219.64	71.5	309.54	71.01	345.07	71.21	367.65	71.29
390.58	71.28	406.84	71.27	434.82	71.44	551.03	72.59	620.01	72.37
644.98	72.37	682.43	72.43	702.81	71.38	733.3	70.57	747.67	72.03
751.7	72.27	758.23	74.87	764.6	78.09	768.46	78.01	771.97	78.54
784.2	75	787.54	74.12	793.22	72.44	797.34	72.18	807.98	71.31
1840.1	72.33	1855.93	72.31	1895.86	71.9	1902.27	71.84	1949.95	71.15
2050.43	69.31	2211.81	69.03	2286.18	68.84	2378.95	68.61	2470.11	67.92
2476.62	67.9	2495.28	67.89	2521.95	67.89	2565.39	67.57	2592	67.38
2595.65	67.28	2633.78	66.25	2635.65	66.21	2648.62	65.95	2690.12	65.11
2695.5	64.82	2698.98	64.98	2703.66	65.79	2704.06	65.89	2707.19	67.92
2709.83	68.61	2714.56	69.27	2721.53	77.11	2725.47	80.07	2727.32	81.44
2743.62	92.08	2745.38	93.66	2753.46	95.9	2753.91	96.02	2756.1	95.99
2762.06	96.4	2768.15	96.75	2772.69	97.26	2788.03	98.13		

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	1840.1	.02	1895.86	.05	2286.18	.035	2648.62	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
2050.43	2714.56	89.44	101.07	116.92	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 13407.57

INPUT
Description:
Station Elevation Data num= 102

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	93.74	32.24	92.16	48.91	91.54	96.09	91.22	132.82	88.08
135.54	87.82	143	86.85	199.43	80.26	217.47	77.85	235.12	77.02
266.7	74.58	307.28	73.54	354.35	71.71	426.96	71.72	442.42	71.73
541.67	71.67	661.47	72.39	675.58	71.63	720.26	71.82	776.8	71.61
792.98	71.38	821.25	70.68	833.25	71.91	836.38	72.21	841.38	74.43
847.53	77.21	850.49	78.05	854.1	78.73	857.18	78.53	858.14	78.17
862.77	76.45	874.36	72.62	878.13	71.98	898.24	72.21	914.78	71.96
944.91	72.55	968.16	72.78	1002.2	71.62	1010.49	71.55	1016.34	71.44
1030.06	71.98	1031.16	72.26	1038.7	76.22	1042.51	77.97	1044.65	78.33
1053.74	78.17	1057.48	77.42	1062.96	74.1	1063.58	74.06	1068.61	71.92
1073.4	71.83	1080.35	71.72	1093.47	71.7	1207.79	71.94	1316.02	72.13
1500.94	73.6	1596.95	73.38	1721.05	73.11	1791.98	72.64	1859.49	72.53
1982.05	71.27	2012.08	70.96	2018.47	70.89	2123.39	69.35	2151.1	69.03
2167.88	68.62	2176.54	68.64	2183.51	68.72	2402.48	68.13	2462.91	67.97
2598.65	66.92	2654.31	66.62	2660.1	66.58	2664.53	66.6	2669.76	66.57
2774.87	65.92	2805.76	65.72	2810.59	65.69	2822.92	65.19	2834.38	64.73
2847.11	64.24	2852.95	64.63	2857.46	64.93	2861.13	65.32	2863.19	66.92
2865.03	67.51	2867.43	69	2868.52	69.86	2876.62	75	2892.51	84.04
2893.72	84.35	2895.52	84.79	2903.25	85.49	2909.12	86.18	2920.53	86.33
2925.33	86.71	2930.06	87.59	2978.88	90.84	2991.07	91.7	2993.13	92.04
2995.16	92.28	3003.11	93.01						

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	1982.05	.02	2012.08	.05	2402.48	.035	2822.92	.035
2852.95	.05								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
2151.1	2867.43	95.24	92.14	91.38	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 13315.43

INPUT
Description:
Station Elevation Data num= 94

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	92.37	48.24	90.74	104.79	86.53	134.15	85.14	150.09	84.65
168.88	82.74	205.62	78.17	255.87	76.49	292.04	74.79	340.93	73.77
386.48	71.99	419.8	71.99	603.33	72	638.41	72.21	691.28	69.13
750.71	69.17	791.18	69.15	827.43	70.12	836.9	70.4	846.96	71.82
850.53	72.27	863.22	78.21	864.14	78.71	872.17	78.93	872.59	78.94
872.72	78.9	891.98	72.54	901.98	69.38	912.59	68.66	921	67.6
981.83	70.09	984.79	70.26	985.32	70.26	985.84	70.28	987.07	70.39
1056.81	71.86	1066.85	71.97	1110.41	71.71	1110.78	71.71	1169.07	71.38
1284.66	71.63	1471.9	71.96	1587.84	72.9	1786.7	72.46	1825.86	72.59
1894.49	71.61	2055.73	71.3	2055.96	71.3	2070.39	71.29	2072.43	71.34
2075.04	71.43	2086.88	71.49	2095.85	71.55	2107.2	71.35	2136.89	68.9
2182.4	67.51	2226.09	66.5	2303.2	66.75	2361.98	67.47	2484.16	67.2
2491.8	67.15	2570.4	66.58	2734.58	65.37	2759.22	65.24	2784.58	65.34
2887.37	65.73	2932.42	65.9	2934.69	65.89	2935.37	65.86	2936.1	65.86
2937.24	65.83	2940.25	65.8	2946.58	65.76	2978.7	65.35	2982.37	65.1
2984.8	65.77	2985.75	66.06	2985.88	66.6	2986.32	67.22	2990.16	69.62
2991.47	70.68	2993.36	72.26	2998.53	73.99	2999.61	74.31	3002.35	75.03
3036.03	79.84	3049.82	81.54	3061.08	82.33	3067.73	83.11	3078.3	85.15
3094.99	94.72	3103.97	99.78	3110.4	102.53	3114.75	104.55		

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	2055.73	.02	2086.88	.05	2491.8	.035	2990.16	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
2182.4	2986.32	395.33	410.1	440.35	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 12905.33

INPUT
Description:
Station Elevation Data num= 110

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	93.53	8.94	92.81	12.86	92.58	21.37	92.42	75	88.52
119.37	85.3	151.36	82.61	159.86	82.35	181.68	80.01	207.47	78.46
280.15	75.79	315.78	74.33	410.87	72.29	417.03	72.21	435.69	72.41
608.09	72.57	637.12	72.56	651.24	69.94	659.02	69.32	662.84	68.46
663.99	68.45	683.25	66.39	721.77	66.53	742.22	66.68	763.86	66.92
782.63	67.15	836.9	69.71	847.94	70.06	849.5	70.22	853.01	70.49
872.91	72.29	883.79	74.72	885.7	75.28	887.66	75.3	893.09	75.49
898.77	74.5	905.28	73.17	907.69	72.26	911.2	69.82	915.49	67.44
923.04	65.18	955.74	64.57	979.48	63.54	1012.57	63.44	1030.68	63.99
1044.9	64.94	1053.6	64.86	1056.58	66.16	1060.81	67.68	1064.12	69.1
1066.55	70.49	1080.18	72.59	1090.29	72.57	1115.14	72.39	1273.23	71.38
1303.49	71.21	1356.83	71.31	1654.83	71.73	1677.09	71.89	1708.19	71.8
1796.13	72.07	1876.91	71.75	2054.9	68.24	2073.05	67.89	2075.92	67.97
2108.71	68.74	2126.96	69.16	2168.26	71.06	2174.61	71.41	2188.21	72.17
2193.39	72.25	2200.37	71.13	2231.23	66.53	2249.65	65.34	2258.16	64.43
2273.46	64.7	2331.83	65.73	2333.6	65.73	2336.35	65.71	2337.46	65.72

2339.36	65.72	2356.36	65.72	2471.15	65.74	2716.21	65.8	2782.85	65.21		
2915.49	65.84	2927.34	65.85	3009.56	65.93	3011.51	65.9	3038.99	65.39		
3056.6	65.4	3099.89	65.82	3126.83	65.67	3127.2	65.67	3144.61	63.94		
3169.67	62.49	3179.14	62.49	3215.34	62.47	3228.33	62.47	3242.92	63.84		
3253.1	64.6	3255.64	65.06	3259.54	66.88	3266.26	72.71	3274.58	80.86		
3276.1	82.12	3279.28	84.73	3283.12	85.74	3293.27	87.83	3294.87	88.3		

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	2108.71	.02	2174.61	.05	2273.46	.035	2339.36	.05
2471.15	.035	3294.87	.05						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
2231.23	3259.54	1161.81	1209.87	1227.39	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 11695.46

INPUT
Description:
Station Elevation Data num= 133

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	95.11	2.21	94.93	11.41	94.03	52.62	92.7	58.81	91.73
65.23	91.41	72.89	90.05	86.67	86.23	88.14	86.09	97.43	84.97
121.79	83.73	160.94	82.22	328.18	73.68	350.27	72.95	408.73	72.21
415.23	72.17	436.65	72.47	525.46	73.46	562.85	72.83	599.83	72.15
614.25	72.57	622.39	72.84	629.02	73.05	638.53	72.27	640.65	71.88
647.32	70.35	660.58	66.72	682.58	66.02	699.46	64.71	709.54	64.54
727.57	64.5	806.68	63.44	845.64	63.6	849.21	63.83	859.29	65.14
862.56	65.28	865.03	65.87	872.11	69.92	875.55	71.91	876.48	72.06
887.24	73.47	895.63	73.53	905.91	72.8	907.95	72.42	920.58	66.82
921.58	66.36	924.05	66.02	931.15	64.9	937.02	64.55	998.42	64.3
1047.95	63.93	1065.11	64.38	1070.37	65.21	1071.26	65.35	1082.68	70.47
1085.37	71.75	1089.35	72.42	1090.51	72.55	1093.23	72.55	1133.54	72.47
1157.77	72.53	1232.93	70.28	1443.76	68.69	1454.46	68.64	1467.99	68.67
1695.89	69.45	1851.89	68.23	1915.31	67.36	2042.89	66.27	2091.23	65.66
2094.91	65.66	2129.83	65.66	2169.05	65.67	2173.4	65.82	2180.47	65.12
2190.07	64.96	2237.15	64.21	2255.6	64.35	2266.67	63.85	2274.22	63.53
2374.13	59.22	2374.24	59.22	2393.35	59.26	2444.07	59.27	2478.98	59.28
2566.64	59.3	2723.39	58.77	2760.87	58.64	2852.67	60.52	2864.18	60.43
2885	60.09	2902.24	60.48	2920.42	60.72	2925.76	61.47	2937.98	63.54
2946.64	64.77	2950.35	65.79	2957.34	65.48	2958.05	65.58	2961.9	63.54
2966.39	60.93	2967.8	60.23	2968.57	59.85	2973.41	58.75	2976.47	58.74
3168.63	59.02	3188.71	58.95	3203.49	58.98	3217.96	58.98	3229.93	58.98
3280.64	57.81	3282.03	57.71	3300.8	56.41	3331.69	54.08	3348.55	53.64
3360.83	53.78	3380.37	53.82	3388.07	53.92	3395.96	54.52	3421.59	56.41
3421.69	56.43	3435.66	58.75	3436.13	58.82	3445.06	60.33	3457.28	64.57
3460.12	65.78	3467.61	70.09	3468.42	70.58	3468.89	71.01	3469.2	71.21
3481.04	81.02	3487.44	84.61	3491.52	86.82				

Manning's n Values num= 9

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	2094.91	.02	2129.83	.05	2374.24	.035	2444.07	.05
2478.98	.035	2723.39	.05	2967.8	.035	3421.69	.05		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
2967.8	3445.06	914.27	997.45	1009.86	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 10698.02

INPUT
Description:
Station Elevation Data num= 104

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	80.34	57.37	78.39	74.11	77.74	92.5	77.1	179.77	73.06
238.97	71.37	356.97	67.67	411.4	65.69	418.05	65.62	449.09	65.29

2438.38	59.47	2468.44	59.37	2500.08	63.48	2501.18	63.58	2501.59	63.67
2502.18	63.75	2539.41	65.26	2539.8	65.28	2571.06	65.42	2608.71	65.43
2617.45	65.43	2620.22	65.63	2634.3	66.75	2640.32	66.11	2644.74	65.55
2646.51	65.33	2652.01	62.56	2658.27	59.11	2663.4	58.4	2704.38	57.28
2706.45	57.26	2713.43	57.34	2713.51	57.34	2751.57	56.15	2761.55	57.49
2820.29	56.76	2821.16	56.77	2821.36	56.76	2821.46	56.76	2822.06	56.73
2950.91	53.64	2988.21	52.69	2995.95	52.5	2997.88	52.45	3053.94	47.32
3082.65	46.23	3091.94	45.84	3115.03	45.13	3125.6	45.19	3131.48	45.22
3152.86	45.6	3185	48.25	3187.42	48.39	3191.44	48.63	3194.29	48.78
3194.5	48.79	3215.72	51.07	3229.66	52.46	3233.87	52.65	3243.96	52.44
3258.72	52.05	3266.03	52.52	3268.63	53.47	3273.17	55.75	3275.4	56.89
3283.07	60.66	3287.07	63.28	3289.07	64.63	3293.8	70.74	3295.07	72.23
3300.16	76.93	3301.52	77.95	3317.99	86.45	3328.07	92.21	3332.97	94.94
3350.99	102.48	3355.08	104.54	3357.74	104.9	3364.48	105.61	3373.08	105.69
3384.12	108.62	3401.84	110.76	3413.24	111.48	3434.72	114.28		

Manning's n Values num= 8

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	1923.44	.02	2163.88	.035	2232.57	.05	2644.74	.035
2713.43	.05	2988.21	.035	3194.29	.05				

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
2820.29 3275.4 601.47 594.45 599.46 .1 .3
Ineffective Flow num= 1
Sta L Sta R Elev Permanent
888 F

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 10103.57

INPUT
Description:
Station Elevation Data num= 82

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	67.34	130.33	65.81	195.26	65.09	221.36	64.83	248.87	64.13
336.13	62.4	510.97	58.61	523.87	59.15	555.28	59.35	902.03	63.9
947.08	64.18	1035.49	64.29	1427.38	62.94	1509.66	61.96	1635.36	61.06
1812.24	59.81	1855.93	59.55	1914.45	59.19	2093.27	58.16	2121.07	58.27
2263.61	58.85	2275.77	58.53	2319.92	57.15	2324.87	56.99	2334.86	57.08
2346.69	57.59	2380.02	58.42	2386.2	58.51	2393.6	58.6	2417.19	58.65
2452.49	58.56	2457.43	58.54	2471.42	58.41	2488.91	57.27	2527.02	56.51
2534.65	56.49	2538.38	56.56	2575.98	54.47	2587.15	53.99	2592.03	53.76
2597.8	53.19	2618.19	52.63	2620.91	52.55	2632.34	52.33	2654.67	51.29
2668.03	51.68	2694.8	52.62	2754.59	52.54	2808.44	52.52	2838.38	52.2
2848.01	52.42	2875.4	52.48	2919	51.9	2960	51.14	2966.18	51.23
3000.02	51.69	3010.18	51.92	3012.58	51.92	3018.26	51.9	3026.7	52.62
3027.81	52.58	3029.55	53.28	3031.73	54.53	3033.14	56.4	3035.24	58.56
3038.06	61.59	3040.77	64.63	3052.2	70.04	3054.13	71	3058.65	72.16
3062.92	73.23	3081.15	78.33	3115.32	80.62	3140.42	82.29	3142.37	82.42
3143.83	82.52	3145.71	82.6	3200.24	85.72	3277.48	89.45	3281.55	89.6
3297.95	90.61	3314.17	91.66						

Manning's n Values num= 8

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	1855.93	.02	2121.07	.05	2319.92	.02	2386.2	.05
2452.49	.02	2618.19	.05	3115.32	.035				

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
2597.8 3029.55 615.7 627.48 572.22 .1 .3
Ineffective Flow num= 1
Sta L Sta R Elev Permanent
888 F

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 9476.099

INPUT
Description:
Station Elevation Data num= 62

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	68.47	61.01	65.67	61.94	65.64	62.56	65.62	191.76	65.28
280.56	64.56	503.79	60.62	569.49	59.38	581.88	59.13	596.07	59.13
609.58	59.19	1350.6	59.4	1492.58	59.09	1811.19	58.99	1915.94	58.67
2001.84	57.84	2179.62	57.61	2206.51	57.32	2301.51	55.49	2371.26	54.15
2453.33	52.57	2458	52.51	2469.05	52.45	2472.74	52.46	2483.67	52.57
2512.72	52.75	2715.36	53.39	2737.41	52.13	2759.94	50.84	2763.9	50.85
2793.27	48.06	2806.09	46.73	2811.55	46.28	2814.12	46.16	2816.12	46.07
2900.54	45.96	2946.77	45.95	2996.02	45.94	3020.52	45.94	3029.82	46.99
3036.84	48.06	3056.8	50.29	3069.71	50.99	3080.21	52.98	3081.9	53.29
3085.7	55.29	3104.93	65.39	3108.17	66.23	3123.12	71.35	3127.23	71.79
3140.84	73.68	3157.57	74.58	3173.3	75.2	3191.88	75.93	3263.73	79.05
3286.95	79.33	3327.83	80.76	3341.46	80.89	3355.65	81.15	3377.36	83.57
3433.65	86.54	3487.14	86.18						

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	2301.51	.02	2371.26	.05	3173.3	.035

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
2793.27 3036.84 632.1 587.55 573.86 .1 .3

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 8888.551

INPUT
Description:
Station Elevation Data num= 64

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	80.35	.13	80.36	13.56	79.85	91.05	76.49	277.46	69.9
359.03	66.43	407.56	65.16	534.91	62.09	578.82	60.58	608.84	60.26
728.64	58.62	1086.65	56.94	1387.14	56.2	1640.07	55.84	1920.87	54.3
1950.03	53.95	1964.74	53.78	1996.69	53.68	2016.78	53.47	2121.09	52.31
2122.38	52.3	2169.63	52.39	2257.06	52.5	2287.36	52.52	2319.48	50.53
2333.25	48.89	2357.53	46.81	2410.42	45.84	2442.82	45.86	2463.2	45.86
2490.3	45.87	2581.97	45.73	2582.94	45.73	2682.65	45.56	2736.89	46
2740.31	46.02	2852.96	46.94	2879.31	47.47	2985.08	50.07	2992.5	50.31
3017.87	51.83	3031.05	52.58	3036.67	52.1	3038.71	51.96	3061.21	50.41
3076.83	50.19	3168.61	52.51	3177.53	52.88	3186.39	54.03	3208.61	57.19
3218.04	59.25	3233.68	64.84	3235.03	65.19	3272.77	74.95	3277.04	76.17
3283.12	78.11	3290.21	79.03	3293.84	79.59	3297.84	80.31	3318.47	82.17
3328.94	83.11	3385.03	85.12	3419.86	85.85	3421.11	85.92		

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	1950.03	.02	2121.09	.05	2463.2	.035	2736.89	.05
3318.47	.035								

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
2357.53 2852.96 583.69 598.13 621.47 .1 .3

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 8290.415

INPUT
Description:
Station Elevation Data num= 82

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	79.85	16.23	79.94	50.96	78.61	58.27	78.26	267.42	69.91
432.85	63.96	524.53	61.37	650.86	59.02	770.15	57.4	819.9	56.94
1162.11	54.1	1449.92	54.41	1662.02	54.01	1800.97	55.21	1858.71	55.33
1870.69	54.31	1883.34	53.23	1893.09	53	1896.58	52.37	1906	48.35
1909.55	47.31	1919.76	45.35	1922.53	45.03	1936.15	45.19	1964.88	45.32
2050.56	45.81	2087.83	46.02	2105.8	45.77	2142.88	45.61	2152.49	45.66
2190.09	45.04	2194.46	45.12	2227.79	45.74	2228.65	45.74	2230.72	45.77
2302.39	45.81	2500.84	45.93	2569.75	44.11	2626.16	42.43	2626.24	42.43
2658.69	42.32	2671.47	42.29	2672.93	42.32	2740.82	44	2770.06	44.76
2792.68	45.35	2809.63	45.63	2811.18	45.65	2816.82	45.75	2853.21	45.97
2905.56	46.07	2998.53	47.05	3063.33	47.23	3101.47	47.19	3172.75	50.53
3189.52	50.97	3218.09	51.57	3218.82	51.65	3219.13	51.72	3220.85	52.11
3225.81	52.88	3235.37	56.7	3238.75	58.13	3249.65	60.74	3261.17	64.7
3261.77	64.78	3266.83	65.64	3270.86	66.88	3288.17	72.13	3295.58	72.19
3300.09	73.2	3311.97	73.85	3319.71	74.16	3332.25	75.37	3345.66	76.26
3377.92	78.4	3402.5	79.29	3452.98	80.5	3473.27	81.31	3480.09	81.5
3487.84	81.88	3597.48	86.98						

Manning's n Values num= 8

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	1870.69	.02	2050.56	.05	2194.46	.035	2302.39	.05
2626.16	.035	2770.06	.05	3345.66	.035				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
2087.83	2905.56	624.1	622.8	620.76	.1	.3

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 7667.615

INPUT
Description:
Station Elevation Data num= 102

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	73.94	29.83	73.49	70.61	72.31	76.47	72.08	177.17	68.44
257.15	64.74	375.32	61.78	508.97	59.22	625.85	55.8	727.73	54.12
829	52.98	931.72	52.51	1078.07	51.83	1324.06	51.93	1416.77	51.91
1777.42	52.44	1830.59	53.41	1874.61	52.29	1919.49	52.33	1985.09	51.85
2021.56	50.31	2042.49	49.5	2051.59	49.2	2077.77	48.32	2101.43	48.1
2118.34	46.93	2122.34	46.71	2127.32	46.43	2127.71	46.37	2129.16	45.91
2150.56	39.04	2153.31	38.71	2167.01	38.37	2189.83	37.72	2208.97	37.41
2232.38	37.85	2285.17	38.63	2299.2	38.82	2337.92	39.33	2434.8	39.66
2626.47	39.42	2642.31	39.41	2652.92	39.39	2723.67	39.31	2749.1	39.28
2760.55	39.28	2773.19	39.57	2789.59	39.96	2794.72	40.32	2809.9	44.41
2812.64	44.92	2815.64	45.74	2817.86	46.01	2818.48	45.97	2841.34	39.28
2841.81	39.07	2842.23	38.98	2872.15	38.81	2907.81	38.44	2935.48	38.12
2951.52	38.44	2974.57	37.97	2988.73	38.57	3005.42	38.94	3033.83	38.79
3059.77	39.07	3083.4	40.38	3099.38	39.38	3122.38	39.82	3124.41	39.74
3125.32	39.76	3127.3	39.8	3131.3	39.8	3170.36	39.21	3180.14	38.83
3204.98	39.18	3225.45	39.12	3226.2	39.21	3228.44	39.42	3265.11	44.66
3270.22	45.7	3281.89	47.55	3284.32	48.63	3295.56	51.82	3299.55	52.71
3306.94	56.42	3307.44	56.54	3307.56	56.57	3308.65	56.97	3328.65	63.22
3335.81	64.6	3342.12	65.89	3347.61	66.81	3360.37	69.05	3380.5	72.57
3388.42	73.07	3403.38	73.92	3412.24	74.76	3454.54	77.16	3487.97	77.95
3529.46	79.67	3537.23	80.04						

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	2051.59	.02	2122.34	.035	2299.2	.05	2652.92	.035
2723.67	.05	3360.37	.02						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
2150.56	3005.42	556.83	550.63	551.5	.1	.3

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 7116.984

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	72.96	117.54	71.06	288.52	63.65	337.8	62.28	450	59.02
535.24	56.66	661.84	52.95	791.61	52.24	962.44	51.42	1250.11	49.88
1607.77	48.32	1833.42	47.4	2081.58	48.29	2321.68	48.59	2414.49	49.01
2443.12	48.75	2452.3	48.51	2452.36	48.51	2463.84	48.22	2494.04	45.94
2494.69	45.89	2495.34	45.7	2512.82	40.39	2514.09	40.26	2527.76	38.82
2531.78	38.39	2561.5	37.77	2621.18	35.85	2654.9	34.51	2728	33.82
2788.9	34.67	2810.72	34.58	2828.79	34.5	2835.31	34.61	2852.52	35.21
2867.31	35.64	2898.33	36.53	2957.86	37.77	2959.46	37.8	3015.31	38.57
3019.63	38.63	3085.13	39.31	3195.17	39.47	3453.83	37.66	3485.15	38.02
3525.61	36.97	3530.18	36.84	3544.46	37.01	3552.2	37.52	3573.96	38.12
3581.72	39.88	3586.91	43.03	3590.77	44.9	3597.22	46.35	3607.98	47.7
3621.87	48.65	3625.51	48.9	3649.4	51.09	3662.71	53.03	3670.82	55.79
3679.78	59.08	3692.34	60.59	3722.18	64.8	3745.5	65.93	3759.57	66.65
3763.49	66.71	3772.78	67.07						

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	2452.3	.05	2527.76	.035	2867.31	.05	3621.87	.02

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.

2531.78	3573.96		569.88	563.21	532.8		.1	.3	

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 6553.777

INPUT
Description:
Station Elevation Data num= 67

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	74.74	2.14	74.75	71.35	71.83	245.13	68.96	477.05	58.84
674.44	52.54	788.4	50.77	924.42	48.76	950.91	48.27	1364.63	47.14
1459.47	47.19	1536.34	46.96	1986.82	45.12	2284.68	45.81	2580.32	45.84
2705.18	45.5	2780.9	45.57	2898.39	45.74	2933.39	45.79	2954.52	46.14
2965.63	46.2	2983.47	46.27	3044.72	46.59	3083.22	46.8	3088.15	46.11
3088.84	46.06	3095.34	45.61	3097.99	44.61	3109.84	39.3	3123.82	38.62
3174.27	35.12	3228.69	34.06	3262.1	33.43	3265.35	33.36	3285.04	32.93
3375.66	32.93	3397.73	32.94	3421.43	32.94	3525.69	32.87	3562.15	32.84
3618.36	32.62	3702.27	32.28	3702.89	32.28	3754.12	32.22	3790.01	32.21
3843.61	33.65	3893.13	35.16	3936.47	36.23	3958.66	37.28	3976.05	38.1
3981.88	39.71	3984.69	40.21	3988.93	41.96	3996.9	46.49	4015.5	47.51
4037.36	48.71	4046.22	49.32	4054.55	49.56	4064.65	49.89	4126.52	51.65
4134.54	51.66	4206.32	52.02	4251.39	52.86	4267.36	54.31	4312.4	56.73
4372.53	59.52	4412.63	61.01						

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	3044.72	.02	3088.84	.035	3265.35	.05	3397.73	.035
3618.36	.05	4015.5	.02						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
3174.27	3893.13	469.22	407.1	351.14	.1	.3

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 6146.684

INPUT
Description: Updated Manning's N Distribution
Station Elevation Data num= 103

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	67.37	73.94	66.21	281.44	57.36	460.67	51.79	738.33	47.62
855.23	45.95	861.94	45.96	868.72	46.34	870.48	46.57	874.41	47.48
877.58	47.8	1199.64	43.91	1346.56	44.45	1370.86	44.24	1861.14	42.72
2188.85	43.37	2366.94	44.17	2690.87	44.97	2791.78	45.17	3014.8	44
3126.98	43.15	3162.65	43.05	3198.36	44.59	3219.78	45.27	3234.4	45.58
3264.38	46.22	3293.7	46.07	3311.26	45.57	3325.14	44.79	3336.98	45.06
3352.36	44.4	3373.25	41.02	3374.86	40.77	3376.23	40.49	3378.86	40.35
3381.42	40.08	3382.13	40	3389.66	39.28	3392.69	39.13	3459.2	37.82
3511.56	38.17	3523.07	37.98	3543.15	37.83	3556.05	37.64	3582.52	38.33
3598.62	37.92	3619.82	37.63	3647.76	34.53	3675.46	34.13	3697.23	33.81
3737.97	33.37	3763.67	32.92	3774.27	32.73	3822.48	32.67	3935.19	32.53
3971.58	32.48	4054.03	32.69	4068.32	32.4	4093.99	31.89	4104.15	31.6
4116.51	32.69	4120.1	33.01	4123.97	33.1	4129.79	35.14	4132.13	35.87
4138.29	39.7	4144.43	43.03	4146.87	45.14	4148.3	45.76	4151.89	46.4
4166.22	45.73	4180.9	45.16	4194.78	45.7	4208.68	46.3	4216.59	46.99
4260.17	46.68	4294.45	46.79	4329.78	48.38	4379.38	48.63	4549.26	47.05
4587.08	47.84	4621.53	48.99	4653.62	51.46	4687.91	52.76	4704.58	52.97
4713.51	53.08	4745.95	53.64	4767.84	55.71	4780.44	57.46	4785.49	58.45
4789.67	59.19	4799.79	63.62	4801.91	64.59	4806.18	65.99	4822.81	71.26
4842.1	78.88	4843.16	79.37	4853.9	85.67	4862.42	89.5	4873.75	93.65
4887.25	97.07	4894.23	98.15	4900.61	98.79				

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	3234.4	.02	3381.42	.035	3675.46	.05	3822.48	.035
4116.51	.02	4704.58	.05						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
3647.76	4129.79	280.12	247.83	242.98	.1	.3

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 5898.852

INPUT
Description:
Station Elevation Data num= 74

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	54.42	396.05	39.79	449.33	39.53	867.45	38.96	942.47	39.42
989.29	39.63	1658.74	42.41	1811.89	43.06	1875.95	43.27	1936.43	43.22
2199.24	42.45	2223.83	42.43	2260.33	42.11	2350.7	41.33	2368.57	40.51
2411.02	39.43	2416.88	39.28	2440.34	38.62	2459.04	37.97	2483.51	36.28
2552.4	35.84	2599.38	35.77	2601.8	35.77	2623.6	36.48	2693.25	38.42
2708.23	39.35	2721.65	39.19	2770.51	39.18	2797.98	37.64	2825.42	35.79
2833.18	35.27	2850.05	34	2860.92	33.08	2878.16	32.82	2881.96	32.76
2902.98	32.59	2999.9	33.11	3010.01	33.14	3053.25	33.3	3054.55	33.36
3060.75	33.64	3081.03	33.05	3111.07	32.4	3111.88	32.64	3115.25	33.33
3115.74	34	3117.54	35.18	3121.34	38.21	3123.17	38.79	3124.81	39.53
3149.5	42.03	3167.05	44.51	3193.07	45.12	3215.98	46.56	3231.87	46.9
3239.81	46.81	3275.55	46.42	3380.58	45.16	3414.31	45.06	3455.06	45.29
3491.3	46.01	3541.73	46.23	3605.7	48.37	3616.53	48.72	3618.08	48.77
3623.65	49.17	3648.73	51.18	3665.08	52.51	3683.68	57.4	3689.53	58.85
3701.64	60.59	3718.68	62.87	3744.57	66.56	3767.22	69.82		

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	2260.33	.02	2411.02	.035	2599.38	.05	2825.42	.035
3239.81	.02	3616.53	.05						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.

2850.05 3115.74 604.78 585.72 573.19 .1 .3
Ineffective Flow num= 1
Sta L Sta R Elev Permanent
888 F

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 5313.135

INPUT
Description:
Station Elevation Data num= 65

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	54.8	235.9	35.44	377.06	35.34	407.89	35.07	474.34	32.93
484.38	32.81	517.48	34.18	558.19	36.22	572.64	36.28	1081.71	38.43
1730.88	40.34	1838.88	41.44	1922.89	40.19	1944.98	39.87	1946.14	39.81
1947.51	39.76	2071.35	36.04	2166.08	33.77	2192.86	32.86	2207.76	32.8
2378.28	32.12	2384.91	32.11	2528.49	32.05	2733.34	32.68	2768.74	32.82
2797.22	32.8	2907.86	31.84	2955.55	31.32	2982.22	31.03	2991.16	31.06
3069.24	31.32	3080.18	31.24	3122.41	30.9	3130.16	30.85	3133.53	31.01
3136.32	31.35	3145.48	32.39	3153.92	37.51	3154.56	37.9	3155.56	38.35
3158.71	39.74	3159.79	39.91	3163.25	40.32	3164.99	40.37	3171.31	40.51
3173.89	40.79	3228.93	41.25	3234.23	41.29	3236.17	41.32	3319.53	45.76
3324.98	45.83	3355.5	45.72	3365.71	45.15	3382.83	43.86	3391.49	43.98
3431.96	45.92	3448.73	46.4	3454.08	46.98	3475.98	49.36	3509.76	52.7
3520.54	57.38	3526.3	59.6	3542.39	64.53	3548.64	66.63	3560.91	71.06

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	1922.89	.02	2207.76	.05	2955.55	.035	3454.08	.05

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
2797.22 3145.48 603.98 623.48 637.26 .1 .3
Ineffective Flow num= 1
Sta L Sta R Elev Permanent
888 F

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 4689.719

INPUT
Description:
Station Elevation Data num= 56

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	50.59	5.54	50.1	16.15	49.6	23.42	49.07	197.5	32.89
240.38	32.9	387.06	32.88	467.24	32.94	633.12	33.02	1195.92	36.5
1491.91	38.33	1533.6	38.56	1611.23	38.32	1676.8	38.37	1720.88	37.97
1733.94	38.62	1755.25	38.9	1772.27	37.68	1778.83	37.11	1801.66	34.35
1820.46	33.84	1852.87	32.96	1912.02	32.49	1913.47	32.47	2024.61	31.11
2128.28	30.42	2223.82	30.53	2359.57	28.7	2386.54	28.48	2534.69	27.3
2585.14	27.2	2636.08	26.73	2782.14	25.37	2815.27	26.01	2872.84	23.84
3012.04	23.21	3020.96	23.24	3075.22	24.09	3158.31	25.38	3191	26.39
3194.81	26.51	3211.9	27.08	3239.93	28	3259.34	29.49	3272.86	31.14
3283.9	32.16	3287.07	32.58	3293.44	33.43	3304.17	36.6	3315.74	39.95
3337.62	42.38	3377.29	44.79	3406.49	47.33	3412.31	47.71	3416.72	48.32
3416.91	48.34								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	1195.92	.02	1913.47	.05	3075.22	.035	3211.9	.05

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
2585.14 3211.9 557.08 599.98 624.49 .1 .3
Ineffective Flow num= 1
Sta L Sta R Elev Permanent
888 F

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 4089.740

INPUT
Description:
Station Elevation Data num= 60

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
2484.7	26.4	2540.37	26.42	2640.58	25.78	2741.76	25.56	2849.16	25.52
3080.64	26.31	3081.74	26.32	3095.12	26.39	3102.66	26.27	3106.67	26.2
3116.51	26.34	3145.31	27.09	3172.38	27.65	3180.44	27.82	3183.26	27.7
3186.33	27.58	3202.22	26.94	3203.62	27.23	3205.09	28.53	3208.91	30.7
3212.53	35.02	3212.79	35.32	3219.19	37.95	3219.44	38.02	3219.93	38.04
3226.98	38.68	3236.81	38.22	3248.61	39.25	3257.08	39.88	3269.27	41.94
3289.72	45.01	3346.69	49.12	3362.24	50.24	3384.82	51.78	3392.9	52.57
3399.42	53.43	3407.75	54.71	3416.41	56.08	3477.19	65.71	3486.14	68.15

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	1743.07	.02	1777.93	.05	3102.66	.035	3172.38	.05
3346.69	.07	3416.41	.05						

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
2135.46 3145.31 589.66 603.63 611.39 .1 .3
Ineffective Flow num= 1
Sta L Sta R Elev Permanent
888 F

CROSS SECTION RIVER: San Mateo Creek

REACH: Lower RS: 3486.110

INPUT
Description:
Station Elevation Data num= 71

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	46.29	164.35	29.36	170.65	29.14	191.87	28.38	194.63	28.28
197.81	27.46	214.3	26.61	218.17	25.64	221.29	25.46	236.53	24.81
427.84	25.58	485.93	26.09	545.78	26.08	561.55	26.23	566.9	26.28
642.16	27.68	660.34	27.89	777.29	31.38	781.75	31.52	782.34	31.54
782.75	31.57	783.12	31.57	914.19	32.95	938	32.41	961.74	32.7
1060.96	32.15	1484.48	33.24	1802.93	34.08	1912.47	34.47	2024.12	33.2
2043.89	32.97	2057.85	32.81	2104.9	32.26	2122.22	31.43	2159.87	29.34
2170.7	28.93	2182.95	28.24	2195.59	27.58	2201.42	26.91	2330.08	23.53
2435.73	20.75	2455.24	20.59	2503.12	19.86	2521.29	19.73	2523.59	19.71
2690.84	17.56	2853.72	14.86	2859.84	14.93	2870.57	15.13	3028.74	16.36
3069.91	16.52	3112.95	16.69	3124.02	16.88	3135.84	17.01	3137.38	17.04
3165.78	17.62	3171.12	17.92	3179.97	18.42	3213.55	20.32	3218.35	20.85
3244.42	23.69	3284.83	28.14	3300.66	29.84	3305.02	30.69	3314.02	32.6
3324.12	38.65	3348.28	55.29	3359.46	64.31	3363.44	66.09	3370.03	68.46
3373.53	69.23								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	2024.12	.02	2057.85	.05	3069.91	.035	3171.12	.07

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
2435.73	3218.35	577.29	602.58	615.08	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 2883.526

INPUT
Description:
Station Elevation Data num= 64

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	43.87	138.59	25.27	144.34	25.32	155.04	25.36	280.43	25.37
674.52	26.23	703.51	26.26	745.97	27.28	773.14	27.93	1090.82	30.95
1473.75	31.96	1666.35	32.14	1987.05	30.26	1995.18	30.17	2049.39	29.29
2070	28.97	2129.96	27.88	2184.8	26.9	2187.91	27.91	2192.7	27.96
2197.21	29.24	2202.11	28.51	2203.97	28.52	2205.47	27.61	2207.06	27.26
2208.89	26.15	2213.35	25.91	2220.99	25.72	2397.39	21.6	2470.49	19.84
2556.9	17.85	2588.28	17.51	2637.19	15.79	2730.4	14.12	2756.38	14.59
2761.02	14.65	2778.21	14.83	2858.77	15.67	2870.81	16.19	2891.7	17.09
2895.51	17.12	2905.94	17.23	2934.43	19.59	2957.04	19.85	2959.64	19.84
2961.43	20.49	2966.51	21.04	2966.67	21.06	2995.29	26.1	3002.44	25.94
3011.47	26.86	3014.13	27.24	3015.87	27.92	3022.73	34.3	3027.64	39.08
3036	48.34	3044.12	55.97	3056.9	67.69	3058.44	68.95	3066.94	75.22
3074.67	80.81	3080.16	85.53	3086.85	91.92	3086.9	91.96		

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	2129.96	.05	2778.21	.035	2870.81	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
2470.49	2957.04	193.46	203.76	211.14	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Permanent
888	T		
888	F		

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 2679.762

INPUT
Description:
Station Elevation Data num= 65

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	45.67	152.32	25.49	152.41	25.46	152.57	25.37	152.72	25.31
152.79	25.3	152.89	25.27	153.02	25.22	153.12	25.22	153.24	25.16
153.33	25.11	153.43	25.08	153.53	25.05	153.63	25.03	153.67	25.03
154.23	25.06	155.91	25.03	157.89	25.03	685	26.22	729.8	26.27
1169.08	30.4	1188.39	30.44	1207.6	30.5	1402.35	30.69	1687.97	30.94
1883.46	29.77	2002.09	28.51	2131.34	26.39	2171.25	26.45	2174.8	26.43
2255.35	26.14	2261.8	26.09	2291.45	25.82	2306.04	24.96	2320.77	23.7
2334.58	21.2	2348.29	19.69	2368.87	20.19	2402.21	21.36	2439.75	20.12
2446.69	19.89	2497.77	19.68	2543.21	19.57	2661.08	14.9	2684.03	14.19
2696.76	14.24	2707.56	14.28	2708.82	14.29	2746.46	14.85	2766.76	16.57
2783.75	17.87	2807.02	19.65	2809.85	19.63	2824.64	19.51	2846.41	20.28
2856.24	21.35	2856.84	21.42	2861.82	23.3	2864.07	23.87	2868.1	30.22
2872.97	37.3	2876.16	41.47	2889.55	57.34	2890.45	58.31	2899.74	68.73

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	2174.8	.07	2261.8	.05	2696.76	.035	2783.75	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
2402.21	2856.24	387.64	396.16	397.97	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Permanent
888	T		
888	F		

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 2283.606

INPUT
Description:
Station Elevation Data num= 86

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	50.74	42.78	45.14	46.09	43.64	52.72	39.85	58.82	37.31
61.61	36.95	65.89	35.72	71.12	33.52	75.43	33.36	80.7	30.98
84.08	29.01	88.42	27.45	92.78	26.21	97.15	25.21	98.62	25.11
122.61	26.69	198.23	25.43	293.95	25.53	627.39	26.31	659.77	26.35
868.5	26.56	1089.31	28.67	1293.99	29.12	1313	29.19	1603.67	29.45
1749.84	29.39	1784.45	29.15	1932.01	27.38	2047.8	26.16	2065.96	26.39
2097.45	26.35	2101.37	26.02	2108.61	25.28	2124.15	21.46	2130.46	21.08
2136.12	21.06	2142.2	21.81	2157.02	25.66	2167.33	26.38	2167.53	26.39
2175.98	27.04	2189.51	26.68	2204.26	25.94	2286.03	26.1	2286.09	26.1
2287.27	26.1	2361.89	20.7	2375.17	19.79	2463.42	18.67	2533.64	19.71
2553.3	19.74	2601.28	19.8	2630.31	19.88	2668.83	19.99	2683.93	19.35
2699.63	18.69	2701.74	18.64	2742.9	17.75	2749.25	17.45	2750.91	17.37
2754.51	17.37	2764.19	17.89	2775.18	18.47	2801.95	19.93	2812.08	21.62
2823.26	23.74	2831.99	26.57	2838.6	31.04	2844.01	34.82	2847.37	36.09
2849.48	36.44	2857.12	35.86	2868.74	37.27	2873.98	37.97	2878.95	39.58
2884.38	42.66	2886.96	44.69	2888.97	46.04	2890.89	47.23	2911.85	58.02
2919.17	62.34	2940.49	73.07	2952.28	78.22	2954.21	79.14	2954.89	79.33
2968.95	82.03								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	2167.33	.07	2286.09	.05	2553.3	.035	2701.74	.05

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
2375.17 2801.95 218.79 208.19 198.85 .1 .3
Ineffective Flow num= 2

Sta L	Sta R	Elev	Permanent
888		T	
888		F	

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 2075.420

INPUT
Description:
Station Elevation Data num= 87

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	56.14	14.77	54.31	19	52.24	27.57	46.86	35.56	43.25
39.25	42.77	44.96	41.01	52.02	37.81	57.89	37.63	65.16	34.08
69.88	31.11	75.99	28.75	82.17	26.85	88.44	25.31	90.58	25.16
126.36	27.69	254.47	25.75	460.21	26.05	596.07	26.4	637.79	26.45
957.52	26.78	1023.17	26.78	1089.97	26.83	1353.33	27.4	1459.51	27.35
1581.22	27.4	1936.42	26.32	1943.98	26.24	1949.29	26.07	1956.6	25.84
2078.61	22.19	2098.24	21.45	2109.81	20.82	2118.13	20.67	2130.12	20.28
2141.05	19.69	2151.46	20.58	2183.71	21.18	2203.83	22.33	2208.77	22.61
2216.07	23.3	2222.31	24.59	2247.77	25.87	2255.23	26.38	2281.94	25.74
2320.81	25.31	2324.59	25.1	2414.84	20.13	2419.95	19.76	2435.57	18.62
2445.33	18.15	2495.95	15.99	2535.91	14.32	2558.42	13.37	2601.04	13.16
2662.71	13.1	2663.22	13.1	2686.86	14.05	2687.18	14.06	2714.03	16
2741.84	18	2763.44	19.28	2774.96	19.63	2789.04	20.05	2827.31	21.15
2832.73	21.64	2838.78	22.73	2852.04	24.01	2853.37	24.68	2855.4	25.2
2863.67	27.8	2871.29	31.67	2889.08	41.1	2904.28	43.42	2905.7	43.98
2910.35	44.37	2918.94	46.39	2921.14	47.14	2934.71	54.07	2935.48	54.48
2936.41	55.21	2955.33	68.92	2957.51	70.01	2964.63	74.6	2978.74	78.46
2987.73	78.95	3018.94	79.77						

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	2203.83	.07	2324.59	.05	2535.91	.035	2686.86	.05

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
2495.95 2714.03 167.27 168.07 167.81 .1 .3
Ineffective Flow num= 2

Sta L	Sta R	Elev	Permanent
888		T	
888		F	

CROSS SECTION RIVER: San Mateo Creek

Station Elevation Data num= 66

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	44.14	8.14	40.06	15.75	35.14	25.65	31.24	35.72	28.07
45.97	25.5	49.47	25.25	108.86	29.55	333.9	26.31	503.43	26.59
568.57	26.47	620	26.24	715.16	25.82	922.32	25.68	1102.29	25.73
1684.23	23.31	1876.22	23.1	1960.34	20.75	2123.72	19.23	2153.15	18.62
2187.86	17.51	2202.67	17.03	2221.09	17.59	2232.69	18.93	2232.87	18.94
2233.62	19.26	2239.75	21.26	2249.93	25.47	2259.31	26.83	2291.49	25.66
2309.73	25.25	2319.57	24.93	2333.71	23.84	2344.88	22.98	2381.9	19.92
2423.76	16.33	2453.52	14.85	2474.37	13.94	2508.74	13.18	2555.4	12.14
2619.59	10.65	2632.17	10.36	2668.37	12.74	2677.94	13.33	2685.8	13.81
2707.32	10.96	2709.78	10.6	2710.95	10.66	2736.96	13.36	2742.11	14.13
2743.31	14.78	2762.87	17.25	2773.99	19.15	2782.14	20.53	2790.38	20.96
2812.63	23.5	2833.42	26.13	2840.74	28.23	2858.94	33.06	2864.5	36.86
2881.91	46.17	2889.82	50.73	2902.76	58.27	2910.76	63.13	2911.45	63.3
2917.14	65.31								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	2187.86	.07	2333.71	.05	2508.74	.035	2742.11	.05

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
2453.52 2743.31 205 206.77 220.21 .1 .3
Ineffective Flow num= 2
Sta L Sta R Elev Permanent
888 T
888 F

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 1700.584

INPUT
Description: Updated Manning's N Distribution
Station Elevation Data num= 88

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	51.57	5.89	48.65	17.96	40.9	33.64	34.78	49.57	29.8
65.75	25.78	71.26	25.38	164.51	32.07	424.44	28.26	435.81	28.64
456.68	28.36	480.09	27.56	521.88	26.72	628.46	26.53	695.8	26.23
832.49	25.62	924.21	24.72	975.25	24.61	1001.28	24.66	1097.17	23.95
1904.23	20.27	1954.8	20.01	2008.9	19.38	2032.35	19.16	2250.8	17.41
2263.36	17.56	2267.25	17.61	2270.07	17.66	2281.28	17.89	2295.91	18.31
2307.04	18.63	2315.53	19.61	2326.96	22.62	2336.55	25.3	2353.74	26.81
2356.82	27.13	2363.23	26.93	2383.7	26.36	2405.78	21.32	2412.11	20.56
2413.65	20.66	2416.62	20.86	2429.98	24.04	2430.84	24.04	2440.61	23.56
2440.74	23.54	2440.82	23.53	2462.16	19.51	2473.05	16.02	2478.88	13.19
2496.22	13.42	2530.96	13.57	2549.15	13.63	2633.31	13.54	2641.5	13.54
2646.06	13.41	2655.02	13.17	2674.52	12.63	2678.56	12.5	2708	11.55
2725.66	10.98	2731.49	10.79	2737.91	10.54	2744.96	10.91	2757.58	12.14
2759.22	12.74	2761.01	13.31	2765.65	15.01	2773.4	18.28	2775.26	19.73
2783.33	22.93	2784.63	23.27	2792.92	25.03	2795.85	25.7	2796.54	25.7
2798.66	25.83	2835.35	27.58	2844.32	29.5	2864.09	33.52	2877.06	40.47
2894.05	49.55	2894.66	49.8	2908.66	57.76	2909.94	58.43	2916.25	60.82
2928.34	65.53	2934.9	66.29	2943.48	67.12				

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	2295.91	.07	2413.65	.05	2678.56	.035	2708	.05

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
2473.05 2765.65 191.48 175.29 163.76 .1 .3
Ineffective Flow num= 2
Sta L Sta R Elev Permanent
888 T
888 F

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 1525.293

INPUT
Description:
Station Elevation Data num= 78

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	51.07	5.07	47.72	26.85	39	49.08	31.89	71.8	26.11
79.57	25.54	194.28	33.97	213.43	35.33	257	34.67	319.43	36.65
432.1	35.1	465.96	33.93	560.72	30.37	651.59	27.46	661.61	27.13
719.9	25.24	898.8	23.32	1140.23	22.67	1274.91	22.87	1794.68	18.94
1828.89	18.72	1940.3	18.45	2055.67	18.11	2245.94	18.88	2286.04	19.11
2300.32	19.03	2342.84	18.78	2371.7	19.47	2373.54	19.69	2375.71	19.36
2382.38	18.32	2388.08	16.96	2399.37	17.01	2416.19	17.48	2436.79	19.12
2441.57	20.55	2456.96	26.12	2474.44	28.13	2475.92	28.33	2485.12	27.98
2488.94	27.69	2495.78	26.09	2510.48	19.33	2510.88	19.12	2511.05	19.12
2530.93	19.8	2536.26	19.82	2557.09	19.91	2567.51	20.6	2576.45	20.27
2613.85	15.31	2628.35	13.34	2636.67	12.85	2652.73	12.23	2717.45	9.03
2725	8.84	2752.8	8.14	2792.83	9.26	2799.13	9.44	2803.06	9.59
2805.02	9.98	2822.59	11.82	2827.86	13.22	2833.37	15.07	2837.72	18.7
2846.22	23.39	2849.21	25.06	2861.99	28.36	2867.24	29.72	2868.81	30.21
2886.11	39.95	2886.67	40.17	2899.72	44.58	2902.16	45.24	2920	52.33
2934.84	58.15	2940.66	60.74	2949.13	63.81				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.035	2300.32	.07	2536.26	.05

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
2613.85 2833.37 330.77 218.57 153.37 .1 .3
Ineffective Flow num= 2
Sta L Sta R Elev Permanent
888 T
888 F

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 1306.721

INPUT
Description:
Station Elevation Data num= 90

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	50.27	7.39	50.71	13.86	51.26	25.56	52.19	28.23	52.38
32.56	52.69	37.15	52.7	55.11	52.64	66.57	52.55	84.24	52.96
85.62	52.94	86.9	52.9	88.44	52.94	120.44	52.73	125.16	52.69
134.36	52.8	135.53	52.82	152.02	52.1	171.05	53.23	178.87	53.3
242.82	52.98	248.31	52.92	271.23	53.28	275.12	53.21	277.91	53.21
336.46	53.28	338.36	53.3	339.29	53.35	341.53	53.35	365.78	53.08
389.33	52.59	396.79	52.51	407.25	52.6	411.86	52.3	415.45	51.1
422.62	46.99	434.58	39.78	439.64	37.68	457.1	30.09	483.3	20.4
483.48	20.34	483.5	20.33	483.6	20.3	507.69	14.45	528.46	13.2
530.21	13.11	558.45	11.61	561.4	11.47	611.24	10.54	621.64	10.3
641.47	9.84	679.09	10.12	699.71	10.62	718.91	11.08	735.19	11.03
748.6	11.41	756.57	11.69	768.08	12.29	787.67	14.67	795.7	17.97

802.54	20.15	816.15	25.4	817.26	25.75	818.08	26.14	818.77	26.26
840.21	32.25	847.14	32.63	849.85	33.19	854.99	36.28	867.48	44.01
874.58	47.69	878.1	49.51	890.65	55.08	895.99	58.26	897.3	58.74
899.18	59.58	908.75	63.85	911.62	64.34	919.2	64.45	925.85	64.35
927.15	64.29	934.51	64.5	940.09	64.07	944.42	64.19	958.07	65
1000	65.57	1005.44	65.51	1007.75	65.54	1014.93	65.6	1033.54	66.55

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.02	134.36	.05	899.18	.02

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
507.69	787.67	221.39	253.51	221.56	.3	.5

BRIDGE RIVER: San Mateo Creek
REACH: Lower RS: 1300

INPUT
Description: I-5 Bridge
Distance from Upstream XS = 20
Deck/Roadway Width = 162
Weir Coefficient = 2.6
Upstream Deck/Roadway Coordinates
num= 6

Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord
0	50.03	0	401.9	58.07	0	401.9	58.07	52.49
907.9	68.19	62.61	907.9	68.19	0	1200	74.03	0

Upstream Bridge Cross Section Data
Station Elevation Data num= 90

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	50.27	7.39	50.71	13.86	51.26	25.56	52.19	28.23	52.38
32.56	52.69	37.15	52.7	55.11	52.64	66.57	52.55	84.24	52.96
85.62	52.94	86.9	52.9	88.44	52.94	120.44	52.73	125.16	52.69
134.36	52.8	135.53	52.82	152.02	52.1	171.05	53.23	178.87	53.3
242.82	52.98	248.31	52.92	271.23	53.28	275.12	53.21	277.91	53.21
336.46	53.28	338.36	53.3	339.29	53.35	341.53	53.35	365.78	53.08
389.33	52.59	396.79	52.51	407.25	52.6	411.86	52.3	415.45	51.1
422.62	46.99	434.58	39.78	439.64	37.68	457.1	30.09	483.3	20.4
483.48	20.34	483.5	20.33	483.6	20.3	507.69	14.45	528.46	13.2
530.21	13.11	558.45	11.61	561.4	11.47	611.24	10.54	621.64	10.3
641.47	9.84	679.09	10.12	699.71	10.62	718.91	11.08	735.19	11.03
748.6	11.41	756.57	11.69	768.08	12.29	787.67	14.67	795.7	17.97
802.54	20.15	816.15	25.4	817.26	25.75	818.08	26.14	818.77	26.26
840.21	32.25	847.14	32.63	849.85	33.19	854.99	36.28	867.48	44.01
874.58	47.69	878.1	49.51	890.65	55.08	895.99	58.26	897.3	58.74
899.18	59.58	908.75	63.85	911.62	64.34	919.2	64.45	925.85	64.35
927.15	64.29	934.51	64.5	940.09	64.07	944.42	64.19	958.07	65
1000	65.57	1005.44	65.51	1007.75	65.54	1014.93	65.6	1033.54	66.55

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.02	134.36	.05	899.18	.02

Bank Sta: Left	Right	Coeff Contr.	Expan.
507.69	787.67	.3	.5

Downstream Deck/Roadway Coordinates
num= 6

Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord
0	53.47	0	230	58.07	0	230	58.07	52.49
736	68.19	62.61	736	68.19	0	1200	77.47	0

Downstream Bridge Cross Section Data
Station Elevation Data num= 79

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	48.99	.6	48.97	35.35	49.91	61.75	53.81	61.78	53.81
61.81	53.82	83.28	54.31	91.24	54.54	98.22	54.53	109	54.19
114.66	54.06	138.42	54.21	143.5	54.25	175.83	54.37	183.22	54.15
200.82	54.33	209.98	53.9	220.67	54.17	226.57	53.67	229.54	53.24
232.27	52.57	234.56	51.54	237.5	50.31	251.74	41.4	271.79	32
286.55	24.61	302.37	15.01	306.27	14.37	311.05	13.38	315.99	12.63
320.82	12.88	343.05	13.99	347.74	14.27	351.53	14.31	381.31	14.6
713.85	53.87	721.88	58.53	724.16	59.87	729.07	61.76	733.98	63.4
744.31	63.95	750.69	64.23	752.82	64.22	753.93	64.41	765.94	66.02
768.65	66.34	774.72	66.48	780.96	66.85	792.91	66.81	804.58	66.96
814.86	66.99	828.41	67.2	846.92	66.85	867.3	66.49	896.4	66.97
900.58	67.04	914.56	67.11	934.65	66.8	943.58	67.55		

Manning's n Values num= 2

Sta	n Val	Sta	n Val
0	.05	896.4	.02

Bank Sta: Left	Right	Coeff Contr.	Expan.
302.37	570.22	.3	.5

Upstream Embankment side slope = 0 horiz. to 1.0 vertical
Downstream Embankment side slope = 0 horiz. to 1.0 vertical
Maximum allowable submergence for weir flow = .95
Elevation at which weir flow begins = 60
Energy head used in spillway design =
Spillway height used in design =
Weir crest shape = Broad Crested

Number of Piers = 4

Pier Data
Pier Station Upstream= 501.9 Downstream= 330
Upstream num= 2

Width	Elev	Width	Elev
12.25	0	12.25	168

Downstream num= 2

Width	Elev	Width	Elev
12.25	0	12.25	168

Pier Data
Pier Station Upstream= 603.9 Downstream= 432
Upstream num= 2

Width	Elev	Width	Elev
12.25	0	12.25	168

Downstream num= 2

Width	Elev	Width	Elev
12.25	0	12.25	168

Pier Data
Pier Station Upstream= 705.9 Downstream= 534
Upstream num= 2

Width	Elev	Width	Elev
12.25	0	12.25	168

Downstream num= 2

Width	Elev	Width	Elev
12.25	0	12.25	168

Pier Data
Pier Station Upstream= 807.9 Downstream= 636
Upstream num= 2

Width	Elev	Width	Elev
12.25	0	12.25	168

Downstream num= 2

Width	Elev	Width	Elev
12.25	0	12.25	168

Number of Bridge Coefficient Sets = 1

Low Flow Methods and Data
Energy
Selected Low Flow Methods = Energy

High Flow Method
Energy Only

Additional Bridge Parameters
Add Friction component to Momentum
Do not add Weight component to Momentum
Class B flow critical depth computations use critical depth
inside the bridge at the upstream end
Criteria to check for pressure flow = Upstream energy grade line

BRIDGE OUTPUT Profile #Q100
Opening : Single BR

E.G. US. (ft)	31.55	Element	Inside BR US	Inside BR DS
W.S. US. (ft)	30.58	E.G. Elev (ft)	31.40	30.61
Q Total (cfs)	47312.00	W.S. Elev (ft)	30.08	28.84
Q Bridge (cfs)	47312.00	Crit W.S. (ft)	21.64	23.55
Q Weir (cfs)		Max Chl Dpth (ft)	20.24	17.21
Weir Sta Lft (ft)		Vel Total (ft/s)	8.99	10.61
Weir Sta Rgt (ft)		Flow Area (sq ft)	5264.58	4460.43
Weir Submerg		Froude # Chl	0.38	0.49
Weir Max Depth (ft)		Specif Force (cu ft)	60717.41	48081.00
Min El Weir Flow (ft)	60.00	Hydr Depth (ft)	16.13	13.42
Min El Prs (ft)	62.57	W.P. Total (ft)	452.03	443.07
Delta EG (ft)	1.39	Conv. Total (cfs)	856363.8	637343.9
Delta WS (ft)	1.86	Top Width (ft)	326.34	332.47
BR Open Area (sq ft)	15758.87	Frctn Loss (ft)	0.65	0.28
BR Open Vel (ft/s)	10.61	C & E Loss (ft)	0.14	0.17
Coef of Q		Shear Total (lb/sq ft)	2.22	3.46
Br Sel Method	Energy only	Power Total (lb/ft s)	19.94	36.74

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 1053.212

INPUT
Description:
Station Elevation Data num= 79

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	48.99	.6	48.97	35.35	49.91	61.75	53.81	61.78	53.81
61.81	53.82	83.28	54.31	91.24	54.54	98.22	54.53	109	54.19
114.66	54.06	138.42	54.21	143.5	54.25	175.83	54.37	183.22	54.15
200.82	54.33	209.98	53.9	220.67	54.17	226.57	53.67	229.54	53.24
232.27	52.57	234.56	51.54	237.5	50.31	251.74	41.4	271.79	32
286.55	24.61	302.37	15.01	306.27	14.37	311.05	13.38	315.99	12.63
320.82	12.88	343.05	13.99	347.74	14.27	351.53	14.31	381.31	14.6
391.04	14.4	429.91	13.32	443.95	12.85	481.63	11.63	504.45	12.84
504.82	12.85	541.43	13.82	570.22	15	602	16.29	602.23	16.31
603.01	16.42	630.2	20.63	634.39	22.22	653.73	27.04	654.8	27.32
656.2	27.75	679.92	35.43	682.86	35.51	690.33	39.43	697.91	43.37
713.85	53.87	721.88	58.53	724.16	59.87	729.07	61.76	733.98	63.4
744.31	63.95	750.69	64.23	752.82	64.22	753.93	64.41	765.94	66.02
768.65	66.34	774.72	66.48	780.96	66.85	792.91	66.81	804.58	66.96
814.86	66.99	828.41	67.2	846.92	66.85	867.3	66.49	896.4	66.97

900.58	67.04	914.56	67.11	934.65	66.8	943.58	67.55

Manning's n Values num= 2

Sta	n Val	Sta	n Val
0	.05	896.4	.02

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
302.37	570.22	331.16	386.26	449.77	.3	.5

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 977.176

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 57

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	32.89	.37	32.89	19.41	33.13	84.16	34.51	88.96	34.54
90.58	34.51	97.36	34.36	99.09	34.31	102.02	34.03	119.08	32.09
123.45	30.02	131.06	28.22	136.27	26.19	152.7	22.08	158.91	19.86
170.94	15.17	173.08	14.25	178.58	13.28	178.89	13.22	180.93	12.68
219.95	13.45	229.16	13.55	232.38	13.74	237.43	13.79	262.37	13.5
270.48	13.33	306.25	12.6	358.06	11.49	362.22	11.6	363.09	11.64
379.14	12.37	428.4	14.61	447.41	17.86	466.86	18.2	486.76	19.28
491.92	19.62	502.84	24.68	505.09	25.48	507.65	26.42	510.83	27.44
521.28	30.25	532.71	31.62	536.89	32.69	546.1	37.23	548.97	38.63
552.13	39.52	561.19	40.26	590.09	42.36	595.7	43.23	609.69	45.52
624.82	45.97	630.04	46.06	641.6	48.42	647.07	48.5	667.36	50.14
686.06	50.58	686.84	50.61						

Manning's n Values num= 1

Sta	n Val
0	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
178.58	379.14	50.27	50.41	43.68	.3	.5

BRIDGE RIVER: San Mateo Creek
REACH: Lower RS: 970

INPUT
Description: Old PCH Bridge
Distance from Upstream XS = 7
Deck/Roadway Width = 32.81
Weir Coefficient = 2.6
Upstream Deck/Roadway Coordinates
num= 6

Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord
0	30.81	0	100	32.81	0	100	32.81	27.23
536.35	39.37	33.79	536.35	39.37	0	600	40.64	0

Upstream Bridge Cross Section Data
Station Elevation Data num= 57

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	32.89	.37	32.89	19.41	33.13	84.16	34.51	88.96	34.54
90.58	34.51	97.36	34.36	99.09	34.31	102.02	34.03	119.08	32.09
123.45	30.02	131.06	28.22	136.27	26.19	152.7	22.08	158.91	19.86
170.94	15.17	173.08	14.25	178.58	13.28	178.89	13.22	180.93	12.68
219.95	13.45	229.16	13.55	232.38	13.74	237.43	13.79	262.37	13.5
270.48	13.33	306.25	12.6	358.06	11.49	362.22	11.6	363.09	11.64
379.14	12.37	428.4	14.61	447.41	17.86	466.86	18.2	486.76	19.28
491.92	19.62	502.84	24.68	505.09	25.48	507.65	26.42	510.83	27.44
521.28	30.25	532.71	31.62	536.89	32.69	546.1	37.23	548.97	38.63
552.13	39.52	561.19	40.26	590.09	42.36	595.7	43.23	609.69	45.52
624.82	45.97	630.04	46.06	641.6	48.42	647.07	48.5	667.36	50.14
686.06	50.58	686.84	50.61						

Manning's n Values num= 1

Sta	n Val
0	.05

Bank Sta: Left	Right	Coeff Contr.	Expan.
178.58	379.14	.3	.5

536.35	39.37	33.79	536.35	39.37	0	600	40.64	0	

Downstream Bridge Cross Section Data
Station Elevation Data num= 56

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	29.25	4.51	29.43	20.29	29.64	22.58	29.67	54.24	31.33
70	31.77	72.17	31.8	76.46	32.44	79.54	33	88.17	33.38
96.39	31.6	101.24	31.3	126.59	20.07	136.33	15.74	144.27	14.64
152.53	14.4	157.07	14.26	170.89	12.52	184.84	12.47	196.68	12.42
215.24	12.34	238.1	12.55	241.16	12.55	282.15	11.76	321.28	10.98
324.1	10.92	344.58	11.46	391.53	12.69	404.33	13.19	405.31	13.23
416.29	13.73	427.47	15.65	449.87	19.11	456.43	20.52	465.42	24.49
475.77	26.6	489.07	28.61	504.05	31.95	513.05	35.57	514.14	36.01
520.05	37.56	525.37	38.44	530.68	39.04	539.86	38.93	555.66	40.79
589.31	43.25	598.2	43.9	605.71	44.17	615.17	44.71	626.9	45.92
634.09	46.07	651.03	49.07	659.84	49.21	681.48	50.21	685.93	50.48
693.31	50.92								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.05	513.05	.02	589.31	.05

```
Bank Sta: Left   Right    Coeff Contr.   Expan.
        152.53  344.58             .3       .5

Upstream Embankment side slope              =       0 horiz. to 1.0 vertical
Downstream Embankment side slope            =       0 horiz. to 1.0 vertical
Maximum allowable submergence for weir flow =     .95
Elevation at which weir flow begins         =     110
Energy head used in spillway design         =
Spillway height used in design              =
Weir crest shape                            = Broad Crested

Number of Piers =  4

Pier Data
Pier Station     Upstream=  162.34    Downstream=  162.34
Upstream     num=       2
    Width   Elev    Width   Elev
   12.25       0   12.25     229
Downstream     num=       2
    Width   Elev    Width   Elev
   12.25       0   12.25     229

Pier Data
Pier Station     Upstream=  264.34    Downstream=  264.34
Upstream     num=       2
    Width   Elev    Width   Elev
   12.25       0   12.25     229
Downstream     num=       2
    Width   Elev    Width   Elev
   12.25       0   12.25     229

Pier Data
Pier Station     Upstream=  366.34    Downstream=  366.34
Upstream     num=       2
    Width   Elev    Width   Elev
   12.25       0   12.25     229
Downstream     num=       2
    Width   Elev    Width   Elev
   12.25       0   12.25     229

Pier Data
Pier Station     Upstream=  468.34    Downstream=  468.34
Upstream     num=       2
    Width   Elev    Width   Elev
   12.25       0   12.25     229
Downstream     num=       2
    Width   Elev    Width   Elev
   12.25       0   12.25     229

Number of Bridge Coefficient Sets =  1

Low Flow Methods and Data
       Energy
Selected Low Flow Methods = Energy

High Flow Method
       Energy Only

Additional Bridge Parameters
       Add Friction component to Momentum
       Do not add Weight component to Momentum
       Class B flow critical depth computations use critical depth
           inside the bridge at the upstream end
       Criteria to check for pressure flow = Upstream energy grade line

BRIDGE OUTPUT    Profile #Q100
Opening : Single BR

  E.G. US. (ft)                28.42   Element                 Inside BR US  Inside BR DS
  W.S. US. (ft)                26.35   E.G. Elev (ft)               28.04         27.23
  Q Total (cfs)            47312.00    W.S. Elev (ft)               23.42         22.66
  Q Bridge (cfs)           47312.00    Crit W.S. (ft)               23.42         22.66
  Q Weir (cfs)                         Max Chl Dpth (ft)            11.93         11.74
  Weir Sta Lft (ft)                    Vel Total (ft/s)             17.10         16.92
  Weir Sta Rgt (ft)                    Flow Area (sq ft)          2766.83       2795.87
  Weir Submerg                         Froude # Chl                 0.96          0.98
  Weir Max Depth (ft)                  Specif Force (cu ft)       38978.34      39010.05
  Min El Weir Flow (ft)        110.00  Hydr Depth (ft)              9.11          9.20
  Min El Prs (ft)               33.79  W.P. Total (ft)            369.18        366.99
  Delta EG (ft)                  1.17  Conv. Total (cfs)         328947.7      326026.6
  Delta WS (ft)                  6.63  Top Width (ft)             303.81        303.77
  BR Open Area (sq ft)        5156.27  Frctn Loss (ft)
  BR Open Vel (ft/s)            17.10  C & E Loss (ft)
  Coef of Q                            Shear Total (lb/sq ft)       9.68         10.02
  Br Sel Method             Momentum   Power Total (lb/ft s)      165.51        169.49


Warning: Pier drag coefficient of 2.0 assumed for Class B flow.
Warning: During the class B momentum calculations, the supercritical downstream energy was higher
         than one of the upstream energies.  This is not physically possible.  The supercritical answer
         was backed out from an upstream energy.
Note:    The momentum method has computed a class B profile.
Note:    The energy method has computed a class B profile.

CROSS SECTION          RIVER: San Mateo Creek
REACH: Lower             RS: 926.767
```

INPUT
Description:
Station Elevation Data num= 56

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	29.25	4.51	29.43	20.29	29.64	22.58	29.67	54.24	31.33
70	31.77	72.17	31.8	76.46	32.44	79.54	33	88.17	33.38
96.39	31.6	101.24	31.3	126.59	20.07	136.33	15.74	144.27	14.64
152.53	14.4	157.07	14.26	170.89	12.52	184.84	12.47	196.68	12.42
215.24	12.34	238.1	12.55	241.16	12.55	282.15	11.76	321.28	10.98
324.1	10.92	344.58	11.46	391.53	12.69	404.33	13.19	405.31	13.23
416.29	13.73	427.47	15.65	449.87	19.11	456.43	20.52	465.42	24.49
475.77	26.6	489.07	28.61	504.05	31.95	513.05	35.57	514.14	36.01
520.05	37.56	525.37	38.44	530.68	39.04	539.86	38.93	555.66	40.79
589.31	43.25	598.2	43.9	605.71	44.17	615.17	44.71	626.9	45.92
634.09	46.07	651.03	49.07	659.84	49.21	681.48	50.21	685.93	50.48
693.31	50.92								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.05	513.05	.02	589.31	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
152.53	344.58	197.34	259.8	349.98	.3	.5

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 666.956

INPUT
Description: Updated Manning's N Distribution
Station Elevation Data num= 49

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	33.02	1.35	33.04	8.65	33.12	30.8	31.1	42.56	29.97
50	29.25	62.16	27.01	63.65	26.67	64.93	26.17	74.65	23.12
84.37	19.74	86.38	19.52	89.01	19.85	133.79	22.24	134.15	22.27
159.53	21.92	165.53	21.66	180.4	20.09	228.59	13.27	231.95	12.14
235.4	11.04	236.33	10.72	241.52	9.02	247.9	6.93	253.65	6.12
254.2	6.04	271.29	6.36	297.87	5.87	351.04	6.33	385.58	6.79
398.35	6.96	412.59	7.47	413.83	7.53	447.08	9.01	477.96	10.39
512.64	12.73	551.71	13.35	614.27	14.49	638.54	14.72	680.93	17.25
686.32	17.57	714.97	18.74	737.8	19.67	746.93	20.04	752.92	20.65
773.29	23.85	806.8	28.99	839.21	34.23	851.16	36.59		

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.02	42.56	.05	680.93	.02	714.97	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
241.52	447.08	187.2	184.7	178.1	.1	.3

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 482.270

INPUT
Description: Updated Manning's N Distribution
Station Elevation Data num= 48

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	36.42	9.65	33.24	15.01	32.16	32.78	30.31	49.46	28.57
55.27	27.77	81.73	26.6	87.4	26.19	88.06	26.15	107.47	23.41
115.16	22.33	116.57	22	162.37	18.02	163.67	17.92	251.33	16.33
252.08	16.33	253.16	16.25	322.39	13.16	334.08	12.38	352.55	11.37
370.58	9.79	381.86	8.14	386.95	7.4	400.88	7.22	428.26	6.67
431.06	6.61	491.01	5.27	527.34	5.05	565.92	6.28	566.05	6.28
631.1	8.1	707.57	12.27	723.73	13.01	786.61	13.09	807.94	13.12
893.68	13.28	909.24	13.8	961.41	13.84	977.55	13.86	994.19	14.92
1006.45	15.7	1042.54	19.54	1046.98	20.08	1063.09	24.32	1079.91	30.34
1088.51	33.07	1092.19	34.36	1092.51	34.49				

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	32.78	.02	87.4	.05	786.61	.035	961.41	.02
994.19	.05								

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.

INPUT
Description: Updated Manning's N Distribution
Station Elevation Data num= 49

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	29.29	14.99	25.99	15.5	26.02	18.96	25.77	25.76	25.36
90.16	21.53	153.47	17.75	180.86	16.81	196.92	16.19	210.26	15.71
254.28	15.45	262.8	15.33	273.55	15.03	375.82	12.63	386.67	12.49
398.3	11.44	540.33	7.72	557.56	7.12	573.23	6.8	587.64	6.79
607.67	6.73	618.25	6.7	740	6.37	740.69	6.38	742.97	6.44
743.19	6.45	813.41	7.82	818	8.11	820.46	8.22	827.66	8.04
874.75	9.08	880.64	9.17	905.24	10.67	932.78	12.86	946.65	12.46
982.37	12.36	997.9	11.46	1031.24	13.14	1043.3	13.06	1125.93	12.49
1170.38	12.94	1172.1	12.95	1197.86	13.09	1219.04	13.2	1227.3	12.98
1232.68	13.82	1245.69	18.25	1269.03	25.93	1288.02	30.34		

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	25.76	.02	90.16	.05	1043.3	.035	1172.1	.02
1197.86	.05								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
540.33	813.41	216.3	198.7	198.95	.1	.3

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 85.341

INPUT
Description: Updated Manning's N Distribution
Station Elevation Data num= 41

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	29.1	7.21	26.82	11.67	26.16	31.09	24.98	46	24.19
64.71	23.2	107.34	21.1	119.79	20.49	201.37	15.73	256.42	13.63
328.02	12.88	354.26	12.74	357.36	12.66	373.28	12.5	678.15	7.34
761.15	7.26	870.99	6.93	976.8	6.61	1046.13	6.4	1046.94	6.4
1047.19	6.39	1047.33	6.39	1047.81	6.38	1049.08	6.38	1143.89	5.54
1192.74	5.15	1277.42	5.45	1351.66	6.37	1351.75	6.37	1351.78	6.37
1373.79	7.14	1410.76	8.43	1426.05	8.97	1426.1	8.97	1426.95	9.08
1466.22	14.03	1468.42	14.73	1474.52	16.25	1506.75	24.56	1523.54	27.51
1533.44	29.48								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	46	.02	107.34	.05	1410.76	.02	1426.1	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
870.99	1373.79	68.18	85.34	37.96	.1	.3

Profile Output Table - Standard Table 1

Reach	River Sta	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
		(cfs)	(ft)	(ft)	(ft)	(ft)	(ft/ft)	(ft/s)	(sq ft)	(ft)	
Lower	17108.89	47312.00	90.54	100.55	99.32	101.81	0.003984	11.07	5787.63	1100.19	0.64
Lower	16909.21	47312.00	88.57	98.08	98.08	100.44	0.010714	14.80	4264.44	834.49	0.89
Lower	16706.13	47312.00	83.98	96.56	94.62	98.39	0.005141	11.88	4966.45	750.62	0.62
Lower	16505.64	47312.00	84.57	95.57		97.31	0.005563	11.39	5033.87	816.50	0.62
Lower	16299.19	47312.00	84.80	94.14	93.15	96.00	0.006984	11.74	4729.44	789.33	0.70
Lower	16105.61	47312.00	84.43	91.85	91.85	94.26	0.011426	13.77	4271.07	888.68	0.91
Lower	15910.69	47312.00	78.37	87.19	87.96	90.66	0.015630	15.77	3507.37	832.04	1.10
Lower	15677.08	47312.00	78.29	86.50		87.69	0.004884	9.06	5647.35	889.13	0.58
Lower	15455.59	47312.00	77.64	84.52	83.81	86.22	0.008814	11.00	4732.79	890.95	0.78
Lower	15282.84	47312.00	76.42	83.21		84.67	0.008406	11.01	5352.15	1188.78	0.80
Lower	15076.02	47312.00	74.40	82.78		83.41	0.002925	7.16	8063.58	1453.72	0.47
Lower	14843.33	47312.00	71.32	81.99	78.38	82.80	0.002258	7.44	6885.27	1200.25	0.44
Lower	14640.75	47312.00	71.87	80.73	78.65	82.09	0.004753	9.57	5144.87	1349.66	0.59
Lower	14474.32	47312.00	71.80	80.90	78.64	81.39	0.001742	6.54	9148.26	1644.63	0.39
Lower	14295.85	47312.00	70.72	80.41	77.28	81.04	0.001945	7.12	8582.48	1787.21	0.42
Lower	14206.87	47312.00	70.13	79.72	77.52	80.77	0.003408	8.88	6856.20	1845.41	0.55
Lower	14108.61	47312.00	70.62	79.18	77.41	80.36	0.004546	9.29	6259.30	1700.70	0.60
Lower	14009.16	47312.00	71.12	77.71		79.66	0.009564	11.72	4674.47	1152.57	0.84
Lower	13906.13	47312.00	70.56	77.31	77.31	78.61	0.007244	9.83	5551.34	1373.05	0.71
Lower	13813.01	47312.00	70.19	76.05	76.05	77.74	0.010791	11.23	4663.09	1789.37	0.88
Lower	13721.89	47312.00	69.82	75.40	75.25	76.16	0.005269	8.00	6966.80	2295.40	0.63
Lower	13616.16	47312.00	65.67	75.00	74.67	75.66	0.003958	7.57	7773.38	2380.62	0.56
Lower	13508.64	47312.00	64.82	74.72	74.03	75.28	0.002785	6.90	8663.52	2515.95	0.47
Lower	13407.57	47312.00	64.24	72.73	72.50	74.66	0.010519	11.44	4413.09	2080.63	0.87
Lower	13315.43	47312.00	65.10	72.64	71.06	73.83	0.004608	8.93	5655.31	2433.33	0.63
Lower	12905.33	47312.00	62.47	69.92	69.40	71.40	0.007716	9.82	4948.47	1575.23	0.81
Lower	11695.46	47312.00	53.64	64.46	62.76	65.39	0.003349	8.71	6446.78	1450.03	0.59
Lower	10698.02	47312.00	45.13	62.36	58.13	63.23	0.001545	7.95	7156.58	1162.03	0.42
Lower	10103.57	47312.00	51.14	60.87	59.65	61.85	0.003742	8.16	5973.38	1639.52	0.49
Lower	9476.099	47312.00	45.94	56.89	56.18	58.66	0.006997	12.11	4900.05	860.16	0.65
Lower	8888.551	47312.00	45.56	53.98	52.20	55.27	0.004394	9.84	5883.93	1238.64	0.61
Lower	8290.415	47312.00	42.29	49.30	49.30	51.30	0.010679	9.73	4667.75	1242.83	0.83
Lower	7667.615	47312.00	37.41	46.26	43.10	46.84	0.002622	6.32	7801.48	1145.73	

0.42											
Lower	7116.984	47312.00	33.82	45.24		45.73	0.001530	5.64	8484.68	1095.45	
0.35											
Lower	6553.777	47312.00	32.21	44.71		45.10	0.000796	5.10	9657.79	896.05	
0.26											
Lower	6146.684	47312.00	31.60	44.00		44.66	0.001257	7.01	7835.47	1876.37	
0.37											
Lower	5898.852	47312.00	32.40	41.50	41.32	43.88	0.006315	14.05	4256.35	1904.18	
0.85											
Lower	5313.135	47312.00	30.85	36.45	36.45	38.37	0.013968	12.82	4401.76	1484.29	
1.03											
Lower	4689.719	47312.00	23.21	34.25	30.69	34.71	0.001801	6.03	9360.87	2139.61	
0.35											
Lower	4089.740	47312.00	25.52	32.60	30.05	33.21	0.003739	6.45	7690.26	1580.19	
0.44											
Lower	3486.110	47312.00	14.86	32.40	22.22	32.58	0.000355	3.57	14640.44	2090.57	
0.16											
Lower	2883.526	47312.00	14.12	32.16	23.33	32.35	0.000414	4.13	15757.61	2933.16	
0.18											
Lower	2679.762	47312.00	14.19	32.02	24.64	32.25	0.000561	4.58	14122.75	2766.30	
0.21											
Lower	2283.606	47312.00	17.37	31.80	26.41	32.02	0.000621	4.57	13964.39	2760.79	
0.23											
Lower	2075.420	47312.00	13.10	31.75	24.33	31.91	0.000281	4.47	17253.47	2802.58	
0.19											
Lower	1907.350	47312.00	10.36	31.76	21.58	31.86	0.000145	3.38	20078.93	2829.70	
0.14											
Lower	1700.584	47312.00	10.54	31.73	22.29	31.83	0.000159	2.77	18461.27	2783.79	
0.11											
Lower	1525.293	47312.00	8.14	31.57	22.22	31.78	0.000331	4.11	13130.64	2453.77	
0.16											
Lower	1306.721	47312.00	9.84	30.58	20.96	31.55	0.001444	8.11	6198.21	378.29	
0.33											
Lower	1300	Bridge									
Lower	1053.212	47312.00	11.63	28.73		30.16	0.002981	9.97	5062.38	380.90	
0.45											
Lower	977.176	47312.00	11.49	26.35	22.86	28.42	0.005338	12.34	4211.74	371.57	
0.59											
Lower	970	Bridge									
Lower	926.767	47312.00	10.92	19.72	21.83	27.23	0.040559	23.12	2186.42	325.33	
1.48											
Lower	666.956	47312.00	5.87	17.86	17.86	21.23	0.011808	16.06	3512.30	497.16	
0.85											
Lower	482.270	47312.00	5.05	17.07	16.09	18.81	0.006662	11.80	4830.16	809.02	
0.63											
Lower	284.051	47312.00	6.37	14.89	14.89	17.00	0.012526	13.40	4424.28	956.24	
0.83											
Lower	85.341	47312.00	5.15	11.12	11.43	13.57	0.023747	13.50	3905.57	988.58	
1.06											

HEC-RAS Version 3.0.1 Mar 2001
U.S. Army Corp of Engineers
Hydrologic Engineering Center
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(916) 756-1104

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X     X  XXXXXX    XXXX        XXXX       XX      XXXX
X     X  X        X    X       X   X     X  X    X
X     X  X        X            X   X    X    X   X
XXXXXXX  XXXX     X       XXX  XXXX     XXXXXX    XXXX
X     X  X        X            X  X     X    X        X
X     X  X        X    X       X   X    X    X        X
X     X  XXXXXX    XXXX        X    X   X    X   XXXXX
```

PROJECT DATA
Project Title: Project Model - Model F2
Project File : PMF2.prj
Run Date and Time: 2/21/03 9:38:41 AM

Project in English units

Project Description:
FEC Alternative - San Mateo Creek Crossing

PLAN DATA

Plan Title: Existing Flow/Proposed-Ultimate Geometry
Plan File : p:\2PDA0104\Hydr\LHS\Modeling\Model F\HecRas F\PMF2.p03

Geometry Title: Proposed Conditions - Ultimate
Geometry File : p:\2PDA0104\Hydr\LHS\Modeling\Model F\HecRas F\PMF2.g03

Flow Title : Existing Conditions
Flow File : p:\2PDA0104\Hydr\LHS\Modeling\Model F\HecRas F\PMF2.f01

Plan Summary Information:
Number of: Cross Sections = 65 Mulitple Openings = 0
Culverts = 0 Inline Weirs = 0
Bridges = 2

Computational Information
Water surface calculation tolerance = 0.01
Critical depth calculaton tolerance = 0.01
Maximum number of interations = 20
Maximum difference tolerance = 0.3
Flow tolerance factor = 0.001

Computation Options
Critical depth computed only where necessary
Conveyance Calculation Method: At breaks in n values only
Friction Slope Method: Average Conveyance
Computational Flow Regime: Mixed Flow

FLOW DATA

Flow Title: Existing Conditions
Flow File : p:\2PDA0104\Hydr\LHS\Modeling\Model F\HecRas F\PMF2.f01

Flow Data (cfs)

River	Reach	RS	Q2	Q5	Q10	Q25	Q50	Q100	Q100HC
San Mateo Creek	Lower	17108.89	406	3317	6999	18122	31354	47312	118891

Boundary Conditions

River	Reach	Profile	Upstream	Downstream
San Mateo Creek	Lower	Q2	Normal S = .006	Normal S = .02
San Mateo Creek	Lower	Q5	Normal S = .006	Normal S = .02
San Mateo Creek	Lower	Q10	Normal S = .006	Normal S = .02
San Mateo Creek	Lower	Q25	Normal S = .006	Normal S = .02
San Mateo Creek	Lower	Q50	Normal S = .006	Normal S = .02
San Mateo Creek	Lower	Q100	Normal S = .006	Normal S = .02
San Mateo Creek	Lower	Q100HC	Normal S = .006	Normal S = .02

GEOMETRY DATA

Geometry Title: Proposed Conditions - Ultimate
Geometry File : p:\2PDA0104\Hydr\LHS\Modeling\Model F\HecRas F\PMF2.g03

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 17108.89

Description:
Station Elevation Data num= 46

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	120.75	.81	121.04	1.78	120.67	4.05	120.84	13.67	119.46
14.81	119.29	20.35	118.29	33.94	112.82	36.33	111.61	53.11	108.38
60.66	106.83	64.52	105.74	76.4	101.3	80.08	99.85	85.2	99.46
94.94	97.68	123.07	96.44	130.94	96.19	180.28	94.67	237.64	92.32
262.46	91.83	287.07	91.35	296	91.17	314.51	90.89	336.36	90.54
396.81	91.24	451.1	91.74	478.44	92	500.45	92.2	559.42	92.73
615.14	93.98	665.2	95.1	697.16	95.7	805.4	97.75	927.5	98.02
990	98.16	1068.09	98.36	1093.95	98.45	1161.3	99.85	1251.51	103.52
1276.7	105.53	1306.04	108.99	1323.44	112.19	1343.95	115.78	1366.42	122.23
1366.98	122.41								

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	13.67	.05	287.07	.035	451.1	.05	615.14	.02
697.16	.05								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
262.46	478.44	209.32	199.68	212.7	.1	.3

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 16909.21

INPUT
Description:
Station Elevation Data num= 55

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	128.27	15.8	125.94	45.09	120.69	49.9	117.6	54.91	117.56
60.95	114.45	74.12	114.82	82.19	115.04	99.57	111.74	104.05	111.28
120.9	105.64	124.97	105.79	128.5	105.6	156.37	97.99	161.01	97.09
165.78	97.01	259.66	95.8	260.54	95.81	264.29	95.82	267.37	95.76
280.36	95.25	347.94	92.57	364.69	91.85	367.53	91.73	370.62	91.54
378.08	91.08	404.48	90.32	452.34	89.19	474.39	88.74	482.51	88.57
508.49	89.06	553.83	89.9	603.88	90.41	688.67	91.27	720.78	91.84
745.93	92.31	978.43	97.79	992.93	98.14	1006.63	98.39	1010.32	98.4
1020.37	98.42	1037.73	98.47	1056.47	98.51	1119.87	98.68	1188.69	100.01
1264.05	101.26	1295.7	102.31	1381.31	105.51	1417.66	109.47	1423.04	110.44
1434.43	113.59	1442.99	115.48	1452.2	118.19	1459.29	120.37	1482.47	126.98

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	74.12	.05	370.62	.035	474.39	.05	978.43	.02
1037.73	.05								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
404.48	603.88	217.14	203.08	206.1	.1	.3

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 16706.13

INPUT
Description: Updated Manning's N Distribution
Station Elevation Data num= 67

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	119.46	.74	119.19	12.87	122.22	35.59	121.32	44.35	120.03
79.73	113.67	85.54	109.9	87.26	109.89	94.61	106.07	104.53	106.36
120.48	106.83	123.01	106.35	125.76	105.96	134.54	104.98	134.66	104.96
136.65	104.68	182.14	99.73	188.3	99.49	203.1	98.83	241.84	97.17
278.97	94.53	285.87	93.89	289.69	93.35	294.06	92.73	294.15	92.68
294.66	92.43	298.65	90.52	305.48	87.25	308.4	85.64	309.72	85.24
314.43	84.65	318.21	84.71	333.12	85.47	356.07	86.29	356.99	86.26
373.31	85.83	395.71	85.24	441.59	84.03	444.45	83.98	449.64	84.03
547.17	85.18	553.94	85.27	581.73	86.67	638.41	89.62	669.45	90.87
784.96	92.7	786.01	92.71	789.56	92.71	880.25	94.36	1096.03	98.28
1104.6	98.39	1119.92	98.6	1128.3	98.72	1148.02	99.39	1179.65	101.72
1201.75	103.35	1222.95	103.37	1297.84	105.36	1355.02	107.33	1363.25	107.79
1380.87	108.65	1413.42	110.59	1428.19	111.98	1438.13	113.88	1456.27	119.5
1471.55	123.36	1493.23	127.77						

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val

305.48	581.73	213.02	200.49	184.93	.1	.3

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 16505.64

INPUT
Description:
Station Elevation Data num= 77

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	126.05	1.37	125.54	27.32	125.58	32.56	124.47	47.84	124.04
52.45	121.86	101.03	112.23	107.32	112.47	116.54	115.88	125.08	115.62
134.89	112.2	149.97	115.61	178.34	114.4	179.93	114.17	193.76	111.79
194.09	113.24	195.06	113.95	197.6	113.81	205.11	113.44	215.48	112.84
234.81	111.52	243.48	110.93	252.97	109.06	261.15	106.09	280.99	101.05
289.72	98.62	298.84	97.6	348.04	94.87	362.25	94.03	368.98	93.43
370.83	93.26	376.84	91.85	379.04	91.89	379.19	91.89	383.5	90.52
386.37	88.58	387.58	87.58	390.78	85.27	393.04	84.68	395.94	84.58
406.89	85.17	429.58	85.69	452.84	85.14	456.19	85.06	476.82	84.57
508.12	84.72	571.38	85.04	669.78	85.12	697.85	86.32	705.27	86.39
719.01	87.62	732.71	88.8	741.95	89.84	756.7	91	759.88	91.2
767.73	91.75	775.18	91.78	777.34	91.81	800.99	91.21	903.4	91.42

984.69	91.8	1176.72	96.13	1202.67	96.91	1266.47	98.82	1295.94	101.4
1341.75	103.58	1363.77	104.63	1374.75	105.12	1395.49	106.07	1401.08	106.05
1408.84	106.43	1420.89	107.02	1461.65	109.91	1468.94	110.12	1593.75	115.6
1653.58	117.97	1677.19	119.45						

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	234.81	.05	368.98	.035	452.84	.05	1341.75	.02
1408.84	.05								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
387.58	719.01	199.4	206.45	210.25	.1	.3

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 16299.19

INPUT
Description:
Station Elevation Data num= 56

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	107.69	14.56	107.33	24.8	106.81	35.8	106.73	54.63	107.1
97.11	104.72	104.21	104.33	113.06	103.81	114.46	103.65	135.06	100.95
140.46	99.93	151.97	96.7	154.75	95.42	161.68	91.9	166.47	91.38
169.28	91.08	179.69	88.6	189.53	88.36	197.37	86.84	199.55	86.04
208.09	85.5	208.95	85.45	219.51	84.99	223.92	84.8	291.32	84.9
292.25	84.9	320.46	85.22	325.71	85.28	326.87	85.29	487.99	85.64
530.99	85.72	570.95	86.84	598.43	87.62	630.44	89.51	733.82	90.23
891.53	92.46	991.05	95.5	1009.17	96.06	1043.73	96.94	1081.09	97.81
1203.26	100.69	1260.4	102.31	1271.03	102.61	1287.28	103.08	1298.69	103.74
1305.61	104.68	1317.89	108.46	1320.57	109.28	1324.84	110.4	1343.79	115.41
1346.55	116.65	1361.13	118.6	1364.78	119.14	1373.38	119.65	1379.73	120.03
1387.25	120.43								

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	97.11	.05	166.47	.035	291.32	.05	1317.89	.02
1373.38	.05								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
197.37	570.95	219.05	193.6	180.85	.1	.3

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 16105.61

INPUT
Description:
Station Elevation Data num= 57

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	108.95	22.96	103.79	23.91	103.32	25.91	102.75	27.73	102.03
56.88	102.5	57.63	102.33	74.85	102.03	75.07	101.92	82.62	100.38
82.83	100.3	83.13	101.07	83.64	101.46	91.47	101.33	93.4	101.3
102.48	101.13	114.12	100.45	138.5	99.54	157.57	98.29	166.14	98.34
189.61	94.26	195.98	92.55	232.82	89.59	242.41	88.39	246	88.14
250.29	88.17	276.94	86.02	278.97	85.87	343.02	84.71	345.68	84.67
372.51	84.59	423.9	84.43	448.61	84.46	476.5	84.48	493.68	84.49
512.2	84.52	600.56	84.68	644.89	85.93	740.98	87.69	850.33	87.85
973.35	89.62	1086.6	91.69	1118.02	92.45	1127.42	92.65	1197.77	93.96
1252.48	94.79	1274.34	96.5	1375.35	99.54	1377.18	99.61	1391.33	101.05
1439.07	105.7	1440.92	105.88	1489.04	112.49	1504.66	114.2	1516.2	115.67
1549.94	119.93	1552.11	120.25						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.05	372.51	.035	512.2	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
278.97	644.89	33.01	38.98	40.87	.1	.3

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 16066.6*

INPUT
Description:
Station Elevation Data num= 115

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	110.25	26.62	105.38	27.72	104.97	30.04	104.45	30.77	104.23
32.15	103.76	65.94	101.79	66.81	101.59	74.99	100.92	75.18	100.89
75.58	100.85	75.95	100.8	86.44	100.71	86.77	100.7	87.02	100.6
95.73	99.18	95.77	99.17	96.02	99.1	96.37	99.71	96.96	100
106.03	99.66	108.27	99.58	111.91	99.44	114	99.37	118.8	99.18
122.27	98.95	132.29	98.31	154.13	97.24	160.55	96.94	169.04	96.37
182.66	95.76	192.59	95.8	219.8	92.55	227.18	91.18	268.94	88.88
269.89	88.82	272.96	88.54	281.01	87.82	284.62	87.63	285.17	87.61
290.14	87.61	310.04	86.43	316.06	86.04	317.34	85.97	317.62	85.95
319.03	85.64	321.03	85.35	323.39	85.02	324.69	85.23	329.41	85.66
329.82	85.66	332.33	85.41	338.71	85.3	344.66	85.19	371.58	84.7
398.55	84.2	401.67	84.15	433.15	83.9	440.13	83.85	459.01	83.4
473.53	83.34	491.31	83.23	492.37	83.22	493.46	83.22	516.56	83.26
531.77	83.29	542.63	83.31	558.69	83.33	566.05	83.35	576.01	83.41
645.29	83.82	658.61	83.9	670.42	84.25	700.06	85.07	789.97	86.97
840.12	87.32	865.86	87.41	888.14	87.54	892.3	87.58	919.43	88.16
978.94	89.48	998.26	89.91	1004.86	90.05	1007.42	90.11	1018.67	90.4
1079.58	92.34	1093.28	92.77	1096.66	92.88	1113.39	93.28	1135.7	93.93
1142.79	94.12	1151.59	94.35	1217.42	95.87	1249.1	96.51	1268.61	96.91
1270.07	97.01	1289.07	98.36	1292.58	98.47	1346.8	99.96	1353.23	100.13
1356.04	100.22	1358.35	100.29	1383.59	101.06	1385.3	101.12	1398.54	102.34
1443.22	106.27	1444.95	106.42	1448.91	106.91	1489.98	112.13	1504.59	113.64
1506.03	113.81	1515.39	114.92	1532.36	116.91	1546.97	118.63	1549	118.91

Manning's n Values num= 9

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	317.34	.047	323.39	.038	433.15	.038	566.05	.05
700.06	.047	998.26	.035	1358.35	.038	1549	.05		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
329.82	700.06	33.01	38.98	40.87	.1	.3

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 16027.6*

INPUT
Description:
Station Elevation Data num= 115

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	111.55	30.27	106.97	31.52	106.63	34.16	106.15	34.99	105.96
36.56	105.49	74.99	101.07	75.98	100.85	85.29	99.64	85.51	99.58
85.96	99.5	86.38	99.41	98.31	99.38	98.69	99.36	98.98	99.29
108.88	97.97	108.93	97.96	109.21	97.9	109.6	98.35	110.27	98.55
120.6	98	123.14	97.87	127.29	97.64	129.66	97.53	135.11	97.23
139.07	96.94	150.46	96.17	175.3	94.73	182.6	94.33	192.26	93.68
207.75	93.23	219.05	93.27	249.99	90.83	258.39	89.81	305.88	88.1
306.96	88.05	310.45	87.83	319.6	87.25	323.71	87.1	324.34	87.07
329.99	87.05	352.63	86.08	359.47	85.72	360.93	85.65	361.24	85.64
362.84	85.12	365.13	84.68	367.81	84.18	369.3	84.61	374.72	85.55
375.19	85.56	378.07	85.09	385.39	84.96	392.22	84.83	423.12	84.26
454.07	83.7	457.66	83.64	493.79	83.22	501.8	83.12	523.47	82.27
540.14	82.21	560.55	82.03	561.76	82.02	563.01	82.01	584.5	82.07
598.66	82.11	608.76	82.14	623.71	82.18	630.55	82.2	639.81	82.3
704.27	82.98	716.67	83.13	727.65	83.46	755.23	84.2	838.97	86.26
885.67	86.87	909.64	87.01	930.39	87.23	934.27	87.31	959.54	88.06
1014.96	89.78	1032.95	90.33	1039.1	90.52	1041.48	90.6	1051.97	90.95
1108.69	93.65	1121.45	94.25	1124.6	94.39	1140.18	94.87	1160.96	95.58
1167.57	95.8	1175.76	96.04	1237.07	97.78	1266.58	98.55	1284.75	99.02
1286.1	99.11	1303.8	100.22	1307.07	100.32	1357.57	101.56	1363.55	101.7
1366.17	101.78	1368.33	101.84	1391.83	102.57	1393.43	102.63	1405.76	103.62
1447.37	106.84	1448.98	106.97	1452.67	107.35	1490.92	111.78	1504.53	113.09
1505.86	113.23	1514.59	114.17	1530.38	115.87	1543.99	117.33	1545.88	117.56

Manning's n Values num= 9

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	360.93	.044	367.81	.041	493.79	.041	623.71	.05
755.23	.044	1032.95	.035	1368.33	.041	1545.88	.05		

Bank Sta: Left	Right	Lengths. Left	Channel	Right	Coeff Contr.	Expan.
375.19	755.23	33.01	38.98	40.87	.1	.3

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 15988.6*

INPUT
Description:
Station Elevation Data num= 115

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	112.86	33.93	108.56	35.33	108.28	38.29	107.86	39.22	107.7
40.98	107.22	84.05	100.36	85.16	100.11	95.59	98.35	95.84	98.27
96.34	98.16	96.81	98.02	110.18	98.05	110.6	98.03	110.93	97.97
122.03	96.76	122.08	96.75	122.39	96.7	122.84	96.98	123.59	97.09
135.16	96.33	138.01	96.15	142.66	95.84	145.31	95.69	151.43	95.28
155.86	94.93	168.63	94.03	196.47	92.22	204.66	91.73	215.47	91
232.84	90.7	245.5	90.73	280.18	89.12	289.59	88.44	342.82	87.32
344.03	87.28	347.95	87.12	358.2	86.68	362.8	86.56	363.51	86.54
369.84	86.5	395.21	85.73	402.88	85.4	404.52	85.34	404.87	85.33
406.66	84.59	409.22	84.01	412.22	83.33	413.91	83.98	420.03	85.44
420.56	85.45	423.81	84.77	432.07	84.62	439.79	84.48	474.66	83.83
509.6	83.19	513.65	83.12	554.44	82.53	563.47	82.4	587.93	81.15
606.75	81.07	629.79	80.82	631.16	80.81	632.57	80.79	652.45	80.87
665.54	80.92	674.89	80.96	688.72	81.02	695.05	81.05	703.62	81.19
763.26	82.14	774.72	82.35	784.89	82.67	810.39	83.34	887.96	85.54
931.23	86.41	953.43	86.6	972.65	86.93	976.24	87.05	999.65	87.95
1050.99	90.08	1067.65	90.76	1073.34	90.99	1075.55	91.08	1085.26	91.51
1137.8	94.96	1149.63	95.72	1152.54	95.9	1166.97	96.45	1186.22	97.24

1505.7	112.65	1513.78	113.43	1528.41	114.82	1541.02	116.03	1542.77	116.22

Manning's n Values num= 9

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	404.52	.041	412.22	.044	554.44	.044	674.89	.05
810.39	.041	1067.65	.035	1378.3	.044	1542.77	.05		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
420.56	810.39	33.01	38.98	40.87	.1	.3

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 15949.6*

INPUT
Description:
Station Elevation Data num= 115

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	114.16	37.58	110.15	39.14	109.93	42.41	109.56	43.44	109.43
45.39	108.95	93.11	99.64	94.33	99.37	105.89	97.07	106.16	96.95
106.72	96.81	107.24	96.63	122.06	96.73	122.52	96.7	122.88	96.65
135.18	95.55	135.24	95.54	135.58	95.5	136.07	95.62	136.91	95.64

149.73	94.67	152.89	94.43	158.03	94.04	160.97	93.86	167.75	93.33
172.66	92.92	186.8	91.89	217.64	89.72	226.71	89.13	238.69	88.31
257.92	88.17	271.95	88.19	310.37	87.4	320.8	87.07	379.76	86.54
381.1	86.51	385.44	86.4	396.8	86.11	401.9	86.02	402.67	86
409.7	85.94	437.8	85.38	446.29	85.07	448.1	85.03	448.49	85.02
450.48	84.07	453.32	83.34	456.64	82.49	458.52	83.36	465.34	85.32
465.93	85.35	469.55	84.45	478.76	84.29	487.35	84.12	526.2	83.4
565.13	82.68	569.64	82.6	615.08	81.84	625.15	81.67	652.4	80.02
673.36	79.93	699.03	79.62	700.55	79.6	702.12	79.58	720.4	79.68
732.43	79.74	741.03	79.79	753.73	79.87	759.55	79.9	767.43	80.08
822.24	81.31	832.78	81.58	842.12	81.89	865.56	82.47	936.96	84.83
976.78	85.96	997.21	86.2	1014.9	86.62	1018.21	86.78	1039.75	87.85
1087.01	90.38	1102.34	91.18	1107.59	91.46	1109.62	91.57	1118.56	92.06
1166.92	96.27	1177.8	97.2	1180.48	97.42	1193.77	98.04	1211.48	98.9
1217.11	99.14	1224.1	99.44	1276.37	101.6	1301.53	102.62	1317.02	103.25
1318.17	103.32	1333.26	103.95	1336.05	104.03	1379.1	104.76	1384.2	104.84
1386.44	104.9	1388.28	104.96	1408.32	105.61	1409.68	105.65	1420.19	106.2
1455.66	107.98	1457.04	108.05	1460.18	108.24	1492.79	111.06	1504.4	111.98
1505.53	112.07	1512.97	112.68	1526.44	113.78	1538.04	114.73	1539.65	114.87

Manning's n Values num= 9

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	448.1	.038	456.64	.047	565.13	.047	720.4	.05
865.56	.038	1102.34	.035	1388.28	.047	1539.65	.05		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
465.93	865.56	33.01	38.98	40.87	.1	.3

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 15910.69

INPUT
Description:
Station Elevation Data num= 63

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	115.46	47.67	111.16	116.19	95.78	116.49	95.64	117.1	95.46
117.67	95.24	133.93	95.4	148.33	94.34	173.4	92.24	176.63	92.02
189.45	90.91	238.81	87.21	261.91	85.62	416.7	85.76	422.93	85.69
440.99	85.48	480.38	85.03	489.7	84.75	491.69	84.72	492.12	84.71
494.3	83.55	501.06	81.64	503.13	82.74	510.65	85.21	511.3	85.24
515.29	84.13	525.44	83.95	534.91	83.77	577.74	82.97	686.82	80.95
716.86	78.9	739.97	78.79	768.27	78.41	769.95	78.39	771.68	78.37
799.32	78.56	824.05	78.75	881.22	80.47	899.35	81.1	920.73	81.61
1022.33	85.51	1041	85.8	1057.16	86.32	1079.86	87.74	1123.03	90.68
1137.04	91.61	1141.83	91.93	1151.85	92.62	1196.03	97.58	1205.97	98.67
1208.42	98.93	1236.74	100.56	1319	104.66	1334.21	105.42	1350.54	105.88
1389.87	106.36	1394.53	106.41	1396.57	106.46	1398.25	106.52	1463.94	108.69
1505.37	111.49	1524.47	112.73	1536.54	113.53				

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	491.69	.035	768.27	.05	1137.04	.035	1398.25	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
511.3	920.73	44.06	38.94	33.57	.1	.3

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 15871.7*

INPUT
Description:
Station Elevation Data num= 115

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	114.46	47.13	110.2	114.87	96.4	115.16	96.28	115.77	96.12
116.33	95.93	132.41	95.83	146.64	94.74	171.43	92.64	173.33	92.5
174.62	92.34	176.75	92.05	184.81	91.43	186.62	91.31	187.29	91.26
192.54	90.97	218.92	89.25	236.09	87.93	244.65	87.32	255.72	86.45
258.93	86.19	279.53	85.72	284.53	85.61	296.86	85.48	328.74	85.3
400.54	85.31	411.96	85.26	418.12	85.17	435.97	84.9	437.88	84.87
444.57	84.91	448.14	84.81	458.05	84.6	474.92	84.34	484.13	84.05
486.1	84.02	486.52	84.01	488.68	83.03	495.36	81.4	497.86	82.29
506.93	84.25	507.72	84.27	512.53	83.3	514.13	83.26	515.55	83.22
518.37	83.15	520.89	83.09	522.26	83.08	524.78	83.05	524.85	83.05
528.01	83	536.21	82.9	567.47	82.5	586.58	82.26	587.9	82.24
598.24	82.14	599.25	82.12	641.07	81.69	719.54	80.69	722.56	80.54
748.96	79.26	755.79	78.93	771.8	78.85	783.68	78.79	797.63	78.64
797.89	78.63	803.63	78.57	812.08	78.47	817.84	78.4	819.87	78.38
821.95	78.36	845.8	78.57	867.13	78.79	916.44	80.34	932.08	80.91
950.52	81.38	958.09	81.69	975.01	82.5	1007.47	84.14	1011.93	84.37
1023.16	84.81	1041.69	85.73	1045.25	85.91	1061.05	86.37	1062.65	86.42
1077.72	87.06	1079.29	87.16	1088.35	87.75	1098.88	88.46	1139.13	91.4
1152.19	92.33	1156.66	92.65	1162.26	93.06	1166	93.33	1195.79	96.6
1207.19	97.88	1216.46	98.89	1218.74	99.14	1244.01	100.73	1245.15	100.8
1302.23	103.68	1321.84	104.66	1336.02	105.37	1351.25	105.83	1376.53	106.24
1387.92	106.47	1392.26	106.55	1394.16	106.61	1395.73	106.68	1437.2	108.28
1456.97	109.01	1467.16	109.7	1495.6	111.56	1513.41	112.68	1524.66	113.4

Manning's n Values num= 13

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	486.1	.038	495.36	.047	567.47	.035	598.24	.038
797.63	.05	845.8	.047	932.08	.038	950.52	.035	1041.69	.035
1152.19	.035	1395.73	.047	1524.66	.047				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
507.72	950.52	44.06	38.94	33.57	.1	.3

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 15832.8*

INPUT
Description:
Station Elevation Data num= 115

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	113.46	46.59	109.23	113.55	97.03	113.84	96.92	114.44	96.79
114.99	96.62	130.88	96.27	144.96	95.15	169.45	93.03	171.34	92.89
172.61	92.66	174.72	92.26	182.69	91.73	184.47	91.64	185.14	91.61
190.32	91.43	216.4	89.98	233.38	88.66	241.83	88.03	252.78	87.05
255.95	86.75	276.32	85.8	281.26	85.57	293.44	85.31	324.96	84.91
395.94	84.87	407.22	84.75	413.31	84.64	430.96	84.31	432.84	84.28
439.45	84.43	442.99	84.29	452.78	83.97	469.45	83.65	478.56	83.36
480.5	83.32	480.92	83.31	483.05	82.51	489.66	81.16	492.59	81.84
503.22	83.3	504.14	83.3	509.78	82.46	511.64	82.41	513.32	82.36
516.61	82.26	519.57	82.18	521.18	82.17	524.13	82.14	524.21	82.14
527.91	82.11	537.51	82.03	574.13	81.71	596.51	81.52	598.06	81.51
610.17	81.46	611.35	81.45	660.35	81.22	752.26	80.42	755.8	80.31
786.72	79.23	794.73	78.95	813.48	78.86	827.4	78.79	843.73	78.64
844.04	78.63	850.77	78.57	860.66	78.46	867.41	78.39	869.78	78.37
872.23	78.34	892.27	78.59	910.2	78.82	951.66	80.21	964.81	80.71
980.31	81.14	987.33	81.47	1003.02	82.38	1033.13	84.33	1037.26	84.6
1047.68	85.02	1064.86	86.11	1068.16	86.31	1082.82	86.98	1084.31	87.04
1098.28	87.79	1099.74	87.9	1108.14	88.46	1117.91	89.19	1155.23	92.12
1167.35	93.05	1171.49	93.37	1176.69	93.79	1180.15	94.04	1207.78	96.99
1218.35	98.18	1226.95	99.12	1229.07	99.35	1252.5	100.98	1253.55	101.04
1306.49	103.76	1324.68	104.66	1337.83	105.32	1351.95	105.79	1375.41	106.27
1385.96	106.58	1389.99	106.7	1391.75	106.76	1393.21	106.83	1431.67	108.58
1450.01	109.33	1459.46	109.97	1485.83	111.62	1502.34	112.63	1512.78	113.27

Manning's n Values num= 13

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	480.5	.04	489.66	.045	537.51	.035	596.51	.04
813.48	.05	860.66	.045	951.66	.04	980.31	.035	1064.86	.035
1167.35	.035	1393.21	.045	1512.78	.045				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
504.14	980.31	44.06	38.94	33.57	.1	.3

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 15793.8*

INPUT
Description:
Station Elevation Data num= 115

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	112.46	46.04	108.27	112.22	97.65	112.51	97.57	113.1	97.45
113.65	97.31	129.36	96.7	143.27	95.55	167.48	93.43	169.34	93.28
170.6	92.99	172.68	92.47	180.56	92.04	182.32	91.98	182.98	91.97
188.11	91.9	213.88	90.72	230.66	89.38	239.02	88.74	249.84	87.65
252.97	87.32	273.1	85.88	277.98	85.54	290.03	85.14	321.18	84.52
391.33	84.43	402.48	84.25	408.5	84.12	425.94	83.73	427.81	83.68
434.34	83.96	437.83	83.76	447.51	83.34	463.99	82.96	472.99	82.66
474.91	82.62	475.33	82.6	477.43	81.99	483.96	80.92	487.31	81.39
499.5	82.34	500.55	82.33	507.02	81.63	509.16	81.56	511.08	81.49
514.85	81.37	518.24	81.27	520.09	81.26	523.47	81.24	523.56	81.24
527.8	81.21	538.81	81.15	580.79	80.92	606.45	80.79	608.22	80.79
622.1	80.79	623.46	80.78	679.62	80.75	784.98	80.16	789.04	80.07
824.48	79.2	833.66	78.98	855.16	78.87	871.11	78.79	889.84	78.64
890.19	78.63	897.9	78.56	909.25	78.46	916.97	78.38	919.7	78.36
922.5	78.33	938.75	78.6	953.28	78.86	986.88	80.09	997.54	80.52
1010.1	80.91	1016.57	81.24	1031.04	82.26	1058.78	84.52	1062.6	84.83
1072.2	85.24	1088.04	86.48	1091.08	86.71	1104.59	87.58	1105.96	87.65
1118.84	88.53	1120.18	88.64	1127.93	89.18	1136.93	89.91	1171.34	92.84
1182.5	93.78	1186.32	94.1	1191.11	94.51	1194.31	94.75	1219.77	97.39
1229.52	98.47	1237.44	99.34	1239.39	99.55	1260.99	101.22	1261.96	101.28
1310.76	103.83	1327.52	104.67	1339.64	105.27	1352.66	105.74	1374.28	106.31
1384.01	106.69	1387.72	106.84	1389.35	106.92	1390.68	106.99	1426.14	108.87
1443.04	109.65	1451.75	110.23	1476.06	111.69	1491.28	112.57	1500.9	113.14

Manning's n Values num= 13

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	474.91	.043	483.96	.043	538.81	.035	606.45	.043
824.48	.05	889.84	.043	986.88	.043	1010.1	.035	1088.04	.035

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 15754.9*

INPUT
Description:
Station Elevation Data num= 115

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	111.45	45.5	107.3	110.9	98.27	111.19	98.21	111.77	98.11
112.32	98.01	127.84	97.13	141.58	95.96	165.51	93.83	167.35	93.68
168.59	93.31	170.65	92.68	178.43	92.34	180.17	92.32	180.83	92.32
185.89	92.36	211.36	91.46	227.94	90.1	236.2	89.44	246.9	88.25
249.99	87.88	269.88	85.97	274.71	85.5	286.61	84.96	317.4	84.13
386.72	83.99	397.74	83.75	403.69	83.59	420.92	83.14	422.77	83.09
429.22	83.49	432.67	83.24	442.24	82.71	458.52	82.27	467.42	81.97
469.32	81.92	469.73	81.9	471.81	81.47	478.26	80.68	482.04	80.94
495.78	81.38	496.97	81.36	504.26	80.79	506.68	80.72	508.84	80.63
513.09	80.48	516.92	80.36	519	80.35	522.81	80.34	522.92	80.34
527.7	80.32	540.12	80.28	587.44	80.14	616.38	80.05	618.38	80.06
634.04	80.11	635.56	80.11	698.89	80.28	817.71	79.9	822.28	79.84
862.24	79.18	872.6	79	896.83	78.88	914.83	78.79	935.94	78.64

936.34	78.63	945.03	78.56	957.83	78.45	966.54	78.37	969.61	78.34
972.77	78.32	985.22	78.62	996.36	78.89	1022.1	79.96	1030.27	80.32
1039.9	80.68	1045.81	81.01	1059.05	82.14	1084.44	84.7	1087.93	85.07
1096.72	85.45	1111.21	86.85	1114	87.12	1126.36	88.18	1127.61	88.27
1139.4	89.26	1140.63	89.38	1147.71	89.89	1155.95	90.63	1187.44	93.56
1197.66	94.5	1201.15	94.82	1205.53	95.23	1208.46	95.46	1231.76	97.78
1240.68	98.77	1247.93	99.57	1249.72	99.76	1269.48	101.46	1270.37	101.51
1315.02	103.9	1330.36	104.67	1341.46	105.22	1353.37	105.69	1373.15	106.34
1382.05	106.81	1385.45	106.98	1386.94	107.07	1388.16	107.15	1420.6	109.16
1436.07	109.96	1444.04	110.5	1466.29	111.75	1480.22	112.52	1489.02	113.01

Manning's n Values num= 13

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	469.32	.045	478.26	.04	540.12	.035	616.38	.045
862.24	.05	896.83	.04	1022.1	.045	1039.9	.035	1111.21	.035
1197.66	.035	1388.16	.04	1489.02	.04				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
495.78	1039.9	44.06	38.94	33.57	.1	.3

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 15716.0*

INPUT
Description:
Station Elevation Data num= 115

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	110.45	44.96	106.34	109.58	98.89	109.86	98.85	110.44	98.78
110.98	98.7	126.31	97.57	139.89	96.36	163.54	94.23	165.35	94.07
166.58	93.63	168.61	92.9	176.31	92.65	178.03	92.65	178.67	92.67
183.68	92.82	208.84	92.19	225.23	90.83	233.39	90.15	243.95	88.86
247.01	88.45	266.67	86.05	271.43	85.47	283.2	84.79	313.61	83.75
382.11	83.55	393	83.25	398.87	83.07	415.91	82.56	417.73	82.5
424.11	83.01	427.52	82.71	436.97	82.09	453.06	81.58	461.85	81.27
463.72	81.21	464.13	81.2	466.18	80.95	472.56	80.44	476.77	80.49
492.07	80.43	493.39	80.39	501.51	79.96	504.19	79.87	506.6	79.76
511.34	79.59	515.59	79.44	517.91	79.44	522.15	79.43	522.27	79.43
527.59	79.42	541.42	79.41	594.1	79.35	626.32	79.32	628.54	79.33
645.97	79.44	647.67	79.44	718.17	79.81	850.43	79.63	855.52	79.6
900.01	79.15	911.53	79.03	938.51	78.89	958.54	78.79	982.05	78.65
982.49	78.63	992.17	78.56	1006.41	78.45	1016.11	78.36	1019.53	78.33
1023.05	78.3	1031.7	78.63	1039.43	78.93	1057.32	79.83	1063	80.13
1069.69	80.44	1075.06	80.79	1087.07	82.02	1110.1	84.89	1113.27	85.3
1121.24	85.66	1134.39	87.22	1136.91	87.52	1148.13	88.78	1149.27	88.89
1159.96	90	1161.07	90.12	1167.5	90.61	1174.98	91.36	1203.54	94.28
1212.81	95.22	1215.98	95.54	1219.96	95.95	1222.61	96.17	1243.75	98.18
1251.84	99.07	1258.42	99.79	1260.04	99.97	1277.97	101.71	1278.78	101.75
1319.29	103.98	1333.2	104.67	1343.27	105.17	1354.07	105.65	1372.02	106.37
1380.1	106.92	1383.18	107.13	1384.53	107.22	1385.64	107.3	1415.07	109.46
1429.1	110.28	1436.34	110.77	1456.52	111.82	1469.15	112.47	1477.14	112.88

Manning's n Values num= 13

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	463.72	.048	472.56	.037	541.42	.035	626.32	.048
855.52	.05	938.51	.037	1031.7	.048	1069.69	.035	1134.39	.035
1212.81	.035	1385.64	.037	1477.14	.037				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
476.77	1069.69	44.06	38.94	33.57	.1	.3

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 15677.08

INPUT
Description:
Station Elevation Data num= 57

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	109.45	163.36	94.46	166.58	93.11	174.18	92.95	175.88	92.99
181.46	93.28	206.32	92.93	230.57	90.86	241.01	89.46	263.45	86.13
268.16	85.43	279.78	84.62	309.83	83.36	377.5	83.11	412.69	81.91
418.99	82.54	422.36	82.19	431.7	81.46	466.86	80.2	501.71	79.02
504.36	78.9	509.58	78.7	514.27	78.53	516.82	78.53	521.63	78.53
527.49	78.53	600.76	78.56	636.25	78.58	657.9	78.76	659.77	78.77
737.44	79.34	888.76	79.37	937.77	79.12	980.19	78.9	1028.15	78.65
1028.64	78.63	1039.3	78.56	1054.99	78.44	1073.32	78.29	1099.48	80.21
1104.3	80.56	1115.08	81.9	1135.76	85.08	1138.6	85.53	1145.76	85.87
1157.56	87.59	1169.9	89.38	1181.52	90.86	1187.29	91.32	1234.38	96.67
1255.74	98.57	1286.46	101.95	1323.55	104.05	1370.89	106.4	1409.54	109.75
1428.63	111.04	1465.26	112.75						

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	527.49	.035	600.76	.05	937.77	.035	1054.99	.05
1157.56	.035								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
466.86	1099.48	229.4	221.5	185.6	.1	.3

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 15455.59

INPUT
Description:
Station Elevation Data num= 59

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	103.47	148.03	89.5	151.79	87.95	155.29	89.39	162.5	89.98
163.5	89.86	164.28	88.85	165.22	88.54	174.14	89.25	177.38	88.84
190.1	88.38	227.99	87.78	257.22	88.02	310.79	86.75	344.65	86.45

344.8	86.43	344.99	86.41	353.69	85.2	364.24	80.91	369.99	79.11
372.44	78.61	375.87	78.39	393.22	78.38	394.28	78.43	414.05	81.65
421.98	82.99	435.46	83.47	448.43	82.56	468.78	82.25	527.06	80.29
587.08	79.88	603.56	79.81	619.51	79.46	620.85	79.43	693.92	77.81
700.31	77.82	750.85	77.87	759.57	77.95	777.49	78.11	799.72	78.29
996.6	78.49	1078.38	78.57	1111.65	78.42	1139.72	77.64	1151.85	77.87
1158.21	77.93	1191.98	78.25	1195.12	78.5	1212.5	79.92	1223.08	80.71
1232.14	82.47	1251.76	85.3	1265.05	88.28	1265.95	88.51	1293.69	95.43
1299.46	96.69	1330.26	101.19	1339.88	102.24	1346.75	102.68		

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	619.51	.035	700.31	.05	996.6	.035	1158.21	.05
1265.95	.035								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
620.85	1212.5	159.78	172.75	206.99	.1	.3

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 15282.84

INPUT
Description:
Station Elevation Data num= 46

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	99.77	79.19	91.79	163.92	83.84	165.72	83.12	173.95	86.37
176.04	86.53	176.09	86.54	179.99	86.12	183.03	82.6	185.78	81.8
190.97	81.5	263.66	80.17	317.75	79.37	326.51	79.33	360.01	79.15
445.67	79.87	467.64	79.2	531.25	78.92	618.07	78.97	629.39	79.25
645.34	78.82	674.47	78.63	683.23	78.57	754.21	78.05	822.24	77.56
842.94	77.41	859.25	77.29	894.35	76.95	946.46	76.79	1046.88	76.48
1055.15	76.42	1109.14	77.46	1171.17	78.65	1180.15	78.79	1185.6	78.84
1189.7	78.88	1290.61	79.29	1381.99	83.75	1394.14	84.34	1398.84	84.96
1419.07	90.82	1419.69	90.98	1433.7	94.54	1448.51	97.68	1472.52	101.46
1478.85	102.36								

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	754.21	.035	842.94	.05	946.46	.035	1109.14	.05
1419.69	.035								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
683.23	1171.17	247.92	206.82	172.28	.1	.3

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 15076.02

INPUT
Description: Updated Manning's N Distribution
Station Elevation Data num= 57

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	90.8	1.69	90.63	13.58	87.59	13.79	87.42	14.49	87.6
15.22	88.14	15.91	88.28	41.76	78.13	41.94	78.1	42.19	78.01
42.28	77.99	55.3	77.02	115.81	78.15	126.67	78.13	155.44	78.25
199.32	77.85	223.18	78.41	278.75	78.69	331.77	78.96	347.59	79.04
353.33	78.98	471.93	78.78	517.94	78.76	530.82	78.75	650.81	78.12
742.79	77.53	766.68	76.98	791.33	76.73	803.9	76.67	828.76	76.53
832.3	76.51	870.05	76.38	877.4	76.34	921.58	76.01	922.42	76
1000.08	75.56	1086.41	74.9	1110.54	74.89	1130.87	74.89	1241.57	74.4
1242.24	74.4	1242.61	74.4	1247.69	74.45	1352.49	76.06	1368.28	76.29
1386.22	76.94	1444.46	79.49	1478.6	82.25	1493.34	83.8	1537.29	85.57
1574.24	86.1	1583.51	88.28	1588.7	88.99	1599.75	90.43	1620.49	93.87
1624.37	94.75	1657.52	102.33						

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	828.76	.035	1110.54	.05	1624.37	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
766.68	1386.22	240.22	232.69	186.85	.1	.3

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 14843.33

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	85.71	12.02	85.54	84.69	84.01	115.69	84.58	122.25	84.06
135.89	84.25	140.72	84.13	148.96	84.22	163.53	83.46	170.14	83.69
180.94	84.32	188.18	84.35	203.22	85.3	214.01	86.68	227.06	88.59
233.92	89.04	244.06	88.98	255.48	88.64	274.96	85.55	279.95	85.37
285.41	85.38	345.12	85.24	358.94	84.14	368.61	84.17	379.99	84.1
394.43	82.83	407.08	81.79	411.48	81.5	413.55	81.42	415.79	81.2
436.02	78.75	456.72	75.67	467.78	74.19	482.26	73	498.77	71.6
498.88	71.59	498.98	71.59	499.26	71.58	543.54	71.16	545.95	71.12
557.88	69.94	573.39	70.17	600.68	71.01	611.99	72.36	618.47	72.86
626.92	74.37	632.61	75.49	646.15	77.94	672.57	79.06	673.13	79.12
673.38	79.12	673.91	79.12	717.83	80.5	721.69	81.14	731.52	82.22
735.62	83.38	745.68	85.33	752.97	85.22	766.99	85.79	769.73	85.33
774.17	84.21	782.63	81.2	786.14	79.37	788.83	78.86	797.92	78.63
799.44	78.58	830.86	77.57	854.94	75.75	869.77	74.3	871.02	74.05
876.56	72.94	884.68	72.79	927.26	71.32	936.34	71.44	973.58	71.92
1063.37	72.93	1070.28	73	1101.46	73.44	1161.36	72.65	1197.58	72.17
1201.91	72.11	1249.77	73.25	1258.24	73.29	1269.35	73.28	1331.21	73.32
1508.61	74.05	1540.15	75.26	1556.07	75.63	1588.29	76.78	1601.93	78.41
1619.6	78.68	1628.2	79.54	1638.14	80.8	1664.12	82.56	1667.77	82.9
1678.11	83.03	1734.35	86.27	1741.16	86.8	1747.77	87.5	1791.04	94.49

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 1792.03   94.77 1814.62  100.63

Manning's n Values          num=       4
     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val
       0     .05  871.02    .035 1161.36     .05 1814.62    .035

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
        871.02 1508.61            230.23  202.58  217.82              .1       .3
Ineffective Flow     num=        1
   Sta L   Sta R    Elev  Permanent
888        F

CROSS SECTION           RIVER: San Mateo Creek
REACH: Lower               RS: 14640.75

INPUT
Description:
Station Elevation Data     num=       87
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0   78.41   17.94   78.88   40.67    79.7   90.61   81.17  138.03    82.4
  146.04   83.25     160   84.44  162.45    85.4  176.19   91.96  195.58   96.33
  210.45   98.33  211.77   98.47  213.87   98.58  215.99   98.71  222.02   99.07
  223.99   98.74  231.75    97.7  237.74   94.84  256.35   85.77  262.42   84.67
  276.58   83.42   324.2    82.2  382.56    81.2  386.06   81.07  428.68   79.58
  470.85   78.72  482.36   78.44  490.35   78.43  559.67   79.16  605.61   79.57
  611.79   79.04  628.24   78.14  644.17   77.61  654.59   77.36     685   76.25
  710.13   74.66  712.25   74.49  714.16      74  798.82   70.79  805.49   70.45
  820.16    70.6  827.56   70.69  895.57   71.62  903.17   72.18  931.44    76.2
  940.83   77.72   945.2   79.46  953.88   82.79   959.1   84.66  960.81   85.18
   962.3    85.3  976.01   85.63  982.58    84.9  990.45    83.3 1009.76   78.74
 1014.64   78.62    1028   78.56 1038.03   78.46 1050.69   78.32 1056.04   78.28
 1061.36   77.78 1092.37   74.85  1112.5   74.06 1126.06   72.97 1130.35   72.62
  1134.8   72.25 1135.37    72.2 1141.04   71.87 1189.06   72.15  1241.8   72.44
 1266.91   72.58 1309.02   72.55  1408.2   72.46 1573.59    72.7 1619.99   73.21
 1648.69   73.64 1672.47   74.07 1694.78   75.87 1711.39    77.4 1718.87    79.1
 1728.33   83.61 1730.68   84.61 1735.89   88.04 1748.19   95.79 1757.16    99.5
 1759.66   100.4 1768.94  102.99

Manning's n Values          num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .05 1061.36    .035 1309.02     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         1112.5 1672.47            142.45  166.43  154.49              .1       .3
Ineffective Flow     num=        1
   Sta L   Sta R    Elev  Permanent
888        F

CROSS SECTION           RIVER: San Mateo Creek
REACH: Lower               RS: 14474.32

INPUT
Description:
Station Elevation Data     num=       78
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  108.23    7.05  108.12   14.85  108.01   19.46  107.52    32.2  105.34
    43.5  100.08   55.52   94.24   60.33   91.88   64.41   91.25      94   87.21
   95.64   87.03  136.25   82.08  140.72   81.63  152.05    79.6  153.84   79.51
  176.78   78.22  213.92   77.71  306.58   77.97  334.86   78.81  385.42   78.75
  494.34   78.64  516.51   78.62  568.95   78.46  639.11   78.26   667.2   78.23
  695.34   77.02  722.47   75.87  749.21   74.93  795.77   75.99  822.43   76.68
  843.49    77.7  868.21   78.93  873.36   79.24  881.73   79.29  890.57   78.45
  893.93    75.8  898.72   72.54  904.92   71.28  911.85   70.69   944.2   70.48
  976.68   70.98 1001.51   71.13 1014.62   71.21 1035.38    71.3  1051.2   71.82
 1084.53   76.22 1100.85   77.95 1106.06   78.15 1121.94   79.13 1122.26   79.15
 1122.38   79.16 1152.01   79.26 1161.52   79.17 1192.95   76.51 1212.88   74.82
  1217.7   74.42 1239.31   73.21 1263.85   71.95 1265.85   71.96 1288.45   71.95
 1306.74   71.94 1446.22   71.84  1486.6   71.82 1517.38    71.8 1554.33   71.86
 1588.08   71.93 1700.47   73.17 1711.72   73.34 1761.27    75.3 1766.78   75.48
 1768.31   75.68  1786.6   79.01 1794.15   84.11 1811.94   93.98  1817.4   96.95
 1819.42   97.87 1826.77  100.04 1835.31   102.7

Manning's n Values          num=       5
     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val
       0     .02  385.42    .035  568.95     .05 1192.95    .035  1486.6     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
        1239.31 1700.47            199.28  178.47  167.43              .1       .3
Ineffective Flow     num=        1
   Sta L   Sta R    Elev  Permanent
888        F

CROSS SECTION           RIVER: San Mateo Creek
REACH: Lower               RS: 14295.85

INPUT
Description: Updated Manning's N Distribution
Station Elevation Data     num=       83
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  114.43    9.24  113.91   14.57  113.39    23.2  111.82   25.07  111.38
   39.73  104.24   46.74   99.88    54.3   97.23   60.26   95.57   70.78   92.65
   96.37   88.99   118.4   87.41  132.59   85.93  152.52   85.29  171.21    85.2
  182.49   84.43  192.33   83.73   199.7    83.4  260.19   79.39  288.49   78.81
  327.06   78.42  334.41   78.38  360.28   78.49  521.98   79.07  548.04   79.04
  767.17   78.75   779.9   78.72  879.98    78.5   882.5    78.5  886.03   78.49
  890.19    78.4 1028.06   76.75 1031.78   76.64 1034.63   76.55 1039.64   76.43
 1123.57   74.47 1153.45   74.06 1220.01   76.92 1230.33   76.95 1240.38   78.18
 1254.54   78.73 1263.32    79.1 1275.86   78.62 1288.88   78.59  1307.3   78.72
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1309.61	78.43	1323.37	76.46	1335.24	75.44	1353.82	73.39	1354.64	73.29
1379.68	73.45	1401.56	73.4	1440.37	72.72	1453.85	72.82	1469.98	72.75
1517.64	72.3	1618.82	71.34	1655.06	71	1738.96	70.82	1783.15	70.72
1793.46	70.81	1811.86	70.96	1833.82	71.13	1897.96	71.64	1906.52	71.68
1907.25	71.75	1980.28	71.46	1986.91	71.94	2015.83	72.5	2018.94	73.36
2022.54	75.23	2029.21	78.48	2038.38	84.77	2043.31	87.7	2063.23	103.36
2063.55	103.64	2063.7	103.71	2082.33	109.85	2083.02	110.14	2085.68	110.87
2096.86	114.2	2104.03	117.4	2107.83	117.84				

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.02	548.04	.035	779.9	.05	1517.64	.035	1833.82	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
1469.98	2015.83	93.39	88.97	84.07	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 14206.87

INPUT
Description: Updated Manning's N Distribution
Station Elevation Data num= 73

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	97.26	10.99	96.35	24.79	95.13	47.53	92.21	49.01	92.13
49.31	92.11	116.41	88.21	125.61	87.46	158.8	84.42	192.35	83.87
241.23	80.8	258.87	80.03	263.37	79.91	264.72	79.93	300.98	79.3
310.07	79.32	382.89	78.58	404.15	78.46	480.32	78.78	595.77	79.2
677.87	79.09	800.58	78.94	830.93	78.83	859.8	78.73	920.82	78.54
993.7	78.44	1057.97	77.67	1249.46	76.59	1255.01	76.46	1260.41	76.39
1265.26	76.29	1330.37	75.31	1336.95	75.49	1354.86	75.65	1357.26	75.91
1374.71	77.27	1394.77	78.32	1405.67	78.83	1437.21	78.7	1452.51	78.72
1478.81	76.15	1489.92	73.88	1514.82	73.71	1521.78	73.57	1545.64	73.1
1575.12	73.03	1661.87	72.2	1744.96	71.41	1865.23	70.26	1878.99	70.13
1904.13	70.42	1953.89	72.32	1968	72.12	1981.53	71.92	2008	71.67
2047.55	71.3	2058.03	72.18	2079.75	71.88	2087.59	70.84	2096.76	71.68
2104.16	72.17	2116.03	73.23	2116.47	73.29	2117.01	73.65	2121.09	78.53
2129.6	88.28	2132.86	90.96	2142.46	97.96	2147.9	101.53	2154.06	104.41
2160.17	107.51	2166.98	111.04	2186.67	115.76				

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.02	677.87	.035	830.93	.05	1661.87	.035	1968	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
1575.12	2116.03	100.64	98.26	92.36	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 14108.61

INPUT
Description: Updated Manning's N Distribution
Station Elevation Data num= 65

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	94.25	6.24	93.65	10.28	93.31	11.98	93.09	85.53	89.28
127.3	86.83	186.6	81.95	189.42	81.69	192.16	81.64	196.74	81.35
251.96	79.52	266.27	79.14	300.67	79.54	321.81	79.17	355.6	79.25
404.74	78.75	440.89	78.54	572.84	79.1	636.92	79.33	746.5	79.2
839.37	78.88	879.42	78.74	927.02	78.59	1044.69	78.41	1059.49	78.25
1109.86	77.81	1356.83	75.43	1395.3	75.27	1418.29	75.26	1467.57	78.22
1477.69	78.67	1502.54	77.91	1516.45	76.46	1572.62	73.24	1583	73.02
1604.35	72.6	1767.6	72.19	1769.49	72.18	1844.35	71.46	1932.03	70.62
1962.32	70.97	1980.79	71.18	2041.72	71.86	2083.83	72.33	2087.39	72.34
2088.14	72.34	2093.25	72.24	2171.96	70.83	2177.82	70.82	2190.76	71.52
2196.59	71.69	2198.69	72.45	2201.28	73.39	2211.12	76.42	2217.93	79.73
2220.7	81.53	2225.41	85.44	2241.36	100.33	2246.92	105.53	2251.34	108.23
2254.53	110.31	2255.46	111.08	2261.26	112.84	2262.75	113.48	2268.58	115.16

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
1604.35	2198.69	93.54	99.45	106.38	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 14009.16

INPUT
Description:
Station Elevation Data num= 66

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	93.29	7.72	92.32	62.52	90.8	132.12	86.6	149.89	85.68
158.74	85.16	173.07	83.98	232.69	79.87	255.75	79.13	265.77	78.81
297.43	78.03	335.32	78.89	357.02	79.14	362.56	79.04	422.01	79.18
446.54	78.93	498.12	78.63	690.12	79.44	698.83	79.48	713.17	79.46
875.56	78.9	923.79	78.73	954.2	78.64	1030.24	78.52	1117.03	77.56
1426.08	74.84	1472.13	74.39	1479.08	74.36	1483.21	74.36	1491.98	74.89
1555.9	77.71	1577.05	78.68	1579.07	78.75	1648.33	74.68	1673.87	72.27
1688.14	72.2	1705.24	72.13	1868.98	71.68	1893.1	71.62	1959.36	71.43

1971.74	71.4	2001.53	71.12	2024.5	71.39	2080.05	71.47	2168.6	71.6
2177.07	71.61	2241.75	71.72	2266.51	71.73	2272.94	72.17	2279.11	72.89
2287.03	72.97	2291.6	73.07	2294.64	74.83	2295.96	75.73	2312.73	97.79
2315.5	101.44	2315.72	101.72	2316.74	102.67	2322.85	108.42	2324.94	109.94
2337.52	115.66	2342.69	117.62	2346.03	117.54	2360.58	118.46	2363.08	118.74
2366.38	118.7								

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.02	875.56	.05	1893.1	.035	2177.07	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
1673.87	2272.94	100.03	103.03	102.07	.1	.3

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 13906.13

INPUT
Description:
Station Elevation Data num= 76

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	92.54	5.96	92.16	14.1	91.4	14.65	91.37	15.11	91.34
15.49	91.31	23.03	91.22	82.25	89.97	107.38	88.4	162.65	85
180.35	84.65	209.77	82.61	267.6	79.07	281.9	78.01	312.97	75.46
325.14	75.19	352.53	74.24	379.51	75.7	384.55	75.3	393.62	75.99
402	76.8	430.21	78.73	441.39	78.8	459.71	79.08	463.86	79.09
472.95	79.11	475.87	79.08	541.11	78.7	612.9	79.01	714.38	79.21
747.77	79.17	825.98	79.17	927.71	78.82	951.83	78.74	970.64	78.68
1008.39	78.62	1123.02	77.31	1160.28	76.88	1220.67	76.32	1416.22	74.52
1594.78	72.94	1626.09	74.6	1652.51	74.95	1670.3	74.33	1697.19	73.46
1712.24	72.03	1757.27	71.8	1845.23	71.43	1994.38	71	2001.9	70.98
2060.05	70.77	2065.38	70.82	2156.22	71.71	2187.44	71.73	2216.87	71.76
2281.67	71.79	2294.86	71.52	2308.13	71.24	2318.98	71.96	2335.46	71.67
2350.65	70.56	2359.01	70.89	2369.1	72.27	2371.4	72.66	2378.54	78.57
2378.75	78.74	2379.61	79.32	2387.68	84.68	2398.09	88.77	2398.61	88.95
2399.29	89.07	2401.06	89.44	2401.09	89.45	2423.44	96.8	2432.18	99.53
2441.34	101.86								

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.02	463.86	.02	927.71	.05	1123.02	.035	1220.67	.05
2001.9	.035	2294.86	.05						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
1712.24	2369.1	92.63	93.13	94.58	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 13813.01

INPUT
Description:
Station Elevation Data num= 79

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	90.43	46.07	88.91	114.69	85.85	118.94	85.75	122.66	85.6
159.5	84.03	195.94	79.72	201.81	79.01	209.78	78.25	245.97	76.05
266.61	73.93	285.45	73.75	326.82	71.64	333.67	71.75	375.69	72.47
445.49	72.53	550.13	72.09	620.9	71	656.67	71.04	711.19	71.03
718.16	70.94	731.07	71.06	739.91	71.67	743.89	72.44	745.13	72.67
750.49	74.78	765.8	77.26	766.52	77.35	768.87	76.86	784.64	74.93
816.22	76.55	817.91	76.62	831.36	78.54	857.99	78.51	971.85	78.7
977.08	78.7	998.84	78.73	1016.4	78.19	1037.65	78.21	1052.24	78.04
1223.56	76.05	1338.8	74.98	1478.15	73.72	1505.61	73.47	1578.36	72.98
1686.09	72.24	1720.96	72.19	1830.79	72.17	1836.11	72.17	1868.32	72.11
1999.95	70.82	2002.4	70.81	2003.94	70.75	2104.48	70.37	2128.22	70.29
2146.2	70.26	2155.3	70.3	2189.66	70.59	2312.43	71.63	2325.19	71.74
2342.82	72.01	2389.64	70.97	2410.55	70.56	2411.18	70.55	2411.33	70.56
2411.6	70.54	2430.18	70.28	2436.8	70.19	2462.58	71.71	2462.84	71.79
2463.83	72.47	2464.05	72.19	2469.44	75.54	2482.82	87.24	2485.38	89.34
2487.8	91.33	2498.73	97.95	2500.37	98.5	2505.34	99.05		

Manning's n Values num= 8

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	977.08	.05	1052.24	.035	1478.15	.02	1578.36	.05
2104.48	.035	2430.18	.05	2505.34	.07				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
1868.32	2464.05	96.66	91.12	77.43	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 13721.89

INPUT
Description:
Station Elevation Data num= 90

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	90.28	24.23	89.47	70.68	88.17	86.02	86.92	114.97	85.99
139.93	84.78	145.11	84.27	148.3	83.92	183.76	78.12	202.89	74.51
214.49	72.52	228.47	70.92	252.92	70.57	297.87	71.4	337.91	72.06
384.48	72.82	391.81	72.76	409.01	72.93	569.03	72.42	633.84	72.16
649.31	71.94	656.83	71.92	704.02	71.52	707.56	71.5	714.34	73.04
722.66	74.99	724.91	75.44	727.08	76.17	734.66	78.44	736.91	78.12
748.66	75.71	759.32	72.77	762.57	72.39	788.31	71.03	791.65	70.85

793.61	70.71	794.7	70.74	814.87	70.89	868.87	71.37	872.51	71.28
877.29	71.39	911.66	72.31	913.77	72.68	930.02	73.56	931.36	73.5
940.33	73.62	944.5	73.81	973.65	75.4	986.82	75.23	1023.97	74.38
1052.35	74.83	1192.68	74.83	1201.55	75	1234.43	75.25	1247.95	75.21
1644.56	72.51	1670.3	72.34	1764.51	72.2	1773.04	72.2	1888.95	72.18
1895.47	72.01	1915.14	71.61	1959.71	70.65	1974.64	71.04	1979.44	70.33
2093.85	70.04	2132.78	69.97	2227.8	69.82	2230.8	69.82	2258.7	69.96
2358.2	70.45	2379.47	70.65	2385.16	70.71	2394.71	70.87	2405.93	71.07
2433.02	71.17	2449.26	71.56	2457.25	71.74	2466.83	71.66	2494.92	71.44
2512.08	71.93	2514.62	72.56	2523.68	79.04	2538.85	92.04	2545.46	98.14
2554.03	105.93	2559.41	110.87	2564.42	112.19	2564.78	112.23	2569.62	111.96

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	1644.56	.02	1773.04	.05	2132.78	.035	2466.83	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
1915.14	2449.26	104.34	105.73	83.35	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 13616.16

INPUT
Description:
Station Elevation Data num= 95

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	95.01	15.77	94.44	34.73	94.26	63.86	92.57	92.64	90.27
100.55	89.27	153.81	82.69	179.27	78.86	190.9	75.98	195.5	75.49
211.74	72.15	233.92	70.7	273.77	70.47	322.28	71.21	358.12	71.82
379.11	71.93	408.3	71.7	512.29	72.71	644.61	72.29	691.05	72.28
701.3	72.3	718.18	71.43	735.63	71.52	739.28	71.58	744.9	71.94
754.05	76.6	758.51	78.58	759.54	78.86	761.42	78.81	773.81	78.48
780.8	76.21	785.34	74.89	796.4	71.76	799.94	71.43	809.31	71.73
836.65	71.9	892.27	72.77	930.42	71.77	951.08	71.17	960.83	72.14
962.75	72.77	965.32	73.68	974.83	77.41	983.99	78.89	985.37	79.01
987.44	78.45	1007.92	72.09	1018.18	71.38	1024.04	70.97	1031.04	71.25
1064.23	72.32	1093.85	72.87	1325.6	74.67	1415.22	74.44	1710.54	72.44
1802.82	72.3	1856.63	72.22	1867.61	72.21	1911.84	72.2	1932.71	71.68
1938.19	71.56	2035.15	69.85	2233.34	69.59	2308.39	69.49	2349.11	69.38
2379.02	69.33	2402.86	69.42	2406.17	69.43	2410.53	69.46	2484.49	69.46
2507.8	69.32	2508.7	69.32	2511.82	69.3	2555.84	68.35	2573.55	67.23
2583.14	66.29	2586.46	65.96	2590.24	65.67	2601.22	66.68	2611.07	67.65
2616.44	68.56	2619.87	69.14	2626.5	69.81	2632.67	71.05	2636.99	71.41
2642.67	75.18	2647.19	77.16	2651.48	79.87	2657.93	82.83	2670.46	89.09
2672.78	90.02	2675.05	90.48	2682.44	91.86	2688.41	92.83	2690.77	92.84

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	1802.82	.02	1856.63	.05	2233.34	.035	2583.14	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
2035.15	2626.5	106.9	107.52	109.59	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 13508.64

INPUT
Description:
Station Elevation Data num= 94

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	95.93	6.15	95.74	39.53	94.35	48.72	93.72	57.1	93.23
61.06	92.91	102.02	87.74	144.07	82.09	151.59	80.64	183.13	72.99
191.78	72.16	219.64	71.5	309.54	71.01	345.07	71.21	367.65	71.29
390.58	71.28	406.84	71.27	434.82	71.44	551.03	72.59	620.01	72.37
644.98	72.37	682.43	72.43	702.81	71.38	733.3	70.57	747.67	72.03
751.7	72.27	758.23	74.87	764.6	78.09	768.46	78.01	771.97	78.54
784.2	75	787.54	74.12	793.22	72.44	797.34	72.18	807.98	71.31
1840.1	72.33	1855.93	72.31	1895.86	71.9	1902.27	71.84	1949.95	71.15
2050.43	69.31	2211.81	69.03	2286.18	68.84	2378.95	68.61	2470.11	67.92
2476.62	67.9	2495.28	67.89	2521.95	67.89	2565.39	67.57	2592	67.38
2595.65	67.28	2633.78	66.25	2635.65	66.21	2648.62	65.95	2690.12	65.11
2695.5	64.82	2698.98	64.98	2703.66	65.79	2704.06	65.89	2707.19	67.92
2709.83	68.61	2714.56	69.27	2721.53	77.11	2725.47	80.07	2727.32	81.44
2743.62	92.08	2745.38	93.66	2753.46	95.9	2753.91	96.02	2756.1	95.99
2762.06	96.4	2768.15	96.75	2772.69	97.26	2788.03	98.13		

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	1840.1	.02	1895.86	.05	2286.18	.035	2648.62	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
2050.43	2714.56	89.44	101.07	116.92	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 13407.57

INPUT
Description:
Station Elevation Data num= 102

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	93.74	32.24	92.16	48.91	91.54	96.09	91.22	132.82	88.08
135.54	87.82	143	86.85	199.43	80.26	217.47	77.85	235.12	77.02
266.7	74.58	307.28	73.54	354.35	71.71	426.96	71.72	442.42	71.73
541.67	71.67	661.47	72.39	675.58	71.63	720.26	71.82	776.8	71.61
792.98	71.38	821.25	70.68	833.25	71.91	836.38	72.21	841.38	74.43
847.53	77.21	850.49	78.05	854.1	78.73	857.18	78.53	858.14	78.17
862.77	76.45	874.36	72.62	878.13	71.98	898.24	72.21	914.78	71.96
944.91	72.55	968.16	72.78	1002.2	71.62	1010.49	71.55	1016.34	71.44
1030.06	71.98	1031.16	72.26	1038.7	76.22	1042.51	77.97	1044.65	78.33
1053.74	78.17	1057.48	77.42	1062.96	74.1	1063.58	74.06	1068.61	71.92
1073.4	71.83	1080.35	71.72	1093.47	71.7	1207.79	71.94	1316.02	72.13
1500.94	73.6	1596.95	73.38	1721.05	73.11	1791.98	72.64	1859.49	72.53
1982.05	71.27	2012.08	70.96	2018.47	70.89	2123.39	69.35	2151.1	69.03
2167.88	68.62	2176.54	68.64	2183.51	68.72	2402.48	68.13	2462.91	67.97
2598.65	66.92	2654.31	66.62	2660.1	66.58	2664.53	66.6	2669.76	66.57
2774.87	65.92	2805.76	65.72	2810.59	65.69	2822.92	65.19	2834.38	64.73
2847.11	64.24	2852.95	64.63	2857.46	64.93	2861.13	65.32	2863.19	66.92
2865.03	67.51	2867.43	69	2868.52	69.86	2876.62	75	2892.51	84.04
2893.72	84.35	2895.52	84.79	2903.25	85.49	2909.12	86.18	2920.53	86.33
2925.33	86.71	2930.06	87.59	2978.88	90.84	2991.07	91.7	2993.13	92.04
2995.16	92.28	3003.11	93.01						

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	1982.05	.02	2012.08	.05	2402.48	.035	2822.92	.035
2852.95	.05								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
2151.1	2867.43	95.24	92.14	91.38	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888		F	

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 13315.43

INPUT
Description:
Station Elevation Data num= 94

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	92.37	48.24	90.74	104.79	86.53	134.15	85.14	150.09	84.65
168.88	82.74	205.62	78.17	255.87	76.49	292.04	74.79	340.93	73.77
386.48	71.99	419.8	71.99	603.33	72	638.41	72.21	691.28	69.13
750.71	69.17	791.18	69.15	827.43	70.12	836.9	70.4	846.96	71.82
850.53	72.27	863.22	78.21	864.14	78.71	872.17	78.93	872.59	78.94
872.72	78.9	891.98	72.54	901.98	69.38	912.59	68.66	921	67.6
981.83	70.09	984.79	70.26	985.32	70.26	985.84	70.28	987.07	70.39
1056.81	71.86	1066.85	71.97	1110.41	71.71	1110.78	71.71	1169.07	71.38
1284.66	71.63	1471.9	71.96	1587.84	72.9	1786.7	72.46	1825.86	72.59
1894.49	71.61	2055.73	71.3	2055.96	71.3	2070.39	71.29	2072.43	71.34
2075.04	71.43	2086.88	71.49	2095.85	71.55	2107.2	71.35	2136.89	68.9
2182.4	67.51	2226.09	66.5	2303.2	66.75	2361.98	67.47	2484.16	67.2
2491.8	67.15	2570.4	66.58	2734.58	65.37	2759.22	65.24	2784.58	65.34
2887.37	65.73	2932.42	65.9	2934.69	65.89	2935.37	65.86	2936.1	65.86
2937.24	65.83	2940.25	65.8	2946.58	65.76	2978.7	65.35	2982.37	65.1
2984.8	65.77	2985.75	66.06	2985.88	66.6	2986.32	67.22	2990.16	69.62
2991.47	70.68	2993.36	72.26	2998.53	73.99	2999.61	74.31	3002.35	75.03
3036.03	79.84	3049.82	81.54	3061.08	82.33	3067.73	83.11	3078.3	85.15
3094.99	94.72	3103.97	99.78	3110.4	102.53	3114.75	104.55		

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	2055.73	.02	2086.88	.05	2491.8	.035	2990.16	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
2182.4	2986.32	395.33	410.1	440.35	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888		F	

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 12905.33

INPUT
Description:
Station Elevation Data num= 110

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	93.53	8.94	92.81	12.86	92.58	21.37	92.42	75	88.52
119.37	85.3	151.36	82.61	159.86	82.35	181.68	80.01	207.47	78.46
280.15	75.79	315.78	74.33	410.87	72.29	417.03	72.21	435.69	72.41
608.09	72.57	637.12	72.56	651.24	69.94	659.02	69.32	662.84	68.46
663.99	68.45	683.25	66.39	721.77	66.53	742.22	66.68	763.86	66.92
782.63	67.15	836.9	69.71	847.94	70.06	849.5	70.22	853.01	70.49
872.91	72.29	883.79	74.72	885.7	75.28	887.66	75.3	893.09	75.49
898.77	74.5	905.28	73.17	907.69	72.26	911.2	69.82	915.49	67.44
923.04	65.18	955.74	64.57	979.48	63.54	1012.57	63.44	1030.68	63.99
1044.9	64.94	1053.6	64.86	1056.58	66.16	1060.81	67.68	1064.12	69.1
1066.55	70.49	1080.18	72.59	1090.29	72.57	1115.14	72.39	1273.23	71.38
1303.49	71.21	1356.83	71.31	1654.83	71.73	1677.09	71.89	1708.19	71.8
1796.13	72.07	1876.91	71.75	2054.9	68.24	2073.05	67.89	2075.92	67.97
2108.71	68.74	2126.96	69.16	2168.26	71.06	2174.61	71.41	2188.21	72.17
2193.39	72.25	2200.37	71.13	2231.23	66.53	2249.65	65.34	2258.16	64.43
2273.46	64.7	2331.83	65.73	2333.6	65.73	2336.35	65.71	2337.46	65.72

2339.36	65.72	2356.36	65.72	2471.15	65.74	2716.21	65.8	2782.85	65.21
2915.49	65.84	2927.34	65.85	3009.56	65.93	3011.51	65.9	3038.99	65.39
3056.6	65.4	3099.89	65.82	3126.83	65.67	3127.2	65.67	3144.61	63.94
3169.67	62.49	3179.14	62.49	3215.34	62.47	3228.33	62.47	3242.92	63.84
3253.1	64.6	3255.64	65.06	3259.54	66.88	3266.26	72.71	3274.58	80.86
3276.1	82.12	3279.28	84.73	3283.12	85.74	3293.27	87.83	3294.87	88.3

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	2108.71	.02	2174.61	.05	2273.46	.035	2339.36	.05
2471.15	.035	3294.87	.05						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
2231.23	3259.54	1161.81	1209.87	1227.39	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 11695.46

INPUT
Description:
Station Elevation Data num= 133

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	95.11	2.21	94.93	11.41	94.03	52.62	92.7	58.81	91.73
65.23	91.41	72.89	90.05	86.67	86.23	88.14	86.09	97.43	84.97
121.79	83.73	160.94	82.22	328.18	73.68	350.27	72.95	408.73	72.21
415.23	72.17	436.65	72.47	525.46	73.46	562.85	72.83	599.83	72.15
614.25	72.57	622.39	72.84	629.02	73.05	638.53	72.27	640.65	71.88
647.32	70.35	660.58	66.72	682.58	66.02	699.46	64.71	709.54	64.54
727.57	64.5	806.68	63.44	845.64	63.6	849.21	63.83	859.29	65.14
862.56	65.28	865.03	65.87	872.11	69.92	875.55	71.91	876.48	72.06
887.24	73.47	895.63	73.53	905.91	72.8	907.95	72.42	920.58	66.82
921.58	66.36	924.05	66.02	931.15	64.9	937.02	64.55	998.42	64.3
1047.95	63.93	1065.11	64.38	1070.37	65.21	1071.26	65.35	1082.68	70.47
1085.37	71.75	1089.35	72.42	1090.51	72.55	1093.23	72.55	1133.54	72.47
1157.77	72.53	1232.93	70.28	1443.76	68.69	1454.46	68.64	1467.99	68.67
1695.89	69.45	1851.89	68.23	1915.31	67.36	2042.89	66.27	2091.23	65.66
2094.91	65.66	2129.83	65.66	2169.05	65.67	2173.4	65.82	2180.47	65.12
2190.07	64.96	2237.15	64.21	2255.6	64.35	2266.67	63.85	2274.22	63.53
2374.13	59.22	2374.24	59.22	2393.35	59.26	2444.07	59.27	2478.98	59.28
2566.64	59.3	2723.39	58.77	2760.87	58.64	2852.67	60.52	2864.18	60.43
2885	60.09	2902.24	60.48	2920.42	60.72	2925.76	61.47	2937.98	63.54
2946.64	64.77	2950.35	65.79	2957.34	65.48	2958.05	65.58	2961.9	63.54
2966.39	60.93	2967.8	60.23	2968.57	59.85	2973.41	58.75	2976.47	58.74
3168.63	59.02	3188.71	58.95	3203.49	58.98	3217.96	58.98	3229.93	58.98
3280.64	57.81	3282.03	57.71	3300.8	56.41	3331.69	54.08	3348.55	53.64
3360.83	53.78	3380.37	53.82	3388.07	53.92	3395.96	54.52	3421.59	56.41
3421.69	56.43	3435.66	58.75	3436.13	58.82	3445.06	60.33	3457.28	64.57
3460.12	65.78	3467.61	70.09	3468.42	70.58	3468.89	71.01	3469.2	71.21
3481.04	81.02	3487.44	84.61	3491.52	86.82				

Manning's n Values num= 9

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	2094.91	.02	2129.83	.05	2374.24	.035	2444.07	.05
2478.98	.035	2723.39	.05	2967.8	.035	3421.69	.05		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
2967.8	3445.06	914.27	997.45	1009.86	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 10698.02

INPUT
Description:
Station Elevation Data num= 104

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	80.34	57.37	78.39	74.11	77.74	92.5	77.1	179.77	73.06
238.97	71.37	356.97	67.67	411.4	65.69	418.05	65.62	449.09	65.29
2458.58	59.47	2468.44	59.57	2500.08	63.48	2501.18	63.58	2501.59	63.67
2502.18	63.75	2539.41	65.26	2539.8	65.28	2571.06	65.42	2608.71	65.43
2617.45	65.43	2620.22	65.63	2634.3	66.75	2640.32	66.11	2644.74	65.55
2646.51	65.33	2652.01	62.56	2658.27	59.11	2663.4	58.4	2704.38	57.28
2706.45	57.26	2713.43	57.34	2713.51	57.34	2751.57	56.15	2761.55	57.49
2820.29	56.76	2821.16	56.77	2821.36	56.76	2821.46	56.76	2822.06	56.73
2950.91	53.64	2988.21	52.69	2995.95	52.5	2997.88	52.45	3053.94	47.32
3082.65	46.23	3091.94	45.84	3115.03	45.13	3125.6	45.19	3131.48	45.22
3152.86	45.6	3185	48.25	3187.42	48.39	3191.44	48.63	3194.29	48.78
3194.5	48.79	3215.72	51.07	3229.66	52.46	3233.87	52.65	3243.96	52.44
3258.72	52.05	3266.03	52.52	3268.63	53.47	3273.17	55.75	3275.4	56.89
3283.07	60.66	3287.07	63.28	3289.07	64.63	3293.8	70.74	3295.07	72.23
3300.16	76.93	3301.52	77.95	3317.99	86.45	3328.07	92.21	3332.97	94.94
3350.99	102.48	3355.08	104.54	3357.74	104.9	3364.48	105.61	3373.08	105.69
3384.12	108.62	3401.84	110.76	3413.24	111.48	3434.72	114.28		

Manning's n Values num= 8

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	1923.44	.02	2163.88	.035	2232.57	.05	2644.74	.035
2713.43	.05	2988.21	.035	3194.29	.05				

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
2820.29 3275.4 601.47 594.45 599.46 .1 .3
Ineffective Flow num= 1
Sta L Sta R Elev Permanent
888 F

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 10103.57

INPUT
Description:
Station Elevation Data num= 82

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	67.34	130.33	65.81	195.26	65.09	221.36	64.83	248.87	64.13
336.13	62.4	510.97	58.61	523.87	59.15	555.28	59.35	902.03	63.9
947.08	64.18	1035.49	64.29	1427.38	62.94	1509.66	61.96	1635.36	61.06
1812.24	59.81	1855.93	59.55	1914.45	59.19	2093.27	58.16	2121.07	58.27
2263.61	58.85	2275.77	58.53	2319.92	57.15	2324.87	56.99	2334.86	57.08
2346.69	57.59	2380.02	58.42	2386.2	58.51	2393.6	58.6	2417.19	58.65
2452.49	58.56	2457.43	58.54	2471.42	58.41	2488.91	57.27	2527.02	56.51
2534.65	56.49	2538.38	56.56	2575.98	54.47	2587.15	53.99	2592.03	53.76
2597.8	53.19	2618.19	52.63	2620.91	52.55	2632.34	52.33	2654.67	51.29
2668.03	51.68	2694.8	52.62	2754.59	52.54	2808.44	52.52	2838.38	52.2
2848.01	52.42	2875.4	52.48	2919	51.9	2960	51.14	2966.18	51.23
3000.02	51.69	3010.18	51.92	3012.58	51.92	3018.26	51.9	3026.7	52.62
3027.81	52.58	3029.55	53.28	3031.73	54.53	3033.14	56.4	3035.24	58.56
3038.06	61.59	3040.77	64.63	3052.2	70.04	3054.13	71	3058.65	72.16
3062.92	73.23	3081.15	78.33	3115.32	80.62	3140.42	82.29	3142.37	82.42
3143.83	82.52	3145.71	82.6	3200.24	85.72	3277.48	89.45	3281.55	89.6
3297.95	90.61	3314.17	91.66						

Manning's n Values num= 8

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	1855.93	.02	2121.07	.05	2319.92	.02	2386.2	.05
2452.49	.02	2618.19	.05	3115.32	.035				

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
2597.8 3029.55 615.7 627.48 572.22 .1 .3
Ineffective Flow num= 1
Sta L Sta R Elev Permanent
888 F

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 9476.099

INPUT
Description:
Station Elevation Data num= 62

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	68.47	61.01	65.67	61.94	65.64	62.56	65.62	191.76	65.28
280.56	64.56	503.79	60.62	569.49	59.38	581.88	59.13	596.07	59.13
609.58	59.19	1350.6	59.4	1492.58	59.09	1811.19	58.99	1915.94	58.67
2001.84	57.84	2179.62	57.61	2206.51	57.32	2301.51	55.49	2371.26	54.15
2453.33	52.57	2458	52.51	2469.05	52.45	2472.74	52.46	2483.67	52.57
2512.72	52.75	2715.36	53.39	2737.41	52.13	2759.94	50.84	2763.9	50.85
2793.27	48.06	2806.09	46.73	2811.55	46.28	2814.12	46.16	2816.12	46.07
2900.54	45.96	2946.77	45.95	2996.02	45.94	3020.52	45.94	3029.82	46.99
3036.84	48.06	3056.8	50.29	3069.71	50.99	3080.21	52.98	3081.9	53.29
3085.7	55.29	3104.93	65.39	3108.17	66.23	3123.12	71.35	3127.23	71.79
3140.84	73.68	3157.57	74.58	3173.3	75.2	3191.88	75.93	3263.73	79.05
3286.95	79.33	3327.83	80.76	3341.46	80.89	3355.65	81.15	3377.36	83.57
3433.65	86.54	3487.14	86.18						

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	2301.51	.02	2371.26	.05	3173.3	.035

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
2793.27 3036.84 632.1 587.55 573.86 .1 .3

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 8888.551

INPUT
Description:
Station Elevation Data num= 64

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	80.35	.13	80.36	13.56	79.85	91.05	76.49	277.46	69.9
359.03	66.43	407.56	65.16	534.91	62.09	578.82	60.58	608.84	60.26
728.64	58.62	1086.65	56.94	1387.14	56.2	1640.07	55.84	1920.87	54.3
1950.03	53.95	1964.74	53.78	1996.69	53.68	2016.78	53.47	2121.09	52.31
2122.38	52.3	2169.63	52.39	2257.06	52.5	2287.36	52.52	2319.48	50.53
2333.25	48.89	2357.53	46.81	2410.42	45.84	2442.82	45.86	2463.2	45.86
2490.3	45.87	2581.97	45.73	2582.94	45.73	2682.65	45.56	2736.89	46
2740.31	46.02	2852.96	46.94	2879.31	47.47	2985.08	50.07	2992.5	50.31
3017.87	51.83	3031.05	52.58	3036.67	52.1	3038.71	51.96	3061.21	50.41
3076.83	50.19	3168.61	52.51	3177.53	52.88	3186.39	54.03	3208.61	57.19
3218.04	59.25	3233.68	64.84	3235.03	65.19	3272.77	74.95	3277.04	76.17
3283.12	78.11	3290.21	79.03	3293.84	79.59	3297.84	80.31	3318.47	82.17
3328.94	83.11	3385.03	85.12	3419.86	85.85	3421.11	85.92		

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	1950.03	.02	2121.09	.05	2463.2	.035	2736.89	.05
3318.47	.035								

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
2357.53 2852.96 583.69 598.13 621.47 .1 .3

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 8290.415

INPUT
Description:
Station Elevation Data num= 82

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	79.85	16.23	79.94	50.96	78.61	58.27	78.26	267.42	69.91
432.85	63.96	524.53	61.37	650.86	59.02	770.15	57.4	819.9	56.94
1162.11	54.1	1449.92	54.41	1662.02	54.01	1800.97	55.21	1858.71	55.33
1870.69	54.31	1883.34	53.23	1893.09	53	1896.58	52.37	1906	48.35
1909.55	47.31	1919.76	45.35	1922.53	45.03	1936.15	45.19	1964.88	45.32
2050.56	45.81	2087.83	46.02	2105.8	45.77	2142.88	45.61	2152.49	45.66
2190.09	45.04	2194.46	45.12	2227.79	45.74	2228.65	45.74	2230.72	45.77
2302.39	45.81	2500.84	45.93	2569.75	44.11	2626.16	42.43	2626.24	42.43
2658.69	42.32	2671.47	42.29	2672.93	42.32	2740.82	44	2770.06	44.76
2792.68	45.35	2809.63	45.63	2811.18	45.65	2816.82	45.75	2853.21	45.97
2905.56	46.07	2998.53	47.05	3063.33	47.23	3101.47	47.19	3172.75	50.53
3189.52	50.97	3218.09	51.57	3218.82	51.65	3219.13	51.72	3220.85	52.11
3225.81	52.88	3235.37	56.7	3238.75	58.13	3249.65	60.74	3261.17	64.7
3261.77	64.78	3266.83	65.64	3270.86	66.88	3288.17	72.13	3295.58	72.19
3300.09	73.2	3311.97	73.85	3319.71	74.16	3332.25	75.37	3345.66	76.26
3377.92	78.4	3402.5	79.29	3452.98	80.5	3473.27	81.31	3480.09	81.5
3487.84	81.88	3597.48	86.98						

Manning's n Values num= 8

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	1870.69	.02	2050.56	.05	2194.46	.035	2302.39	.05
2626.16	.035	2770.06	.05	3345.66	.035				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
2087.83	2905.56	624.1	622.8	620.76	.1	.3

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 7667.615

INPUT
Description:
Station Elevation Data num= 102

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	73.94	29.83	73.49	70.61	72.31	76.47	72.08	177.17	68.44
257.15	64.74	375.32	61.78	508.97	59.22	625.85	55.8	727.73	54.12
829	52.98	931.72	52.51	1078.07	51.83	1324.06	51.93	1416.77	51.91
1777.42	52.44	1830.59	53.41	1874.61	52.29	1919.49	52.33	1985.09	51.85
2021.56	50.31	2042.49	49.5	2051.59	49.2	2077.77	48.32	2101.43	48.1
2118.34	46.93	2122.34	46.71	2127.32	46.43	2127.71	46.37	2129.16	45.91
2150.56	39.04	2153.31	38.71	2167.01	38.37	2189.83	37.72	2208.97	37.41
2232.38	37.85	2285.17	38.63	2299.2	38.82	2337.92	39.33	2434.8	39.66
2626.47	39.42	2642.31	39.41	2652.92	39.39	2723.67	39.31	2749.1	39.28
2760.55	39.28	2773.19	39.57	2789.59	39.96	2794.72	40.32	2809.9	44.41
2812.64	44.92	2815.64	45.74	2817.86	46.01	2818.48	45.97	2841.34	39.28
2841.81	39.07	2842.23	38.98	2872.15	38.81	2907.81	38.44	2935.48	38.12
2951.52	38.44	2974.57	37.97	2988.73	38.57	3005.42	38.94	3033.83	38.79
3059.77	39.07	3083.4	40.38	3099.38	39.38	3122.38	39.82	3124.41	39.74
3125.32	39.76	3127.3	39.8	3131.3	39.8	3170.36	39.21	3180.14	38.83
3204.98	39.18	3225.45	39.12	3226.2	39.21	3228.44	39.42	3265.11	44.66
3270.22	45.7	3281.89	47.55	3284.32	48.63	3295.56	51.82	3299.55	52.71
3306.94	56.42	3307.44	56.54	3307.56	56.57	3308.65	56.97	3328.65	63.22
3335.81	64.6	3342.12	65.89	3347.61	66.81	3360.37	69.05	3380.5	72.57
3388.42	73.07	3403.38	73.92	3412.24	74.76	3454.54	77.16	3487.97	77.95
3529.46	79.67	3537.23	80.04						

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	2051.59	.02	2122.34	.035	2299.2	.05	2652.92	.035
2723.67	.05	3360.37	.02						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
2150.56	3005.42	556.83	550.63	551.5	.1	.3

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 7116.984

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	72.96	117.54	71.06	288.52	63.65	337.8	62.28	450	59.02
535.24	56.66	661.84	52.95	791.61	52.24	962.44	51.42	1250.11	49.88
1607.77	48.32	1833.42	47.4	2081.58	48.29	2321.68	48.59	2414.49	49.01
2443.12	48.75	2452.3	48.51	2452.36	48.51	2463.84	48.22	2494.04	45.94
2494.69	45.89	2495.34	45.7	2512.82	40.39	2514.09	40.26	2527.76	38.82
2531.78	38.39	2561.5	37.77	2621.18	35.85	2654.9	34.51	2728	33.82
2788.9	34.67	2810.72	34.58	2828.79	34.5	2835.31	34.61	2852.52	35.21
2867.31	35.64	2898.33	36.53	2957.86	37.77	2959.46	37.8	3015.31	38.57
3019.63	38.63	3085.13	39.31	3195.17	39.47	3453.83	37.66	3485.15	38.02
3525.61	36.97	3530.18	36.84	3544.46	37.01	3552.2	37.52	3573.96	38.12
3581.72	39.88	3586.91	43.03	3590.77	44.9	3597.22	46.35	3607.98	47.7
3621.87	48.65	3625.51	48.9	3649.4	51.09	3662.71	53.03	3670.82	55.79
3679.78	59.08	3692.34	60.59	3722.18	64.8	3745.5	65.93	3759.57	66.65
3763.49	66.71	3772.78	67.07						

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	2452.3	.05	2527.76	.035	2867.31	.05	3621.87	.02

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.

2531.78	3573.96		569.88	563.21	532.8		.1		.3

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 6553.777

INPUT
Description:
Station Elevation Data num= 67

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	74.74	2.14	74.75	71.35	71.83	245.13	68.96	477.05	58.84
674.44	52.54	788.4	50.77	924.42	48.76	950.91	48.27	1364.63	47.14
1459.47	47.19	1536.34	46.96	1986.82	45.12	2284.68	45.81	2580.32	45.84
2705.18	45.5	2780.9	45.57	2898.39	45.74	2933.39	45.79	2954.52	46.14
2965.63	46.2	2983.47	46.27	3044.72	46.59	3083.22	46.8	3088.15	46.11
3088.84	46.06	3095.34	45.61	3097.99	44.61	3109.84	39.3	3123.82	38.62
3174.27	35.12	3228.69	34.06	3262.1	33.43	3265.35	33.36	3285.04	32.93
3375.66	32.93	3397.73	32.94	3421.43	32.94	3525.69	32.87	3562.15	32.84
3618.36	32.62	3702.27	32.28	3702.89	32.28	3754.12	32.22	3790.01	32.21
3843.61	33.65	3893.13	35.16	3936.47	36.23	3958.66	37.28	3976.05	38.1
3981.88	39.71	3984.69	40.21	3988.93	41.96	3996.9	46.49	4015.5	47.51
4037.36	48.71	4046.22	49.32	4054.55	49.56	4064.65	49.89	4126.52	51.65
4134.54	51.66	4206.32	52.02	4251.39	52.86	4267.36	54.31	4312.4	56.73
4372.53	59.52	4412.63	61.01						

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	3044.72	.02	3088.84	.035	3265.35	.05	3397.73	.035
3618.36	.05	4015.5	.02						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
3174.27	3893.13	469.22	407.1	351.14	.1	.3

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 6146.684

INPUT
Description: Updated Manning's N Distribution
Station Elevation Data num= 103

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	67.37	73.94	66.21	281.44	57.36	460.67	51.79	738.33	47.62
855.23	45.95	861.94	45.96	868.72	46.34	870.48	46.57	874.41	47.48
877.58	47.8	1199.64	43.91	1346.56	44.45	1370.86	44.24	1861.14	42.72
2188.85	43.37	2366.94	44.17	2690.87	44.97	2791.78	45.17	3014.8	44
3126.98	43.15	3162.65	43.05	3198.36	44.59	3219.78	45.27	3234.4	45.58
3264.38	46.22	3293.7	46.07	3311.26	45.57	3325.14	44.79	3336.98	45.06
3352.36	44.4	3373.25	41.02	3374.86	40.77	3376.23	40.49	3378.86	40.35
3381.42	40.08	3382.13	40	3389.66	39.28	3392.69	39.13	3459.2	37.82
3511.56	38.17	3523.07	37.98	3543.15	37.83	3556.05	37.64	3582.52	38.33
3598.62	37.92	3619.82	37.63	3647.76	34.53	3675.46	34.13	3697.23	33.81
3737.97	33.37	3763.67	32.92	3774.27	32.73	3822.48	32.67	3935.19	32.53
3971.58	32.48	4054.03	32.69	4068.32	32.4	4093.99	31.89	4104.15	31.6
4116.51	32.69	4120.1	33.01	4123.97	33.1	4129.79	35.14	4132.13	35.87
4138.29	39.7	4144.43	43.03	4146.87	45.14	4148.3	45.76	4151.89	46.4
4166.22	45.73	4180.9	45.16	4194.78	45.7	4208.68	46.3	4216.59	46.99
4260.17	46.68	4294.45	46.79	4329.78	48.38	4379.38	48.63	4549.26	47.05
4587.08	47.84	4621.53	48.99	4653.62	51.46	4687.91	52.76	4704.58	52.97
4713.51	53.08	4745.95	53.64	4767.84	55.71	4780.44	57.46	4785.49	58.45
4789.67	59.19	4799.79	63.62	4801.91	64.59	4806.18	65.99	4822.81	71.26
4842.1	78.88	4843.16	79.37	4853.9	85.67	4862.42	89.5	4873.75	93.65
4887.25	97.07	4894.23	98.15	4900.61	98.79				

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	3234.4	.02	3381.42	.035	3675.46	.05	3822.48	.035
4116.51	.02	4704.58	.05						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
3647.76	4129.79	280.12	247.83	242.98	.1	.3

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 5898.852

INPUT
Description:
Station Elevation Data num= 74

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	54.42	396.05	39.79	449.33	39.53	867.45	38.96	942.47	39.42
989.29	39.63	1658.74	42.41	1811.89	43.06	1875.95	43.27	1936.43	43.22
2199.24	42.45	2223.83	42.43	2260.33	42.11	2350.7	41.33	2368.57	40.51
2411.02	39.43	2416.88	39.28	2440.34	38.62	2459.04	37.97	2483.51	36.28
2552.4	35.84	2599.38	35.77	2601.8	35.77	2623.6	36.48	2693.25	38.42
2708.23	39.35	2721.65	39.19	2770.51	39.18	2797.98	37.64	2825.42	35.79
2833.18	35.27	2850.05	34	2860.92	33.08	2878.16	32.82	2881.96	32.76
2902.98	32.59	2999.9	33.11	3010.01	33.14	3053.25	33.3	3054.55	33.36
3060.75	33.64	3081.03	33.05	3111.07	32.4	3111.88	32.64	3115.25	33.33
3115.74	34	3117.54	35.18	3121.34	38.21	3123.17	38.79	3124.81	39.53
3149.5	42.03	3167.05	44.51	3193.07	45.12	3215.98	46.56	3231.87	46.9
3239.81	46.81	3275.55	46.42	3380.58	45.16	3414.31	45.06	3455.06	45.29
3491.3	46.01	3541.73	46.23	3605.7	48.37	3616.53	48.72	3618.08	48.77
3623.65	49.17	3648.73	51.18	3665.08	52.51	3683.68	57.4	3689.53	58.85
3701.64	60.59	3718.68	62.87	3744.57	66.56	3767.22	69.82		

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	2260.33	.02	2411.02	.035	2599.38	.05	2825.42	.035
3239.81	.02	3616.53	.05						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.

```
      2850.05 3115.74            604.78  585.72  573.19              .1       .3
Ineffective Flow     num=        1
   Sta L   Sta R    Elev  Permanent
888       F

CROSS SECTION          RIVER: San Mateo Creek
REACH: Lower              RS: 5313.135

INPUT
Description:
Station Elevation Data    num=       65
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0    54.8   235.9   35.44  377.06   35.34  407.89   35.07  474.34   32.93
  484.38   32.81  517.48   34.18  558.19   36.22  572.64   36.28 1081.71   38.43
 1730.88   40.34 1838.88   41.44 1922.89   40.19 1944.98   39.87 1946.14   39.81
 1947.51   39.76 2071.35   36.04 2166.08   33.77 2192.86   32.86 2207.76    32.8
 2378.28   32.12 2384.91   32.11 2528.49   32.05 2733.34   32.68 2768.74   32.82
 2797.22    32.8 2907.86   31.84 2955.55   31.32 2982.22   31.03 2991.16   31.06
 3069.24   31.32 3080.18   31.24 3122.41    30.9 3130.16   30.85 3133.53   31.01
 3136.32   31.35 3145.48   32.39 3153.92   37.51 3154.56    37.9 3155.56   38.35
 3158.71   39.74 3159.79   39.91 3163.25   40.32 3164.99   40.37 3171.31   40.51
 3173.89   40.79 3228.93   41.25 3234.23   41.29 3236.17   41.32 3319.53   45.76
 3324.98   45.83  3355.5   45.72 3365.71   45.15 3382.83   43.86 3391.49   43.98
 3431.96   45.92 3448.73    46.4 3454.08   46.98 3475.98   49.36 3509.76    52.7
 3520.54   57.38  3526.3    59.6 3542.39   64.53 3548.64   66.63 3560.91   71.06

Manning's n Values        num=        5
     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val
       0    .035 1922.89     .02 2207.76     .05 2955.55    .035 3454.08     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
      2797.22 3145.48            603.98  623.48  637.26              .1       .3
Ineffective Flow     num=        1
   Sta L   Sta R    Elev  Permanent
888       F

CROSS SECTION          RIVER: San Mateo Creek
REACH: Lower              RS: 4689.719

INPUT
Description:
Station Elevation Data    num=       56
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0   50.59    5.54    50.1   16.15    49.6   23.42   49.07   197.5   32.89
  240.38    32.9  387.06   32.88  467.24   32.94  633.12   33.02 1195.92    36.5
 1491.91   38.33  1533.6   38.56 1611.23   38.32  1676.8   38.37 1720.88   37.97
 1733.94   38.62 1755.25    38.9 1772.27   37.68 1778.83   37.11 1801.66   34.35
 1820.46   33.84 1852.87   32.96 1912.02   32.49 1913.47   32.47 2024.61   31.11
 2128.28   30.42 2223.82   30.53 2359.57    28.7 2386.54   28.48 2534.69    27.3
 2585.14    27.2 2636.08   26.73 2782.14   25.37 2815.27   26.01 2872.84   23.84
 3012.04   23.21 3020.96   23.24 3075.22   24.09 3158.31   25.38    3191   26.39
 3194.81   26.51  3211.9   27.08 3239.93      28 3259.34   29.49 3272.86   31.14
  3283.9   32.16 3287.07   32.58 3293.44   33.43 3304.17    36.6 3315.74   39.95
 3337.62   42.38 3377.29   44.79 3406.49   47.33 3412.31   47.71 3416.72   48.32
 3416.91   48.34

Manning's n Values        num=        5
     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val
       0    .035 1195.92     .02 1913.47     .05 3075.22    .035  3211.9     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
      2585.14  3211.9            557.08  599.98  624.49              .1       .3
Ineffective Flow     num=        1
   Sta L   Sta R    Elev  Permanent
888       F

CROSS SECTION          RIVER: San Mateo Creek
REACH: Lower              RS: 4089.740

INPUT
Description:
Station Elevation Data    num=       60
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev



  2484.7    26.4 2540.37   26.42 2640.58   25.78 2741.76   25.56 2849.16   25.52
 3080.64   26.31 3081.74   26.32 3095.12   26.39 3102.66   26.27 3106.67    26.2
 3116.51   26.34 3145.31   27.09 3172.38   27.65 3180.44   27.82 3183.26    27.7
 3186.33   27.58 3202.22   26.94 3203.62   27.23 3205.09   28.53 3208.91    30.7
 3212.53   35.02 3212.79   35.32 3219.19   37.95 3219.44   38.02 3219.93   38.04
 3226.98   38.68 3236.81   38.22 3248.61   39.25 3257.08   39.88 3269.27   41.94
 3289.72   45.01 3346.69   49.12 3362.24   50.24 3384.82   51.78  3392.9   52.57
 3399.42   53.43 3407.75   54.71 3416.41   56.08 3477.19   65.71 3486.14   68.15

Manning's n Values        num=        7
     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val
       0    .035 1743.07     .02 1777.93     .05 3102.66    .035 3172.38     .05
 3346.69     .07 3416.41     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
      2135.46 3145.31            589.66  603.63  611.39              .1       .3
Ineffective Flow     num=        1
   Sta L   Sta R    Elev  Permanent
888       F

CROSS SECTION          RIVER: San Mateo Creek
```

REACH: Lower RS: 3486.110

INPUT
Description:
Station Elevation Data num= 71

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	46.29	164.35	29.36	170.65	29.14	191.87	28.38	194.63	28.28
197.81	27.46	214.3	26.61	218.17	25.64	221.29	25.46	236.53	24.81
427.84	25.58	485.93	26.09	545.78	26.08	561.55	26.23	566.9	26.28
642.16	27.68	660.34	27.89	777.29	31.38	781.75	31.52	782.34	31.54
782.75	31.57	783.12	31.57	914.19	32.95	938	32.41	961.74	32.7
1060.96	32.15	1484.48	33.24	1802.93	34.08	1912.47	34.47	2024.12	33.2
2043.89	32.97	2057.85	32.81	2104.9	32.26	2122.22	31.43	2159.87	29.34
2170.7	28.93	2182.95	28.24	2195.59	27.58	2201.42	26.91	2330.08	23.53
2435.73	20.75	2455.24	20.59	2503.12	19.86	2521.29	19.73	2523.59	19.71
2690.84	17.56	2853.72	14.86	2859.84	14.93	2870.57	15.13	3028.74	16.36
3069.91	16.52	3112.95	16.69	3124.02	16.88	3135.84	17.01	3137.38	17.04
3165.78	17.62	3171.12	17.92	3179.97	18.42	3213.55	20.32	3218.35	20.85
3244.42	23.69	3284.83	28.14	3300.66	29.84	3305.02	30.69	3314.02	32.6
3324.12	38.65	3348.28	55.29	3359.46	64.31	3363.44	66.09	3370.03	68.46
3373.53	69.23								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	2024.12	.02	2057.85	.05	3069.91	.035	3171.12	.07

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
2435.73	3218.35	577.29	602.58	615.08	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888			F

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 2883.526

INPUT
Description:
Station Elevation Data num= 64

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	43.87	138.59	25.27	144.34	25.32	155.04	25.36	280.43	25.37
674.52	26.23	703.51	26.26	745.97	27.28	773.14	27.93	1090.82	30.95
1473.75	31.96	1666.35	32.14	1987.05	30.26	1995.18	30.17	2049.39	29.29
2070	28.97	2129.96	27.88	2184.8	26.9	2187.91	27.91	2192.7	27.96
2197.21	29.24	2202.11	28.51	2203.97	28.52	2205.47	27.61	2207.06	27.26
2208.89	26.15	2213.35	25.91	2220.99	25.72	2397.39	21.6	2470.49	19.84
2556.9	17.85	2588.28	17.51	2637.19	15.79	2730.4	14.12	2756.38	14.59
2761.02	14.65	2778.21	14.83	2858.77	15.67	2870.81	16.19	2891.7	17.09
2895.51	17.12	2905.94	17.23	2934.43	19.59	2957.04	19.85	2959.64	19.84
2961.43	20.49	2966.51	21.04	2966.67	21.06	2995.29	26.1	3002.44	25.94
3011.47	26.86	3014.13	27.24	3015.87	27.92	3022.73	34.3	3027.64	39.08
3036	48.34	3044.12	55.97	3056.9	67.69	3058.44	68.95	3066.94	75.22
3074.67	80.81	3080.16	85.53	3086.85	91.92	3086.9	91.96		

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	2129.96	.05	2778.21	.035	2870.81	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
2470.49	2957.04	193.46	203.76	211.14	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Permanent
888			T
888			F

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 2679.762

INPUT
Description:
Station Elevation Data num= 65

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	45.67	152.32	25.49	152.41	25.46	152.57	25.37	152.72	25.31
152.79	25.3	152.89	25.27	153.02	25.22	153.12	25.22	153.24	25.16
153.33	25.11	153.43	25.08	153.53	25.05	153.63	25.03	153.67	25.03
154.23	25.06	155.91	25.03	157.89	25.03	685	26.22	729.8	26.27
1169.08	30.4	1188.39	30.44	1207.6	30.5	1402.35	30.69	1687.97	30.94
1883.46	29.77	2002.09	28.51	2131.34	26.39	2171.25	26.45	2174.8	26.43
2255.35	26.14	2261.8	26.09	2291.45	25.82	2306.04	24.96	2320.77	23.7
2334.58	21.2	2348.29	19.69	2368.87	20.19	2402.21	21.36	2439.75	20.12
2446.69	19.89	2497.77	19.68	2543.21	19.57	2661.08	14.9	2684.03	14.19
2696.76	14.24	2707.56	14.28	2708.82	14.29	2746.46	14.85	2766.76	16.57
2783.75	17.87	2807.02	19.65	2809.85	19.63	2824.64	19.51	2846.41	20.28
2856.24	21.35	2856.84	21.42	2861.82	23.3	2864.07	23.87	2868.1	30.22
2872.97	37.3	2876.16	41.47	2889.55	57.34	2890.45	58.31	2899.74	68.73

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	2174.8	.07	2261.8	.05	2696.76	.035	2783.75	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
2402.21	2856.24	387.64	396.16	397.97	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Permanent
888			T
888			F

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 2283.606

INPUT
Description: CS Modified with Blocked Obstructions to Approximate Pier Placement
Station Elevation Data num= 86

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	50.74	42.78	45.14	46.09	43.64	52.72	39.85	58.82	37.31
61.61	36.95	65.89	35.72	71.12	33.52	75.43	33.36	80.7	30.98
84.08	29.01	88.42	27.45	92.78	26.21	97.15	25.21	98.62	25.11
122.61	26.69	198.23	25.43	293.95	25.53	627.39	26.31	659.77	26.35
868.5	26.56	1089.31	28.67	1293.99	29.12	1313	29.19	1603.67	29.45
1749.84	29.39	1784.45	29.15	1932.01	27.38	2047.8	26.16	2065.96	26.39
2097.45	26.35	2101.37	26.02	2108.61	25.28	2124.15	21.46	2130.46	21.08
2136.12	21.06	2142.2	21.81	2157.02	25.66	2167.33	26.38	2167.53	26.39
2175.98	27.04	2189.51	26.68	2204.26	25.94	2286.03	26.1	2286.09	26.1
2287.27	26.1	2361.89	20.7	2375.17	19.79	2463.42	18.67	2533.64	19.71
2553.3	19.74	2601.28	19.8	2630.31	19.88	2668.83	19.99	2683.93	19.35
2699.63	18.69	2701.74	18.64	2742.9	17.75	2749.25	17.45	2750.91	17.37
2754.51	17.37	2764.19	17.89	2775.18	18.47	2801.95	19.93	2812.08	21.62
2823.26	23.74	2831.99	26.57	2838.6	31.04	2844.01	34.82	2847.37	36.09
2849.48	36.44	2857.12	35.86	2868.74	37.27	2873.98	37.97	2878.95	39.58
2884.38	42.66	2886.96	44.69	2888.97	46.04	2890.89	47.23	2911.85	58.02
2919.17	62.34	2940.49	73.07	2952.28	78.22	2954.21	79.14	2954.89	79.33
2968.95	82.03								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	2167.33	.07	2286.09	.05	2553.3	.035	2701.74	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
2375.17	2801.95	218.79	208.19	198.85	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Permanent
888		T	
888		F	

Blocked Obstructions num= 1

Sta L	Sta R	Elev
2813.5	2824.5	100

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 2075.420

INPUT
Description: CS Modified with Blocked Obstructions to Approximate Pier Placement
Station Elevation Data num= 87

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	56.14	14.77	54.31	19	52.24	27.57	46.86	35.56	43.25
39.25	42.77	44.96	41.01	52.02	37.81	57.89	37.63	65.16	34.08
69.88	31.11	75.99	28.75	82.17	26.85	88.44	25.31	90.58	25.16
126.36	27.69	254.47	25.75	460.21	26.05	596.07	26.4	637.79	26.45
957.52	26.78	1023.17	26.78	1089.97	26.83	1353.33	27.4	1459.51	27.35
1581.22	27.4	1936.42	26.32	1943.98	26.24	1949.29	26.07	1956.6	25.84
2078.61	22.19	2098.24	21.45	2109.81	20.82	2118.13	20.67	2130.12	20.28
2141.05	19.69	2151.46	20.58	2183.71	21.18	2203.83	22.33	2208.77	22.61
2216.07	23.3	2222.31	24.59	2247.77	25.87	2255.23	26.38	2281.94	25.74
2320.81	25.31	2324.59	25.1	2414.84	20.13	2419.95	19.76	2435.57	18.62
2445.33	18.15	2495.95	15.99	2535.91	14.32	2558.42	13.37	2601.04	13.16
2662.71	13.1	2663.22	13.1	2686.86	14.05	2687.18	14.06	2714.03	16
2741.84	18	2763.44	19.28	2774.96	19.63	2789.04	20.05	2827.31	21.15
2832.73	21.64	2838.78	22.73	2852.04	24.01	2853.37	24.68	2855.4	25.2
2863.67	27.8	2871.29	31.67	2889.08	41.1	2904.28	43.42	2905.7	43.98
2910.35	44.37	2918.94	46.39	2921.14	47.14	2934.71	54.07	2935.48	54.48
2936.41	55.21	2955.33	68.92	2957.51	70.01	2964.63	74.6	2978.74	78.46
2987.73	78.95	3018.94	79.77						

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	2203.83	.07	2324.59	.05	2535.91	.035	2686.86	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
2495.95	2714.03	167.27	168.07	167.81	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Permanent
888		T	

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 1907.350

INPUT
Description: CS Modified with Blocked Obstructions to Approximate Pier Placement
Station Elevation Data num= 66

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	44.14	8.14	40.06	15.75	35.14	25.65	31.24	35.72	28.07
45.97	25.5	49.47	25.25	108.86	29.55	333.9	26.31	503.43	26.59
568.57	26.47	620	26.24	715.16	25.82	922.32	25.68	1102.29	25.73
1684.23	23.31	1876.22	23.1	1960.34	20.75	2123.72	19.23	2153.15	18.62
2187.86	17.51	2202.67	17.03	2221.09	17.59	2232.69	18.93	2232.87	18.94
2233.62	19.26	2239.75	21.26	2249.93	25.47	2259.31	26.83	2291.49	25.66
2309.73	25.25	2319.57	24.93	2333.71	23.84	2344.88	22.98	2381.9	19.92
2423.76	16.33	2453.52	14.85	2474.37	13.94	2508.74	13.18	2555.4	12.14
2619.59	10.65	2632.17	10.36	2668.37	12.74	2677.94	13.33	2685.8	13.81
2707.32	10.96	2709.78	10.6	2710.95	10.66	2736.96	13.36	2742.11	14.13
2743.31	14.78	2762.87	17.25	2773.99	19.15	2782.14	20.53	2790.38	20.96
2812.63	23.5	2833.42	26.13	2840.74	28.23	2858.94	33.06	2864.5	36.86
2881.91	46.17	2889.82	50.73	2902.76	58.27	2910.76	63.13	2911.45	63.3

2917.14 65.31

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	2187.86	.07	2333.71	.05	2508.74	.035	2742.11	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
2453.52	2743.31	205	206.77	220.21	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Permanent
888			T
888			F

Blocked Obstructions num= 1

Sta L	Sta R	Elev
2651.5	2662.5	100

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 1700.584

INPUT
Description: Updated Manning's N Distribution, CS Modified with Blocked Obstructions to Approximate Pier Placement
Station Elevation Data num= 88

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	51.57	5.89	48.65	17.96	40.9	33.64	34.78	49.57	29.8
65.75	25.78	71.26	25.38	164.51	32.07	424.44	28.26	435.81	28.64
456.68	28.36	480.09	27.56	521.88	26.72	628.46	26.53	695.8	26.23
832.49	25.62	924.21	24.72	975.25	24.61	1001.28	24.66	1097.17	23.95
1904.23	20.27	1954.8	20.01	2008.9	19.38	2032.35	19.16	2250.8	17.41
2263.36	17.56	2267.25	17.61	2270.07	17.66	2281.28	17.89	2295.91	18.31
2307.04	18.63	2315.53	19.61	2326.96	22.62	2336.55	25.3	2353.74	26.81
2356.82	27.13	2363.23	26.93	2383.7	26.36	2405.78	21.32	2412.11	20.56
2413.65	20.66	2416.62	20.86	2429.98	24.04	2430.84	24.04	2440.61	23.56
2440.74	23.54	2440.82	23.53	2462.16	19.51	2473.05	16.02	2478.88	13.19
2496.22	13.42	2530.96	13.57	2549.15	13.63	2633.31	13.54	2641.5	13.54
2646.06	13.41	2655.02	13.17	2674.52	12.63	2678.56	12.5	2708	11.55
2725.66	10.98	2731.49	10.79	2737.91	10.54	2744.96	10.91	2757.58	12.14
2759.22	12.74	2761.01	13.31	2765.65	15.01	2773.4	18.28	2775.26	19.73
2783.33	22.93	2784.63	23.27	2792.92	25.03	2795.85	25.7	2796.54	25.7
2798.66	25.83	2835.35	27.58	2844.32	29.5	2864.09	33.52	2877.06	40.47
2894.05	49.55	2894.66	49.8	2908.66	57.76	2909.94	58.43	2916.25	60.82
2928.34	65.53	2934.9	66.29	2943.48	67.12				

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	2295.91	.07	2413.65	.05	2678.56	.035	2708	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
2473.05	2765.65	191.48	175.29	163.76	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Permanent
888			T
888			F

Blocked Obstructions num= 1

Sta L	Sta R	Elev
2637.5	2648.5	100

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 1525.293

INPUT
Description: CS Modified with Blocked Obstructions to Approximate Pier Placement
Station Elevation Data num= 78

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	51.07	5.07	47.72	26.85	39	49.08	31.89	71.8	26.11
79.57	25.54	194.28	33.97	213.43	35.33	257	34.67	319.43	36.65
432.1	35.1	465.96	33.93	560.72	30.37	651.59	27.46	661.61	27.13
719.9	25.24	898.8	23.32	1140.23	22.67	1274.91	22.87	1794.68	18.94
1828.89	18.72	1940.3	18.45	2055.67	18.11	2245.94	18.88	2286.04	19.11
2300.32	19.03	2342.84	18.78	2371.7	19.47	2373.54	19.69	2375.71	19.36
2382.38	18.32	2388.08	16.96	2399.37	17.01	2416.19	17.48	2436.79	19.12
2441.57	20.55	2456.96	26.12	2474.44	28.13	2475.92	28.33	2485.12	27.98
2488.94	27.69	2495.78	26.09	2510.48	19.33	2510.88	19.12	2511.05	19.12
2530.93	19.8	2536.26	19.82	2557.09	19.91	2567.51	20.6	2576.45	20.27
2613.85	15.31	2628.35	13.34	2636.67	12.85	2652.73	12.23	2717.45	9.03
2725	8.84	2752.8	8.14	2792.83	9.26	2799.13	9.44	2803.06	9.59
2805.02	9.98	2822.59	11.82	2827.86	13.22	2833.37	15.07	2837.72	18.7
2846.22	23.39	2849.21	25.06	2861.99	28.36	2867.24	29.72	2868.81	30.21
2886.11	39.95	2886.67	40.17	2899.72	44.58	2902.16	45.24	2920	52.33
2934.84	58.15	2940.66	60.74	2949.13	63.81				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.035	2300.32	.07	2536.26	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
2613.85	2833.37	330.77	218.57	153.37	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Permanent
888			T
888			F

Blocked Obstructions num= 1

Sta L	Sta R	Elev
2643.5	2654.5	100

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 1306.721

INPUT
Description:
Station Elevation Data num= 90

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	50.27	7.39	50.71	13.86	51.26	25.56	52.19	28.23	52.38
32.56	52.69	37.15	52.7	55.11	52.64	66.57	52.55	84.24	52.96
85.62	52.94	86.9	52.9	88.44	52.94	120.44	52.73	125.16	52.69
134.36	52.8	135.53	52.82	152.02	52.1	171.05	53.23	178.87	53.3
242.82	52.98	248.31	52.92	271.23	53.28	275.12	53.21	277.91	53.21
336.46	53.28	338.36	53.3	339.29	53.35	341.53	53.35	365.78	53.08
389.33	52.59	396.79	52.51	407.25	52.6	411.86	52.3	415.45	51.1
422.62	46.99	434.58	39.78	439.64	37.68	457.1	30.09	483.3	20.4
483.48	20.34	483.5	20.33	483.6	20.3	507.69	14.45	528.46	13.2
530.21	13.11	558.45	11.61	561.4	11.47	611.24	10.54	621.64	10.3
641.47	9.84	679.09	10.12	699.71	10.62	718.91	11.08	735.19	11.03
748.6	11.41	756.57	11.69	768.08	12.29	787.67	14.67	795.7	17.97
802.54	20.15	816.15	25.4	817.26	25.75	818.08	26.14	818.77	26.26
840.21	32.25	847.14	32.63	849.85	33.19	854.99	36.28	867.48	44.01
874.58	47.69	878.1	49.51	890.65	55.08	895.99	58.26	897.3	58.74
899.18	59.58	908.75	63.85	911.62	64.34	919.2	64.45	925.85	64.35
927.15	64.29	934.51	64.5	940.09	64.07	944.42	64.19	958.07	65
1000	65.57	1005.44	65.51	1007.75	65.54	1014.93	65.6	1033.54	66.55

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.02	134.36	.05	899.18	.02

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
507.69	787.67	221.39	253.51	221.56	.3	.5

BRIDGE RIVER: San Mateo Creek
REACH: Lower RS: 1300

INPUT
Description: I-5 Bridge
Distance from Upstream XS = 7
Deck/Roadway Width = 199.7
Weir Coefficient = 2.6
Upstream Deck/Roadway Coordinates
num= 6

Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord
0	50.03	0	401.9	58.07	0	401.9	58.07	52.49
907.9	68.19	62.61	907.9	68.19	0	1200	74.03	0

Upstream Bridge Cross Section Data
Station Elevation Data num= 90

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	50.27	7.39	50.71	13.86	51.26	25.56	52.19	28.23	52.38
32.56	52.69	37.15	52.7	55.11	52.64	66.57	52.55	84.24	52.96
85.62	52.94	86.9	52.9	88.44	52.94	120.44	52.73	125.16	52.69
134.36	52.8	135.53	52.82	152.02	52.1	171.05	53.23	178.87	53.3
242.82	52.98	248.31	52.92	271.23	53.28	275.12	53.21	277.91	53.21
336.46	53.28	338.36	53.3	339.29	53.35	341.53	53.35	365.78	53.08
389.33	52.59	396.79	52.51	407.25	52.6	411.86	52.3	415.45	51.1
422.62	46.99	434.58	39.78	439.64	37.68	457.1	30.09	483.3	20.4
483.48	20.34	483.5	20.33	483.6	20.3	507.69	14.45	528.46	13.2
530.21	13.11	558.45	11.61	561.4	11.47	611.24	10.54	621.64	10.3
641.47	9.84	679.09	10.12	699.71	10.62	718.91	11.08	735.19	11.03
748.6	11.41	756.57	11.69	768.08	12.29	787.67	14.67	795.7	17.97
802.54	20.15	816.15	25.4	817.26	25.75	818.08	26.14	818.77	26.26
840.21	32.25	847.14	32.63	849.85	33.19	854.99	36.28	867.48	44.01
874.58	47.69	878.1	49.51	890.65	55.08	895.99	58.26	897.3	58.74
899.18	59.58	908.75	63.85	911.62	64.34	919.2	64.45	925.85	64.35
927.15	64.29	934.51	64.5	940.09	64.07	944.42	64.19	958.07	65
1000	65.57	1005.44	65.51	1007.75	65.54	1014.93	65.6	1033.54	66.55

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.02	134.36	.05	899.18	.02

Bank Sta: Left	Right	Coeff Contr.	Expan.
507.69	787.67	.3	.5

736	68.19	62.61	736	68.19	0	1200	77.47	0	

Downstream Bridge Cross Section Data
Station Elevation Data num= 79

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	48.99	.6	48.97	35.35	49.91	61.75	53.81	61.78	53.81
61.81	53.82	83.28	54.31	91.24	54.54	98.22	54.53	109	54.19
114.66	54.06	138.42	54.21	143.5	54.25	175.83	54.37	183.22	54.15
200.82	54.33	209.98	53.9	220.67	54.17	226.57	53.67	229.54	53.24
232.27	52.57	234.56	51.54	237.5	50.31	251.74	41.4	271.79	32
286.55	24.61	302.37	15.01	306.27	14.37	311.05	13.38	315.99	12.63
320.82	12.88	343.05	13.99	347.74	14.27	351.53	14.31	381.31	14.6
391.04	14.4	429.91	13.32	443.95	12.85	481.63	11.63	504.45	12.84
504.82	12.85	541.43	13.82	570.22	15	602	16.29	602.23	16.31
603.01	16.42	630.2	20.63	634.39	22.22	653.73	27.04	654.8	27.32
656.2	27.75	679.92	35.43	682.86	35.51	690.33	39.43	697.91	43.37
713.85	53.87	721.88	58.53	724.16	59.87	729.07	61.76	733.98	63.4
744.31	63.95	750.69	64.23	752.82	64.22	753.93	64.41	765.94	66.02
768.65	66.34	774.72	66.48	780.96	66.85	792.91	66.81	804.58	66.96
814.86	66.99	828.41	67.2	846.92	66.85	867.3	66.49	896.4	66.97
900.58	67.04	914.56	67.11	934.65	66.8	943.58	67.55		

```
Manning's n Values          num=        2
     Sta    n Val      Sta    n Val
       0      .05    896.4      .02

Bank Sta: Left    Right     Coeff Contr.    Expan.
        302.37  570.22              .3        .5

Upstream Embankment side slope                =        0 horiz. to 1.0 vertical
Downstream Embankment side slope              =        0 horiz. to 1.0 vertical
Maximum allowable submergence for weir flow =      .95
Elevation at which weir flow begins           =       60
Energy head used in spillway design           =
Spillway height used in design                =
Weir crest shape                              = Broad Crested

Number of Piers =  4

Pier Data
Pier Station      Upstream=    501.9     Downstream=      330
Upstream      num=        2
    Width    Elev     Width    Elev
   12.25        0    12.25      168
Downstream      num=        2
    Width    Elev     Width    Elev
   12.25        0    12.25      168

Pier Data
Pier Station      Upstream=    603.9     Downstream=      432
Upstream      num=        2
    Width    Elev     Width    Elev
   12.25        0    12.25      168
Downstream      num=        2
    Width    Elev     Width    Elev
   12.25        0    12.25      168

Pier Data
Pier Station      Upstream=    705.9     Downstream=      534
Upstream      num=        2
    Width    Elev     Width    Elev
   12.25        0    12.25      168
Downstream      num=        2
    Width    Elev     Width    Elev
   12.25        0    12.25      168

Pier Data
Pier Station      Upstream=    807.9     Downstream=      636
Upstream      num=        2
    Width    Elev     Width    Elev
   12.25        0    12.25      168
Downstream      num=        2
    Width    Elev     Width    Elev
   12.25        0    12.25      168

Number of Bridge Coefficient Sets =  1

Low Flow Methods and Data
       Energy
Selected Low Flow Methods = Energy

High Flow Method
       Energy Only

Additional Bridge Parameters
       Add Friction component to Momentum
       Do not add Weight component to Momentum
       Class B flow critical depth computations use critical depth
           inside the bridge at the upstream end
       Criteria to check for pressure flow = Upstream energy grade line

BRIDGE OUTPUT    Profile #Q100
Opening : Single BR

  E.G. US. (ft)                  31.60    Element                  Inside BR US  Inside BR DS
  W.S. US. (ft)                  30.64    E.G. Elev (ft)                 31.48         30.53
  Q Total (cfs)               47312.00    W.S. Elev (ft)                 30.17         28.73
  Q Bridge (cfs)              47312.00    Crit W.S. (ft)                 21.64         23.55
  Q Weir (cfs)                            Max Chl Dpth (ft)              20.33         17.10
  Weir Sta Lft (ft)                       Vel Total (ft/s)                8.94         10.70
  Weir Sta Rgt (ft)                       Flow Area (sq ft)            5293.67       4423.05
  Weir Submerg                            Froude # Chl                    0.38          0.50
  Weir Max Depth (ft)                     Specif Force (cu ft)        61115.32      47713.60
  Min El Weir Flow (ft)          60.00    Hydr Depth (ft)                16.20         13.33
  Min El Prs (ft)                62.57    W.P. Total (ft)               453.30        441.56
  Delta EG (ft)                   1.44    Conv. Total (cfs)           862815.9      629796.2
  Delta WS (ft)                   1.91    Top Width (ft)                326.87        331.90
  BR Open Area (sq ft)        15758.87    Frctn Loss (ft)                 0.80          0.19
  BR Open Vel (ft/s)             10.70    C & E Loss (ft)                 0.15          0.19
  Coef of Q                               Shear Total (lb/sq ft)          2.19          3.53
  Br Sel Method            Energy only    Power Total (lb/ft s)          19.59         37.75


CROSS SECTION          RIVER: San Mateo Creek
REACH: Lower              RS: 1053.212

INPUT
Description:
Station Elevation Data     num=       79
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Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	48.99	.6	48.97	35.35	49.91	61.75	53.81	61.78	53.81
61.81	53.82	83.28	54.31	91.24	54.54	98.22	54.53	109	54.19
114.66	54.06	138.42	54.21	143.5	54.25	175.83	54.37	183.22	54.15
200.82	54.33	209.98	53.9	220.67	54.17	226.57	53.67	229.54	53.24
232.27	52.57	234.56	51.54	237.5	50.31	251.74	41.4	271.79	32
286.55	24.61	302.37	15.01	306.27	14.37	311.05	13.38	315.99	12.63
320.82	12.88	343.05	13.99	347.74	14.27	351.53	14.31	381.31	14.6
391.04	14.4	429.91	13.32	443.95	12.85	481.63	11.63	504.45	12.84
504.82	12.85	541.43	13.82	570.22	15	602	16.29	602.23	16.31
603.01	16.42	630.2	20.63	634.39	22.22	653.73	27.04	654.8	27.32
656.2	27.75	679.92	35.43	682.86	35.51	690.33	39.43	697.91	43.37
713.85	53.87	721.88	58.53	724.16	59.87	729.07	61.76	733.98	63.4
744.31	63.95	750.69	64.23	752.82	64.22	753.93	64.41	765.94	66.02
768.65	66.34	774.72	66.48	780.96	66.85	792.91	66.81	804.58	66.96
814.86	66.99	828.41	67.2	846.92	66.85	867.3	66.49	896.4	66.97
900.58	67.04	914.56	67.11	934.65	66.8	943.58	67.55		

Manning's n Values num= 2

Sta	n Val	Sta	n Val
0	.05	896.4	.02

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
302.37	570.22	331.16	386.26	449.77	.3	.5

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 977.176

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 57

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	32.89	.37	32.89	19.41	33.13	84.16	34.51	88.96	34.54
90.58	34.51	97.36	34.36	99.09	34.31	102.02	34.03	119.08	32.09
123.45	30.02	131.06	28.22	136.27	26.19	152.7	22.08	158.91	19.86
170.94	15.17	173.08	14.25	178.58	13.28	178.89	13.22	180.93	12.68
219.95	13.45	229.16	13.55	232.38	13.74	237.43	13.79	262.37	13.5
270.48	13.33	306.25	12.6	358.06	11.49	362.22	11.6	363.09	11.64
379.14	12.37	428.4	14.61	447.41	17.86	466.86	18.2	486.76	19.28
491.92	19.62	502.84	24.68	505.09	25.48	507.65	26.42	510.83	27.44
521.28	30.25	532.71	31.62	536.89	32.69	546.1	37.23	548.97	38.63
552.13	39.52	561.19	40.26	590.09	42.36	595.7	43.23	609.69	45.52
624.82	45.97	630.04	46.06	641.6	48.42	647.07	48.5	667.36	50.14
686.06	50.58	686.84	50.61						

Manning's n Values num= 1

Sta	n Val
0	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
178.58	379.14	50.27	50.41	43.68	.3	.5

BRIDGE RIVER: San Mateo Creek
REACH: Lower RS: 970

INPUT
Description: Old PCH Bridge
Distance from Upstream XS = 7
Deck/Roadway Width = 32.81
Weir Coefficient = 2.6
Upstream Deck/Roadway Coordinates
num= 6

Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord
0	30.81	0	100	32.81	0	100	32.81	27.23
536.35	39.37	33.79	536.35	39.37	0	600	40.64	0

Upstream Bridge Cross Section Data
Station Elevation Data num= 57

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	32.89	.37	32.89	19.41	33.13	84.16	34.51	88.96	34.54
90.58	34.51	97.36	34.36	99.09	34.31	102.02	34.03	119.08	32.09
123.45	30.02	131.06	28.22	136.27	26.19	152.7	22.08	158.91	19.86
170.94	15.17	173.08	14.25	178.58	13.28	178.89	13.22	180.93	12.68
521.28	30.25	532.71	31.62	536.89	32.69	546.1	37.23	548.97	38.63
552.13	39.52	561.19	40.26	590.09	42.36	595.7	43.23	609.69	45.52
624.82	45.97	630.04	46.06	641.6	48.42	647.07	48.5	667.36	50.14
686.06	50.58	686.84	50.61						

Manning's n Values num= 1

Sta	n Val
0	.05

Bank Sta: Left	Right	Coeff Contr.	Expan.
178.58	379.14	.3	.5

Downstream Deck/Roadway Coordinates
num= 6

Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord
0	30.81	0	100	32.81	0	100	32.81	27.23
536.35	39.37	33.79	536.35	39.37	0	600	40.64	0

Downstream Bridge Cross Section Data
Station Elevation Data num= 56

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev

0	29.25	4.51	29.43	20.29	29.64	22.58	29.67	54.24	31.33
70	31.77	72.17	31.8	76.46	32.44	79.54	33	88.17	33.38
96.39	31.6	101.24	31.3	126.59	20.07	136.33	15.74	144.27	14.64
152.53	14.4	157.07	14.26	170.89	12.52	184.84	12.47	196.68	12.42
215.24	12.34	238.1	12.55	241.16	12.55	282.15	11.76	321.28	10.98
324.1	10.92	344.58	11.46	391.53	12.69	404.33	13.19	405.31	13.23
416.29	13.73	427.47	15.65	449.87	19.11	456.43	20.52	465.42	24.49
475.77	26.6	489.07	28.61	504.05	31.95	513.05	35.57	514.14	36.01
520.05	37.56	525.37	38.44	530.68	39.04	539.86	38.93	555.66	40.79
589.31	43.25	598.2	43.9	605.71	44.17	615.17	44.71	626.9	45.92
634.09	46.07	651.03	49.07	659.84	49.21	681.48	50.21	685.93	50.48
693.31	50.92								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.05	513.05	.02	589.31	.05

Bank Sta: Left	Right	Coeff Contr.	Expan.
152.53	344.58	.3	.5

Upstream Embankment side slope = 0 horiz. to 1.0 vertical
Downstream Embankment side slope = 0 horiz. to 1.0 vertical
Maximum allowable submergence for weir flow = .95
Elevation at which weir flow begins = 110
Energy head used in spillway design =
Spillway height used in design =
Weir crest shape = Broad Crested

Number of Piers = 4

Pier Data
Pier Station Upstream= 162.34 Downstream= 162.34
Upstream num= 2

Width	Elev	Width	Elev
12.25	0	12.25	229

Downstream num= 2

Width	Elev	Width	Elev
12.25	0	12.25	229

Pier Data
Pier Station Upstream= 264.34 Downstream= 264.34
Upstream num= 2

Width	Elev	Width	Elev
12.25	0	12.25	229

Downstream num= 2

Width	Elev	Width	Elev
12.25	0	12.25	229

Pier Data
Pier Station Upstream= 366.34 Downstream= 366.34
Upstream num= 2

Width	Elev	Width	Elev
12.25	0	12.25	229

Downstream num= 2

Width	Elev	Width	Elev
12.25	0	12.25	229

Pier Data
Pier Station Upstream= 468.34 Downstream= 468.34
Upstream num= 2

Width	Elev	Width	Elev
12.25	0	12.25	229

Downstream num= 2

Width	Elev	Width	Elev
12.25	0	12.25	229

Number of Bridge Coefficient Sets = 1

Low Flow Methods and Data
Energy
Selected Low Flow Methods = Energy

High Flow Method
Energy Only

Additional Bridge Parameters
Add Friction component to Momentum
Do not add Weight component to Momentum
Class B flow critical depth computations use critical depth
inside the bridge at the upstream end
Criteria to check for pressure flow = Upstream energy grade line

BRIDGE OUTPUT Profile #Q100
Opening : Single BR

E.G. US. (ft)	28.42	Element	Inside BR US	Inside BR DS
W.S. US. (ft)	26.35	E.G. Elev (ft)	28.04	27.23
Q Total (cfs)	47312.00	W.S. Elev (ft)	23.42	22.66
Q Bridge (cfs)	47312.00	Crit W.S. (ft)	23.42	22.66
Q Weir (cfs)		Max Chl Dpth (ft)	11.93	11.74
Weir Sta Lft (ft)		Vel Total (ft/s)	17.10	16.92
Weir Sta Rgt (ft)		Flow Area (sq ft)	2766.83	2795.87
Weir Submerg		Froude # Chl	0.96	0.98
Weir Max Depth (ft)		Specif Force (cu ft)	38978.34	39010.05
Min El Weir Flow (ft)	110.00	Hydr Depth (ft)	9.11	9.20
Min El Prs (ft)	33.79	W.P. Total (ft)	369.18	366.99
Delta EG (ft)	1.17	Conv. Total (cfs)	328947.7	326026.6
Delta WS (ft)	6.63	Top Width (ft)	303.81	303.77

BR Open Area (sq ft)	5156.27	Frctn Loss (ft)		
BR Open Vel (ft/s)	17.10	C & E Loss (ft)		
Coef of Q		Shear Total (lb/sq ft)	9.68	10.02
Br Sel Method	Momentum	Power Total (lb/ft s)	165.51	169.49

Warning: Pier drag coefficient of 2.0 assumed for Class B flow.
Warning: During the class B momentum calculations, the supercritical downstream energy was higher than one of the upstream energies. This is not physically possible. The supercritical answer was backed out from an upstream energy.
Note: The momentum method has computed a class B profile.
Note: The energy method has computed a class B profile.

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 926.767

INPUT
Description:
Station Elevation Data num= 56

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	29.25	4.51	29.43	20.29	29.64	22.58	29.67	54.24	31.33
70	31.77	72.17	31.8	76.46	32.44	79.54	33	88.17	33.38
96.39	31.6	101.24	31.3	126.59	20.07	136.33	15.74	144.27	14.64
152.53	14.4	157.07	14.26	170.89	12.52	184.84	12.47	196.68	12.42
215.24	12.34	238.1	12.55	241.16	12.55	282.15	11.76	321.28	10.98
324.1	10.92	344.58	11.46	391.53	12.69	404.33	13.19	405.31	13.23
416.29	13.73	427.47	15.65	449.87	19.11	456.43	20.52	465.42	24.49
475.77	26.6	489.07	28.61	504.05	31.95	513.05	35.57	514.14	36.01
520.05	37.56	525.37	38.44	530.68	39.04	539.86	38.93	555.66	40.79
589.31	43.25	598.2	43.9	605.71	44.17	615.17	44.71	626.9	45.92
634.09	46.07	651.03	49.07	659.84	49.21	681.48	50.21	685.93	50.48
693.31	50.92								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.05	513.05	.02	589.31	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
152.53	344.58	197.34	259.8	349.98	.3	.5

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 666.956

INPUT
Description: Updated Manning's N Distribution
Station Elevation Data num= 49

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	33.02	1.35	33.04	8.65	33.12	30.8	31.1	42.56	29.97
50	29.25	62.16	27.01	63.65	26.67	64.93	26.17	74.65	23.12
84.37	19.74	86.38	19.52	89.01	19.85	133.79	22.24	134.15	22.27
159.53	21.92	165.53	21.66	180.4	20.09	228.59	13.27	231.95	12.14
235.4	11.04	236.33	10.72	241.52	9.02	247.9	6.93	253.65	6.12
254.2	6.04	271.29	6.36	297.87	5.87	351.04	6.33	385.58	6.79
398.35	6.96	412.59	7.47	413.83	7.53	447.08	9.01	477.96	10.39
512.64	12.73	551.71	13.35	614.27	14.49	638.54	14.72	680.93	17.25
686.32	17.57	714.97	18.74	737.8	19.67	746.93	20.04	752.92	20.65
773.29	23.85	806.8	28.99	839.21	34.23	851.16	36.59		

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.02	42.56	.05	680.93	.02	714.97	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
241.52	447.08	187.2	184.7	178.1	.1	.3

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 482.270

INPUT
Description: Updated Manning's N Distribution
Station Elevation Data num= 48

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	36.42	9.65	33.24	15.01	32.16	32.78	30.31	49.46	28.57
431.06	6.61	491.01	5.27	527.34	5.05	565.92	6.28	566.05	6.28
631.1	8.1	707.57	12.27	723.73	13.01	786.61	13.09	807.94	13.12
893.68	13.28	909.24	13.8	961.41	13.84	977.55	13.86	994.19	14.92
1006.45	15.7	1042.54	19.54	1046.98	20.08	1063.09	24.32	1079.91	30.34
1088.51	33.07	1092.19	34.36	1092.51	34.49				

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	32.78	.02	87.4	.05	786.61	.035	961.41	.02
994.19	.05								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
381.86	631.1	215.55	198.2	189.25	.1	.3

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 284.051

INPUT
Description: Updated Manning's N Distribution
Station Elevation Data num= 49

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev

0	29.29	14.99	25.99	15.5	26.02	18.96	25.77	25.76	25.36
90.16	21.53	153.47	17.75	180.86	16.81	196.92	16.19	210.26	15.71
254.28	15.45	262.8	15.33	273.55	15.03	375.82	12.63	386.67	12.49
398.3	11.44	540.33	7.72	557.56	7.12	573.23	6.8	587.64	6.79
607.67	6.73	618.25	6.7	740	6.37	740.69	6.38	742.97	6.44
743.19	6.45	813.41	7.82	818	8.11	820.46	8.22	827.66	8.04
874.75	9.08	880.64	9.17	905.24	10.67	932.78	12.86	946.65	12.46
982.37	12.36	997.9	11.46	1031.24	13.14	1043.3	13.06	1125.93	12.49
1170.38	12.94	1172.1	12.95	1197.86	13.09	1219.04	13.2	1227.3	12.98
1232.68	13.82	1245.69	18.25	1269.03	25.93	1288.02	30.34		

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	25.76	.02	90.16	.05	1043.3	.035	1172.1	.02
1197.86	.05								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
540.33	813.41	216.3	198.7	198.95	.1	.3

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 85.341

INPUT
Description: Updated Manning's N Distribution
Station Elevation Data num= 41

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	29.1	7.21	26.82	11.67	26.16	31.09	24.98	46	24.19
64.71	23.2	107.34	21.1	119.79	20.49	201.37	15.73	256.42	13.63
328.02	12.88	354.26	12.74	357.36	12.66	373.28	12.5	678.15	7.34
761.15	7.26	870.99	6.93	976.8	6.61	1046.13	6.4	1046.94	6.4
1047.19	6.39	1047.33	6.39	1047.81	6.38	1049.08	6.38	1143.89	5.54
1192.74	5.15	1277.42	5.45	1351.66	6.37	1351.75	6.37	1351.78	6.37
1373.79	7.14	1410.76	8.43	1426.05	8.97	1426.1	8.97	1426.95	9.08
1466.22	14.03	1468.42	14.73	1474.52	16.25	1506.75	24.56	1523.54	27.51
1533.44	29.48								

Manning's n Values num= 5

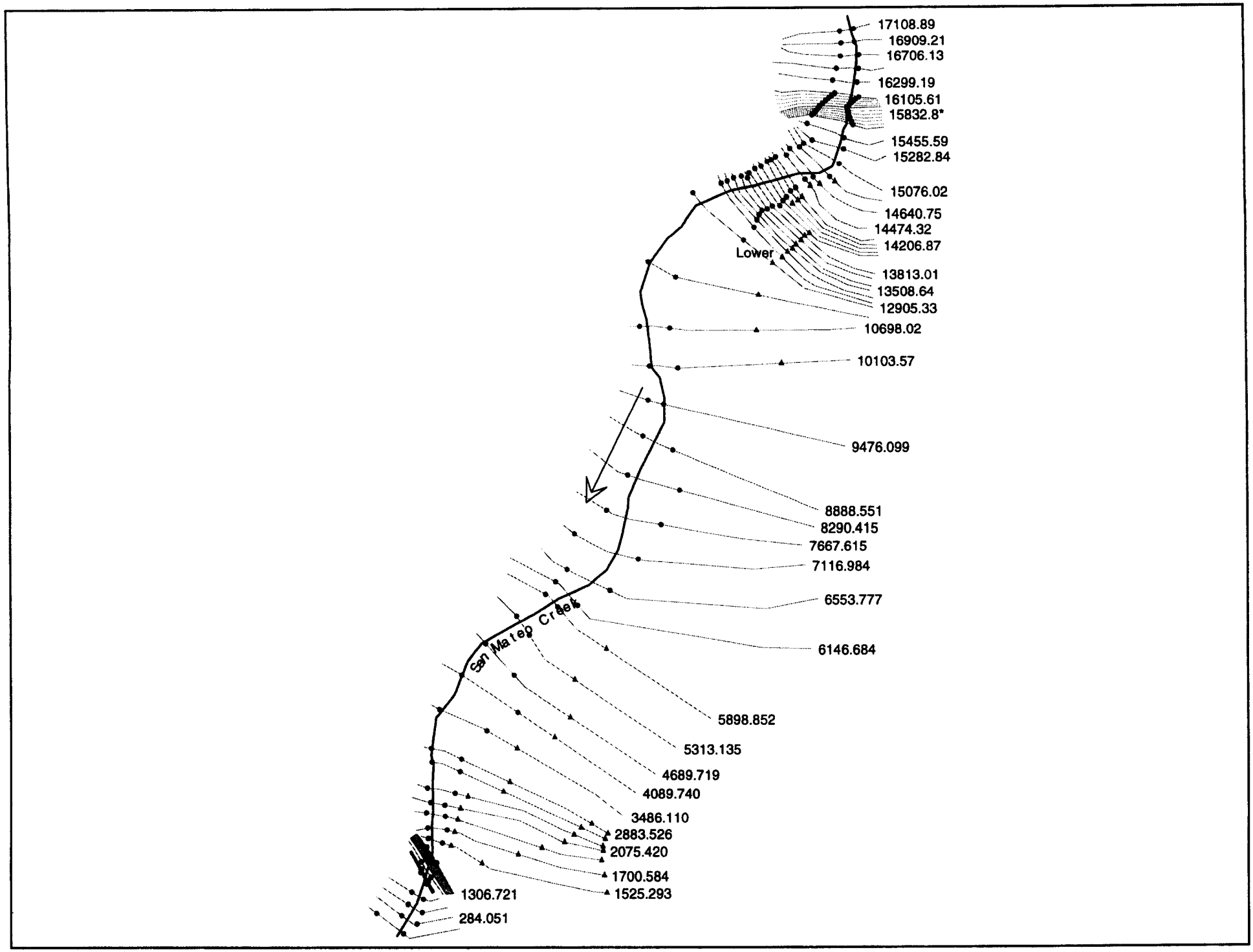
Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	46	.02	107.34	.05	1410.76	.02	1426.1	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
870.99	1373.79	68.18	85.34	37.96	.1	.3

Profile Output Table - Standard Table 1

Reach	River Sta	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
		(cfs)	(ft)	(ft)	(ft)	(ft)	(ft/ft)	(ft/s)	(sq ft)	(ft)	
Lower	17108.89	47312.00	90.54	100.55	99.32	101.81	0.003984	11.07	5787.63	1100.19	0.64
Lower	16909.21	47312.00	88.57	98.08	98.08	100.44	0.010714	14.80	4264.44	834.49	0.89
Lower	16706.13	47312.00	83.98	96.56	94.62	98.39	0.005141	11.88	4966.45	750.62	0.62
Lower	16505.64	47312.00	84.57	95.57		97.31	0.005563	11.39	5033.87	816.50	0.62
Lower	16299.19	47312.00	84.80	94.14	93.15	96.00	0.006984	11.74	4729.44	789.33	0.70
Lower	16105.61	47312.00	84.43	91.85	91.85	94.26	0.011426	13.77	4271.07	888.68	0.91
Lower	15910.69	47312.00	78.37	87.19	87.96	90.66	0.015630	15.77	3507.37	832.04	1.10
Lower	15677.08	47312.00	78.29	86.50		87.69	0.004884	9.06	5647.35	889.13	0.58
Lower	15455.59	47312.00	77.64	84.52	83.81	86.22	0.008814	11.00	4732.79	890.95	0.78
Lower	15282.84	47312.00	76.42	83.21		84.67	0.008406	11.01	5352.15	1188.78	0.80
Lower	15076.02	47312.00	74.40	82.78		83.41	0.002925	7.16	8063.58	1453.72	0.47
Lower	14843.33	47312.00	71.32	81.99	78.38	82.80	0.002258	7.44	6885.27	1200.25	0.44
Lower	14640.75	47312.00	71.87	80.73	78.65	82.09	0.004753	9.57	5144.87	1349.66	0.59
Lower	14474.32	47312.00	71.80	80.90	78.64	81.39	0.001742	6.54	9148.26	1644.63	0.39
Lower	14295.85	47312.00	70.72	80.41	77.28	81.04	0.001945	7.12	8582.48	1787.21	0.42
Lower	14206.87	47312.00	70.13	79.72	77.52	80.77	0.003408	8.88	6856.20	1845.41	0.55
Lower	14108.61	47312.00	70.62	79.18	77.41	80.36	0.004546	9.29	6259.30	1700.70	0.60
Lower	14009.16	47312.00	71.12	77.71		79.66	0.009564	11.72	4674.47	1152.57	0.84
Lower	13906.13	47312.00	70.56	77.31	77.31	78.61	0.007244	9.83	5551.34	1373.05	0.71
Lower	13813.01	47312.00	70.19	76.05	76.05	77.74	0.010791	11.23	4663.09	1789.37	0.88
Lower	13721.89	47312.00	69.82	75.40	75.25	76.16	0.005269	8.00	6966.80	2295.40	0.63
Lower	13616.16	47312.00	65.67	75.00	74.67	75.66	0.003958	7.57	7773.38	2380.62	0.56
Lower	13508.64	47312.00	64.82	74.72	74.03	75.28	0.002785	6.90	8663.52	2515.95	0.47
Lower	13407.57	47312.00	64.24	72.73	72.50	74.66	0.010519	11.44	4413.09	2080.63	0.87
Lower	13315.43	47312.00	65.10	72.64	71.06	73.83	0.004608	8.93	5655.31	2433.33	

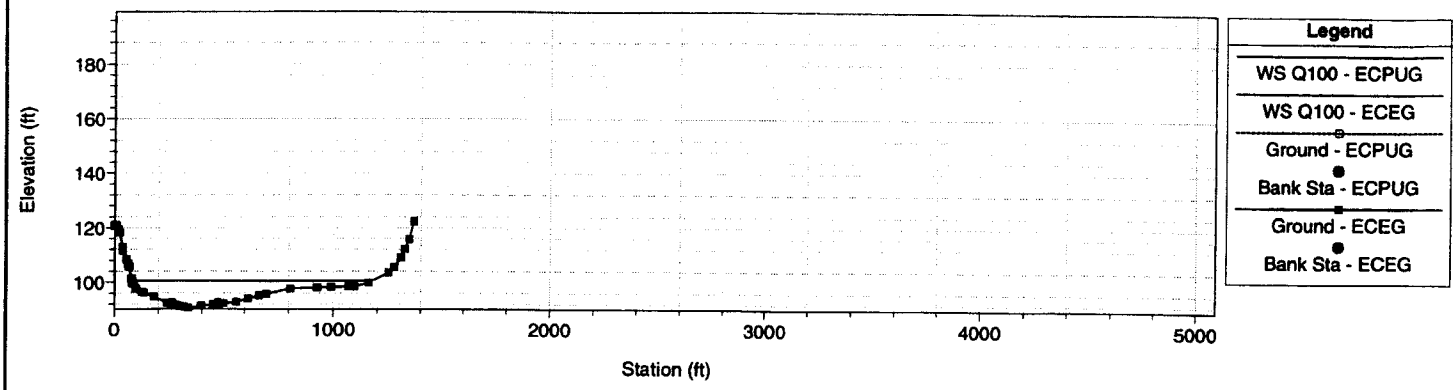
0.63											
Lower	12905.33	47312.00	62.47	69.92	69.40	71.40	0.007716	9.82	4948.47	1575.23	
0.81											
Lower	11695.46	47312.00	53.64	64.46	62.76	65.39	0.003349	8.71	6446.78	1450.03	
0.59											
Lower	10698.02	47312.00	45.13	62.36	58.13	63.23	0.001545	7.95	7156.58	1162.03	
0.42											
Lower	10103.57	47312.00	51.14	60.87	59.65	61.85	0.003742	8.16	5973.38	1639.52	
0.49											
Lower	9476.099	47312.00	45.94	56.89	56.18	58.66	0.006997	12.11	4900.05	860.16	
0.65											
Lower	8888.551	47312.00	45.56	53.98	52.20	55.27	0.004394	9.84	5883.93	1238.64	
0.61											
Lower	8290.415	47312.00	42.29	49.30	49.30	51.30	0.010679	9.73	4667.75	1242.83	
0.83											
Lower	7667.615	47312.00	37.41	46.26	43.10	46.84	0.002622	6.32	7801.48	1145.73	
0.42											
Lower	7116.984	47312.00	33.82	45.24		45.73	0.001530	5.64	8484.68	1095.45	
0.35											
Lower	6553.777	47312.00	32.21	44.71		45.10	0.000796	5.10	9657.79	896.05	
0.26											
Lower	6146.684	47312.00	31.60	44.00		44.66	0.001257	7.01	7835.47	1876.37	
0.37											
Lower	5898.852	47312.00	32.40	41.50	41.32	43.88	0.006315	14.05	4256.35	1904.18	
0.85											
Lower	5313.135	47312.00	30.85	36.45	36.45	38.37	0.013968	12.82	4401.76	1484.29	
1.03											
Lower	4689.719	47312.00	23.21	34.27	30.69	34.73	0.001785	6.02	9388.12	2143.50	
0.35											
Lower	4089.740	47312.00	25.52	32.65	30.05	33.26	0.003637	6.39	7759.85	1587.38	
0.44											
Lower	3486.110	47312.00	14.86	32.45	22.22	32.63	0.000351	3.56	14704.70	2136.25	
0.16											
Lower	2883.526	47312.00	14.12	32.22	23.33	32.41	0.000404	4.08	15922.80	2933.67	
0.18											
Lower	2679.762	47312.00	14.19	32.08	24.64	32.31	0.000544	4.52	14282.54	2766.83	
0.21											
Lower	2283.606	47312.00	17.37	31.86	26.42	32.08	0.000611	4.55	14024.79	2750.04	
0.23											
Lower	2075.420	47312.00	13.10	31.82	24.39	31.98	0.000284	4.50	17245.01	2791.81	
0.19											
Lower	1907.350	47312.00	10.36	31.83	21.82	31.93	0.000156	3.24	19992.07	2819.12	
0.13											
Lower	1700.584	47312.00	10.54	31.79	22.54	31.89	0.000167	2.66	18350.72	2778.20	
0.11											
Lower	1525.293	47312.00	8.14	31.63	22.54	31.84	0.000368	3.89	12972.29	2445.41	
0.15											
Lower	1306.721	47312.00	9.84	30.64	20.96	31.60	0.001430	8.08	6217.84	378.59	
0.32											
Lower	1300	Bridge									
Lower	1053.212	47312.00	11.63	28.73		30.16	0.002981	9.97	5062.38	380.90	
0.45											
Lower	977.176	47312.00	11.49	26.35	22.86	28.42	0.005338	12.34	4211.74	371.57	
0.59											
Lower	970	Bridge									
Lower	926.767	47312.00	10.92	19.72	21.83	27.23	0.040559	23.12	2186.42	325.33	
1.48											
Lower	666.956	47312.00	5.87	17.86	17.86	21.23	0.011808	16.06	3512.30	497.16	
0.85											
Lower	482.270	47312.00	5.05	17.07	16.09	18.81	0.006662	11.80	4830.16	809.02	
0.63											
Lower	284.051	47312.00	6.37	14.89	14.89	17.00	0.012526	13.40	4424.28	956.24	
0.83											
Lower	85.341	47312.00	5.15	11.12	11.43	13.57	0.023747	13.50	3905.57	988.58	
1.06											



1 in Horiz. = 2300 ft 1 in Vert. = 1900 ft

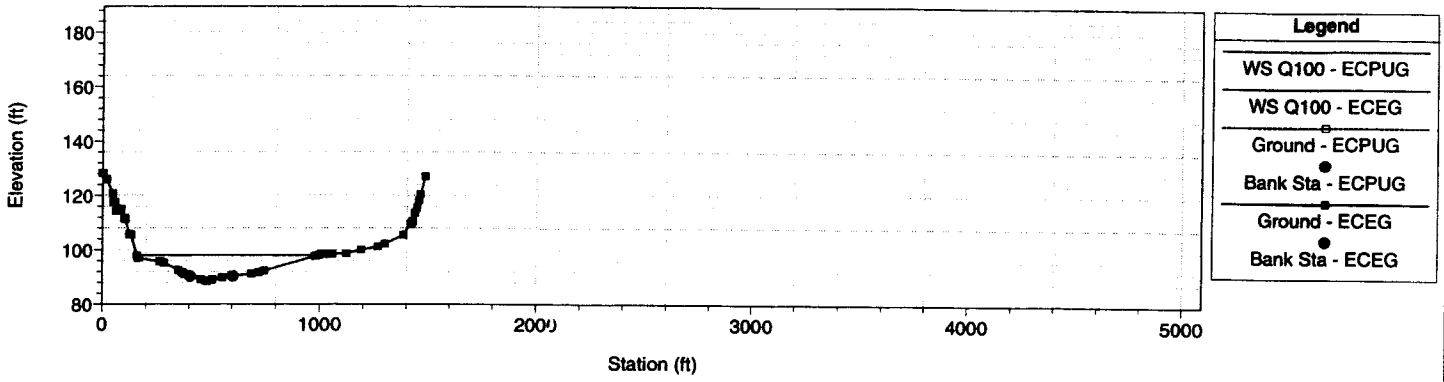
Project Model - Model F2

RS = 17108.89 FEC Alternative - San Mateo Creek Crossing



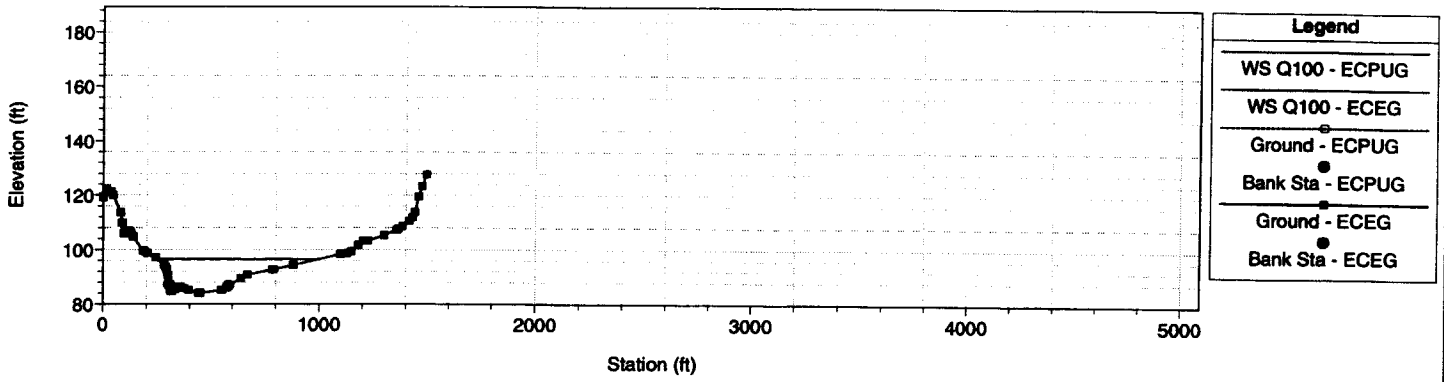
Project Model - Model F2

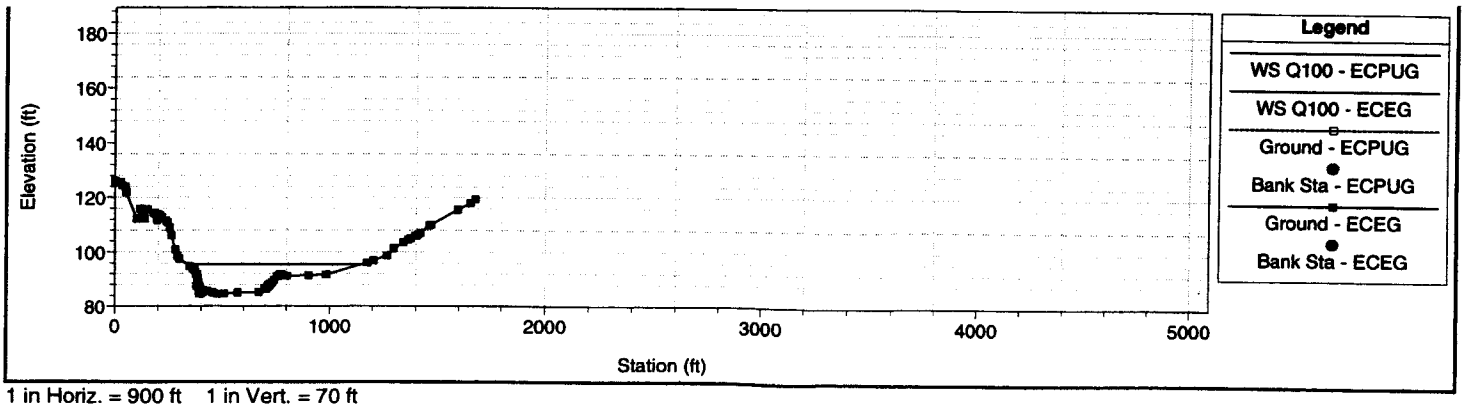
RS = 16909.21 FEC Alternative - San Mateo Creek Crossing



Project Model - Model F2

RS = 16706.13 FEC Alternative - San Mateo Creek Crossing

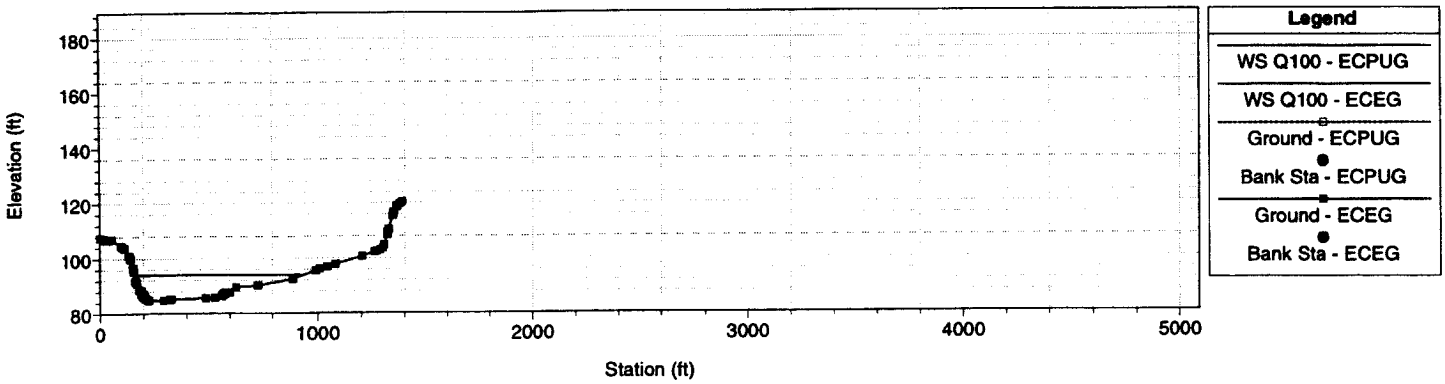




1 in Horiz. = 900 ft 1 in Vert. = 70 ft

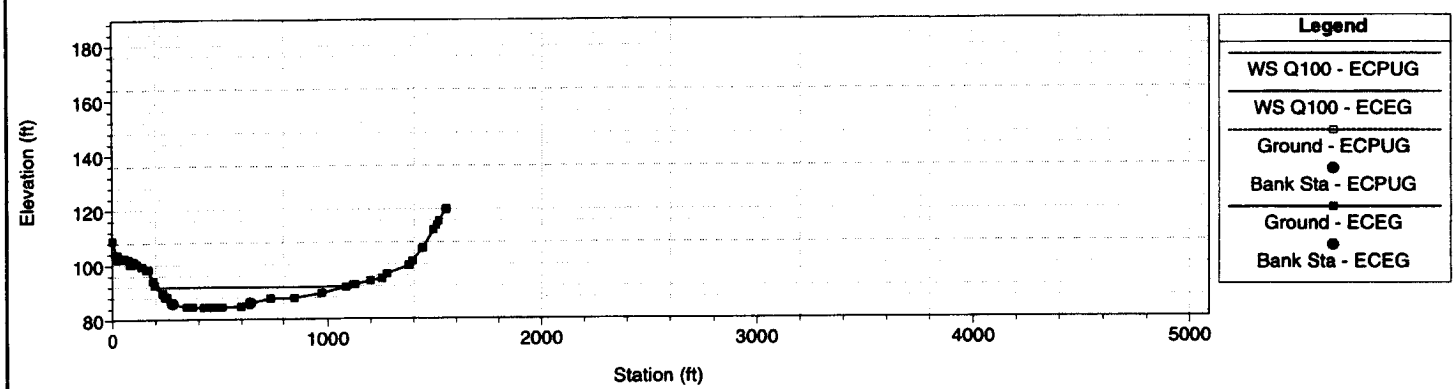
Project Model - Model F2

RS = 16299.19 FEC Alternative - San Mateo Creek Crossing



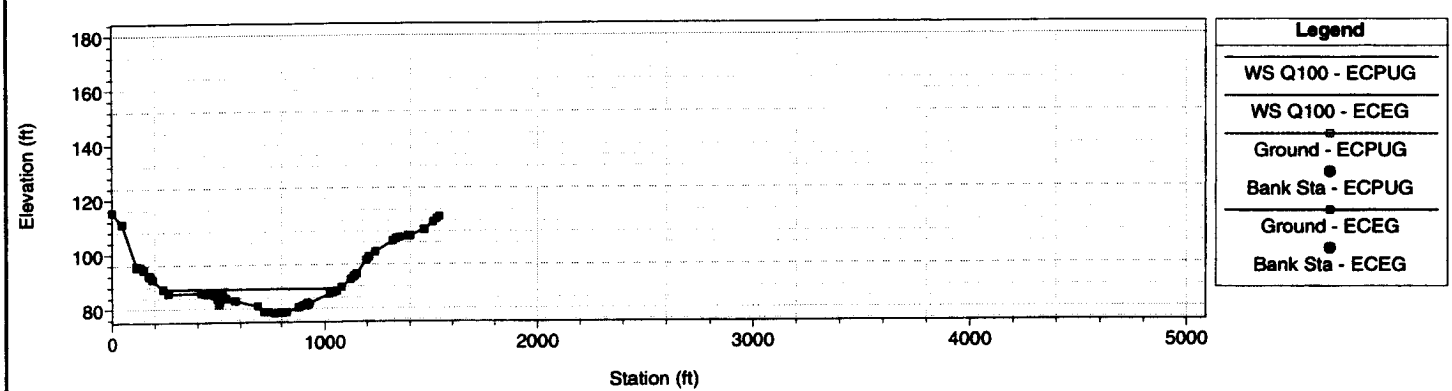
Project Model - Model F2

RS = 16105.61 FEC Alternative - San Mateo Creek Crossing



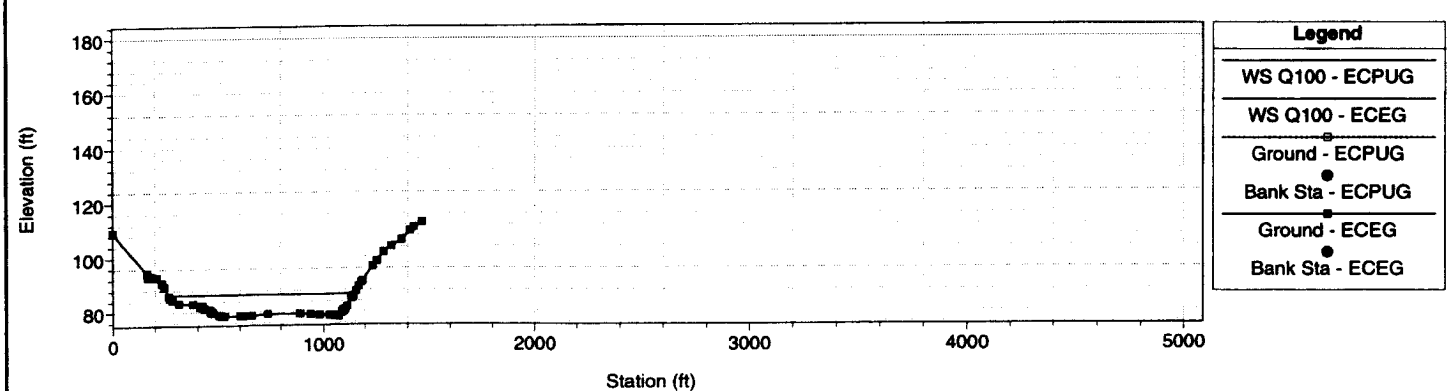
Project Model - Model F2

RS = 15910.69 FEC Alternative - San Mateo Creek Crossing



Project Model - Model F2

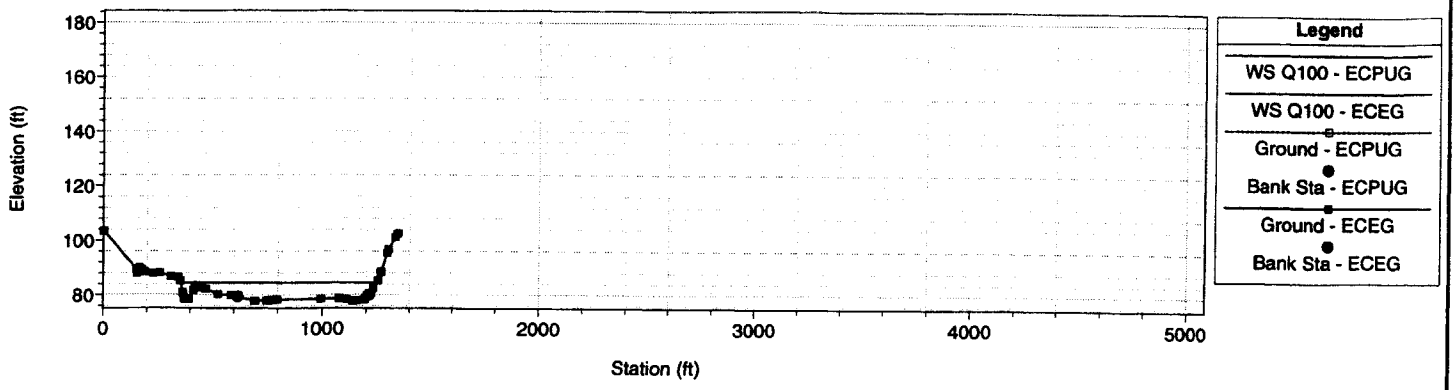
RS = 15677.08 FEC Alternative - San Mateo Creek Crossing



1 in Horiz. = 900 ft 1 in Vert. = 70 ft

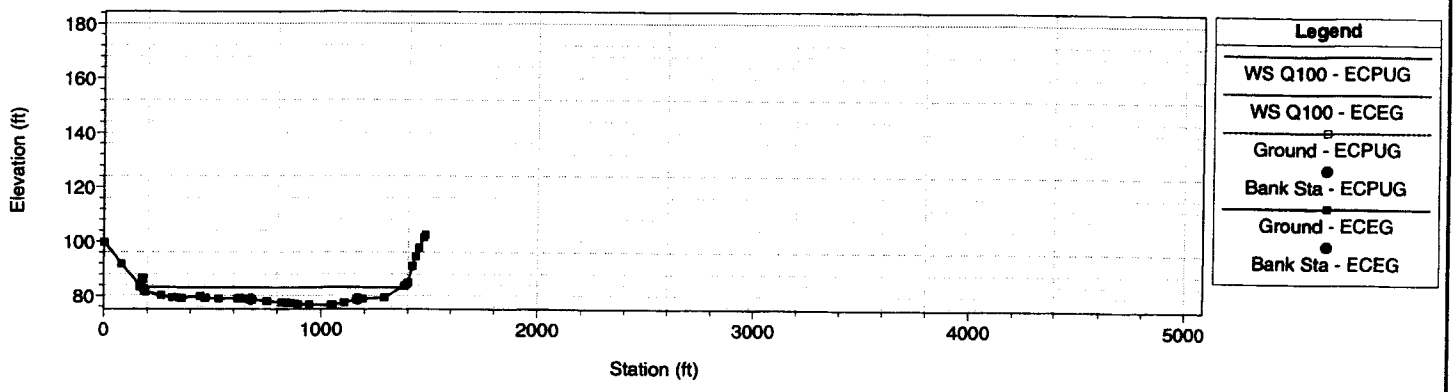
Project Model - Model F2

RS = 15455.59 FEC Alternative - San Mateo Creek Crossing



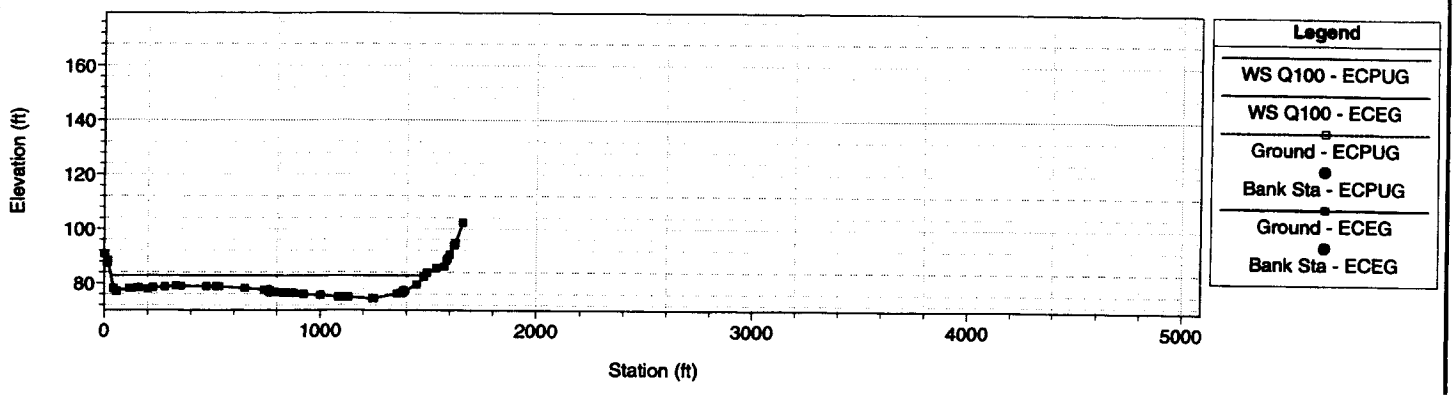
Project Model - Model F2

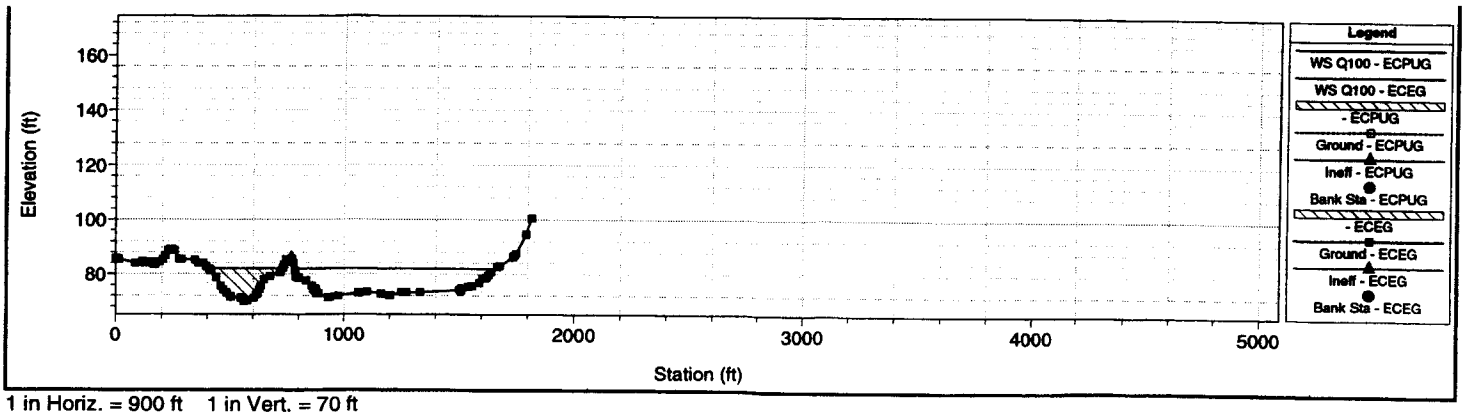
RS = 15282.84 FEC Alternative - San Mateo Creek Crossing



Project Model - Model F2

RS = 15076.02 FEC Alternative - San Mateo Creek Crossing

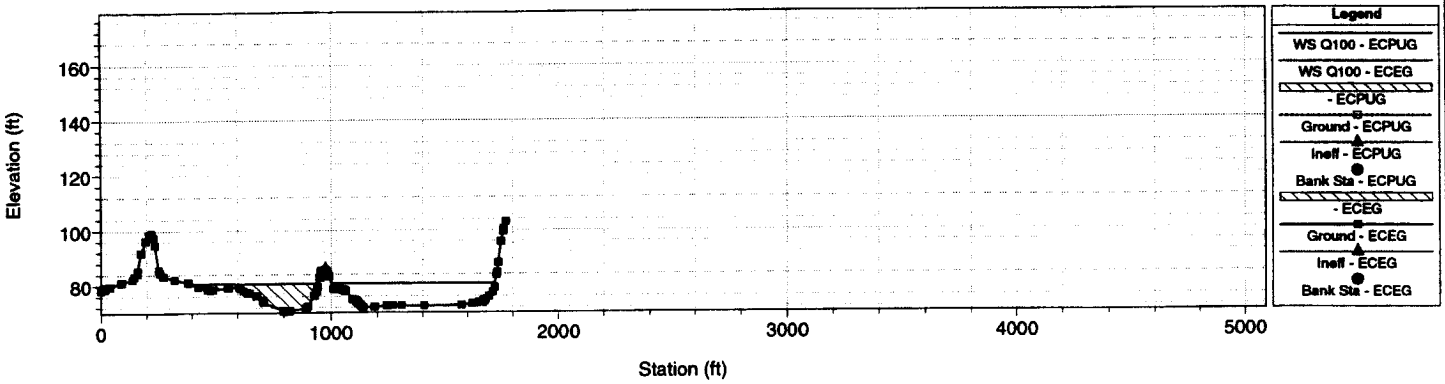




1 in Horiz. = 900 ft 1 in Vert. = 70 ft

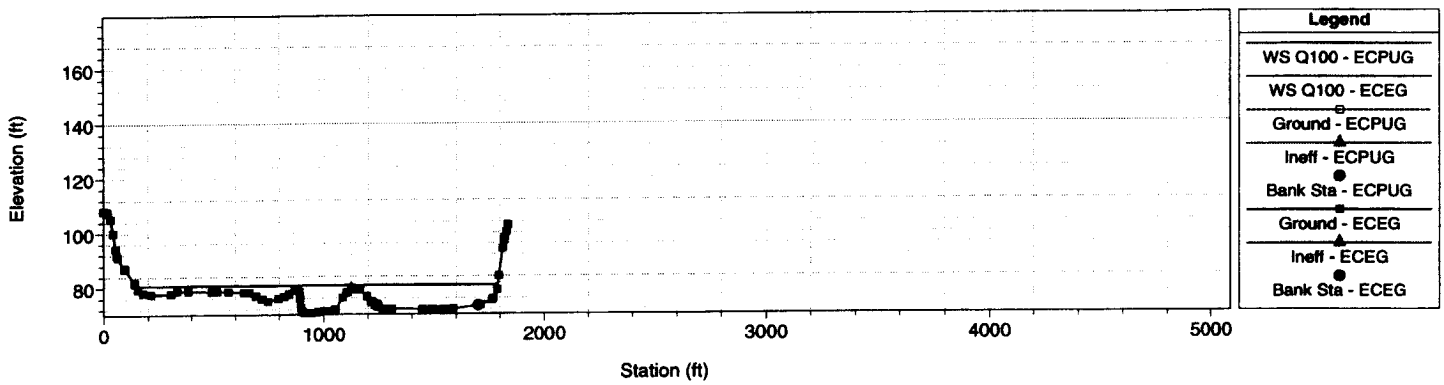
Project Model - Model F2

RS = 14640.75 FEC Alternative - San Mateo Creek Crossing



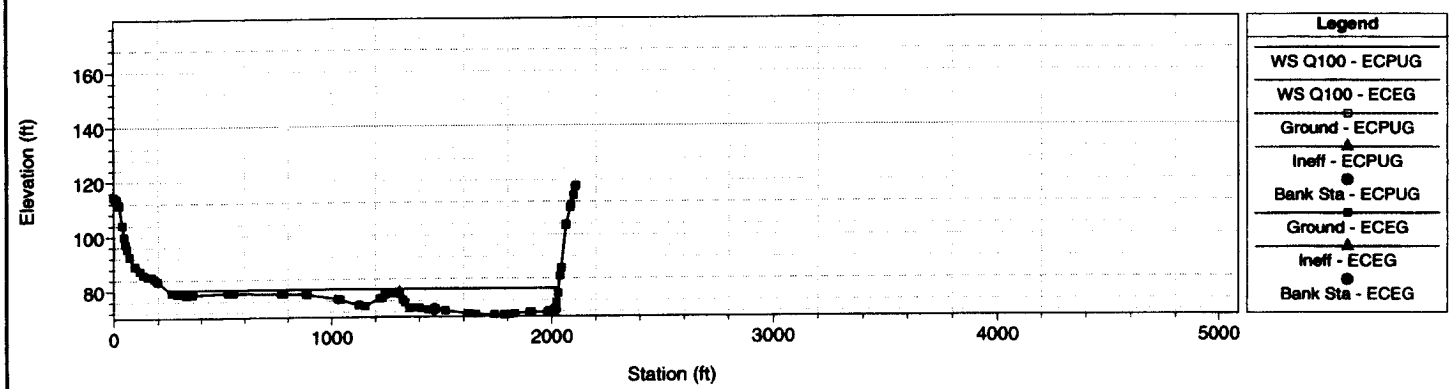
Project Model - Model F2

RS = 14474.32 FEC Alternative - San Mateo Creek Crossing



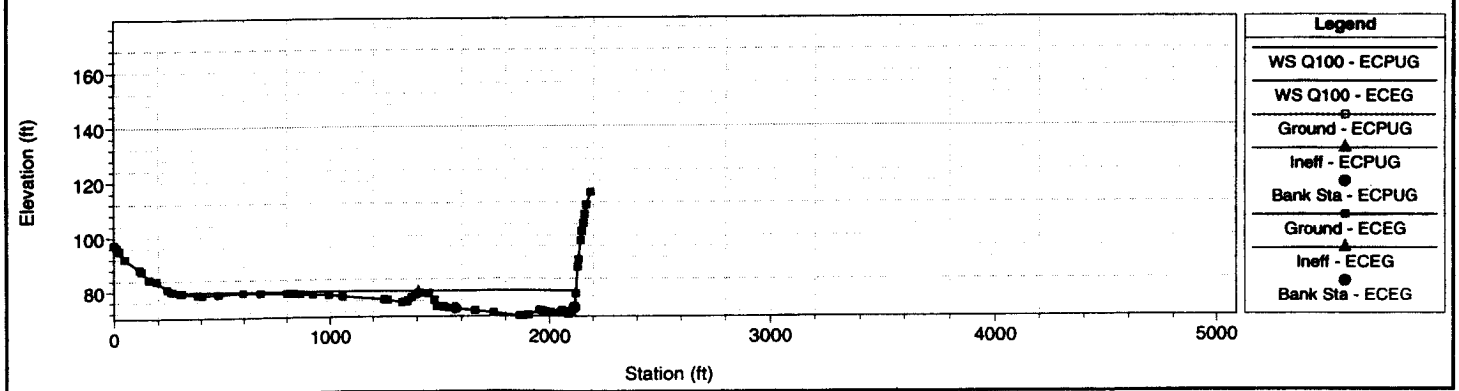
Project Model - Model F2

RS = 14295.85 FEC Alternative - San Mateo Creek Crossing



Project Model - Model F2

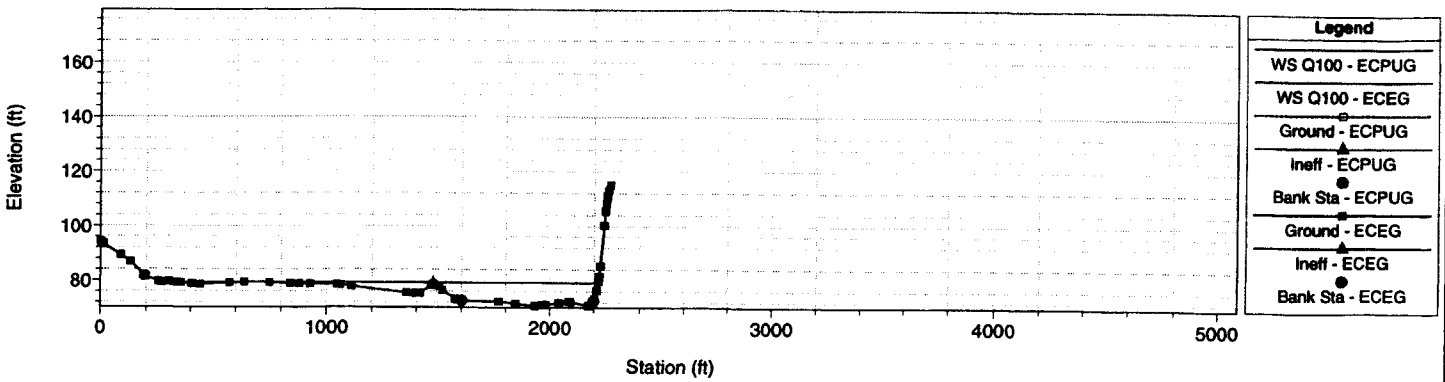
RS = 14206.87 FEC Alternative - San Mateo Creek Crossing



1 in Horiz. = 900 ft 1 in Vert. = 70 ft

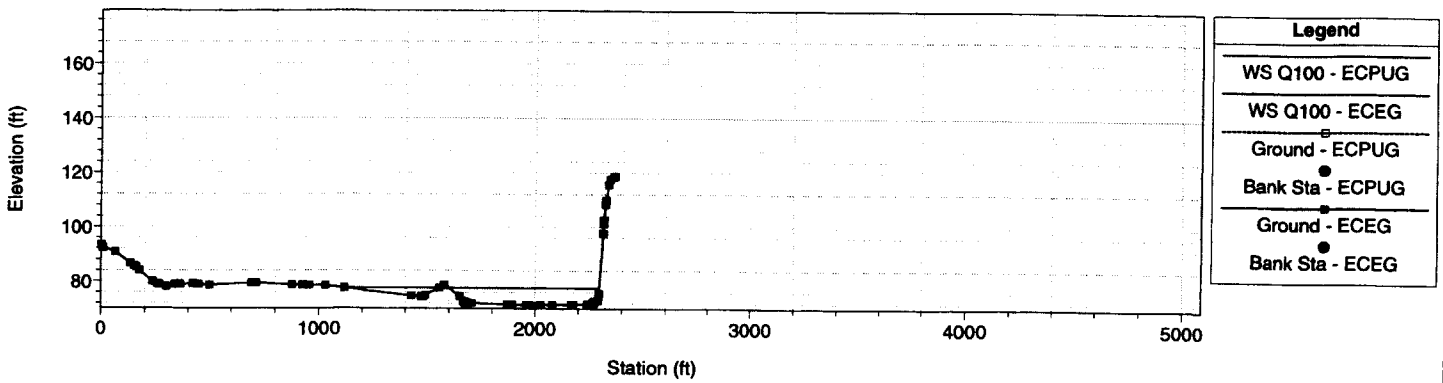
Project Model - Model F2

RS = 14108.61 FEC Alternative - San Mateo Creek Crossing



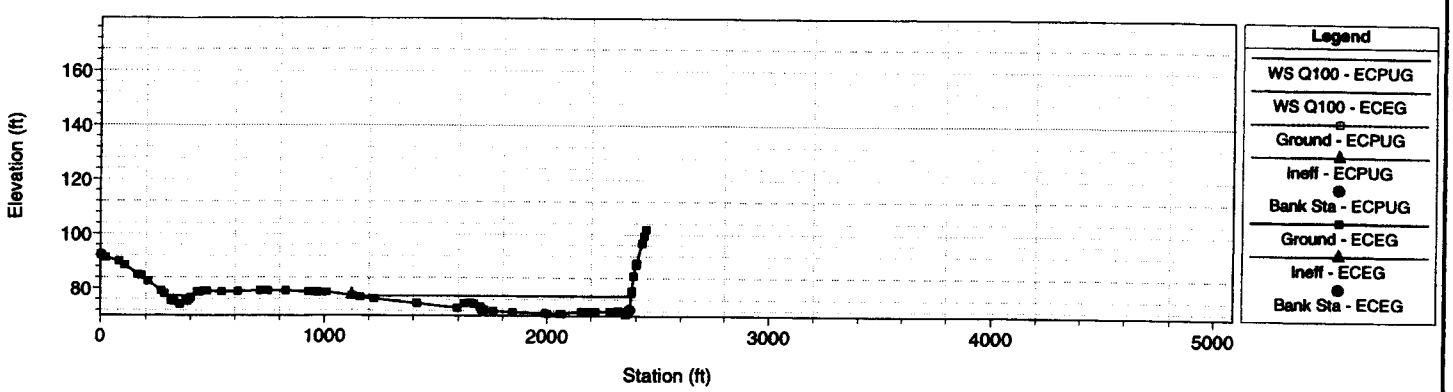
Project Model - Model F2

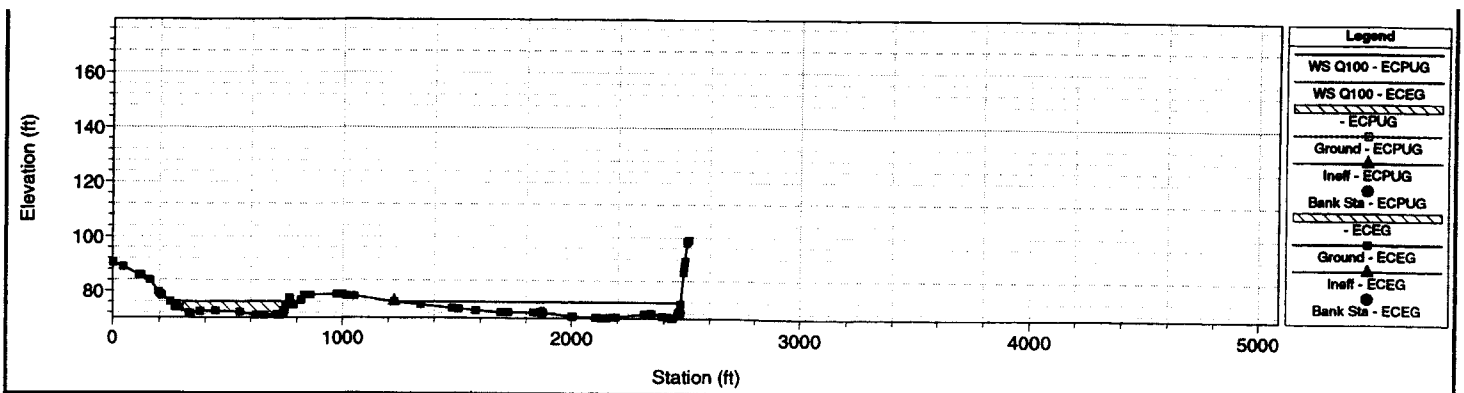
RS = 14009.16 FEC Alternative - San Mateo Creek Crossing



Project Model - Model F2

RS = 13906.13 FEC Alternative - San Mateo Creek Crossing

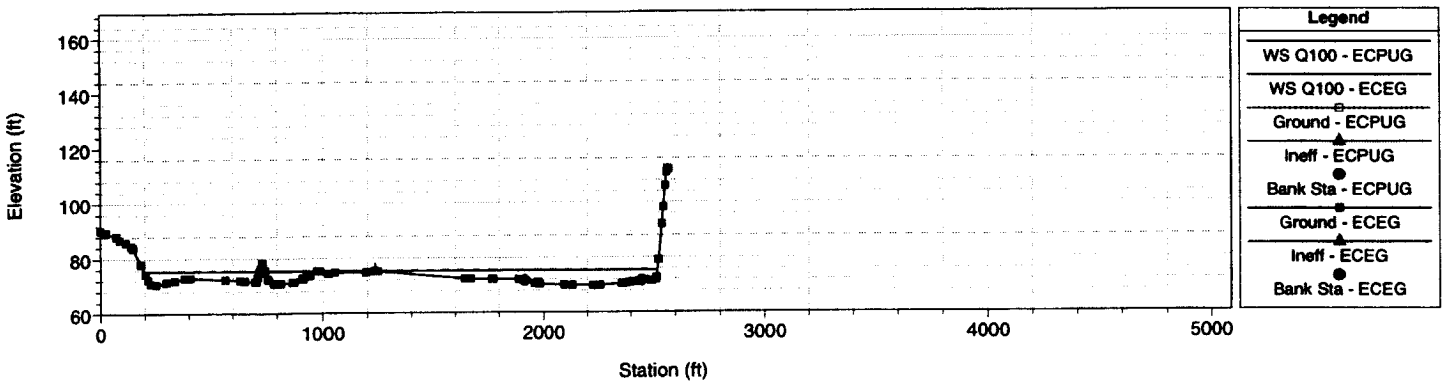




1 in Horiz. = 900 ft 1 in Vert. = 70 ft

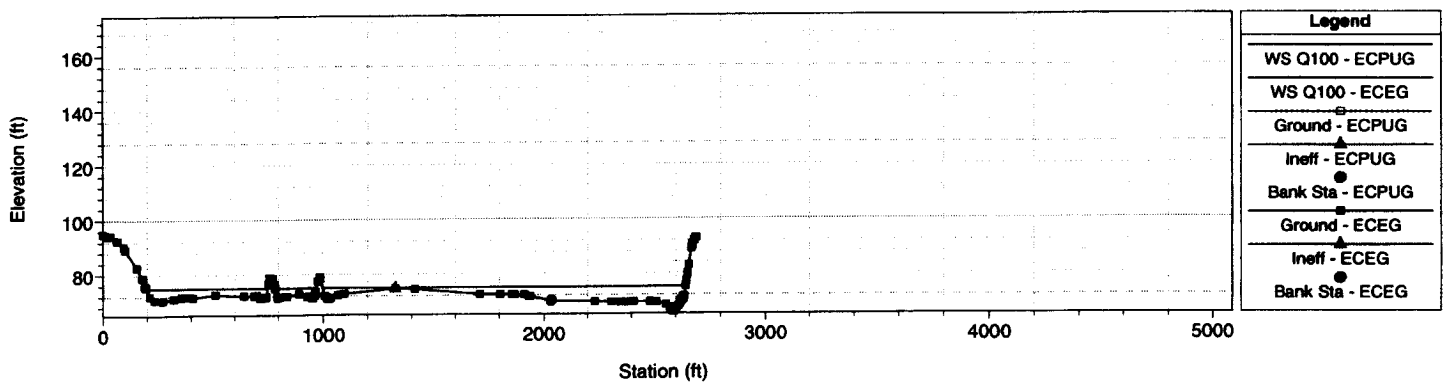
Project Model - Model F2

RS = 13721.89 FEC Alternative - San Mateo Creek Crossing



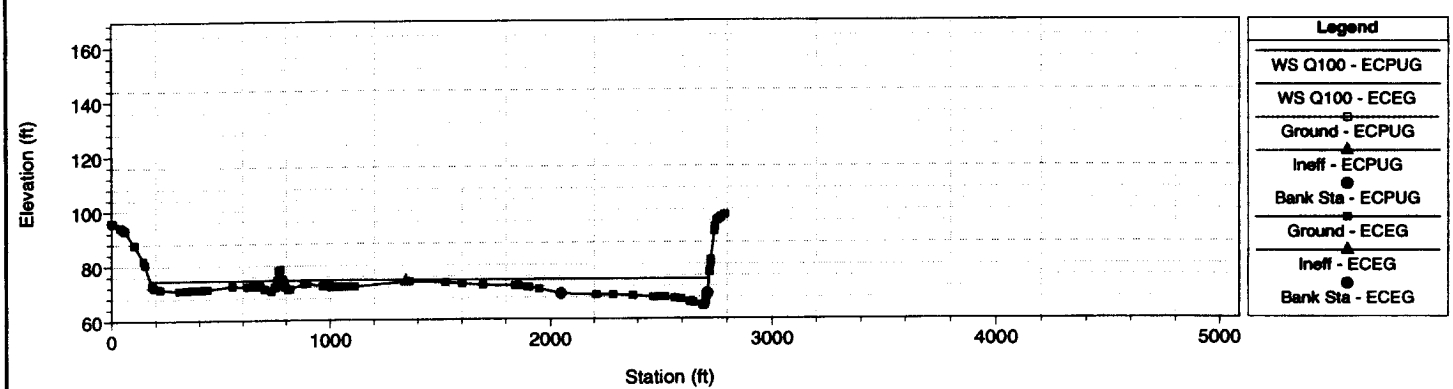
Project Model - Model F2

RS = 13616.16 FEC Alternative - San Mateo Creek Crossing



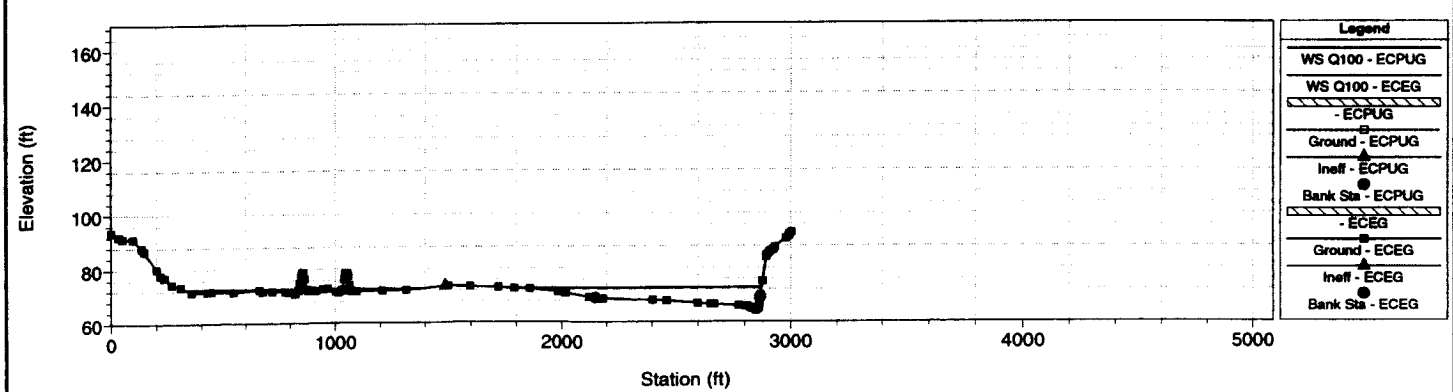
Project Model - Model F2

RS = 13508.64 FEC Alternative - San Mateo Creek Crossing



Project Model - Model F2

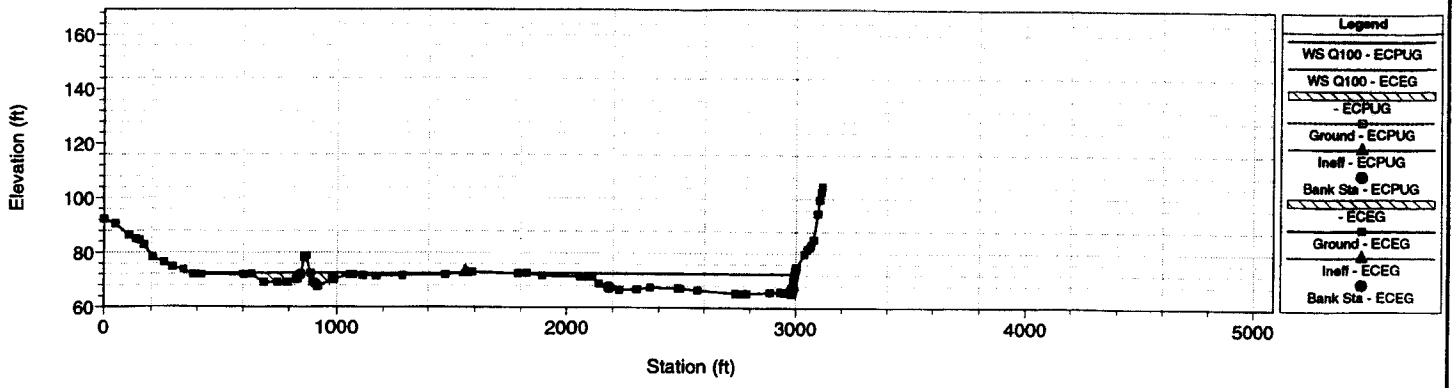
RS = 13407.57 FEC Alternative - San Mateo Creek Crossing



1 in Horiz. = 900 ft 1 in Vert. = 70 ft

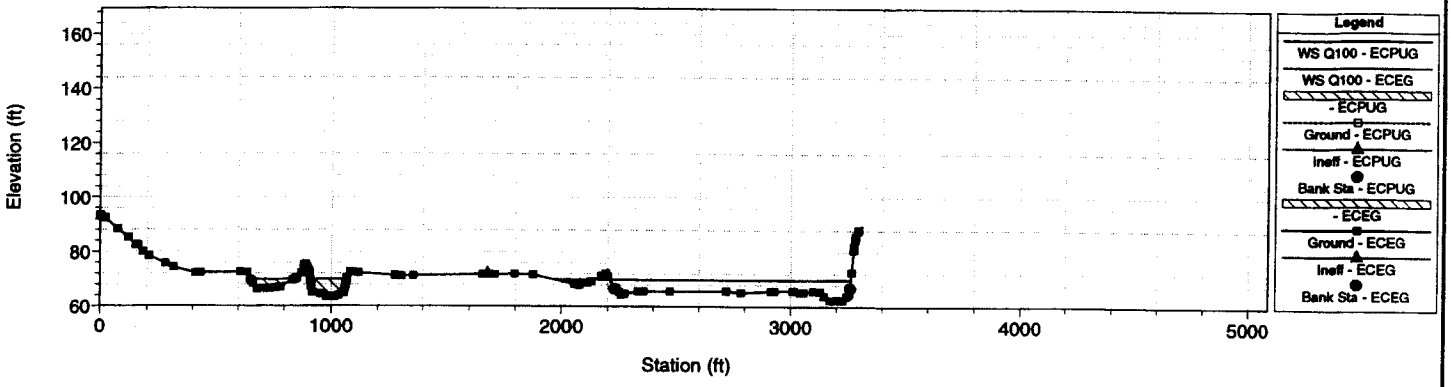
Project Model - Model F2

RS = 13315.43 FEC Alternative - San Mateo Creek Crossing



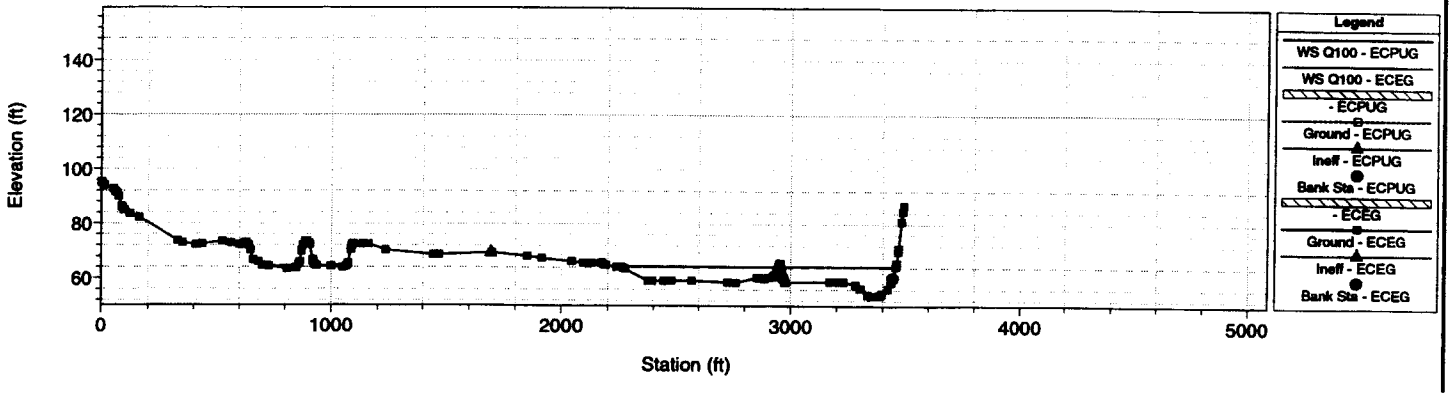
Project Model - Model F2

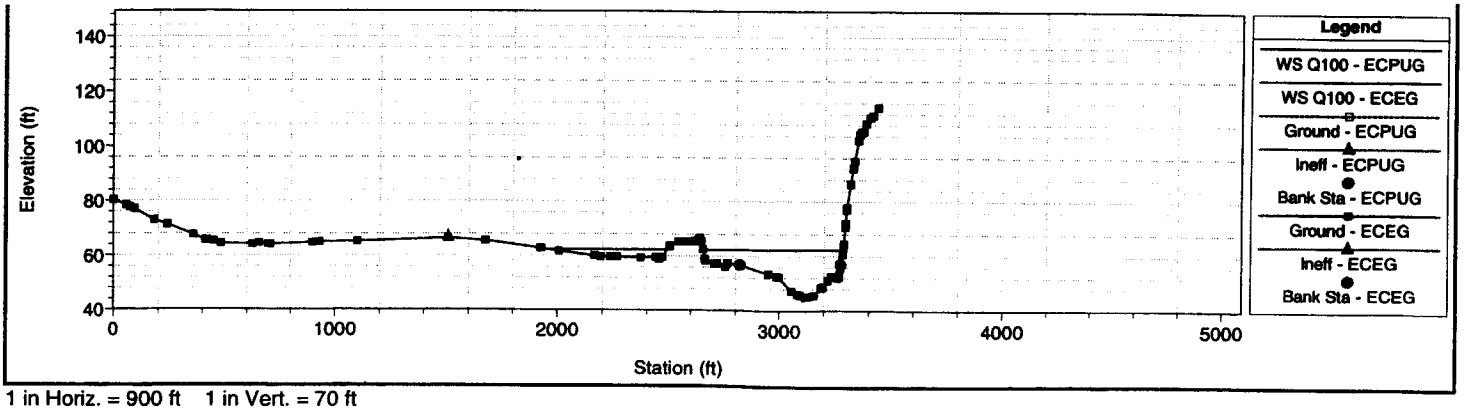
RS = 12905.33 FEC Alternative - San Mateo Creek Crossing



Project Model - Model F2

RS = 11695.46 FEC Alternative - San Mateo Creek Crossing

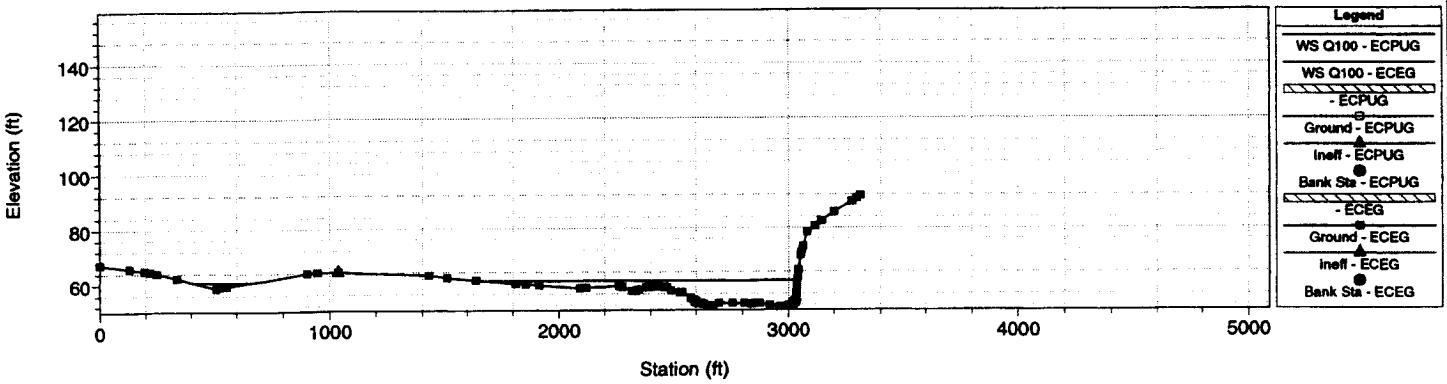




1 in Horiz. = 900 ft 1 in Vert. = 70 ft

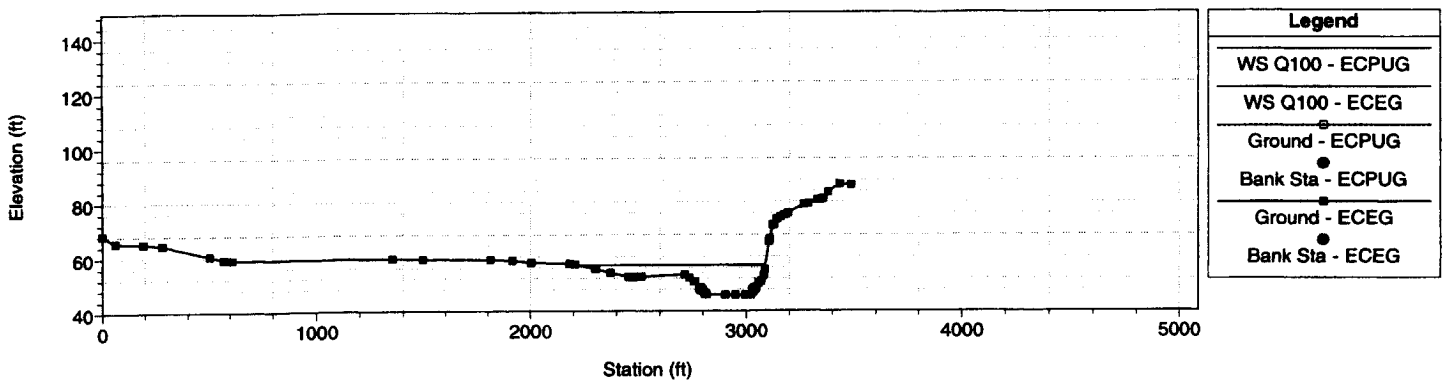
Project Model - Model F2

RS = 10103.57 FEC Alternative - San Mateo Creek Crossing



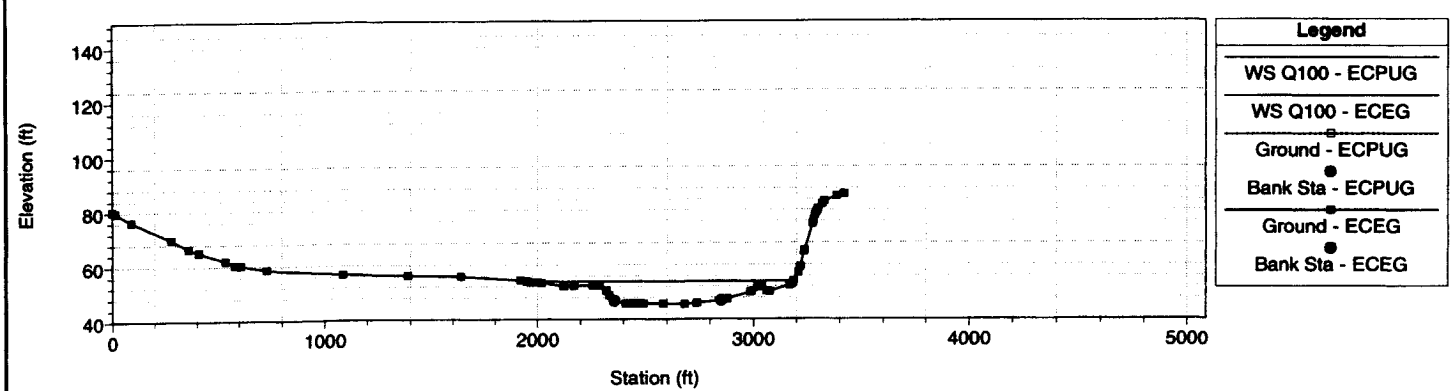
Project Model - Model F2

RS = 9476.099 FEC Alternative - San Mateo Creek Crossing



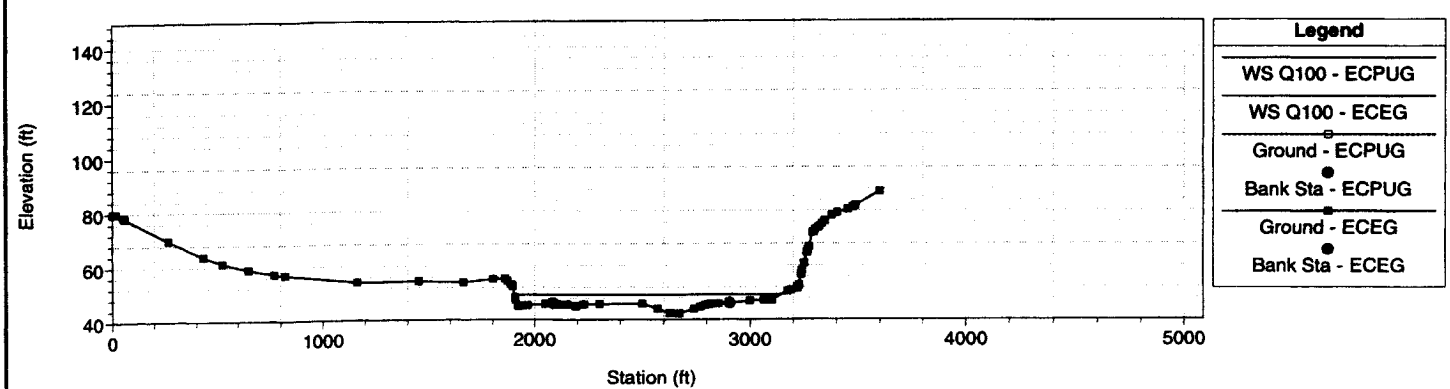
Project Model - Model F2

RS = 8888.551 FEC Alternative - San Mateo Creek Crossing



Project Model - Model F2

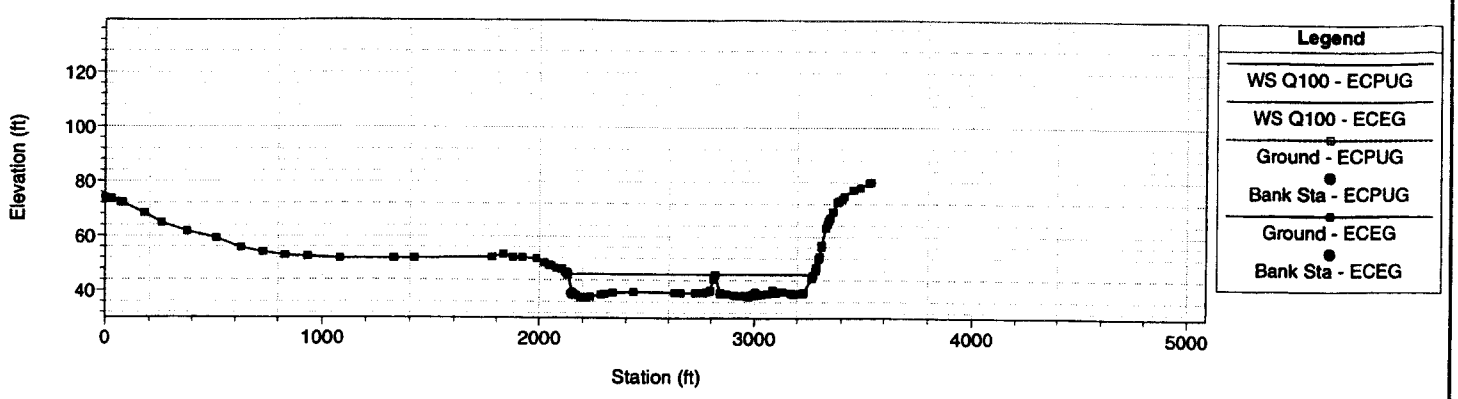
RS = 8290.415 FEC Alternative - San Mateo Creek Crossing



1 in Horiz. = 900 ft 1 in Vert. = 70 ft

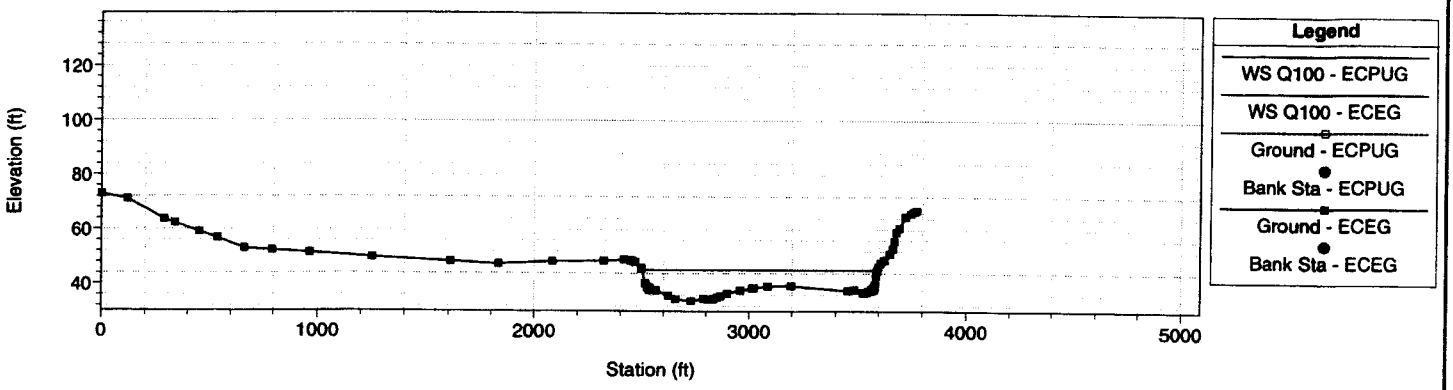
Project Model - Model F2

RS = 7667.615 FEC Alternative - San Mateo Creek Crossing



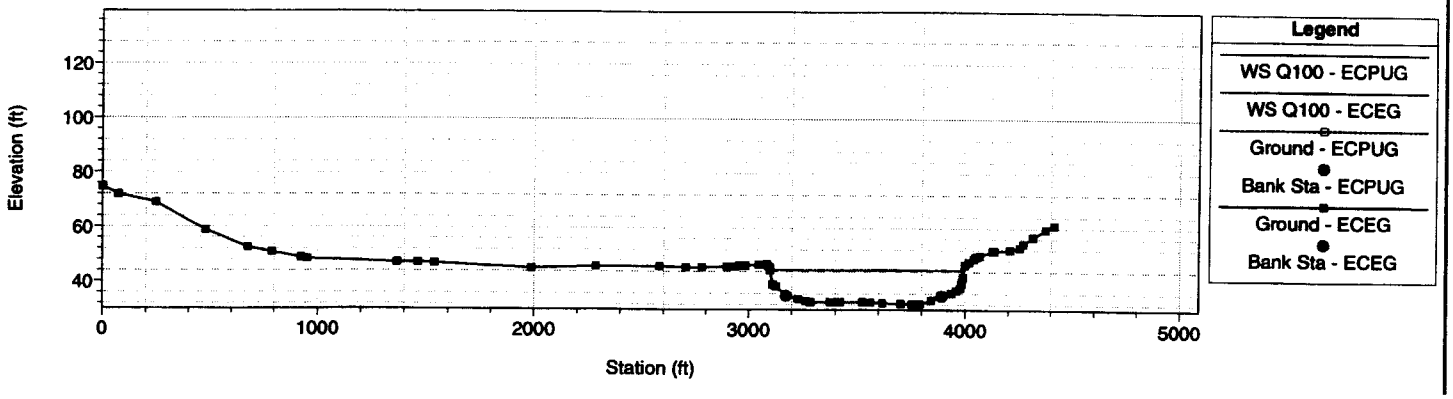
Project Model - Model F2

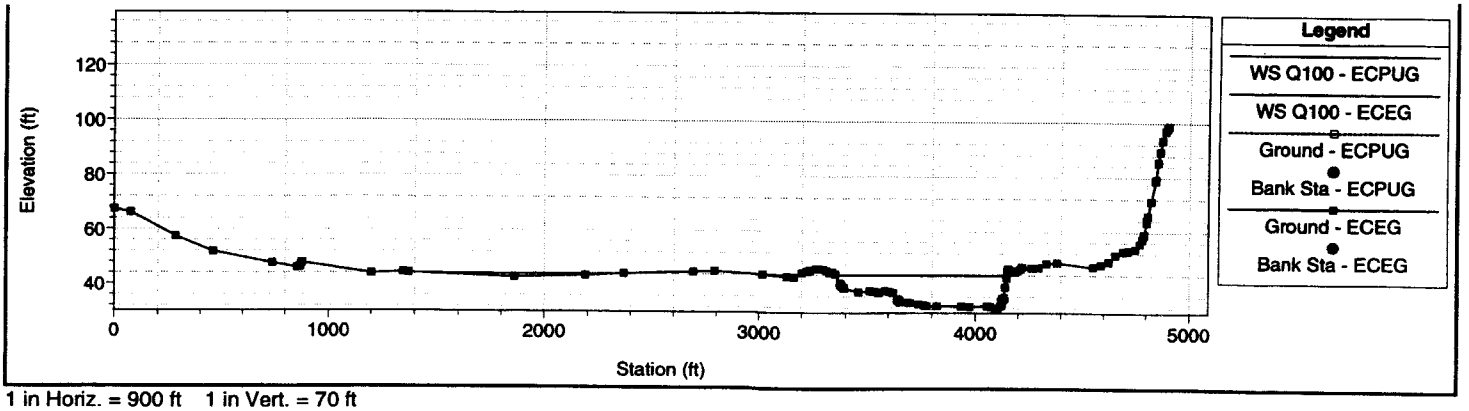
RS = 7116.984 FEC Alternative - San Mateo Creek Crossing



Project Model - Model F2

RS = 6553.777 FEC Alternative - San Mateo Creek Crossing

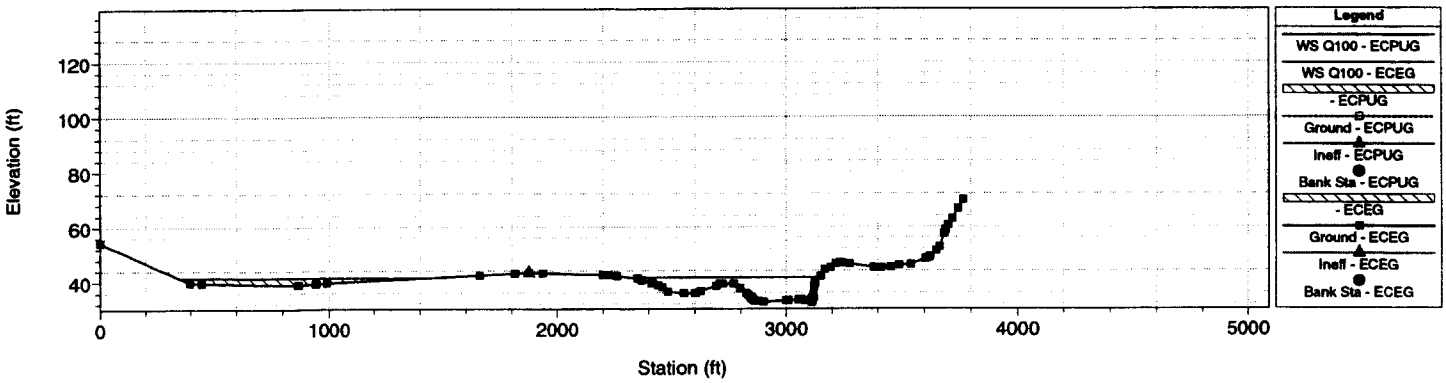




1 in Horiz. = 900 ft 1 in Vert. = 70 ft

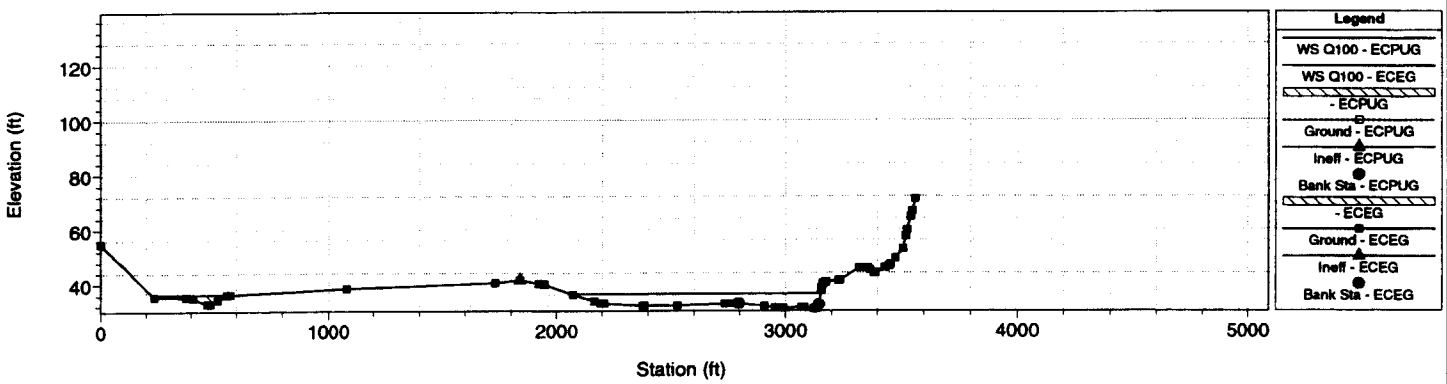
Project Model - Model F2

RS = 5898.852 FEC Alternative - San Mateo Creek Crossing



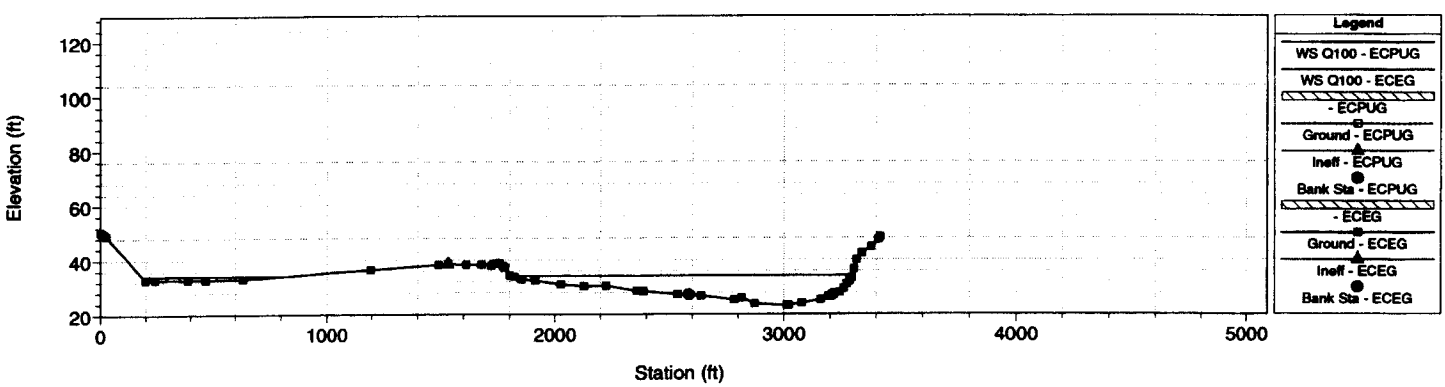
Project Model - Model F2

RS = 5313.135 FEC Alternative - San Mateo Creek Crossing



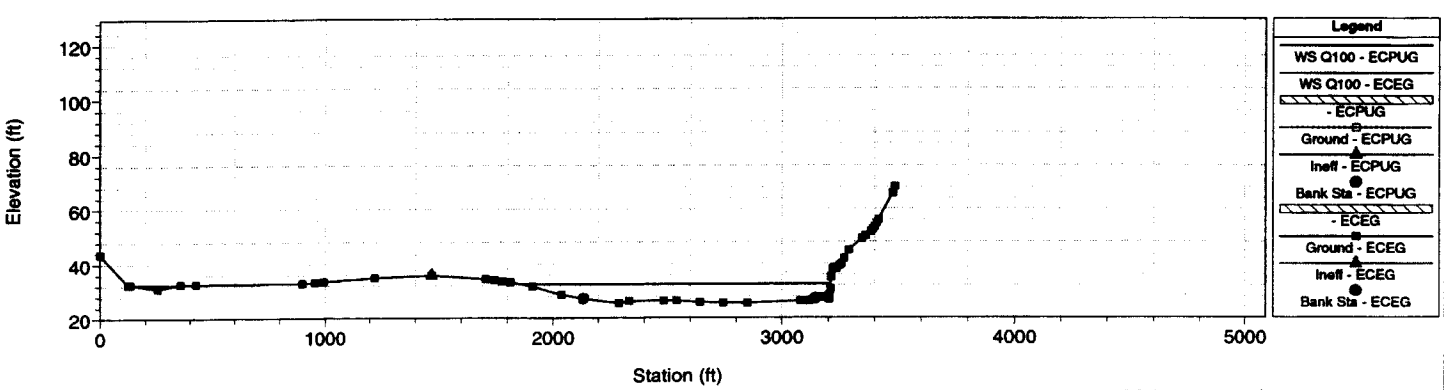
Project Model - Model F2

RS = 4689.719 FEC Alternative - San Mateo Creek Crossing



Project Model - Model F2

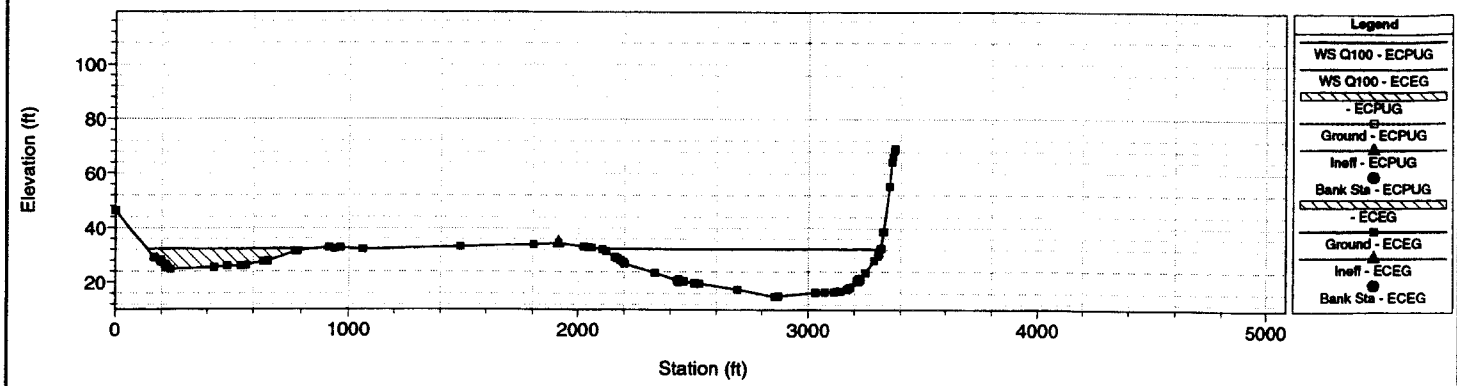
RS = 4089.740 FEC Alternative - San Mateo Creek Crossing



1 in Horiz. = 900 ft 1 in Vert. = 70 ft

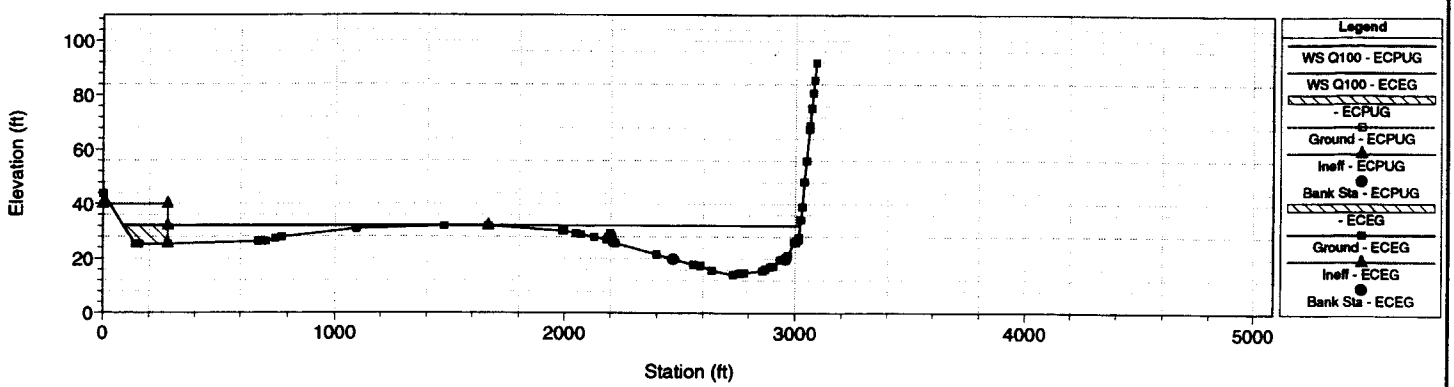
Project Model - Model F2

RS = 3486.110 FEC Alternative - San Mateo Creek Crossing



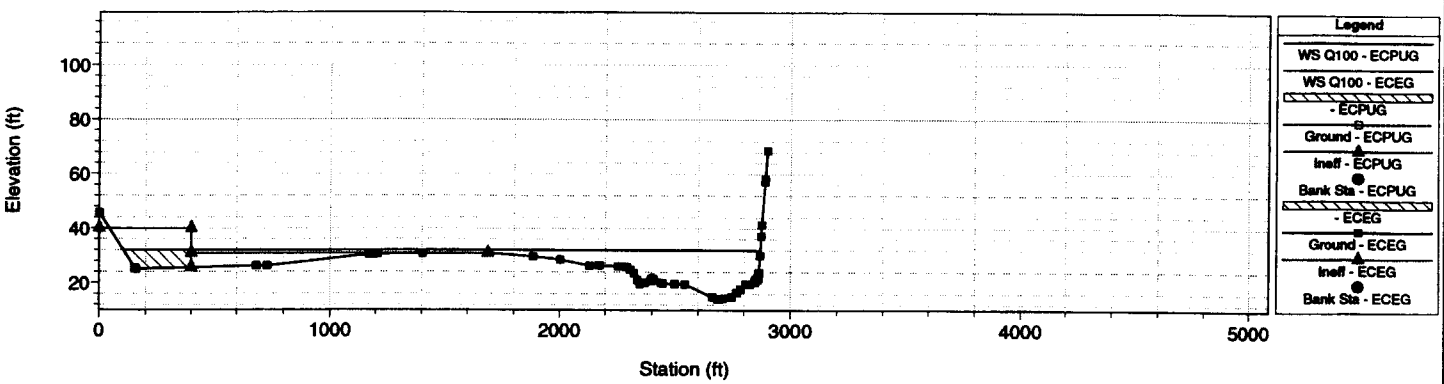
Project Model - Model F2

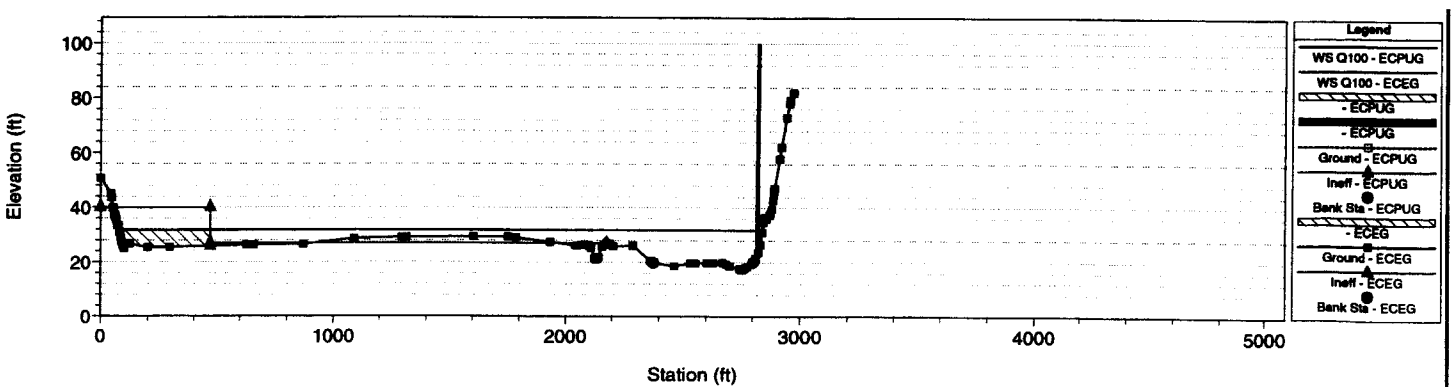
RS = 2883.526 FEC Alternative - San Mateo Creek Crossing



Project Model - Model F2

RS = 2679.762 FEC Alternative - San Mateo Creek Crossing

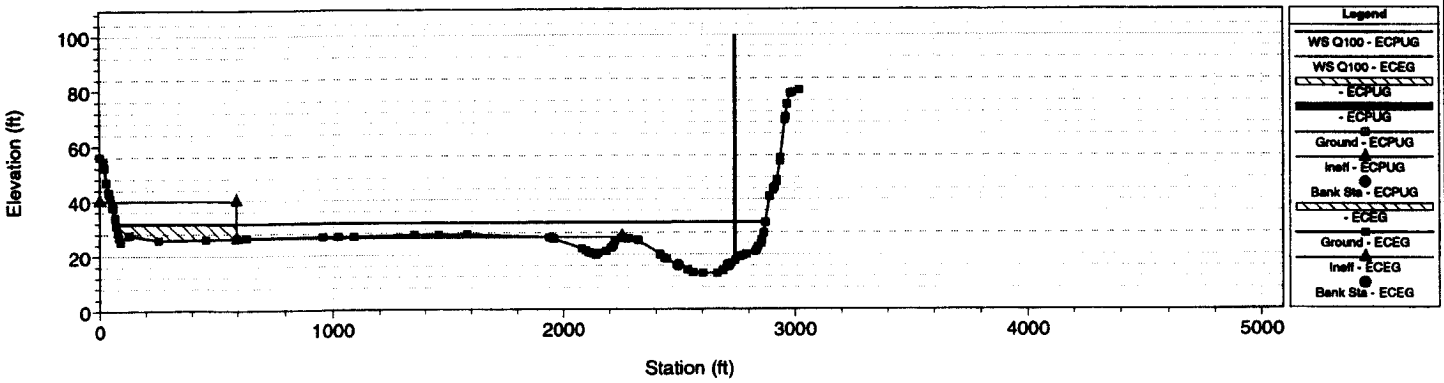




1 in Horiz. = 900 ft 1 in Vert. = 70 ft

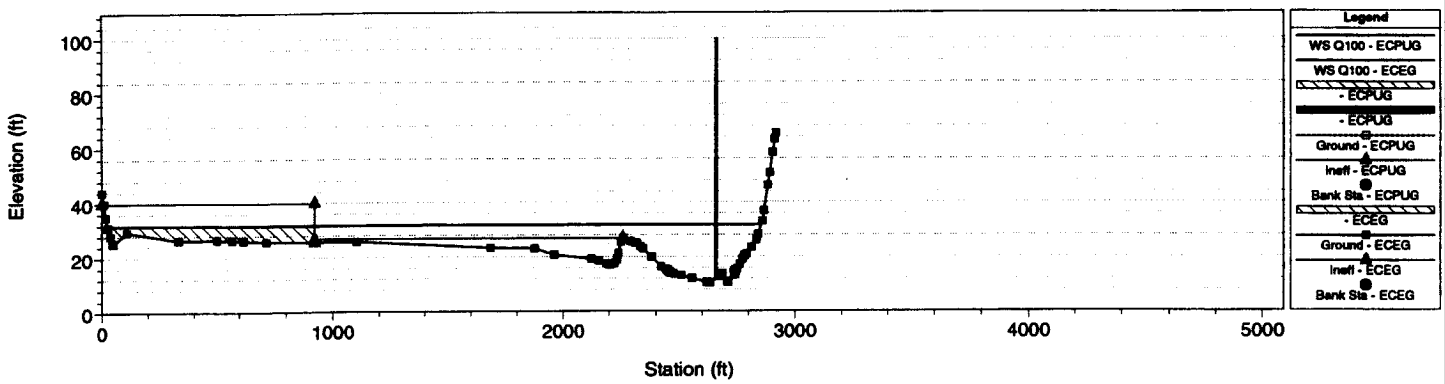
Project Model - Model F2

RS = 2075.420 FEC Alternative - San Mateo Creek Crossing



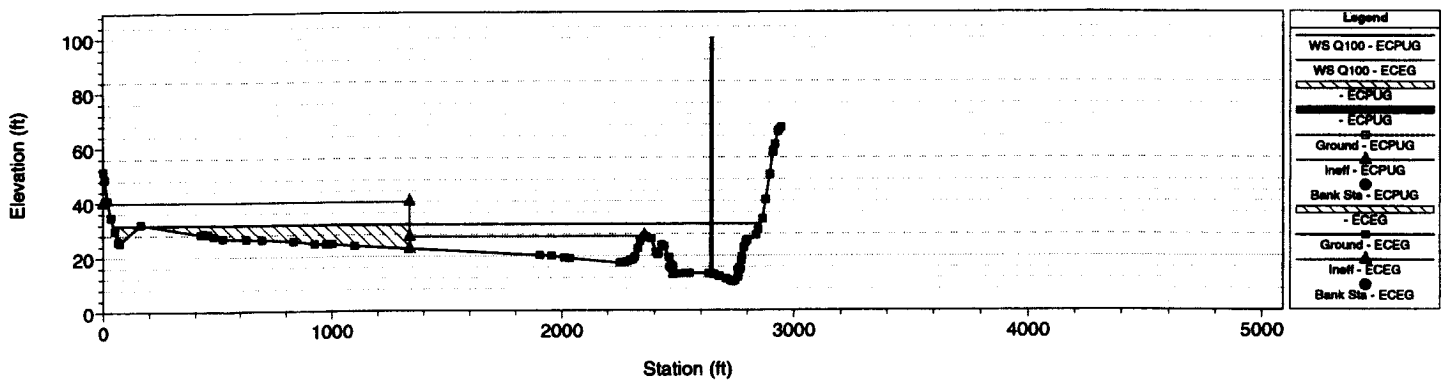
Project Model - Model F2

RS = 1907.350 FEC Alternative - San Mateo Creek Crossing



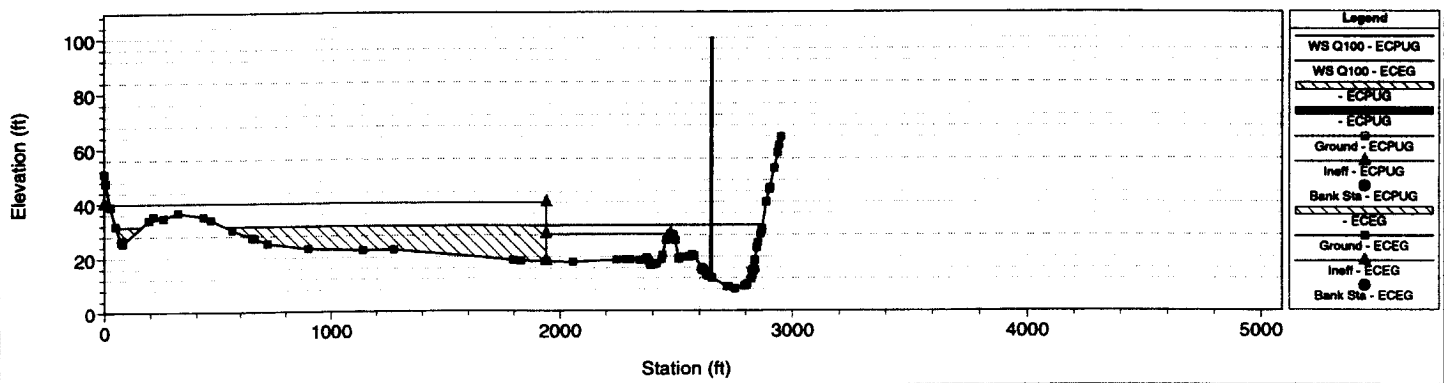
Project Model - Model F2

RS = 1700.584 FEC Alternative - San Mateo Creek Crossing



Project Model - Model F2

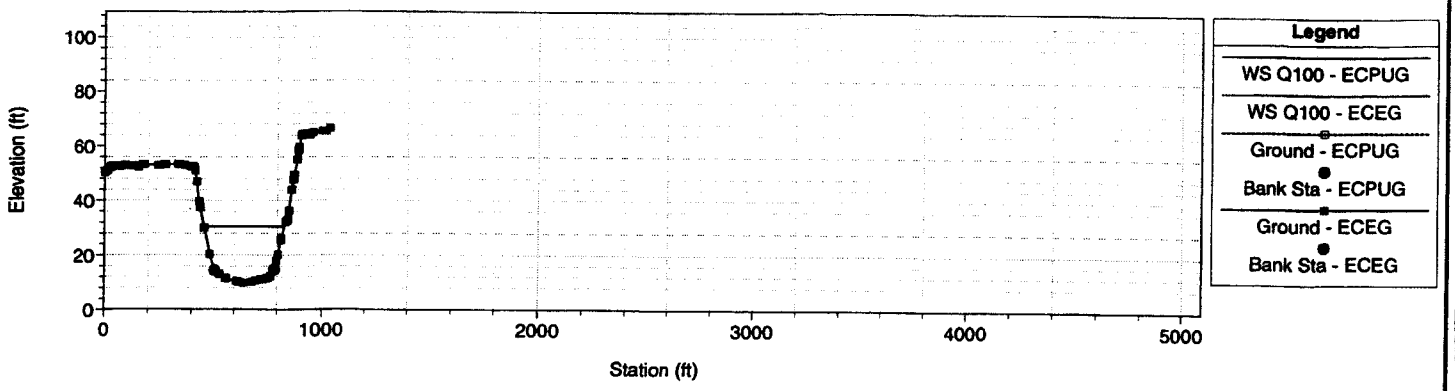
RS = 1525.293 FEC Alternative - San Mateo Creek Crossing



1 in Horiz. = 900 ft 1 in Vert. = 70 ft

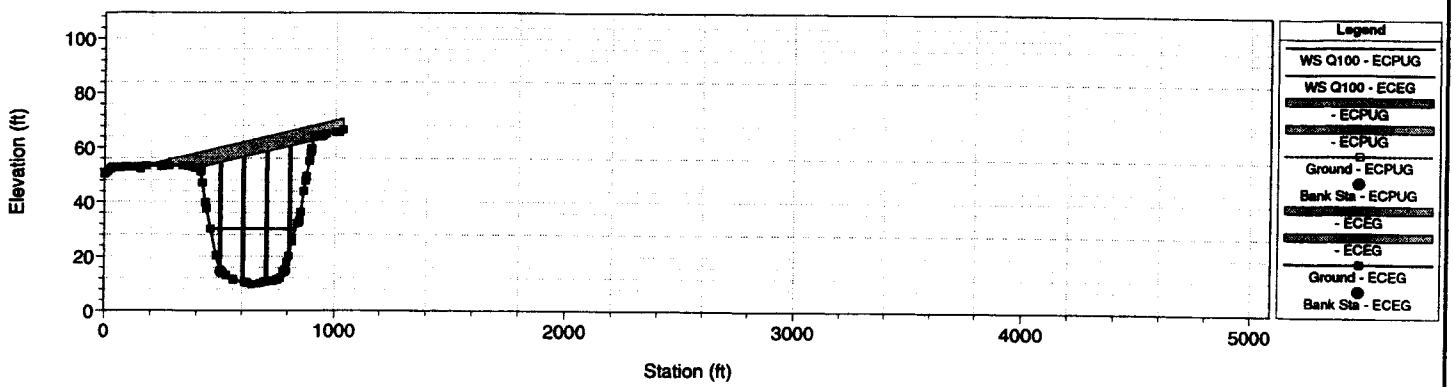
Project Model - Model F2

RS = 1306.721 FEC Alternative - San Mateo Creek Crossing



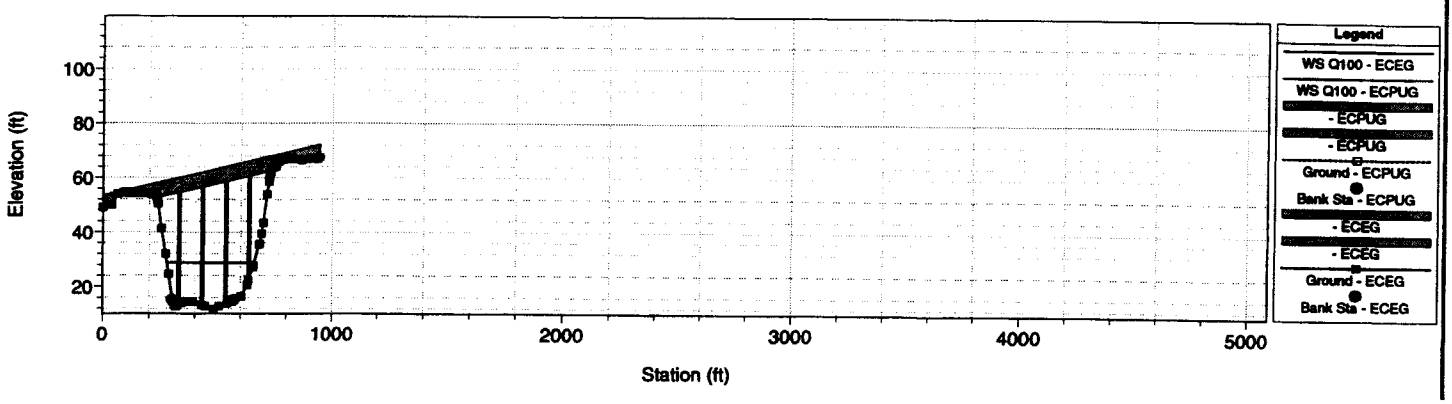
Project Model - Model F2

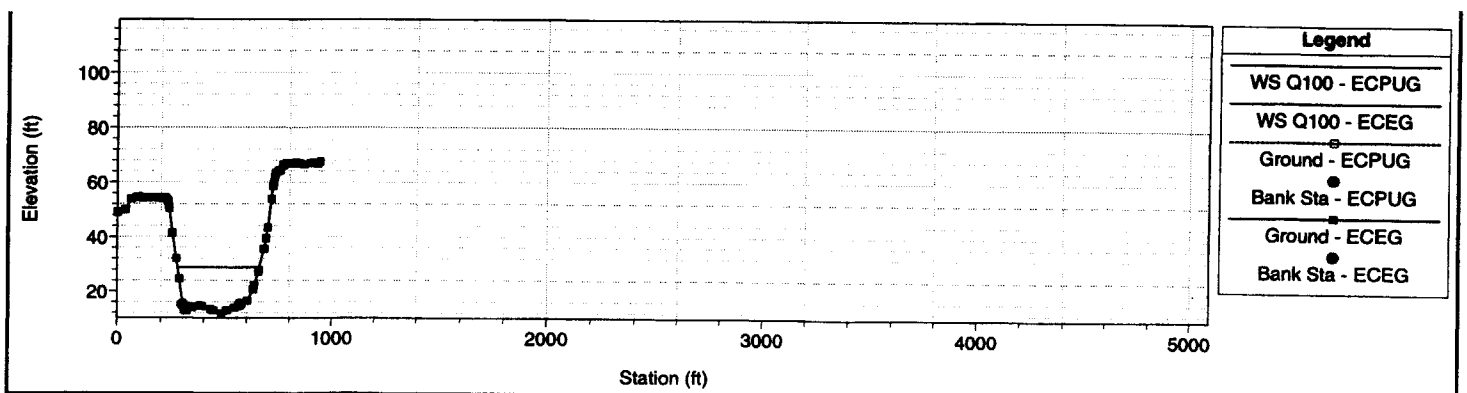
RS = 1300 FEC Alternative - San Mateo Creek Crossing



Project Model - Model F2

RS = 1300 FEC Alternative - San Mateo Creek Crossing

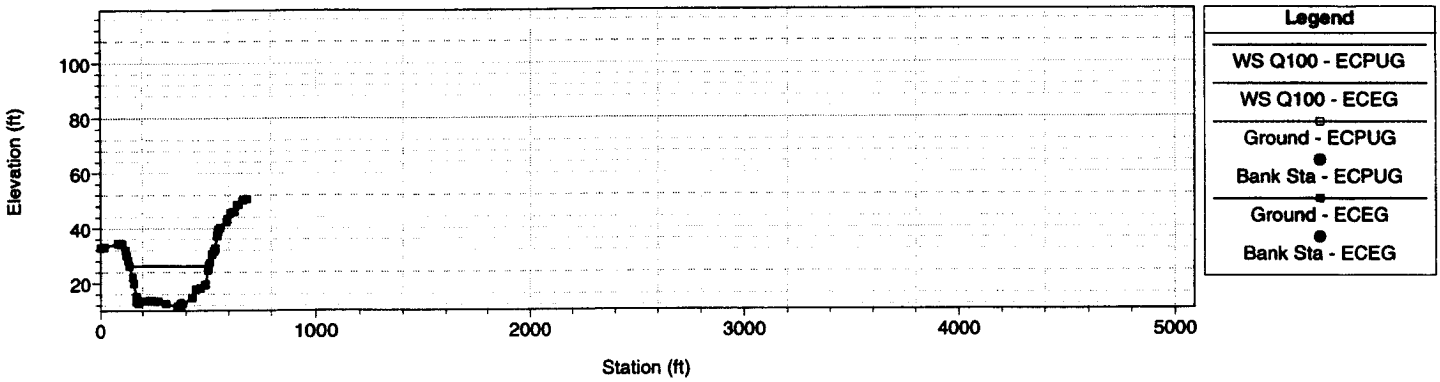




1 in Horiz. = 900 ft 1 in Vert. = 70 ft

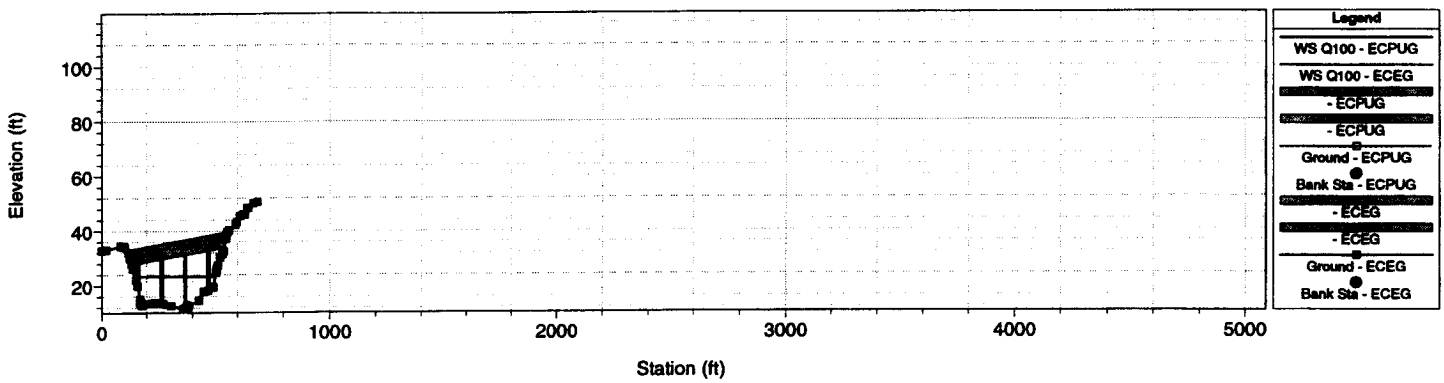
Project Model - Model F2

RS = 977.176 FEC Alternative - San Mateo Creek Crossing



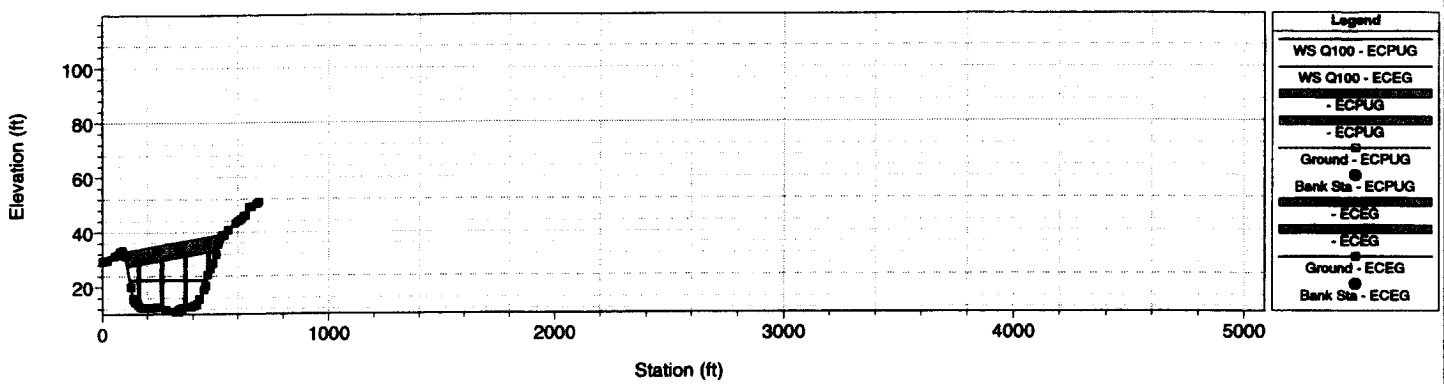
Project Model - Model F2

RS = 970 FEC Alternative - San Mateo Creek Crossing



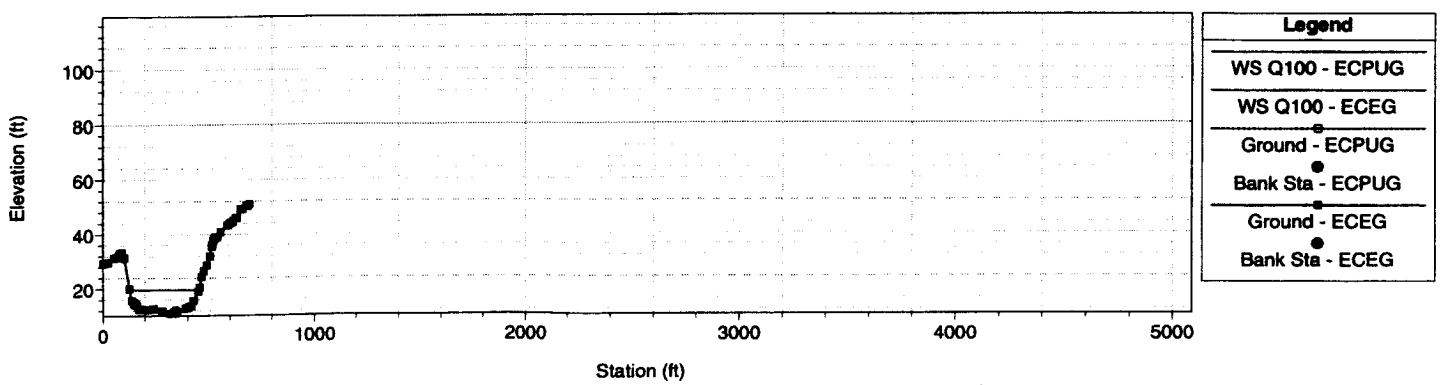
Project Model - Model F2

RS = 970 FEC Alternative - San Mateo Creek Crossing



Project Model - Model F2

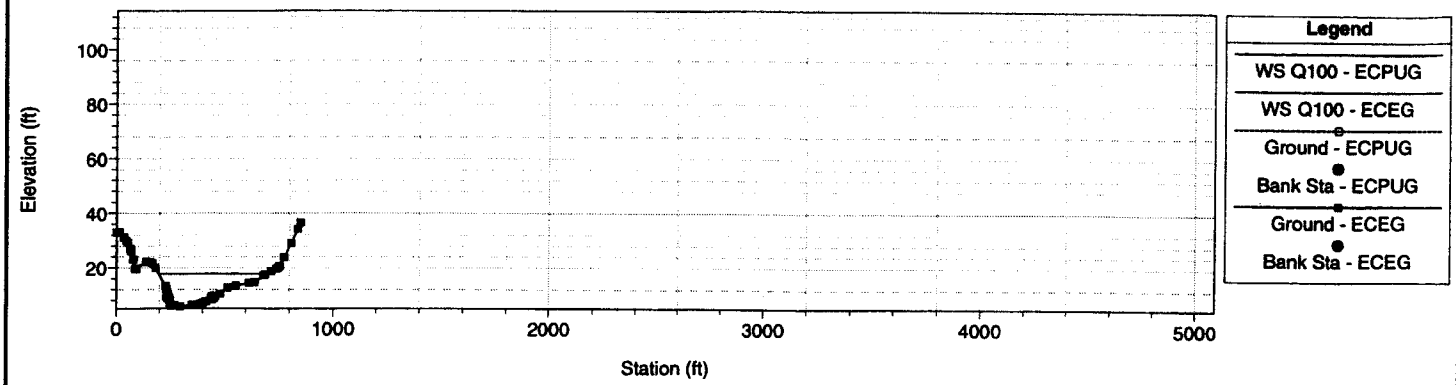
RS = 926.767 FEC Alternative - San Mateo Creek Crossing



1 in Horiz. = 900 ft 1 in Vert. = 70 ft

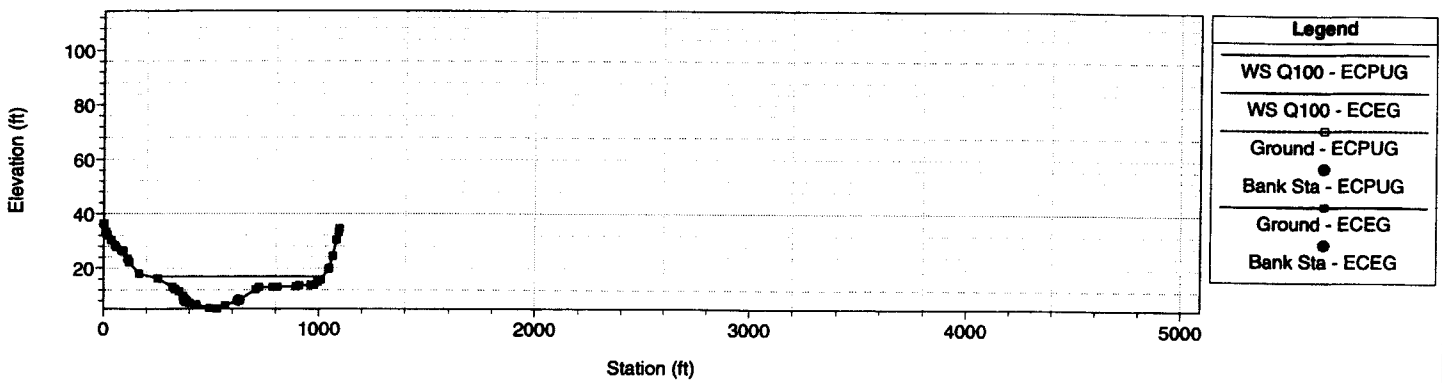
Project Model - Model F2

RS = 666.956 FEC Alternative - San Mateo Creek Crossing



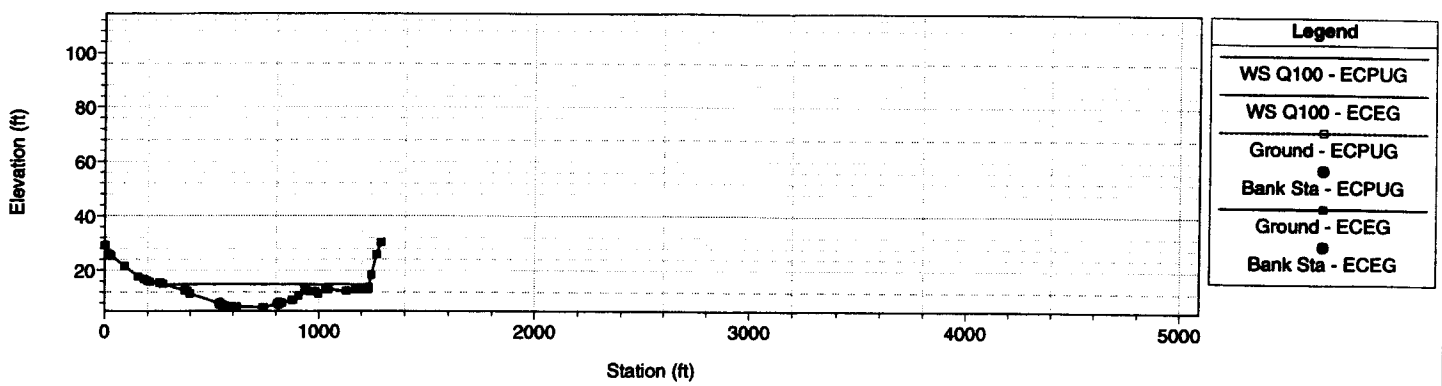
Project Model - Model F2

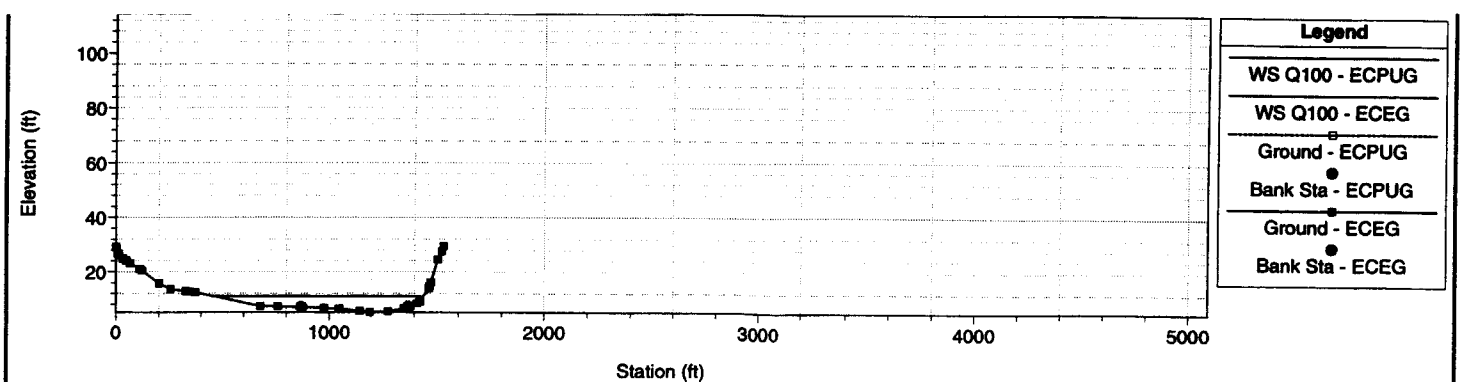
RS = 482.270 FEC Alternative - San Mateo Creek Crossing



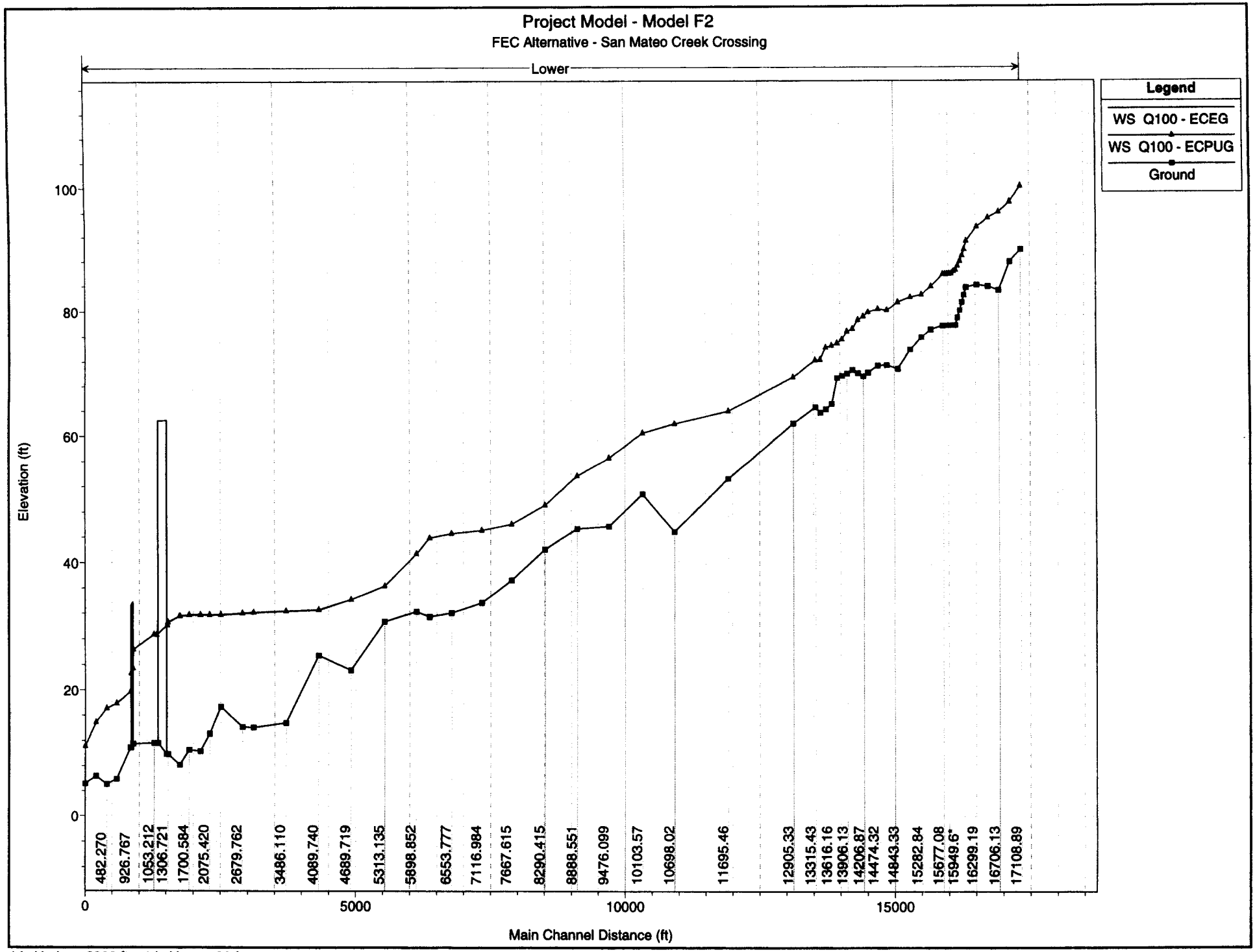
Project Model - Model F2

RS = 284.051 FEC Alternative - San Mateo Creek Crossing





1 in Horiz. = 900 ft 1 in Vert. = 70 ft



1 in Horiz. = 2300 ft 1 in Vert. = 20 ft

APPENDIX F
HYDRAULIC MODEL INPUT & RESULTS
FEC ALTERNATIVE AT SAN ONOFRE CREEK
(MODEL "G")

Appendix F. **Hydraulic Model Input & Results**

FEC Alternative at San Onofre (Model G)

- Model Report
- Project geometry, plan view
- Cross Sections comparing 100-yr existing and project geometries and water surface elevations
- Geometry and water surface elevation profile

Cross sections associated with the proposed widening include:

304	(997)
218	(715)

HEC-RAS Version 3.0.1 Mar 2001
U.S. Army Corp of Engineers
Hydrologic Engineering Center
609 Second Street, Suite D
Davis, California 95616-4687
(916) 756-1104

```
X     X  XXXXXX    XXXX        XXXX       XX      XXXX
X     X  X        X    X      X   X     X  X    X
X     X  X        X           X   X    X    X   X
XXXXXXX  XXXX     X       XXX XXXX     XXXXXX    XXXX
X     X  X        X           X  X     X    X        X
X     X  X        X    X      X   X    X    X        X
X     X  XXXXXX    XXXX       X    X   X    X   XXXXX
```

PROJECT DATA
Project Title: Project Model G
Project File : PMG.prj
Run Date and Time: 2/20/03 8:56:10 AM

Project in English units

Project Description:
FEC Alternative - San Onofre Creek Crossing

PLAN DATA

Plan Title: Existing Flow/Existing Geometry
Plan File : p:\2PDA0104\Hydr\LHS\Modeling\Model G\HecRas G\PMG.p01

Geometry Title: Existing Conditions
Geometry File : p:\2PDA0104\Hydr\LHS\Modeling\Model G\HecRas G\PMG.g01

Flow Title : Existing Conditions
Flow File : p:\2PDA0104\Hydr\LHS\Modeling\Model G\HecRas G\PMG.f01

Plan Summary Information:
Number of: Cross Sections = 16 Mulitple Openings = 0
Culverts = 0 Inline Weirs = 0
Bridges = 2

Computational Information
Water surface calculation tolerance = 0.01
Critical depth calculaton tolerance = 0.01
Maximum number of interations = 20
Maximum difference tolerance = 0.3
Flow tolerance factor = 0.001

Computation Options
Critical depth computed only where necessary
Conveyance Calculation Method: At breaks in n values only
Friction Slope Method: Average Conveyance
Computational Flow Regime: Mixed Flow

FLOW DATA

Flow Title: Existing Conditions
Flow File : p:\2PDA0104\Hydr\LHS\Modeling\Model G\HecRas G\PMG.f01

Flow Data (cfs)

River	Reach	RS	Q2	Q5	Q10	Q25	Q50	Q100	Q100HC
San Onofre	Lower	2881.420	26	527	1208	3459	6921	10706	31002

Boundary Conditions

River	Reach	Profile	Upstream	Downstream
San Onofre	Lower	Q2	Normal S = .006	Normal S = .005
San Onofre	Lower	Q5	Normal S = .006	Normal S = .005
San Onofre	Lower	Q10	Normal S = .006	Normal S = .005
San Onofre	Lower	Q25	Normal S = .006	Normal S = .005
San Onofre	Lower	Q50	Normal S = .006	Normal S = .005
San Onofre	Lower	Q100	Normal S = .006	Normal S = .005
San Onofre	Lower	Q100HC	Normal S = .006	Normal S = .005

GEOMETRY DATA

Geometry Title: Existing Conditions
Geometry File : p:\2PDA0104\Hydr\LHS\Modeling\Model G\HecRas G\PMG.g01

CROSS SECTION RIVER: San Onofre
REACH: Lower RS: 2881.420

INPUT
Description:
Station Elevation Data num= 59

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	33.16	17.97	33.58	33.88	32.52	42.4	32.01	57.15	28.2
62.76	26.63	78.8	24.96	100.96	24.08	107.52	24.11	183.15	24.39
186.49	24.39	187.19	24.4	188.26	24.39	314.59	24.59	349.12	24.99
416.44	24.1	430.06	23.32	484.18	20.2	499.05	19.69	508.05	19.63
522.22	19.53	536.04	19.43	547.14	19.35	551.63	19.37	552.94	19.39
580.58	19.73	590.91	19.85	597.61	20.25	624.38	21.85	625.68	22.06
627.48	22.35	653.32	24.17	656.67	24.47	657.72	24.43	704.83	25.39
711.3	25.28	714.21	25.22	715.45	25.22	721.2	25.26	856.87	26.58
908.06	26.44	955.3	26.92	1093.43	29.44	1107.95	29.82	1125.79	30.37
1140.26	30.63	1188.95	32.34	1225.96	33.5	1229.42	33.78	1247.24	36.53
1267.25	39.34	1269.33	39.55	1274.83	40.03	1307.32	42.87	1386.54	45.24
1403.58	45.89	1412.99	45.72	1430.88	45.87	1535.94	46.35		

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	107.52	.02	430.06	.05	522.22	.035	552.94	.05
1274.83	.02								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
484.18	597.61	187.65	192.07	177.62	.1	.3

CROSS SECTION RIVER: San Onofre
REACH: Lower RS: 2689.349

INPUT
Description:
Station Elevation Data num= 52

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	33.59	19.45	33.08	25.67	32.9	37.49	30.32	50.37	26.88
59.03	25.98	64.1	24.99	68.01	24.72	95.55	24.57	200.02	24.02
230.85	23.82	236.15	23.82	240.92	23.77	409.51	21.04	438.31	20.57
489.97	19.74	554.2	19.93	570.08	19.98	594.69	19.52	625.8	19.5
645.65	19.69	697.08	20.17	699.89	20.34	703.85	20.23	706.56	20.59
707.69	20.8	727.36	24.43	727.61	24.5	727.74	24.52	742.97	26.82
766.69	26.17	770.78	26.13	794.2	25.36	796.99	25.22	815.75	24.32
822.61	24.11	826.86	24.28	839.09	24.46	904.27	26.09	972.44	26.75
1093.66	31.13	1150.71	32.99	1169.81	33.97	1186.3	35.23	1196.74	36.29
1247.14	43.7	1262.23	45.85	1263.91	46.01	1269.47	46.23	1272.07	46.33
1334.8	49.11	1365.02	48.53						

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	95.55	.02	409.51	.05	1269.47	.02

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
438.31	706.56	188.85	188.47	190.3	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Onofre
REACH: Lower RS: 2500.881

INPUT
Description:
Station Elevation Data num= 50

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	38.76	.87	38.56	12.6	35.31	18.66	33.49	55.49	26.29
68.89	25.56	79.65	24.92	100.75	23.67	170.41	23.68	366.15	21.53
405.75	21.09	411.51	21	448.95	20.39	489.63	19.73	542.74	19.9
563.93	19.69	581.42	19.59	651.91	19.2	669.04	19.63	700.06	20.39
751.51	21.66	793.24	22.69	808.47	23.22	836.33	23.78	863.07	25.66
872.22	26.08	941.28	27.22	966.35	27.51	973.16	27.61	977.04	27.78
1027.48	30.1	1086.98	33.06	1090.6	33.27	1128.33	37.25	1131.8	37.62
1144.47	39.04	1159.49	39.47	1178.62	41.29	1217.79	43.53	1233.17	44.48
1234.53	44.61	1241.88	45.29	1259.98	46.77	1275.15	49.81	1283.81	51.61
1304.85	53.68	1305.05	53.69	1305.12	53.7	1305.33	53.72	1327.45	55.43

Manning's n Values num= 5

448.95	700.06	191.06	199.81	202.9	.1	.3

CROSS SECTION RIVER: San Onofre
REACH: Lower RS: 2301.072

INPUT
Description:
Station Elevation Data num= 51

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	36.26	24.07	30.76	48.38	27.4	60.02	26.56	87.52	24.59
105.76	23.49	148.1	23.2	396.15	20.62	483.63	19.71	486.91	19.7
517.55	19.59	556.37	19.88	580.57	17.69	595.42	17	633.53	15.22
644.05	15.84	653.97	16.99	670.62	18.86	670.87	18.9	674.43	19.49
683.05	19.97	687.99	20.24	710.21	21.51	713.42	21.54	776.66	22.17
833.9	23.26	852.32	23.79	857.94	23.96	930.22	26.15	932	26.3
934.55	26.81	936.35	27.09	956.49	30.24	968.2	32.16	969.66	32.31
979.64	33.78	1009.15	38.05	1012.77	38.32	1021.74	39.08	1042.42	41.13
1048.41	41.92	1053.35	42.15	1066.73	43.12	1074.67	43.79	1080.4	44.33
1101.64	46.33	1142.94	50.1	1150.48	51.27	1158.92	51.67	1178.53	52.56
1200.44	55.12								

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	60.02	.02	396.15	.05	852.32	.02	936.35	.07
1080.4	.05								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
595.42	653.97	195.84	207.81	229.55	.1	.3

CROSS SECTION RIVER: San Onofre
REACH: Lower RS: 2093.264

INPUT
Description:
Station Elevation Data num= 59

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	35.96	18.73	31.86	30.11	28.7	37.54	27.19	60.59	25.09
65.86	24.61	78.02	23.38	104.12	22.56	339.4	20.96	403.92	20.48
453.14	20.12	497.4	19.66	513.49	19.6	541.38	17.48	550.08	17.15
552.73	16.69	565.48	15.63	575.85	14.77	590.48	13.56	593.45	13.31
626.55	12.48	635.16	12.32	642.84	12.17	652.37	12.17	656.36	12.21
686.57	12.52	714.51	12.97	715.94	13.04	717.85	13.14	718.84	13.36
720.23	14.25	720.39	14.35	731.76	20.18	740.02	20.39	747.87	20.37
759.75	21.12	781.64	23.78	796.15	23.95	819.02	25.87	828.03	26.28
848.82	27.22	866.24	26.94	912.29	26	920.28	26.23	922.59	26.45
925.53	27.33	929.93	28.36	935.31	30.05	937.05	30.58	961.85	40.19
968.69	42.56	973.25	44.67	979.98	48.26	987.38	53.68	993.46	58.7
998.03	60.69	1001.17	62.29	1006.82	64.27	1009.79	64.66		

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	60.59	.02	403.92	.05	565.48	.02	656.36	.07
828.03	.05								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
575.85	720.23	232.33	226.21	241.09	.1	.3

CROSS SECTION RIVER: San Onofre
REACH: Lower RS: 1867.059

INPUT
Description:
Station Elevation Data num= 46

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	36.11	1.14	35.8	8.3	34.03	30.69	28.03	46.58	26.11
58.4	24.92	65.49	24.21	162.69	21.18	337.53	19.89	356.59	19.86
411.6	19.75	447.71	20.02	468.74	20.18	511	20.06	554.31	20.19
573.66	19.63	591.68	19.12	601.81	19.1	606.79	19.07	612.54	17.73
644.54	15.49	649.47	15.15	664.54	14.13	671.56	13.46	677.4	12.9
680.56	12.6	682.35	12.43	682.72	12.4	684.16	12.39	751.1	11.97
781.04	12.52	784.46	12.8	791.36	13.38	797.67	14.27	802.99	15.02
806.79	16.04	814.6	18.13	821.99	19.89	856.49	23.78	871.68	25.49
874.17	25.78	878.79	26.18	914.35	28.36	930.27	30.94	940.43	32.8
973.28	36.1								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	58.4	.02	447.71	.05	671.56	.07	856.49	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
664.54	797.67	194	271.12	374.92	.1	.3

CROSS SECTION RIVER: San Onofre
REACH: Lower RS: 1595.938

INPUT
Description:
Station Elevation Data num= 51

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	30.01	6.86	28.92	17.94	26.97	32.52	25.77	41.74	25.02
63.76	23.85	84.22	23.5	175.49	20.64	183.14	20.16	184.37	20.06
192.17	20.07	193.21	20.06	229.16	19.99	300.79	19.85	310.56	19.83
320.71	19.91	356.83	19.79	375.78	19.72	415.44	18.4	434.29	18.97
494.43	20.03	494.53	20.03	494.65	20.03	556.76	19.15	573.71	16.57
603.43	14	610.15	13.43	613.78	13.34	632.92	12.87	645.3	12.9
658.53	14	677.31	16.92	691.01	19.21	699.26	20.59	718.64	24.16
725.38	25.07	727.59	25.26	741.11	26.43	747.12	26.49	756.04	25.59
760.51	25.15	772.06	23.44	777.84	22.24	781.15	20.66	783	19.88
789.93	16.12	791.02	16.14	792.52	18.28	794.61	21.13	798.62	27.09
812.95	44.35								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	32.52	.02	300.79	.05	691.01	.07	756.04	.02

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
603.43	658.53	160.7	200.85	210.43	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888		F	

CROSS SECTION RIVER: San Onofre
REACH: Lower RS: 1395.086

INPUT
Description:
Station Elevation Data num= 47

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	26.88	8.36	26.94	22.54	25.91	27.99	25.04	54.22	19.82

55.69	19.69	83.58	19.68	126.59	19.65	142.27	19.64	158.06	17.86
187.23	15.27	193.32	14.73	205.08	14.01	210.68	13.65	211.3	13.61
221.27	13.03	247.7	12.49	261.16	12.46	292.78	12.53	307.3	13.4
307.89	13.38	316.5	12.96	323.71	12.78	349.5	13.17	363.63	13.38
374.27	13.33	374.85	13.32	391.28	13.21	402.83	14.01	422.09	15.22
430.8	15.62	450.22	16.52	456.83	16.83	461.09	17.02	475.5	16.81
479.89	16.28	489.85	15.12	494.5	14.58	501.63	13.52	505.38	16
508.8	19.44	511.58	22.33	514.75	25.72	536.59	46.84	537.47	47.7
538.18	48.45	550.4	60.2						

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.02	126.59	.05	374.27	.07	456.83	.05	489.85	.02

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
205.08	402.83	184.7	196.7	209.72	.1	.3

CROSS SECTION RIVER: San Onofre
REACH: Lower RS: 1198.387

INPUT
Description:
Station Elevation Data num= 37

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	28.3	11	27.62	34.77	24.27	68.42	19.3	70.99	19.08
104.09	16.15	109.84	16.22	111.05	16.22	112.65	15.81	115.28	15.49
125.9	14.98	137.53	14.42	146.41	13.99	165.66	13.06	170.55	12.94
245.46	14.2	247.12	14.22	271.98	14.58	290.6	14.83	306.62	14.64
310.56	14.64	325.07	14.62	336.29	14.63	342.04	14.63	353.71	13.84
358.53	13.53	375.42	12.43	383.36	14.05	385.95	14.44	388.15	15.49
398.33	20.89	415.76	30.38	423.37	34.6	432.13	39.21	435.1	40.64
436.89	42.12	443.66	46.98						

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	70.99	.02	137.53	.05	146.41	.07	310.56	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
146.41	383.36	157.99	201.48	223.9	.1	.3

CROSS SECTION RIVER: San Onofre
REACH: Lower RS: 996.912

INPUT
Description:
Station Elevation Data num= 51

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	30.13	48.28	25.39	59.28	24.45	64.03	22.95	68.85	21.48
72.79	20.9	86.28	18.79	92.02	18.33	104.46	18.19	122.88	17.99
129.12	17.72	135.95	17.63	188.03	14.51	204.22	13.54	211.25	13.12
237.17	11.11	259.66	8.64	261.16	8.48	268.77	7.64	275.13	7.25
284.51	6.69	296.7	6.2	313.6	8.05	316.1	8.44	320.35	9.09
325.81	10.67	332.71	12.66	338.22	14.25	340.76	15.8	357.11	23.91
376.16	32.09	385.05	36.1	394.15	40.03	398.76	42.51	409.85	46.39
412.38	47.3	415.36	48.14	417.85	49	428.63	52.75	434.02	53.2
436.55	53.85	439.4	54.27	446.89	57.23	453.56	59.39	464.86	63.91
473.09	67.2	481.03	67.75	491.42	68.68	497.38	69.45	515.98	71.63
522.31	71.93								

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	104.46	.02	188.03	.07	261.16	.05	417.85	.02
464.86	.05								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
259.66	316.1	290.11	282.26	281.1	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Permanent
888		F	
888		F	

BRIDGE RIVER: San Onofre
REACH: Lower RS: 990

Deck/Roadway Width = 187.45
Weir Coefficient = 2.6
Upstream Deck/Roadway Coordinates
num= 6

Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord
0	48.21	0	50	48.67	0	50	48.67	43.09
404.08	52.21	46.64	404.08	52.21	0	500	53.09	0

Upstream Bridge Cross Section Data
Station Elevation Data num= 51

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	30.13	48.28	25.39	59.28	24.45	64.03	22.95	68.85	21.48
72.79	20.9	86.28	18.79	92.02	18.33	104.46	18.19	122.88	17.99
129.12	17.72	135.95	17.63	188.03	14.51	204.22	13.54	211.25	13.12
237.17	11.11	259.66	8.64	261.16	8.48	268.77	7.64	275.13	7.25
284.51	6.69	296.7	6.2	313.6	8.05	316.1	8.44	320.35	9.09
325.81	10.67	332.71	12.66	338.22	14.25	340.76	15.8	357.11	23.91
376.16	32.09	385.05	36.1	394.15	40.03	398.76	42.51	409.85	46.39
412.38	47.3	415.36	48.14	417.85	49	428.63	52.75	434.02	53.2
436.55	53.85	439.4	54.27	446.89	57.23	453.56	59.39	464.86	63.91
473.09	67.2	481.03	67.75	491.42	68.68	497.38	69.45	515.98	71.63

522.31 71.93

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	104.46	.02	188.03	.07	261.16	.05	417.85	.02
464.86	.05								

Bank Sta: Left	Right	Coeff Contr.	Expan.
259.66	316.1	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Permanent
888	F		
888	F		

Downstream Deck/Roadway Coordinates
num= 6

Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord
0	48.31	0	40	48.67	0	40	48.67	43.09
394.08	52.21	46.64	394.08	52.21	0	600	54.09	0

Downstream Bridge Cross Section Data
Station Elevation Data num= 52

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	35.09	33	33.96	37.03	33.92	38.09	33.8	40.96	33.83
52.48	32.62	52.72	32.59	58.07	32.01	58.41	31.84	73.18	27.28
82.15	24.3	94.34	18.43	95.43	17.91	99.6	16.13	102.75	14.4
112.26	12.5	115.89	12.19	161.25	8.62	182.29	7.7	209.41	6.79
224.06	6.36	227	6.28	248.25	5.65	263.52	5.81	281.26	5.11
297.13	4.67	302.82	4.89	315.77	5.84	317.81	6.47	319.32	6.94
323.78	9.15	345.72	21.99	353.87	25.39	356.6	26.79	357.53	27.23
369.71	34.21	375.49	37.11	382.04	38.61	388.07	40.55	392.18	40.54
399.67	41.51	412.86	43.68	446.7	45.65	463.15	46.25	511.5	49.44
515.33	49.69	532.14	52.6	544.78	53.21	560.19	53.1	566.37	53.69
569.6	53.6	589.62	53.49						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.035	94.34	.02	224.06	.05

Bank Sta: Left	Right	Coeff Contr.	Expan.
227	317.81	.3	.5

Ineffective Flow num= 2

Sta L	Sta R	Elev	Permanent
888	F		
888	F		

Upstream Embankment side slope = 0 horiz. to 1.0 vertical
Downstream Embankment side slope = 0 horiz. to 1.0 vertical
Maximum allowable submergence for weir flow = .95
Elevation at which weir flow begins =
Energy head used in spillway design =
Spillway height used in design =
Weir crest shape = Broad Crested

Number of Abutments = 1

Abutment Data
Upstream num= 6

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
20.47	48.4	50	48.4	50	0	404.08	0	404.08	52.48
433.61	52.48								

Downstream num= 6

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
10.47	48.4	40	48.4	40	0	394.08	0	394.08	52.48
423.61	52.48								

Number of Piers = 3

Pier Data
Pier Station Upstream= 128.02 Downstream= 118.02
Upstream num= 2

Width	Elev	Width	Elev
6	0	6	152

Downstream num= 2

Width	Elev	Width	Elev
6	0	6	152

Pier Data
Pier Station Upstream= 227.04 Downstream= 217.04
Upstream num= 2

Width	Elev	Width	Elev
6	0	6	152

Downstream num= 2

Width	Elev	Width	Elev
6	0	6	152

Pier Data
Pier Station Upstream= 326.07 Downstream= 316.07
Upstream num= 2

Width	Elev	Width	Elev
6	0	6	152

Downstream num= 2

Width	Elev	Width	Elev
6	0	6	152

Number of Bridge Coefficient Sets = 1

Low Flow Methods and Data

Energy
Selected Low Flow Methods = Energy

High Flow Method
Energy Only

Additional Bridge Parameters
Add Friction component to Momentum
Do not add Weight component to Momentum
Class B flow critical depth computations use critical depth
inside the bridge at the upstream end
Criteria to check for pressure flow = Upstream energy grade line

BRIDGE OUTPUT Profile #Q100
Opening : Single BR

E.G. US. (ft)	19.72	Element	Inside BR US	Inside BR DS
W.S. US. (ft)	18.75	E.G. Elev (ft)	19.25	15.60
Q Total (cfs)	10706.00	W.S. Elev (ft)	16.60	14.50
Q Bridge (cfs)	10706.00	Crit W.S. (ft)	16.60	11.77
Q Weir (cfs)		Max Chl Dpth (ft)	10.40	9.83
Weir Sta Lft (ft)		Vel Total (ft/s)	11.14	7.41
Weir Sta Rgt (ft)		Flow Area (sq ft)	961.37	1445.12
Weir Submerg		Froude # Chl	0.85	0.34
Weir Max Depth (ft)		Specif Force (cu ft)	7783.58	8282.96
Min El Weir Flow (ft)	48.41	Hydr Depth (ft)	5.43	6.80
Min El Prs (ft)	46.64	W.P. Total (ft)	199.99	252.12
Delta EG (ft)	4.27	Conv. Total (cfs)	95253.7	225919.7
Delta WS (ft)	4.22	Top Width (ft)	177.20	212.36
BR Open Area (sq ft)	9307.09	Frctn Loss (ft)	0.83	3.62
BR Open Vel (ft/s)	11.14	C & E Loss (ft)	0.47	0.24
Coef of Q		Shear Total (lb/sq ft)	3.79	0.80
Br Sel Method	Energy only	Power Total (lb/ft s)	42.22	5.95

Warning: Pier drag coefficient of 2.0 assumed for Class B flow.
Warning: The energy equation could not be balanced within the specified number of iterations. The program used critical depth for the water surface and continued on with the calculations.
Warning: The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Warning: During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated water surface came back below critical depth. This indicates that there is not a valid subcritical answer. The program defaulted to critical depth.
Note: Multiple critical depths were found at this location. The critical depth with the lowest, valid, energy was used.
Warning: The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: San Onofre
REACH: Lower RS: 714.649

INPUT
Description:
Station Elevation Data num= 52

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	35.09	33	33.96	37.03	33.92	38.09	33.8	40.96	33.83
52.48	32.62	52.72	32.59	58.07	32.01	58.41	31.84	73.18	27.28
82.15	24.3	94.34	18.43	95.43	17.91	99.6	16.13	102.75	14.4
112.26	12.5	115.89	12.19	161.25	8.62	182.29	7.7	209.41	6.79
224.06	6.36	227	6.28	248.25	5.65	263.52	5.81	281.26	5.11
297.13	4.67	302.82	4.89	315.77	5.84	317.81	6.47	319.32	6.94
323.78	9.15	345.72	21.99	353.87	25.39	356.6	26.79	357.53	27.23
369.71	34.21	375.49	37.11	382.04	38.61	388.07	40.55	392.18	40.54
399.67	41.51	412.86	43.68	446.7	45.65	463.15	46.25	511.5	49.44
515.33	49.69	532.14	52.6	544.78	53.21	560.19	53.1	566.37	53.69

0 .035 94.34 .02 224.06 .05

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
227 317.81 39.18 39.26 45.49 .3 .5
Ineffective Flow num= 2
Sta L Sta R Elev Permanent
888 F
888 F

CROSS SECTION RIVER: San Onofre
REACH: Lower RS: 675.385

INPUT
Description: Manual Modification of Manning's N Distribution
Station Elevation Data num= 50

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	31.89	45.44	31.23	48.34	30.9	54.3	30.23	60.23	29.27
83.1	25.91	89.66	23.2	93.9	20.9	104.7	15.61	110.75	13.39
116.76	12.68	130	11.56	141.42	10.59	161.62	9.01	197.85	7.46
210.3	7.05	228.98	6.5	241.07	6.16	249.45	5.92	256.36	5.77
268.76	5.51	286.83	6	307.55	5.86	311.64	6.07	320.03	6.49

326.2	7.63	326.87	7.89	330.98	9.49	353.9	20.84	369.9	27.55
380.25	32.44	384.89	35.21	387.15	36.59	393.07	38.53	399.06	38.41
405.35	38.53	426.93	39.86	446.15	39.61	454.43	40.03	467.26	40.61
473.28	41.08	484.55	41.91	514.66	44.21	516.07	44.3	524.92	44.22
555.72	44.93	555.85	44.95	569.31	47.29	588.61	47.97	604.19	49.08

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.035	130	.02	228.98	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
228.98	320.03	55.94	56.46	60.41	.3	.5

BRIDGE RIVER: San Onofre
REACH: Lower RS: 670

INPUT
Description:
Distance from Upstream XS = 1
Deck/Roadway Width = 32.81
Weir Coefficient = 2.6
Upstream Deck/Roadway Coordinates
num= 5

Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord
0	32.81	0	75	32.81	0	75	32.81	27.23
511.35	39.37	33.79	511.35	39.37	0			

Upstream Bridge Cross Section Data
Station Elevation Data num= 50

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	31.89	45.44	31.23	48.34	30.9	54.3	30.23	60.23	29.27
83.1	25.91	89.66	23.2	93.9	20.9	104.7	15.61	110.75	13.39
116.76	12.68	130	11.56	141.42	10.59	161.62	9.01	197.85	7.46
210.3	7.05	228.98	6.5	241.07	6.16	249.45	5.92	256.36	5.77
268.76	5.51	286.83	6	307.55	5.86	311.64	6.07	320.03	6.49
326.2	7.63	326.87	7.89	330.98	9.49	353.9	20.84	369.9	27.55
380.25	32.44	384.89	35.21	387.15	36.59	393.07	38.53	399.06	38.41
405.35	38.53	426.93	39.86	446.15	39.61	454.43	40.03	467.26	40.61
473.28	41.08	484.55	41.91	514.66	44.21	516.07	44.3	524.92	44.22
555.72	44.93	555.85	44.95	569.31	47.29	588.61	47.97	604.19	49.08

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.035	130	.02	228.98	.05

Bank Sta: Left	Right	Coeff Contr.	Expan.
228.98	320.03	.3	.5

Downstream Deck/Roadway Coordinates
num= 5

Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord
0	32.81	0	75	32.81	0	75	32.81	27.23
511.35	39.37	33.79	511.35	39.37	0			

Downstream Bridge Cross Section Data
Station Elevation Data num= 65

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	28.13	7.64	27.76	37.45	27.06	56.12	26.72	64.7	26.23
70.57	26.77	71.84	26.56	80.03	23.71	85.36	20.36	100.83	15.24
104.54	13.87	106.25	13.75	115.56	12.9	131.06	11.53	140.18	10.72
149.64	10.3	170.33	9.41	209.55	7.15	230	6.53	241.49	6.18
259.13	5.73	282.66	5.13	329.99	5.25	333.89	5.34	334.44	5.35
342.26	6.03	342.53	6.12	344.36	6.79	369.41	23.04	369.43	23.05
373.47	25.64	375.3	26.71	382.51	30.92	385.22	31.97	396.12	35.04
418.92	37.61	421.4	37.85	421.89	37.92	443.87	38.1	448.83	38.13
462.13	37.87	467.37	39.55	474.02	40.62	476.55	41.97	484.76	44.81
490.66	46.74	500.39	46.87	503.68	46.92	513.48	48.02	516.65	48.63
530.85	49.26	536.43	49	543.4	49.43	546.37	48.97	555.13	47.37
558.22	46.8	560.92	46.71	561.27	46.74	561.99	46.71	571.2	46.75
572.97	46.83	579.21	47.9	589.08	49.42	594.23	51.44	595.71	51.42

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.05	131.06	.02	230	.05

Bank Sta: Left	Right	Coeff Contr.	Expan.
241.49	342.53	.3	.5

Upstream Embankment side slope = 0 horiz. to 1.0 vertical
Downstream Embankment side slope = 0 horiz. to 1.0 vertical
Maximum allowable submergence for weir flow = .95
Elevation at which weir flow begins =
Energy head used in spillway design =
Spillway height used in design =
Weir crest shape = Broad Crested

Number of Piers = 3

Pier Data
Pier Station Upstream= 127.49 Downstream= 127.49
Upstream num= 2

Width	Elev	Width	Elev
6	0	6	139

Downstream num= 2

Width	Elev	Width	Elev
6	0	6	139

Pier Data

Pier Station Upstream= 226.52 Downstream= 226.52
Upstream num= 2

Width	Elev	Width	Elev
6	0	6	139

Downstream num= 2

Width	Elev	Width	Elev
6	0	6	139

Pier Data
Pier Station Upstream= 325.54 Downstream= 325.54
Upstream num= 2

Width	Elev	Width	Elev
6	0	6	139

Downstream num= 2

Width	Elev	Width	Elev
6	0	6	139

Number of Bridge Coefficient Sets = 1

Low Flow Methods and Data
Energy
Selected Low Flow Methods = Energy

High Flow Method
Energy Only

Additional Bridge Parameters
Add Friction component to Momentum
Do not add Weight component to Momentum
Class B flow critical depth computations use critical depth inside the bridge at the upstream end
Criteria to check for pressure flow = Upstream energy grade line

BRIDGE OUTPUT Profile #Q100
Opening : Single BR

E.G. US. (ft)	15.29	Element	Inside BR US	Inside BR DS
W.S. US. (ft)	14.11	E.G. Elev (ft)	14.83	14.07
Q Total (cfs)	10706.00	W.S. Elev (ft)	12.10	12.22
Q Bridge (cfs)	10706.00	Crit W.S. (ft)	12.10	11.42
Q Weir (cfs)		Max Chl Dpth (ft)	6.59	7.09
Weir Sta Lft (ft)		Vel Total (ft/s)	11.72	10.17
Weir Sta Rgt (ft)		Flow Area (sq ft)	913.57	1052.36
Weir Submerg		Froude # Chl	0.67	0.59
Weir Max Depth (ft)		Specif Force (cu ft)	6689.19	6604.42
Min Ei Weir Flow (ft)	32.82	Hydr Depth (ft)	4.69	4.98
Min El Prs (ft)	31.80	W.P. Total (ft)	216.15	239.33
Delta EG (ft)	1.50	Conv. Total (cfs)	108626.4	119171.3
Delta WS (ft)	1.92	Top Width (ft)	194.69	211.51
BR Open Area (sq ft)	5133.65	Frctn Loss (ft)	0.29	0.49
BR Open Vel (ft/s)	11.72	C & E Loss (ft)	0.44	0.21
Coef of Q		Shear Total (lb/sq ft)	2.56	2.22
Br Sel Method	Energy only	Power Total (lb/ft s)	30.04	22.54

Warning: Pier drag coefficient of 2.0 assumed for Class B flow.
Warning: The energy equation could not be balanced within the specified number of iterations. The program selected the water surface that had the least amount of error between computed and assumed values.
Warning: The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning: During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated water surface came back below critical depth. This indicates that there is not a valid subcritical answer. The program defaulted to critical depth.
Warning: The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: San Onofre
REACH: Lower RS: 618.929

INPUT

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	25.71	65.36	20.36	100.83	15.24
104.54	13.87	106.25	13.75	115.56	12.9	131.06	11.53	140.18	10.72
149.64	10.3	170.33	9.41	209.55	7.15	230	6.53	241.49	6.18
259.13	5.73	282.66	5.13	329.99	5.25	333.89	5.34	334.44	5.35
342.26	6.03	342.53	6.12	344.36	6.79	369.41	23.04	369.43	23.05
373.47	25.64	375.3	26.71	382.51	30.92	385.22	31.97	396.12	35.04
418.92	37.61	421.4	37.85	421.89	37.92	443.87	38.1	448.83	38.13
462.13	37.87	467.37	39.55	474.02	40.62	476.55	41.97	484.76	44.81
490.66	46.74	500.39	46.87	503.68	46.92	513.48	48.02	516.65	48.63
530.85	49.26	536.43	49	543.4	49.43	546.37	48.97	555.13	47.37
558.22	46.8	560.92	46.71	561.27	46.74	561.99	46.71	571.2	46.75
572.97	46.83	579.21	47.9	589.08	49.42	594.23	51.44	595.71	51.42

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.05	131.06	.02	230	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
241.49	342.53	117.69	111.29	111.4	.3	.5

CROSS SECTION RIVER: San Onofre

REACH: Lower RS: 507.643

INPUT
Description: Manual Modification of Manning's N Distribution
Station Elevation Data num= 41

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	28.05	60.77	23.98	69.6	23.24	83.34	21.39	108.83	19.45
126.25	17.69	134.58	17.09	168.43	14.63	169.86	14.49	172.98	14.43
173.83	14.39	206.89	12.59	216.41	12.21	256.47	8.56	269.15	7.75
283.21	6.85	296.98	6.52	297.75	6.5	302.2	6.39	321.02	5.9
370.08	4.63	371.29	4.6	414.28	4.48	443.97	4.4	451.01	4.47
459.8	5.1	466.57	5.58	467.65	5.66	472.55	6	472.96	6.25
485.9	12.96	486.72	13.17	494.68	14.5	508.24	16.62	524.7	19.2
524.9	19.23	530.55	21.93	555.47	47.1	557.38	48.69	558.19	49.35
560.73	51.84								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.05	134.58	.02	269.15	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
321.02	467.65	177.68	196.48	191.42	.1	.3

CROSS SECTION RIVER: San Onofre
REACH: Lower RS: 311.165

INPUT
Description:
Station Elevation Data num= 46

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	27.8	19.91	27.27	24.7	27.18	28.63	26.53	42.43	25.17
45.99	24.15	63.69	19.41	66.49	18.76	78.63	14.04	80.69	13.24
81.89	13.11	115.41	11.97	140.26	12.16	151.56	12.11	171.85	12.02
183.93	11.32	199.02	10.46	232.93	8.52	269.76	7.67	317.79	6.72
361.74	5.86	402.86	4.99	417.3	4.68	436.59	4.27	443.11	4.13
463.85	4.39	481.81	4.44	492.97	4.99	508.46	5.46	513.61	5.61
524.89	5.94	527.09	6.87	531.16	8.61	532.58	8.73	539.29	12.27
540.65	12.68	543.92	13.34	555.69	14.97	573.87	17.33	593.02	19.84
602.86	22.98	610.48	25.64	612.58	26.91	628.41	41.34	640.38	51.55
642.01	52.65								

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	199.02	.05	417.3	.035	513.61	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
402.86	492.97	158.06	179.35	163.03	.1	.3

CROSS SECTION RIVER: San Onofre
REACH: Lower RS: 131.811

INPUT
Description: Manual Modification of Manning's N Distribution
Station Elevation Data num= 50

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	26.36	30.75	26.43	54.31	26.31	62.11	25.25	65.93	24.51
87.68	20.5	92.66	18.27	101.54	13.49	104.23	13.06	108.89	12.6
109.6	12.65	123.35	12.91	151.84	13.73	152.53	13.75	158.61	13.41
203.11	9.77	332.8	7.38	384.49	6.42	391.53	6.29	418.17	5.79
440.42	5.37	495.54	4.35	515.46	3.93	515.56	3.93	527.11	4.26
550.61	4.85	570.98	5.37	579.41	5.58	602.79	7.73	613.56	8.72
614.37	8.74	631.03	10.18	680.46	13.9	690.17	15.28	698.23	16.47
700.52	16.7	705.58	17.22	732.68	21.76	744.66	24.58	745.65	24.94
746.69	25.14	761.11	25.69	783.76	27.46	786.23	27.69	797.26	26.55
798.37	26.83	801.77	28.68	806.39	32.18	811.35	36.44	815.68	40.13

Manning's n Values num= 2

Sta	n Val	Sta	n Val
0	.035	570.98	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
440.42	570.98	94.64	131.81	61.69	.1	.3

Profile Output Table - Standard Table 1

Reach	River Sta	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
		(cfs)	(ft)	(ft)	(ft)	(ft)	(ft/ft)	(ft/s)	(sq ft)	(ft)	
Lower	2881.420	10706.00	19.35	25.52	25.52	26.54	0.007427	9.37	1480.06	674.26	0.68
Lower	2689.349	10706.00	19.50	25.04	23.30	25.44	0.002925	4.80	2140.44	728.75	0.37
Lower	2500.881	10706.00	19.20	24.46	23.12	24.85	0.003257	4.79	2223.21	758.56	0.39
Lower	2301.072	10706.00	15.22	22.81		23.79	0.009199	10.17	1516.97	624.96	0.69
Lower	2093.264	10706.00	12.17	22.93		23.31	0.000557	5.55	2706.06	682.44	0.31
Lower	1867.059	10706.00	11.97	22.90		23.08	0.001110	3.43	3236.30	741.23	0.19
Lower	1595.938	10706.00	12.87	21.35	21.35	22.43	0.007965	10.71	1512.72	565.79	0.66
Lower	1395.086	10706.00	12.46	20.88	17.27	21.19	0.001709	4.69	2488.56	461.31	0.29
Lower	1198.387	10706.00	12.43	19.75		20.59	0.005189	5.53	1685.99	330.82	0.40
Lower	996.912	10706.00	6.20	18.75	16.35	19.72	0.003864	9.36	1497.11	259.94	

0.49										
Lower	990	Bridge								
Lower	714.649	10706.00	4.67	14.53	11.74	15.45	0.001669	5.26	1564.27	230.45
0.31										
Lower	675.385	10706.00	5.51	14.11	11.96	15.29	0.002185	5.63	1424.38	231.50
0.35										
Lower	670	Bridge								
Lower	618.929	10706.00	5.13	12.19		13.79	0.006072	8.28	1121.73	229.04
0.56										
Lower	507.643	10706.00	4.40	12.00		12.79	0.004432	7.36	1509.72	265.33
0.48										
Lower	311.165	10706.00	4.13	11.05		11.96	0.004231	9.26	1592.26	348.29
0.64										
Lower	131.811	10706.00	3.93	10.15	9.52	11.16	0.005004	9.34	1482.23	432.26
0.70										

HEC-RAS Version 3.0.1 Mar 2001
U.S. Army Corp of Engineers
Hydrologic Engineering Center
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(916) 756-1104

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X     X  XXXXXX    XXXX        XXXX       XX      XXXX
X     X  X        X    X      X   X     X  X    X
X     X  X        X           X   X    X    X   X
XXXXXXX  XXXX     X       XXX XXXX     XXXXXX    XXXX
X     X  X        X           X  X     X    X        X
X     X  X        X    X      X   X    X    X        X
X     X  XXXXXX    XXXX       X    X   X    X   XXXXX
```

PROJECT DATA
Project Title: Project Model G
Project File : PMG.prj
Run Date and Time: 2/21/03 9:51:32 AM

Project in English units

Project Description:
FEC Alternative - San Onofre Creek Crossing

PLAN DATA

Plan Title: Existing Flow/Proposed-Ultimate Geometry
Plan File : p:\2PDA0104\Hydr\LHS\Modeling\Model G\HecRas G\PMG.p03

Geometry Title: Proposed Conditions - Ultimate
Geometry File : p:\2PDA0104\Hydr\LHS\Modeling\Model G\HecRas G\PMG.g03

Flow Title : Existing Conditions
Flow File : p:\2PDA0104\Hydr\LHS\Modeling\Model G\HecRas G\PMG.f01

Plan Summary Information:
Number of: Cross Sections = 16 Mulitple Openings = 0
Culverts = 0 Inline Weirs = 0
Bridges = 2

Computational Information
Water surface calculation tolerance = 0.01
Critical depth calculaton tolerance = 0.01
Maximum number of interations = 20
Maximum difference tolerance = 0.3
Flow tolerance factor = 0.001

Computation Options
Critical depth computed only where necessary
Conveyance Calculation Method: At breaks in n values only
Friction Slope Method: Average Conveyance
Computational Flow Regime: Mixed Flow

FLOW DATA

Flow Title: Existing Conditions
Flow File : p:\2PDA0104\Hydr\LHS\Modeling\Model G\HecRas G\PMG.f01

Flow Data (cfs)

River	Reach	RS	Q2	Q5	Q10	Q25	Q50	Q100	Q100HC
San Onofre	Lower	2881.420	26	527	1208	3459	6921	10706	31002

Boundary Conditions

River	Reach	Profile	Upstream	Downstream
San Onofre	Lower	Q2	Normal S = .006	Normal S = .005
San Onofre	Lower	Q5	Normal S = .006	Normal S = .005
San Onofre	Lower	Q10	Normal S = .006	Normal S = .005
San Onofre	Lower	Q25	Normal S = .006	Normal S = .005
San Onofre	Lower	Q50	Normal S = .006	Normal S = .005
San Onofre	Lower	Q100	Normal S = .006	Normal S = .005
San Onofre	Lower	Q100HC	Normal S = .006	Normal S = .005

GEOMETRY DATA

Geometry Title: Proposed Conditions - Ultimate
Geometry File : p:\2PDA0104\Hydr\LHS\Modeling\Model G\HecRas G\PMG.g03

CROSS SECTION RIVER: San Onofre
REACH: Lower RS: 2881.420

INPUT
Description:
Station Elevation Data num= 59

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	33.16	17.97	33.58	33.88	32.52	42.4	32.01	57.15	28.2
62.76	26.63	78.8	24.96	100.96	24.08	107.52	24.11	183.15	24.39
186.49	24.39	187.19	24.4	188.26	24.39	314.59	24.59	349.12	24.99
416.44	24.1	430.06	23.32	484.18	20.2	499.05	19.69	508.05	19.63
522.22	19.53	536.04	19.43	547.14	19.35	551.63	19.37	552.94	19.39
580.58	19.73	590.91	19.85	597.61	20.25	624.38	21.85	625.68	22.06
627.48	22.35	653.32	24.17	656.67	24.47	657.72	24.43	704.83	25.39
711.3	25.28	714.21	25.22	715.45	25.22	721.2	25.26	856.87	26.58
908.06	26.44	955.3	26.92	1093.43	29.44	1107.95	29.82	1125.79	30.37
1140.26	30.63	1188.95	32.34	1225.96	33.5	1229.42	33.78	1247.24	36.53
1267.25	39.34	1269.33	39.55	1274.83	40.03	1307.32	42.87	1386.54	45.24
1403.58	45.89	1412.99	45.72	1430.88	45.87	1535.94	46.35		

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	107.52	.02	430.06	.05	522.22	.035	552.94	.05
1274.83	.02								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
484.18	597.61	187.65	192.07	177.62	.1	.3

CROSS SECTION RIVER: San Onofre
REACH: Lower RS: 2689.349

INPUT
Description:
Station Elevation Data num= 52

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	33.59	19.45	33.08	25.67	32.9	37.49	30.32	50.37	26.88
59.03	25.98	64.1	24.99	68.01	24.72	95.55	24.57	200.02	24.02
230.85	23.82	236.15	23.82	240.92	23.77	409.51	21.04	438.31	20.57
489.97	19.74	554.2	19.93	570.08	19.98	594.69	19.52	625.8	19.5
645.65	19.69	697.08	20.17	699.89	20.34	703.85	20.23	706.56	20.59
707.69	20.8	727.36	24.43	727.61	24.5	727.74	24.52	742.97	26.82
766.69	26.17	770.78	26.13	794.2	25.36	796.99	25.22	815.75	24.32
822.61	24.11	826.86	24.28	839.09	24.46	904.27	26.09	972.44	26.75
1093.66	31.13	1150.71	32.99	1169.81	33.97	1186.3	35.23	1196.74	36.29
1247.14	43.7	1262.23	45.85	1263.91	46.01	1269.47	46.23	1272.07	46.33
1334.8	49.11	1365.02	48.53						

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	95.55	.02	409.51	.05	1269.47	.02

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
438.31	706.56	188.85	188.47	190.3	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Onofre
REACH: Lower RS: 2500.881

INPUT
Description:
Station Elevation Data num= 50

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	38.76	.87	38.56	12.6	35.31	18.66	33.49	55.49	26.29
68.89	25.56	79.65	24.92	100.75	23.67	170.41	23.68	366.15	21.53
405.75	21.09	411.51	21	448.95	20.39	489.63	19.73	542.74	19.9
563.93	19.69	581.42	19.59	651.91	19.2	669.04	19.63	700.06	20.39
751.51	21.66	793.24	22.69	808.47	23.22	836.33	23.78	863.07	25.66
872.22	26.08	941.28	27.22	966.35	27.51	973.16	27.61	977.04	27.78
1027.48	30.1	1086.98	33.06	1090.6	33.27	1128.33	37.25	1131.8	37.62
1144.47	39.04	1159.49	39.47	1178.62	41.29	1217.79	43.53	1233.17	44.48
1234.53	44.61	1241.88	45.29	1259.98	46.77	1275.15	49.81	1283.81	51.61
1304.85	53.68	1305.05	53.69	1305.12	53.7	1305.33	53.72	1327.45	55.43

Manning's n Values num= 5

448.95	700.06	191.06	199.81	202.9	.1	.3

CROSS SECTION RIVER: San Onofre
REACH: Lower RS: 2301.072

INPUT
Description:
Station Elevation Data num= 51

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	36.26	24.07	30.76	48.38	27.4	60.02	26.56	87.52	24.59
105.76	23.49	148.1	23.2	396.15	20.62	483.63	19.71	486.91	19.7
517.55	19.59	556.37	19.88	580.57	17.69	595.42	17	633.53	15.22
644.05	15.84	653.97	16.99	670.62	18.86	670.87	18.9	674.43	19.49
683.05	19.97	687.99	20.24	710.21	21.51	713.42	21.54	776.66	22.17
833.9	23.26	852.32	23.79	857.94	23.96	930.22	26.15	932	26.3
934.55	26.81	936.35	27.09	956.49	30.24	968.2	32.16	969.66	32.31
979.64	33.78	1009.15	38.05	1012.77	38.32	1021.74	39.08	1042.42	41.13
1048.41	41.92	1053.35	42.15	1066.73	43.12	1074.67	43.79	1080.4	44.33
1101.64	46.33	1142.94	50.1	1150.48	51.27	1158.92	51.67	1178.53	52.56
1200.44	55.12								

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	60.02	.02	396.15	.05	852.32	.02	936.35	.07
1080.4	.05								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
595.42	653.97	195.84	207.81	229.55	.1	.3

CROSS SECTION RIVER: San Onofre
REACH: Lower RS: 2093.264

INPUT
Description:
Station Elevation Data num= 59

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	35.96	18.73	31.86	30.11	28.7	37.54	27.19	60.59	25.09
65.86	24.61	78.02	23.38	104.12	22.56	339.4	20.96	403.92	20.48
453.14	20.12	497.4	19.66	513.49	19.6	541.38	17.48	550.08	17.15
552.73	16.69	565.48	15.63	575.85	14.77	590.48	13.56	593.45	13.31
626.55	12.48	635.16	12.32	642.84	12.17	652.37	12.17	656.36	12.21
686.57	12.52	714.51	12.97	715.94	13.04	717.85	13.14	718.84	13.36
720.23	14.25	720.39	14.35	731.76	20.18	740.02	20.39	747.87	20.37
759.75	21.12	781.64	23.78	796.15	23.95	819.02	25.87	828.03	26.28
848.82	27.22	866.24	26.94	912.29	26	920.28	26.23	922.59	26.45
925.53	27.33	929.93	28.36	935.31	30.05	937.05	30.58	961.85	40.19
968.69	42.56	973.25	44.67	979.98	48.26	987.38	53.68	993.46	58.7
998.03	60.69	1001.17	62.29	1006.82	64.27	1009.79	64.66		

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	60.59	.02	403.92	.05	565.48	.02	656.36	.07
828.03	.05								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
575.85	720.23	232.33	226.21	241.09	.1	.3

CROSS SECTION RIVER: San Onofre
REACH: Lower RS: 1867.059

INPUT
Description:
Station Elevation Data num= 46

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	36.11	1.14	35.8	8.3	34.03	30.69	28.03	46.58	26.11
58.4	24.92	65.49	24.21	162.69	21.18	337.53	19.89	356.59	19.86
411.6	19.75	447.71	20.02	468.74	20.18	511	20.06	554.31	20.19
573.66	19.63	591.68	19.12	601.81	19.1	606.79	19.07	612.54	17.73
644.54	15.49	649.47	15.15	664.54	14.13	671.56	13.46	677.4	12.9
680.56	12.6	682.35	12.43	682.72	12.4	684.16	12.39	751.1	11.97
781.04	12.52	784.46	12.8	791.36	13.38	797.67	14.27	802.99	15.02
806.79	16.04	814.6	18.13	821.99	19.89	856.49	23.78	871.68	25.49
874.17	25.78	878.79	26.18	914.35	28.36	930.27	30.94	940.43	32.8
973.28	36.1								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	58.4	.02	447.71	.05	671.56	.07	856.49	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
664.54	797.67	194	271.12	374.92	.1	.3

CROSS SECTION RIVER: San Onofre
REACH: Lower RS: 1595.938

INPUT
Description:
Station Elevation Data num= 51

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	30.01	6.86	28.92	17.94	26.97	32.52	25.77	41.74	25.02
63.76	23.85	84.22	23.5	175.49	20.64	183.14	20.16	184.37	20.06
192.17	20.07	193.21	20.06	229.16	19.99	300.79	19.85	310.56	19.83
320.71	19.91	356.83	19.79	375.78	19.72	415.44	18.4	434.29	18.97
494.43	20.03	494.53	20.03	494.65	20.03	556.76	19.15	573.71	16.57
603.43	14	610.15	13.43	613.78	13.34	632.92	12.87	645.3	12.9
658.53	14	677.31	16.92	691.01	19.21	699.26	20.59	718.64	24.16
725.38	25.07	727.59	25.26	741.11	26.43	747.12	26.49	756.04	25.59
760.51	25.15	772.06	23.44	777.84	22.24	781.15	20.66	783	19.88
789.93	16.12	791.02	16.14	792.52	18.28	794.61	21.13	798.62	27.09
812.95	44.35								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	32.52	.02	300.79	.05	691.01	.07	756.04	.02

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
603.43	658.53	160.7	200.85	210.43	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Onofre
REACH: Lower RS: 1395.086

INPUT
Description:
Station Elevation Data num= 47

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	26.88	8.36	26.94	22.54	25.91	27.99	25.04	54.22	19.82

55.69	19.69	83.58	19.68	126.59	19.65	142.27	19.64	158.06	17.86
187.23	15.27	193.32	14.73	205.08	14.01	210.68	13.65	211.3	13.61
221.27	13.03	247.7	12.49	261.16	12.46	292.78	12.53	307.3	13.4
307.89	13.38	316.5	12.96	323.71	12.78	349.5	13.17	363.63	13.38
374.27	13.33	374.85	13.32	391.28	13.21	402.83	14.01	422.09	15.22
430.8	15.62	450.22	16.52	456.83	16.83	461.09	17.02	475.5	16.81
479.89	16.28	489.85	15.12	494.5	14.58	501.63	13.52	505.38	16
508.8	19.44	511.58	22.33	514.75	25.72	536.59	46.84	537.47	47.7
538.18	48.45	550.4	60.2						

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.02	126.59	.05	374.27	.07	456.83	.05	489.85	.02

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
205.08	402.83	184.7	196.7	209.72	.1	.3

CROSS SECTION RIVER: San Onofre
REACH: Lower RS: 1198.387

INPUT
Description:
Station Elevation Data num= 37

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	28.3	11	27.62	34.77	24.27	68.42	19.3	70.99	19.08
104.09	16.15	109.84	16.22	111.05	16.22	112.65	15.81	115.28	15.49
125.9	14.98	137.53	14.42	146.41	13.99	165.66	13.06	170.55	12.94
245.46	14.2	247.12	14.22	271.98	14.58	290.6	14.83	306.62	14.64
310.56	14.64	325.07	14.62	336.29	14.63	342.04	14.63	353.71	13.84
358.53	13.53	375.42	12.43	383.36	14.05	385.95	14.44	388.15	15.49
398.33	20.89	415.76	30.38	423.37	34.6	432.13	39.21	435.1	40.64
436.89	42.12	443.66	46.98						

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	70.99	.02	137.53	.05	146.41	.07	310.56	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
146.41	383.36	157.99	201.48	223.9	.1	.3

CROSS SECTION RIVER: San Onofre
REACH: Lower RS: 996.912

INPUT
Description:
Station Elevation Data num= 51

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	30.13	48.28	25.39	59.28	24.45	64.03	22.95	68.85	21.48
72.79	20.9	86.28	18.79	92.02	18.33	104.46	18.19	122.88	17.99
129.12	17.72	135.95	17.63	188.03	14.51	204.22	13.54	211.25	13.12
237.17	11.11	259.66	8.64	261.16	8.48	268.77	7.64	275.13	7.25
284.51	6.69	296.7	6.2	313.6	8.05	316.1	8.44	320.35	9.09
325.81	10.67	332.71	12.66	338.22	14.25	340.76	15.8	357.11	23.91
376.16	32.09	385.05	36.1	394.15	40.03	398.76	42.51	409.85	46.39
412.38	47.3	415.36	48.14	417.85	49	428.63	52.75	434.02	53.2
436.55	53.85	439.4	54.27	446.89	57.23	453.56	59.39	464.86	63.91
473.09	67.2	481.03	67.75	491.42	68.68	497.38	69.45	515.98	71.63
522.31	71.93								

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	104.46	.02	188.03	.07	261.16	.05	417.85	.02
464.86	.05								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
259.66	316.1	290.11	282.26	281.1	.3	.5

Ineffective Flow num= 2

Sta L	Sta R	Elev	Permanent
888		F	
888		F	

BRIDGE RIVER: San Onofre
REACH: Lower RS: 990

Deck/Roadway Width = 273
Weir Coefficient = 2.6
Upstream Deck/Roadway Coordinates
num= 6

Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord
0	48.21	0	50	48.67	0	50	48.67	43.09
404.08	52.21	46.64	404.08	52.21	0	500	53.09	0

Upstream Bridge Cross Section Data
Station Elevation Data num= 51

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	30.13	48.28	25.39	59.28	24.45	64.03	22.95	68.85	21.48
72.79	20.9	86.28	18.79	92.02	18.33	104.46	18.19	122.88	17.99
129.12	17.72	135.95	17.63	188.03	14.51	204.22	13.54	211.25	13.12
237.17	11.11	259.66	8.64	261.16	8.48	268.77	7.64	275.13	7.25
284.51	6.69	296.7	6.2	313.6	8.05	316.1	8.44	320.35	9.09
325.81	10.67	332.71	12.66	338.22	14.25	340.76	15.8	357.11	23.91
376.16	32.09	385.05	36.1	394.15	40.03	398.76	42.51	409.85	46.39
412.38	47.3	415.36	48.14	417.85	49	428.63	52.75	434.02	53.2
436.55	53.85	439.4	54.27	446.89	57.23	453.56	59.39	464.86	63.91
473.09	67.2	481.03	67.75	491.42	68.68	497.38	69.45	515.98	71.63

```
  522.31   71.93

Manning's n Values          num=       6
     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val
       0     .05  104.46     .02  188.03     .07  261.16     .05  417.85     .02
  464.86     .05

Bank Sta: Left   Right    Coeff Contr.   Expan.
        259.66   316.1            .3        .5
Ineffective Flow     num=        2
   Sta L   Sta R    Elev  Permanent
888       F
888       F

Downstream  Deck/Roadway Coordinates
    num=        6
     Sta Hi Cord Lo Cord     Sta Hi Cord Lo Cord     Sta Hi Cord Lo Cord
       0   48.31       0      40   48.67       0      40   48.67   43.09
  394.08   52.21   46.64  394.08   52.21       0     600   54.09       0

Downstream Bridge Cross Section Data
Station Elevation Data    num=      52
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0   35.09      33   33.96   37.03   33.92   38.09    33.8   40.96   33.83
   52.48   32.62   52.72   32.59   58.07   32.01   58.41   31.84   73.18   27.28
   82.15    24.3   94.34   18.43   95.43   17.91    99.6   16.13  102.75    14.4
  112.26    12.5  115.89   12.19  161.25    8.62  182.29     7.7  209.41    6.79
  224.06    6.36     227    6.28  248.25    5.65  263.52    5.81  281.26    5.11
  297.13    4.67  302.82    4.89  315.77    5.84  317.81    6.47  319.32    6.94
  323.78    9.15  345.72   21.99  353.87   25.39   356.6   26.79  357.53   27.23
  369.71   34.21  375.49   37.11  382.04   38.61  388.07   40.55  392.18   40.54
  399.67   41.51  412.86   43.68   446.7   45.65  463.15   46.25   511.5   49.44
  515.33   49.69  532.14    52.6  544.78   53.21  560.19    53.1  566.37   53.69
   569.6    53.6  589.62   53.49

Manning's n Values          num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0    .035   94.34     .02  224.06     .05

Bank Sta: Left   Right    Coeff Contr.   Expan.
           227  317.81            .3        .5
Ineffective Flow     num=        2
   Sta L   Sta R    Elev  Permanent
888       F
888       F

Upstream Embankment side slope                =       0 horiz. to 1.0 vertical
Downstream Embankment side slope              =       0 horiz. to 1.0 vertical
Maximum allowable submergence for weir flow =     .95
Elevation at which weir flow begins           =
Energy head used in spillway design           =
Spillway height used in design                =
Weir crest shape                              = Broad Crested

Number of Abutments =  1

Abutment Data
Upstream     num=        6
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
   20.47    48.4      50    48.4      50       0  404.08       0  404.08   52.48
  433.61   52.48
Downstream     num=        6
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
   10.47    48.4      40    48.4      40       0  394.08       0  394.08   52.48
  423.61   52.48

Number of Piers =  3

Pier Data
Pier Station     Upstream=  128.02    Downstream=  118.02
Upstream     num=        2
    Width   Elev    Width   Elev
        6       0        6    152
Downstream     num=        2
    Width   Elev    Width   Elev
        6       0        6    152

Pier Data
Pier Station     Upstream=  227.04    Downstream=  217.04
Upstream     num=        2
    Width   Elev    Width   Elev
        6       0        6    152
Downstream     num=        2
    Width   Elev    Width   Elev
        6       0        6    152

Pier Data
Pier Station     Upstream=  326.07    Downstream=  316.07
Upstream     num=        2
    Width   Elev    Width   Elev
        6       0        6    152
Downstream     num=        2
    Width   Elev    Width   Elev
        6       0        6    152

Number of Bridge Coefficient Sets =  1

Low Flow Methods and Data
```

Energy
Selected Low Flow Methods = Energy

High Flow Method
Energy Only

Additional Bridge Parameters
Add Friction component to Momentum
Do not add Weight component to Momentum
Class B flow critical depth computations use critical depth
inside the bridge at the upstream end
Criteria to check for pressure flow = Upstream energy grade line

BRIDGE OUTPUT Profile #Q100
Opening : Single BR

E.G. US. (ft)	19.82	Element	Inside BR US	Inside BR DS
W.S. US. (ft)	18.90	E.G. Elev (ft)	19.25	15.56
Q Total (cfs)	10706.00	W.S. Elev (ft)	16.60	14.44
Q Bridge (cfs)	10706.00	Crit W.S. (ft)	16.60	11.77
Q Weir (cfs)		Max Chl Dpth (ft)	10.40	9.77
Weir Sta Lft (ft)		Vel Total (ft/s)	11.14	7.48
Weir Sta Rgt (ft)		Flow Area (sq ft)	961.37	1431.82
Weir Submerg		Froude # Chl	0.85	0.34
Weir Max Depth (ft)		Specif Force (cu ft)	7783.58	8216.56
Min El Weir Flow (ft)	48.41	Hydr Depth (ft)	5.43	6.75
Min El Prs (ft)	46.64	W.P. Total (ft)	199.99	251.49
Delta EG (ft)	4.36	Conv. Total (cfs)	95253.7	222584.7
Delta WS (ft)	4.37	Top Width (ft)	177.20	212.14
BR Open Area (sq ft)	9307.09	Frctn Loss (ft)	1.24	4.25
BR Open Vel (ft/s)	11.14	C & E Loss (ft)	0.77	0.31
Coef of Q		Shear Total (lb/sq ft)	3.79	0.82
Br Sel Method	Energy only	Power Total (lb/ft s)	42.22	6.15

Warning: Pier drag coefficient of 2.0 assumed for Class B flow.
Warning: The energy equation could not be balanced within the specified number of iterations. The program used critical depth for the water surface and continued on with the calculations.
Warning: The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Warning: During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated water surface came back below critical depth. This indicates that there is not a valid subcritical answer. The program defaulted to critical depth.
Note: Multiple critical depths were found at this location. The critical depth with the lowest, valid, energy was used.
Warning: The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: San Onofre
REACH: Lower RS: 714.649

INPUT
Description:
Station Elevation Data num= 52

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	35.09	33	33.96	37.03	33.92	38.09	33.8	40.96	33.83
52.48	32.62	52.72	32.59	58.07	32.01	58.41	31.84	73.18	27.28
82.15	24.3	94.34	18.43	95.43	17.91	99.6	16.13	102.75	14.4
112.26	12.5	115.89	12.19	161.25	8.62	182.29	7.7	209.41	6.79
224.06	6.36	227	6.28	248.25	5.65	263.52	5.81	281.26	5.11
297.13	4.67	302.82	4.89	315.77	5.84	317.81	6.47	319.32	6.94
323.78	9.15	345.72	21.99	353.87	25.39	356.6	26.79	357.53	27.23
369.71	34.21	375.49	37.11	382.04	38.61	388.07	40.55	392.18	40.54
399.67	41.51	412.86	43.68	446.7	45.65	463.15	46.25	511.5	49.44
515.33	49.69	532.14	52.6	544.78	53.21	560.19	53.1	566.37	53.69
569.6	53.6	589.62	53.49						

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
227 317.81 39.18 39.26 45.49 .3 .5
Ineffective Flow num= 2
Sta L Sta R Elev Permanent
888 F
888 F

CROSS SECTION RIVER: San Onofre
REACH: Lower RS: 675.385

INPUT
Description: Manual Modification of Manning's N Distribution
Station Elevation Data num= 50

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	31.89	45.44	31.23	48.34	30.9	54.3	30.23	60.23	29.27
83.1	25.91	89.66	23.2	93.9	20.9	104.7	15.61	110.75	13.39
116.76	12.68	130	11.56	141.42	10.59	161.62	9.01	197.85	7.46
210.3	7.05	228.98	6.5	241.07	6.16	249.45	5.92	256.36	5.77
268.76	5.51	286.83	6	307.55	5.86	311.64	6.07	320.03	6.49
326.2	7.63	326.87	7.89	330.98	9.49	353.9	20.84	369.9	27.55
380.25	32.44	384.89	35.21	387.15	36.59	393.07	38.53	399.06	38.41

405.35	38.53	426.93	39.86	446.15	39.61	454.43	40.03	467.26	40.61
473.28	41.08	484.55	41.91	514.66	44.21	516.07	44.3	524.92	44.22
555.72	44.93	555.85	44.95	569.31	47.29	588.61	47.97	604.19	49.08

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.035	130	.02	228.98	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
228.98	320.03	55.94	56.46	60.41	.3	.5

BRIDGE RIVER: San Onofre
REACH: Lower RS: 670

INPUT
Description:
Distance from Upstream XS = 1
Deck/Roadway Width = 32.81
Weir Coefficient = 2.6
Upstream Deck/Roadway Coordinates
num= 5

Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord
0	32.81	0	75	32.81	0	75	32.81	27.23
511.35	39.37	33.79	511.35	39.37	0			

Upstream Bridge Cross Section Data
Station Elevation Data num= 50

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	31.89	45.44	31.23	48.34	30.9	54.3	30.23	60.23	29.27
83.1	25.91	89.66	23.2	93.9	20.9	104.7	15.61	110.75	13.39
116.76	12.68	130	11.56	141.42	10.59	161.62	9.01	197.85	7.46
210.3	7.05	228.98	6.5	241.07	6.16	249.45	5.92	256.36	5.77
268.76	5.51	286.83	6	307.55	5.86	311.64	6.07	320.03	6.49
326.2	7.63	326.87	7.89	330.98	9.49	353.9	20.84	369.9	27.55
380.25	32.44	384.89	35.21	387.15	36.59	393.07	38.53	399.06	38.41
405.35	38.53	426.93	39.86	446.15	39.61	454.43	40.03	467.26	40.61
473.28	41.08	484.55	41.91	514.66	44.21	516.07	44.3	524.92	44.22
555.72	44.93	555.85	44.95	569.31	47.29	588.61	47.97	604.19	49.08

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.035	130	.02	228.98	.05

Bank Sta: Left	Right	Coeff Contr.	Expan.
228.98	320.03	.3	.5

Downstream Deck/Roadway Coordinates
num= 5

Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord
0	32.81	0	75	32.81	0	75	32.81	27.23
511.35	39.37	33.79	511.35	39.37	0			

Downstream Bridge Cross Section Data
Station Elevation Data num= 65

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	28.13	7.64	27.76	37.45	27.06	56.12	26.72	64.7	26.23
70.57	26.77	71.84	26.56	80.03	23.71	85.36	20.36	100.83	15.24
104.54	13.87	106.25	13.75	115.56	12.9	131.06	11.53	140.18	10.72
149.64	10.3	170.33	9.41	209.55	7.15	230	6.53	241.49	6.18
259.13	5.73	282.66	5.13	329.99	5.25	333.89	5.34	334.44	5.35
342.26	6.03	342.53	6.12	344.36	6.79	369.41	23.04	369.43	23.05
373.47	25.64	375.3	26.71	382.51	30.92	385.22	31.97	396.12	35.04
418.92	37.61	421.4	37.85	421.89	37.92	443.87	38.1	448.83	38.13
462.13	37.87	467.37	39.55	474.02	40.62	476.55	41.97	484.76	44.81
490.66	46.74	500.39	46.87	503.68	46.92	513.48	48.02	516.65	48.63
530.85	49.26	536.43	49	543.4	49.43	546.37	48.97	555.13	47.37
558.22	46.8	560.92	46.71	561.27	46.74	561.99	46.71	571.2	46.75
572.97	46.83	579.21	47.9	589.08	49.42	594.23	51.44	595.71	51.42

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.05	131.06	.02	230	.05

Bank Sta: Left	Right	Coeff Contr.	Expan.
241.49	342.53	.3	.5

Upstream Embankment side slope = 0 horiz. to 1.0 vertical
Downstream Embankment side slope = 0 horiz. to 1.0 vertical
Maximum allowable submergence for weir flow = .95
Elevation at which weir flow begins =
Energy head used in spillway design =
Spillway height used in design =
Weir crest shape = Broad Crested

Number of Piers = 3

Pier Data
Pier Station Upstream= 127.49 Downstream= 127.49
Upstream num= 2

Width	Elev	Width	Elev
6	0	6	139

Downstream num= 2

Width	Elev	Width	Elev
6	0	6	139

Pier Data
Pier Station Upstream= 226.52 Downstream= 226.52
Upstream num= 2

Width	Elev	Width	Elev
6	0	6	139

Downstream num= 2

Width	Elev	Width	Elev
6	0	6	139

Pier Data
Pier Station Upstream= 325.54 Downstream= 325.54
Upstream num= 2

Width	Elev	Width	Elev
6	0	6	139

Downstream num= 2

Width	Elev	Width	Elev
6	0	6	139

Number of Bridge Coefficient Sets = 1

Low Flow Methods and Data
Energy
Selected Low Flow Methods = Energy

High Flow Method
Energy Only

Additional Bridge Parameters
Add Friction component to Momentum
Do not add Weight component to Momentum
Class B flow critical depth computations use critical depth inside the bridge at the upstream end
Criteria to check for pressure flow = Upstream energy grade line

BRIDGE OUTPUT Profile #Q100
Opening : Single BR

			Inside BR US	Inside BR DS
E.G. US. (ft)	15.29	Element		
W.S. US. (ft)	14.11	E.G. Elev (ft)	14.83	14.07
Q Total (cfs)	10706.00	W.S. Elev (ft)	12.10	12.22
Q Bridge (cfs)	10706.00	Crit W.S. (ft)	12.10	11.42
Q Weir (cfs)		Max Chl Dpth (ft)	6.59	7.09
Weir Sta Lft (ft)		Vel Total (ft/s)	11.72	10.17
Weir Sta Rgt (ft)		Flow Area (sq ft)	913.57	1052.36
Weir Submerg		Froude # Chl	0.67	0.59
Weir Max Depth (ft)		Specif Force (cu ft)	6689.19	6604.42
Min El Weir Flow (ft)	32.82	Hydr Depth (ft)	4.69	4.98
Min El Prs (ft)	31.80	W.P. Total (ft)	216.15	239.33
Delta EG (ft)	1.50	Conv. Total (cfs)	108626.4	119171.3
Delta WS (ft)	1.92	Top Width (ft)	194.69	211.51
BR Open Area (sq ft)	5133.65	Frctn Loss (ft)	0.29	0.49
BR Open Vel (ft/s)	11.72	C & E Loss (ft)	0.44	0.21
Coef of Q		Shear Total (lb/sq ft)	2.56	2.22
Br Sel Method	Energy only	Power Total (lb/ft s)	30.04	22.54

Warning: Pier drag coefficient of 2.0 assumed for Class B flow.
Warning: The energy equation could not be balanced within the specified number of iterations. The program selected the water surface that had the least amount of error between computed and assumed values.
Warning: The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning: During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated water surface came back below critical depth. This indicates that there is not a valid subcritical answer. The program defaulted to critical depth.
Warning: The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: San Onofre
REACH: Lower RS: 618.929

INPUT
Description: Manual Modification of Manning's N Distribution
Station Elevation Data num= 65

149.64	10.3	170.33	9.41	209.55	7.15	230	6.53	241.49	6.18
259.13	5.73	282.66	5.13	329.99	5.25	333.89	5.34	334.44	5.35
342.26	6.03	342.53	6.12	344.36	6.79	369.41	23.04	369.43	23.05
373.47	25.64	375.3	26.71	382.51	30.92	385.22	31.97	396.12	35.04
418.92	37.61	421.4	37.85	421.89	37.92	443.87	38.1	448.83	38.13
462.13	37.87	467.37	39.55	474.02	40.62	476.55	41.97	484.76	44.81
490.66	46.74	500.39	46.87	503.68	46.92	513.48	48.02	516.65	48.63
530.85	49.26	536.43	49	543.4	49.43	546.37	48.97	555.13	47.37
558.22	46.8	560.92	46.71	561.27	46.74	561.99	46.71	571.2	46.75
572.97	46.83	579.21	47.9	589.08	49.42	594.23	51.44	595.71	51.42

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.05	131.06	.02	230	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
241.49	342.53	117.69	111.29	111.4	.3	.5

CROSS SECTION RIVER: San Onofre
REACH: Lower RS: 507.643

INPUT
Description: Manual Modification of Manning's N Distribution
Station Elevation Data num= 41

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	28.05	60.77	23.98	69.6	23.24	83.34	21.39	108.83	19.45
126.25	17.69	134.58	17.09	168.43	14.63	169.86	14.49	172.98	14.43
173.83	14.39	206.89	12.59	216.41	12.21	256.47	8.56	269.15	7.75
283.21	6.85	296.98	6.52	297.75	6.5	302.2	6.39	321.02	5.9
370.08	4.63	371.29	4.6	414.28	4.48	443.97	4.4	451.01	4.47
459.8	5.1	466.57	5.58	467.65	5.66	472.55	6	472.96	6.25
485.9	12.96	486.72	13.17	494.68	14.5	508.24	16.62	524.7	19.2
524.9	19.23	530.55	21.93	555.47	47.1	557.38	48.69	558.19	49.35
560.73	51.84								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.05	134.58	.02	269.15	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
321.02	467.65	177.68	196.48	191.42	.1	.3

CROSS SECTION RIVER: San Onofre
REACH: Lower RS: 311.165

INPUT
Description:
Station Elevation Data num= 46

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	27.8	19.91	27.27	24.7	27.18	28.63	26.53	42.43	25.17
45.99	24.15	63.69	19.41	66.49	18.76	78.63	14.04	80.69	13.24
81.89	13.11	115.41	11.97	140.26	12.16	151.56	12.11	171.85	12.02
183.93	11.32	199.02	10.46	232.93	8.52	269.76	7.67	317.79	6.72
361.74	5.86	402.86	4.99	417.3	4.68	436.59	4.27	443.11	4.13
463.85	4.39	481.81	4.44	492.97	4.99	508.46	5.46	513.61	5.61
524.89	5.94	527.09	6.87	531.16	8.61	532.58	8.73	539.29	12.27
540.65	12.68	543.92	13.34	555.69	14.97	573.87	17.33	593.02	19.84
602.86	22.98	610.48	25.64	612.58	26.91	628.41	41.34	640.38	51.55
642.01	52.65								

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	199.02	.05	417.3	.035	513.61	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
402.86	492.97	158.06	179.35	163.03	.1	.3

CROSS SECTION RIVER: San Onofre
REACH: Lower RS: 131.811

INPUT
Description: Manual Modification of Manning's N Distribution
Station Elevation Data num= 50

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	26.36	30.75	26.43	54.31	26.31	62.11	25.25	65.93	24.51
87.68	20.5	92.66	18.27	101.54	13.49	104.23	13.06	108.89	12.6
109.6	12.65	123.35	12.91	151.84	13.73	152.53	13.75	158.61	13.41
203.11	9.77	332.8	7.38	384.49	6.42	391.53	6.29	418.17	5.79
440.42	5.37	495.54	4.35	515.46	3.93	515.56	3.93	527.11	4.26
550.61	4.85	570.98	5.37	579.41	5.58	602.79	7.73	613.56	8.72
614.37	8.74	631.03	10.18	680.46	13.9	690.17	15.28	698.23	16.47
700.52	16.7	705.58	17.22	732.68	21.76	744.66	24.58	745.65	24.94
746.69	25.14	761.11	25.69	783.76	27.46	786.23	27.69	797.26	26.55
798.37	26.83	801.77	28.68	806.39	32.18	811.35	36.44	815.68	40.13

Manning's n Values num= 2

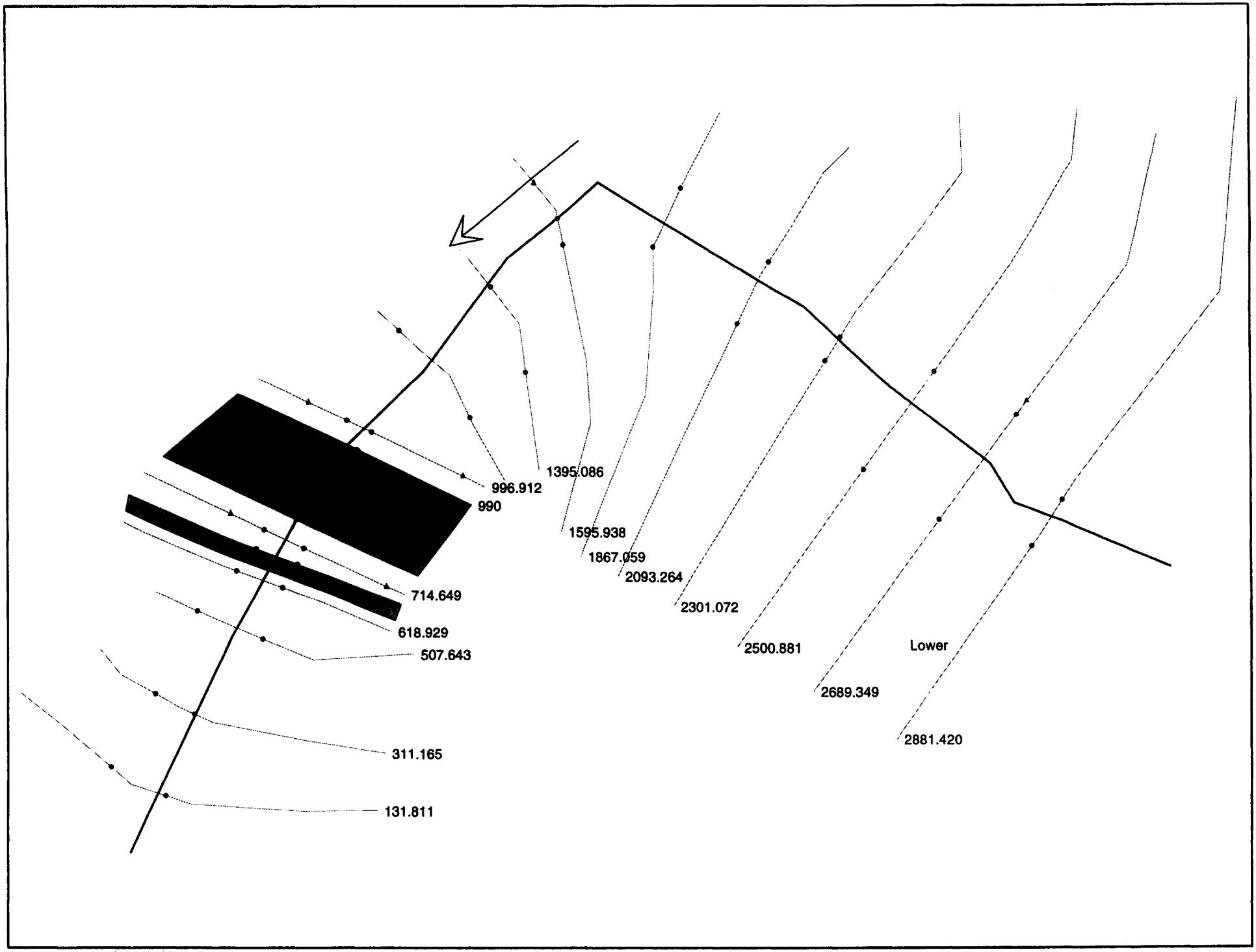
Sta	n Val	Sta	n Val
0	.035	570.98	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
440.42	570.98	94.64	131.81	61.69	.1	.3

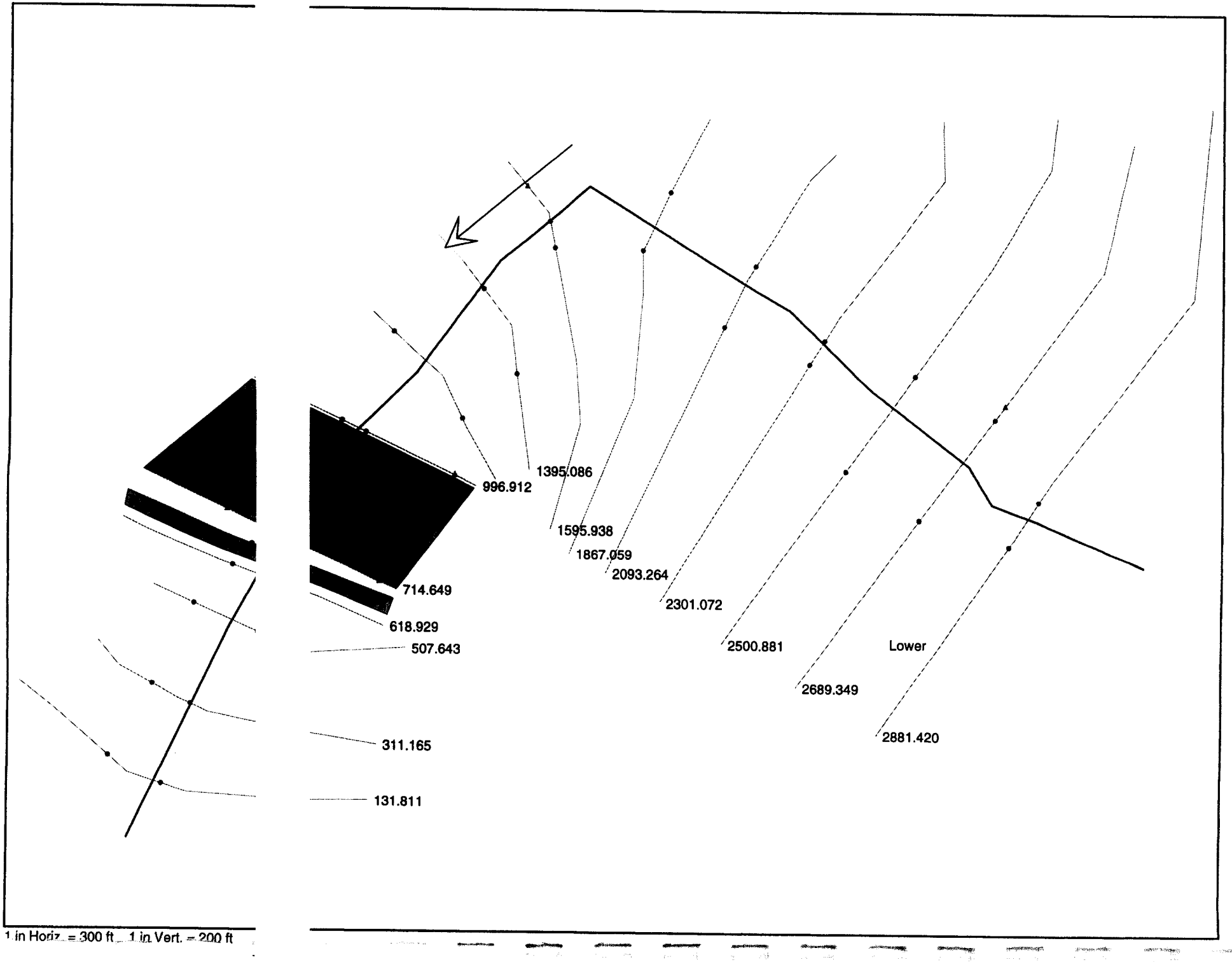
Profile Output Table - Standard Table 1

Reach	River Sta	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
		(cfs)	(ft)	(ft)	(ft)	(ft)	(ft/ft)	(ft/s)	(sq ft)	(ft)	
Lower	2881.420	10706.00	19.35	25.52	25.52	26.54	0.007427	9.37	1480.06	674.26	0.68
Lower	2689.349	10706.00	19.50	25.04	23.30	25.44	0.002925	4.80	2140.46	728.75	0.37
Lower	2500.881	10706.00	19.20	24.46	23.12	24.86	0.003257	4.79	2223.26	758.57	0.39
Lower	2301.072	10706.00	15.22	22.81		23.79	0.009202	10.17	1516.84	624.93	0.69
Lower	2093.264	10706.00	12.17	22.93		23.31	0.000557	5.55	2705.96	682.44	0.31
Lower	1867.059	10706.00	11.97	22.90		23.08	0.001110	3.43	3236.20	741.22	0.19
Lower	1595.938	10706.00	12.87	21.35	21.35	22.43	0.007965	10.71	1512.72	565.79	0.66
Lower	1395.086	10706.00	12.46	20.91	17.27	21.21	0.001686	4.66	2499.35	461.45	0.29
Lower	1198.387	10706.00	12.43	19.80		20.62	0.005023	5.47	1701.64	331.23	0.40
Lower	996.912	10706.00	6.20	18.90	16.35	19.82	0.003584	9.09	1535.70	261.42	0.47
Lower	990	Bridge									

Lower	714.649	10706.00	4.67	14.53	11.74	15.45	0.001669	5.26	1564.27	230.45
0.31										
Lower	675.385	10706.00	5.51	14.11	11.96	15.29	0.002185	5.63	1424.38	231.50
0.35										
Lower	670	Bridge								
Lower	618.929	10706.00	5.13	12.19		13.79	0.006072	8.28	1121.73	229.04
0.56										
Lower	507.643	10706.00	4.40	12.00		12.79	0.004432	7.36	1509.72	265.33
0.48										
Lower	311.165	10706.00	4.13	11.05		11.96	0.004231	9.26	1592.26	348.29
0.64										
Lower	131.811	10706.00	3.93	10.15	9.52	11.16	0.005004	9.34	1482.23	432.26
0.70										

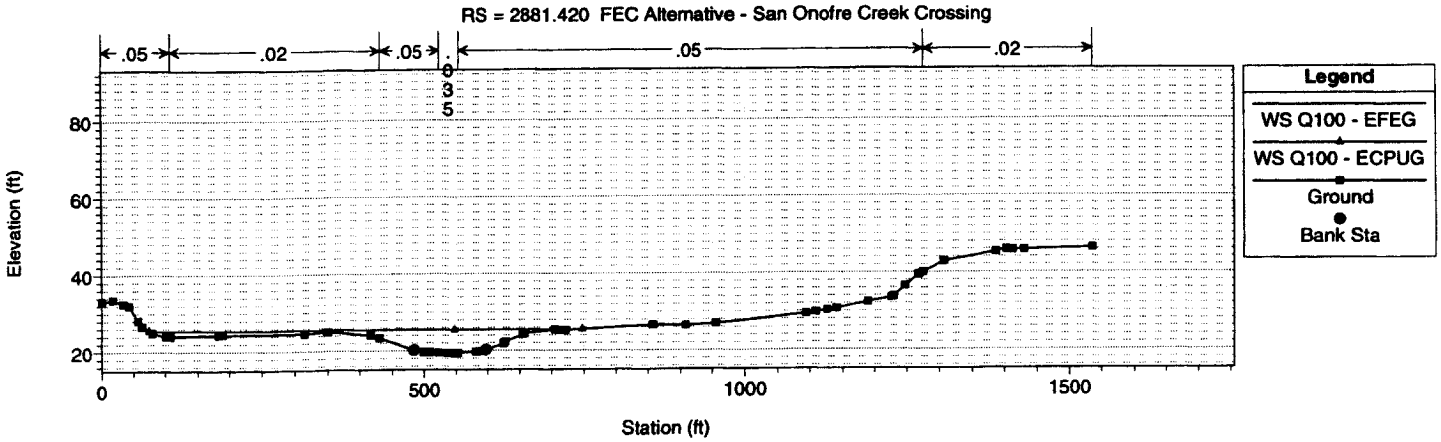


1 in Horiz. = 300 ft 1 in Vert. = 200 ft


996.912
1395.086
1595.938
1867.059
2093.264
2301.072
2500.881
2689.349
2881.420
Lower
714.649
618.929
507.643
311.165
131.811
1 in Horiz. = 300 ft 1 in Vert. = 200 ft

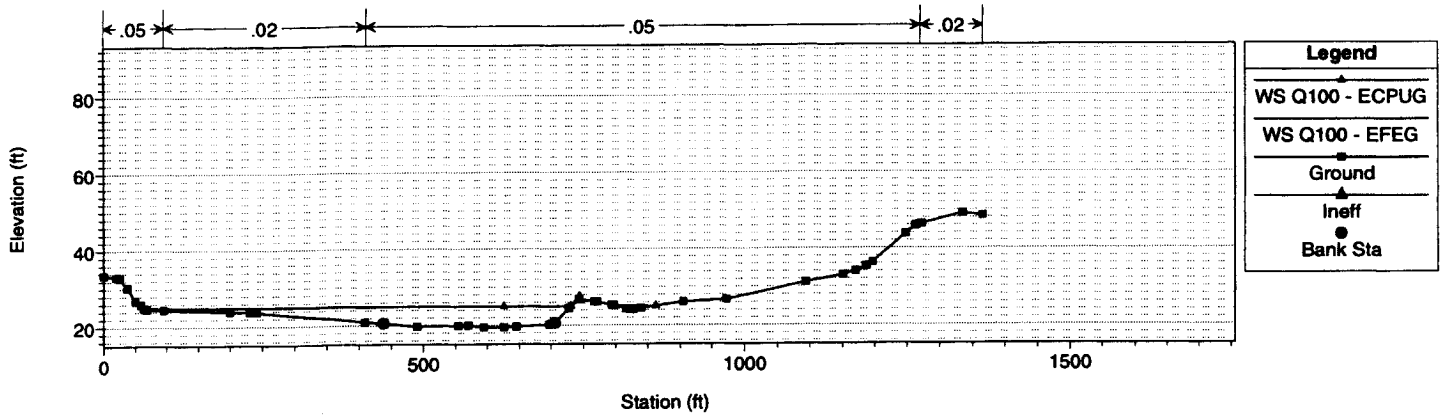
Project Model G

RS = 2881.420 FEC Alternative - San Onofre Creek Crossing



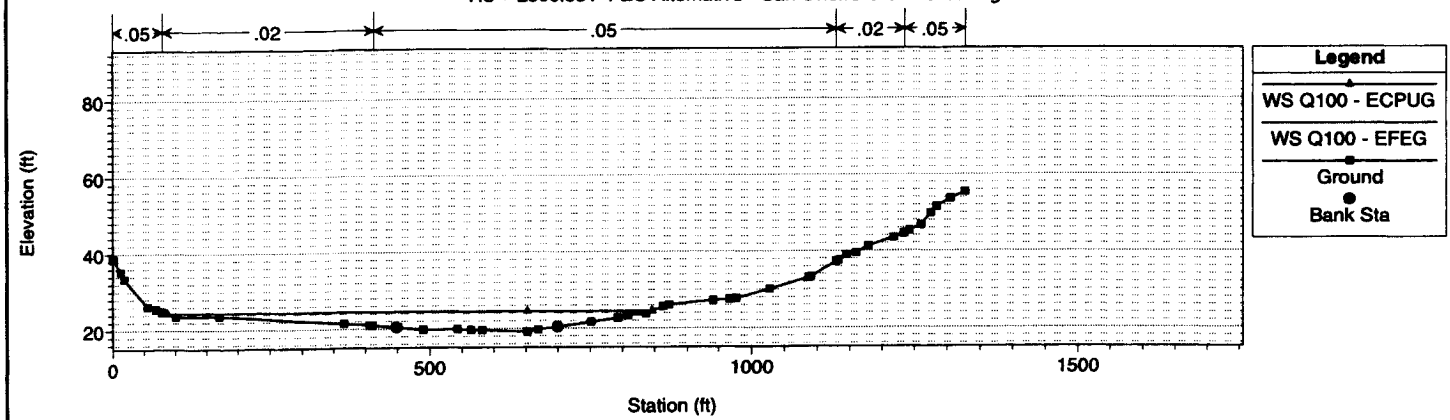
Project Model G

RS = 2689.349 FEC Alternative - San Onofre Creek Crossing



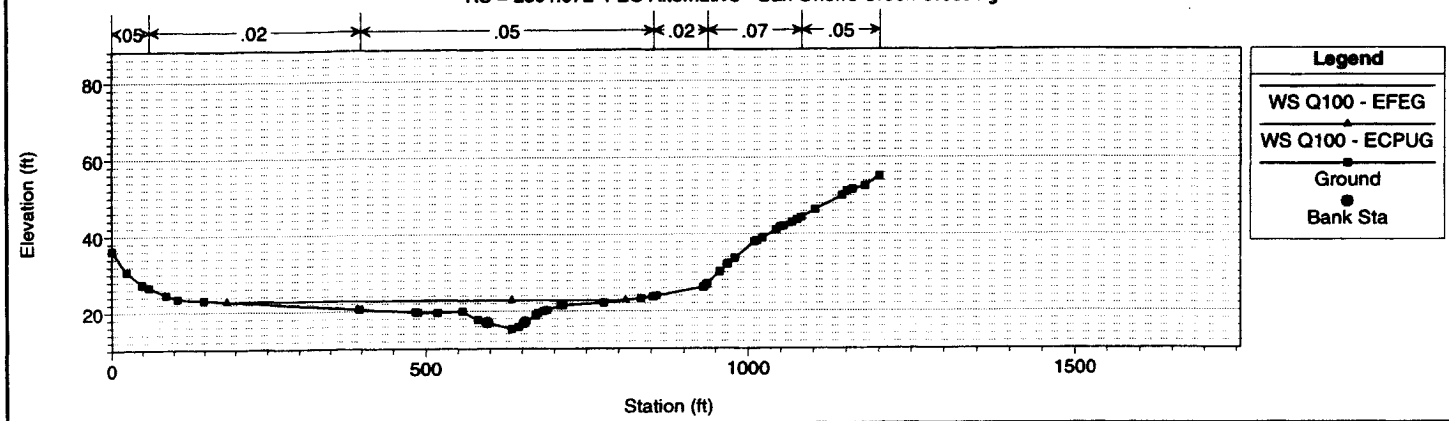
Project Model G

RS = 2500.881 FEC Alternative - San Onofre Creek Crossing

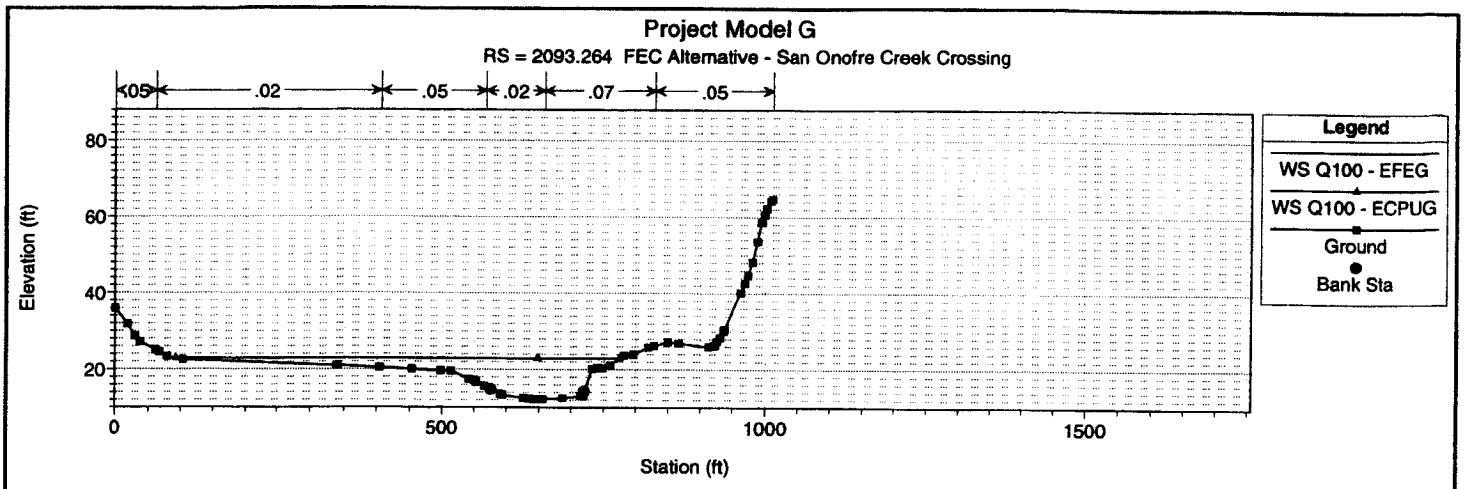


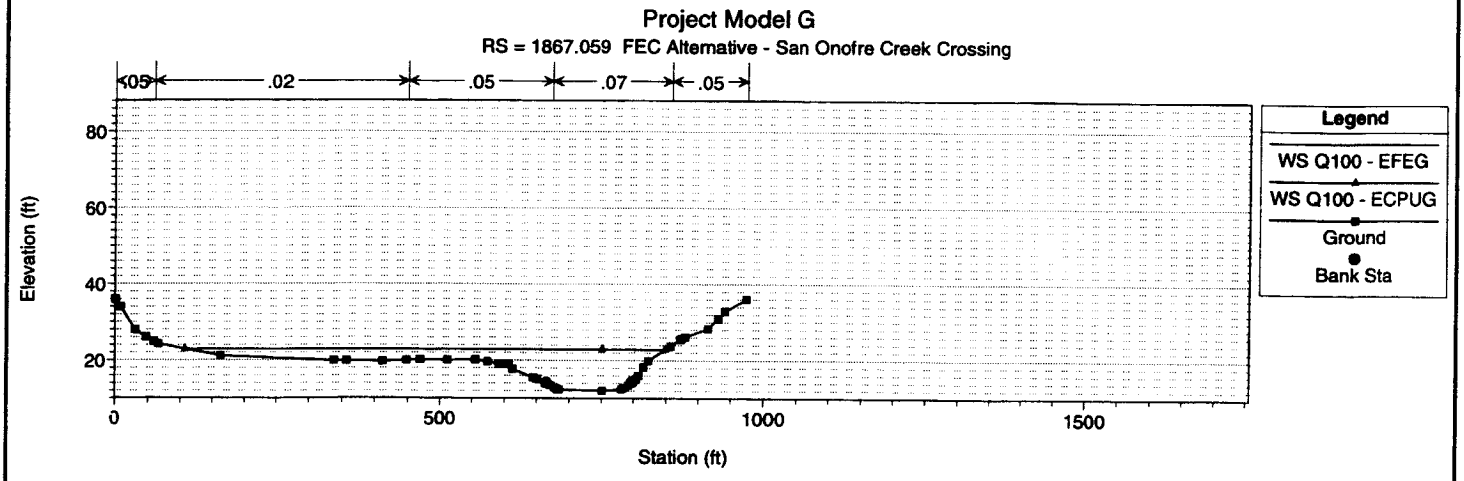
Project Model G

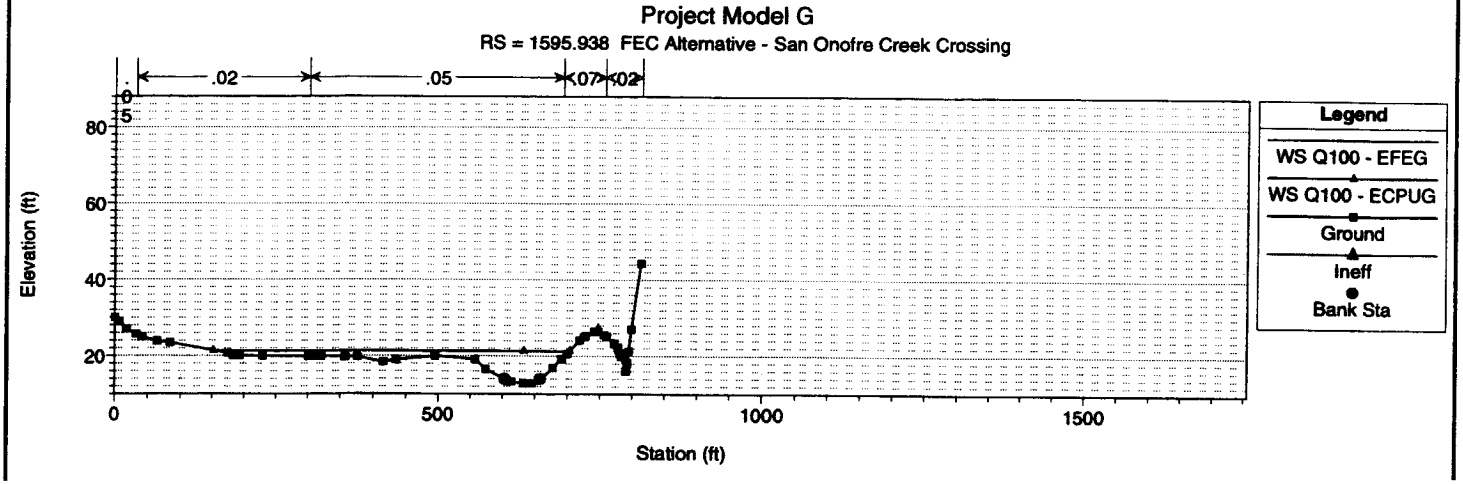
RS = 2301.072 FEC Alternative - San Onofre Creek Crossing

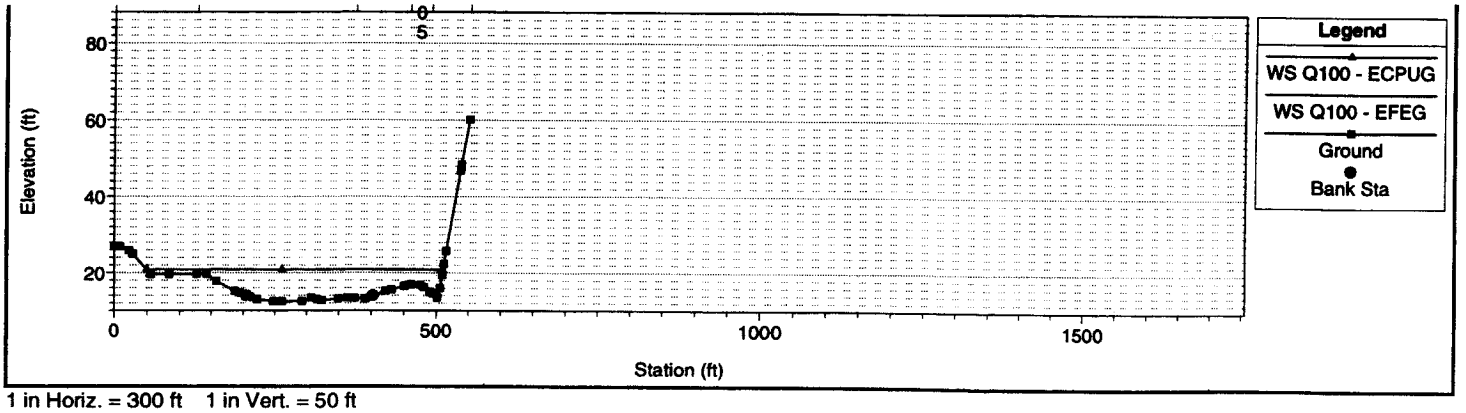


1 in Horiz. = 300 ft 1 in Vert. = 50 ft





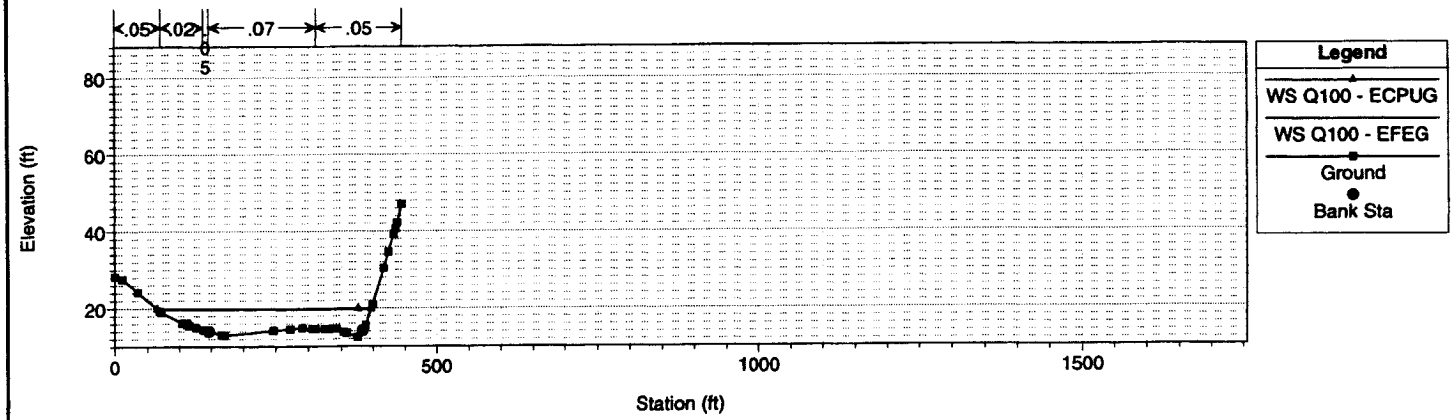




1 in Horiz. = 300 ft 1 in Vert. = 50 ft

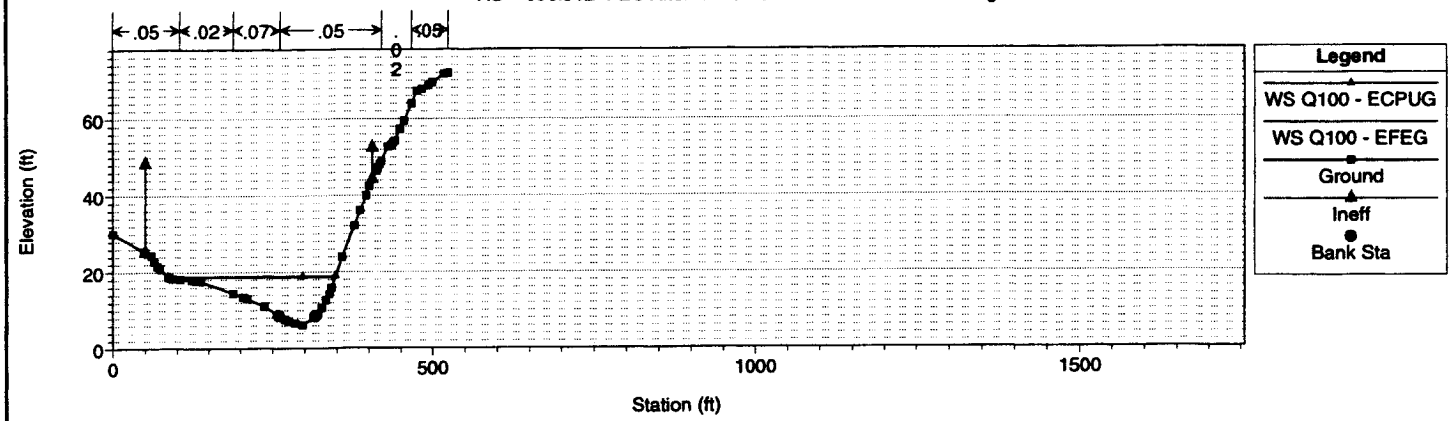
Project Model G

RS = 1198.387 FEC Alternative - San Onofre Creek Crossing



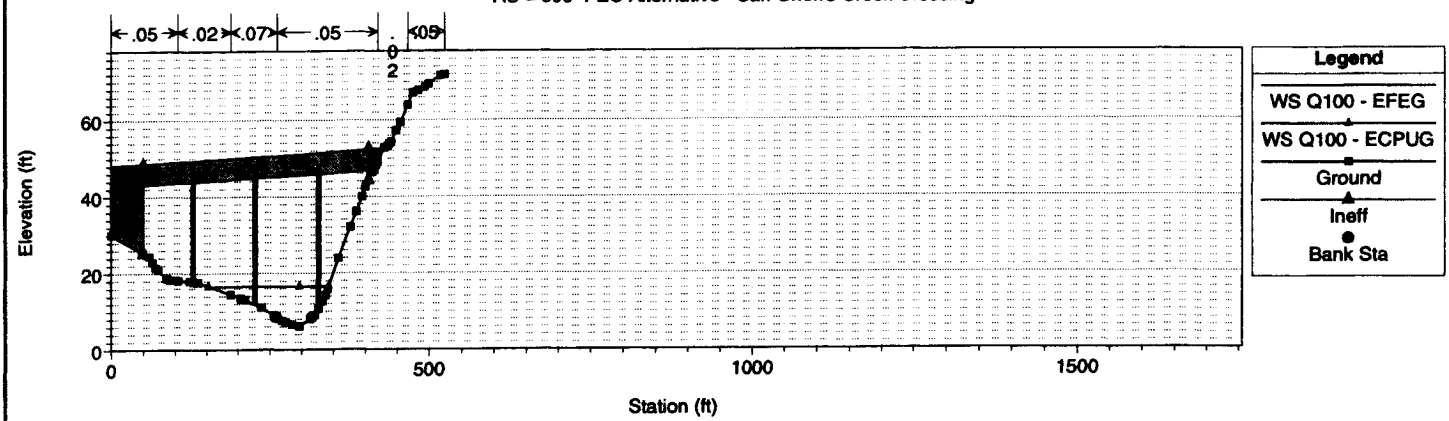
Project Model G

RS = 996.912 FEC Alternative - San Onofre Creek Crossing



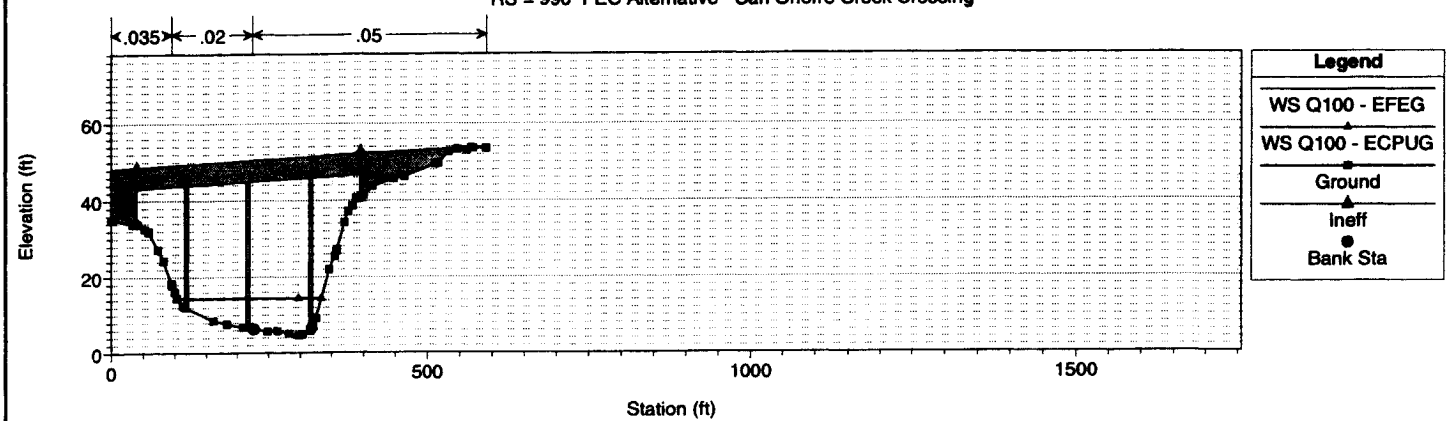
Project Model G

RS = 990 FEC Alternative - San Onofre Creek Crossing



Project Model G

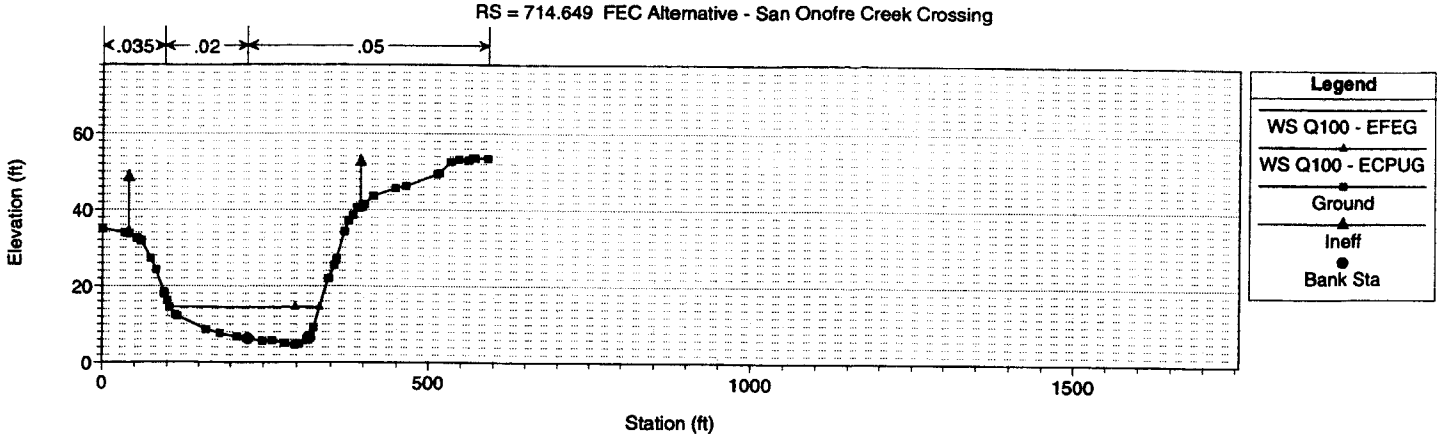
RS = 990 FEC Alternative - San Onofre Creek Crossing



1 in Horiz. = 300 ft 1 in Vert. = 50 ft

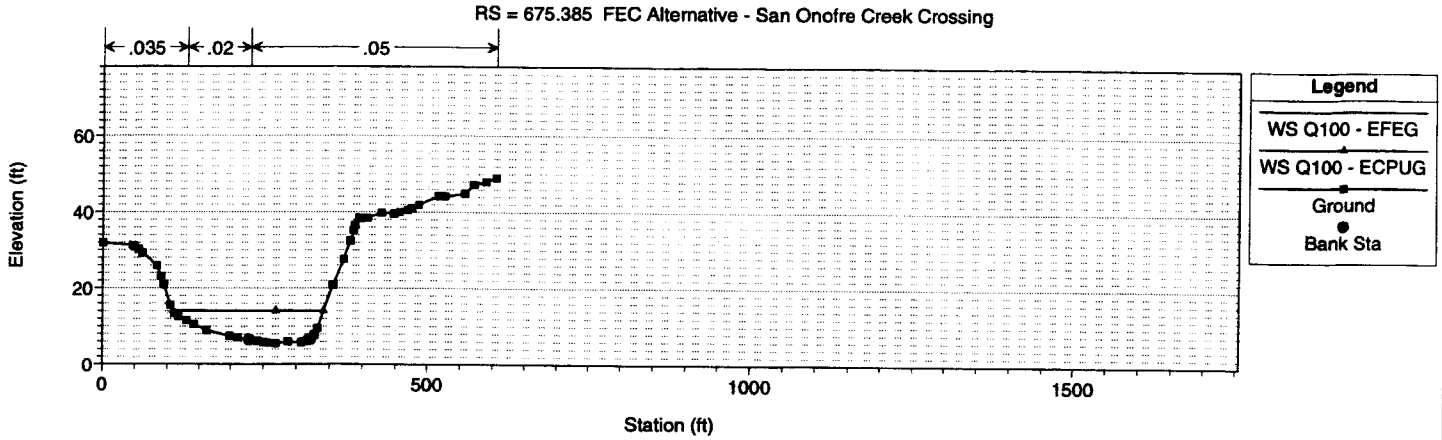
Project Model G

RS = 714.649 FEC Alternative - San Onofre Creek Crossing



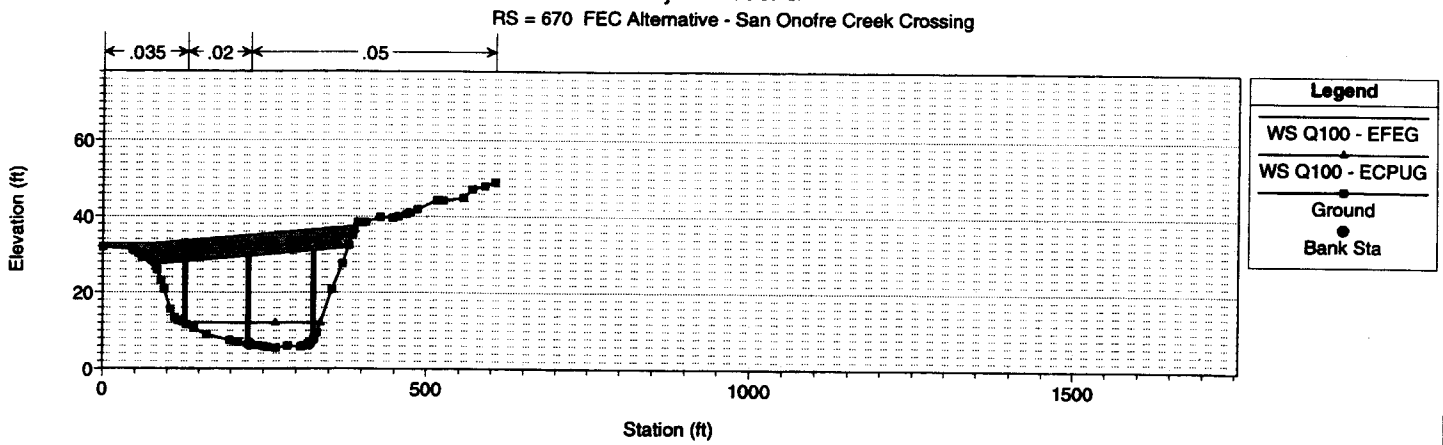
Project Model G

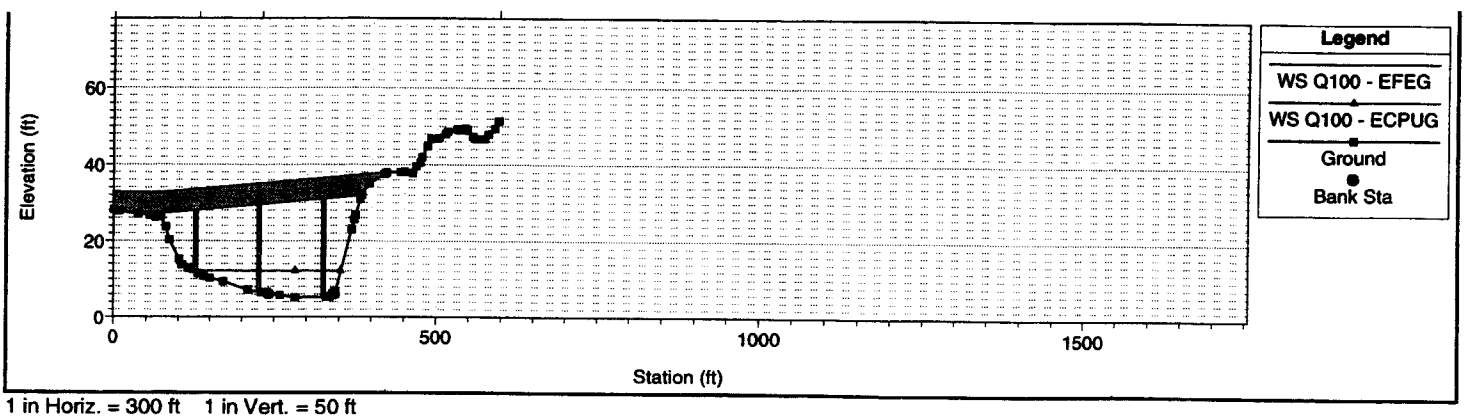
RS = 675.385 FEC Alternative - San Onofre Creek Crossing



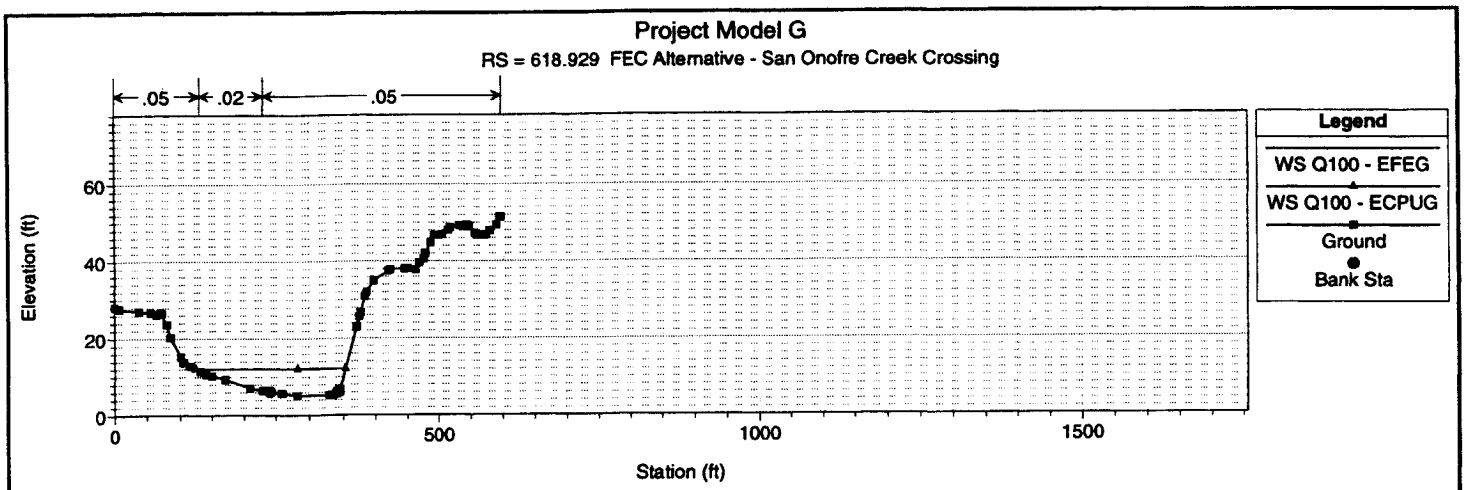
Project Model G

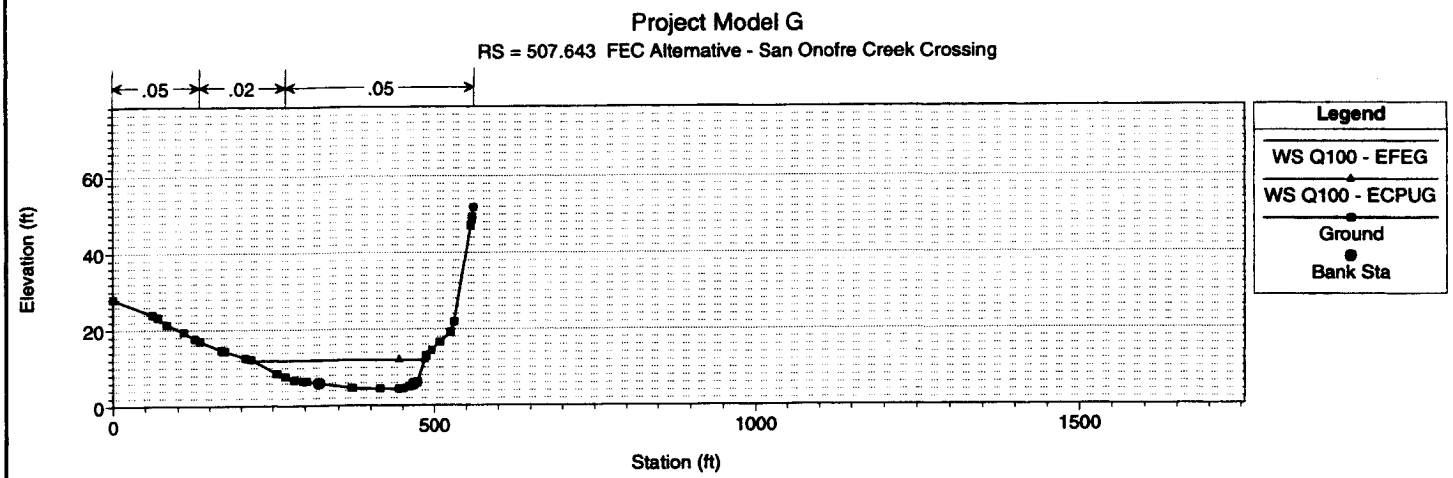
RS = 670 FEC Alternative - San Onofre Creek Crossing

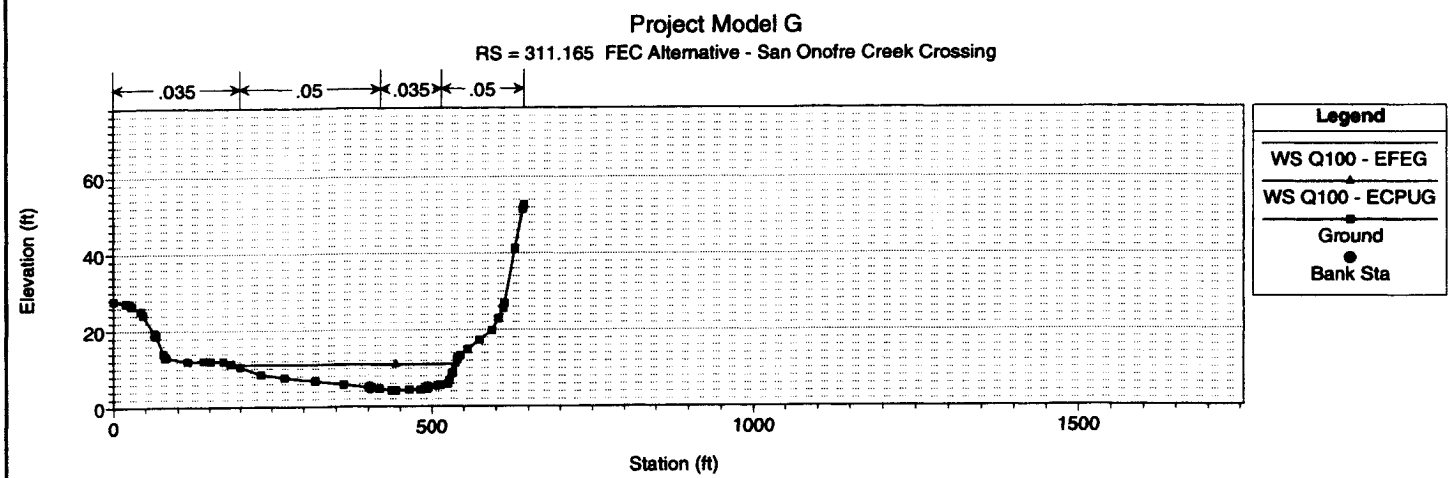


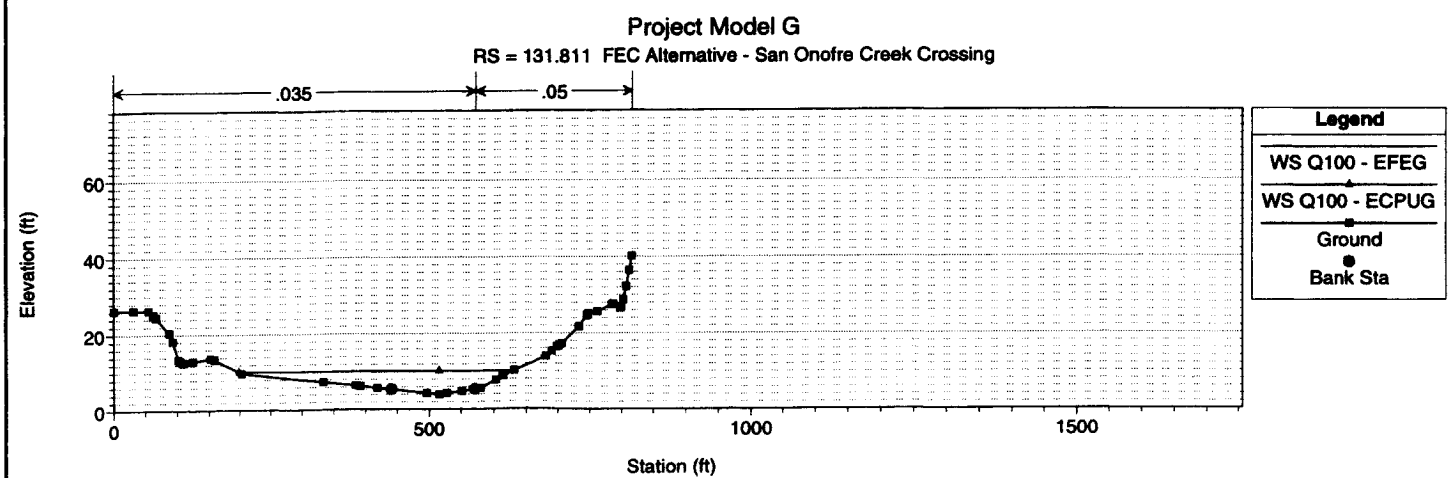


1 in Horiz. = 300 ft 1 in Vert. = 50 ft

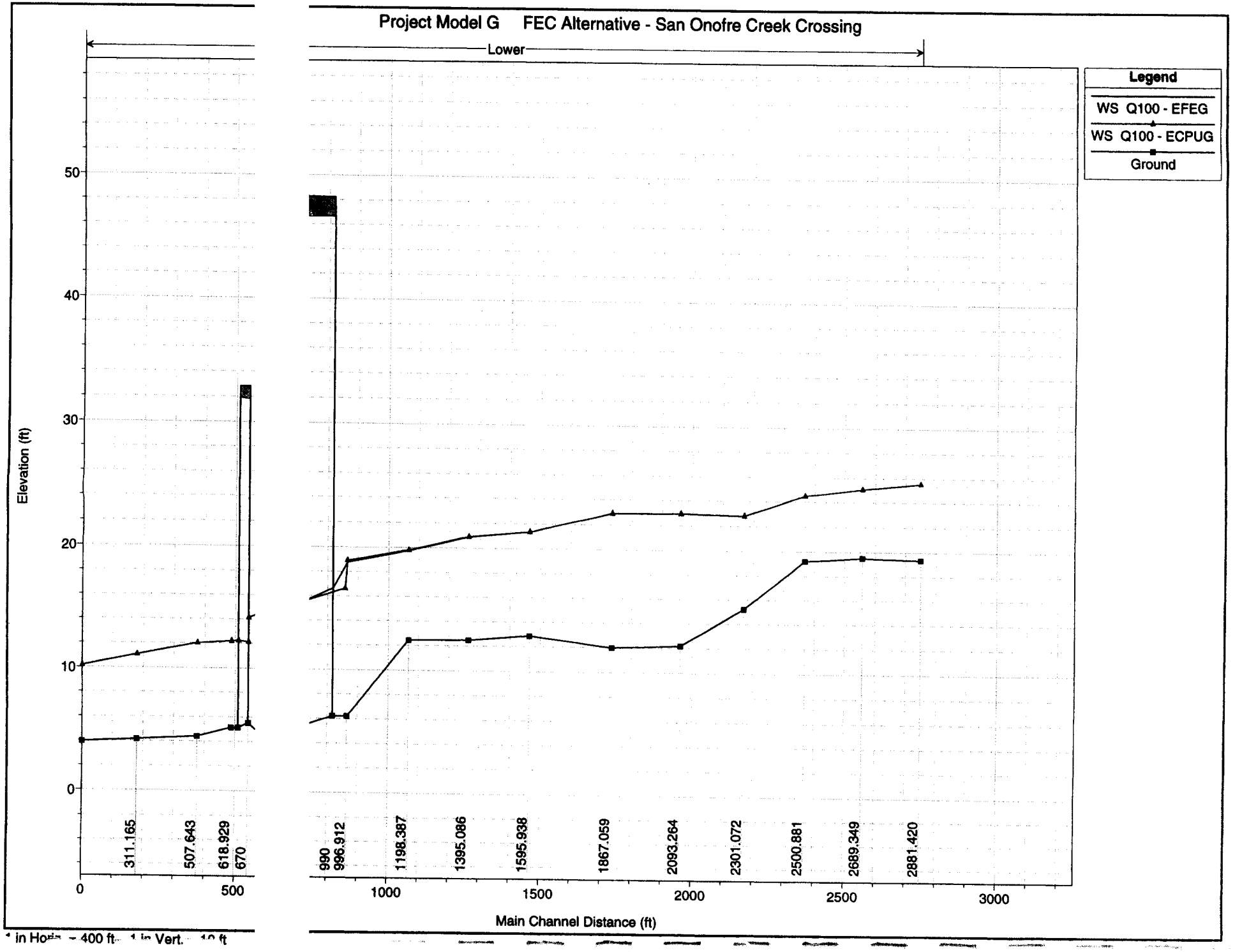


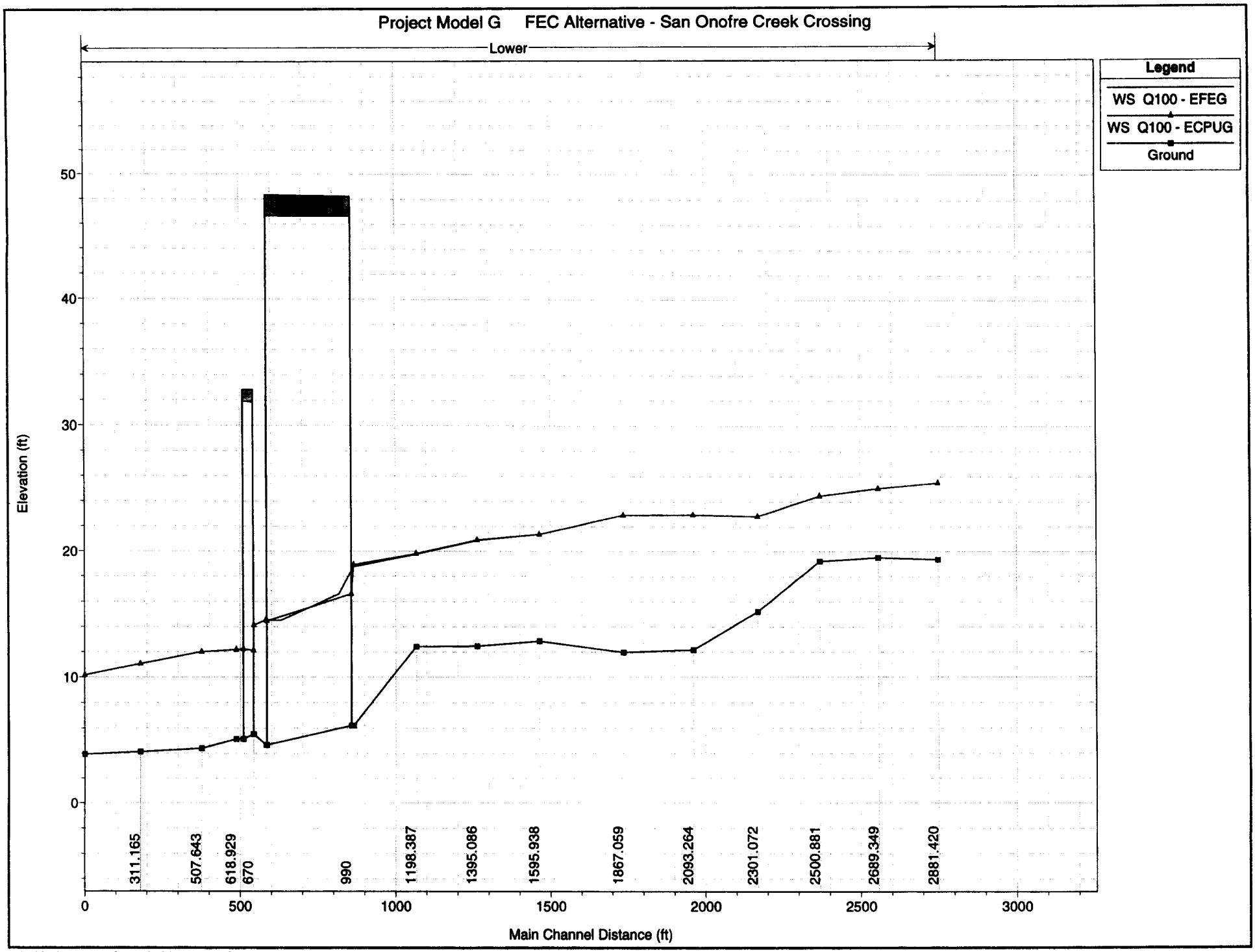






1 in Horiz. = 300 ft 1 in Vert. = 50 ft


Project Model G FEC Alternative - San Onofre Creek Crossing
Lower
Legend
WS Q100 - EFEG
WS Q100 - ECPUG
Ground
Elevation (ft)
50
40
30
20
10
0
311.165
507.643
618.929
670
0
500
990
996.912
1198.387
1395.086
1595.938
1867.059
2093.264
2301.072
2500.881
2689.349
2881.420
1000
1500
2000
2500
3000
Main Channel Distance (ft)
1 in Horiz. = 400 ft 1 in Vert. = 10 ft



1 in Horiz. = 400 ft 1 in Vert. = 10 ft

APPENDIX G
HYDRAULIC MODEL INPUT & RESULTS
FEC-TV ALTERNATIVE AT SEGUNDA DESHECHA CAÑADA
(MODEL "E2")

Appendix G. **Hydraulic Model Input & Results**

FEC-TV Alternative at Segunda Deshecha Canada (Model E2)

- Model Report
- Project geometry, plan view
- Cross Sections for 100-yr existing geometry and water surface elevations
- Geometry and water surface elevation profile

HEC-RAS Version 3.0.1 Mar 2001
U.S. Army Corp of Engineers
Hydrologic Engineering Center
609 Second Street, Suite D
Davis, California 95616-4687
(916) 756-1104

```
X     X  XXXXXX    XXXX        XXXX       XX      XXXX
X     X  X        X    X      X   X     X  X    X
X     X  X        X           X   X    X    X   X
XXXXXXX  XXXX     X       XXX XXXX     XXXXXX    XXXX
X     X  X        X           X  X     X    X        X
X     X  X        X    X      X   X    X    X        X
X     X  XXXXXX    XXXX       X    X   X    X   XXXXX
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PROJECT DATA
Project Title: Project Model E2
Project File : PME2.prj
Run Date and Time: 12/8/02 1:09:04 PM

Project in English units

Project Description:
FEC-TV/CC/I-5 Alternatives - Segunda Deshecha Crossing

PLAN DATA

Plan Title: Existing Flow/Existing Geometry
Plan File : p:\2PDA0104\Hydr\LHS\Modeling\Model E\HecRas E\PME2.p01

Geometry Title: Existing Conditions
Geometry File : p:\2PDA0104\Hydr\LHS\Modeling\Model E\HecRas E\PME2.g01

Flow Title : Existing Conditions
Flow File : p:\2PDA0104\Hydr\LHS\Modeling\Model E\HecRas E\PME2.f01

Plan Summary Information:
Number of: Cross Sections = 45 Mulitple Openings = 0
Culverts = 5 Inline Weirs = 0
Bridges = 0

Computational Information
Water surface calculation tolerance = 0.01
Critical depth calculaton tolerance = 0.01
Maximum number of interations = 20
Maximum difference tolerance = 0.3
Flow tolerance factor = 0.001

Computation Options
Critical depth computed only where necessary
Conveyance Calculation Method: At breaks in n values only
Friction Slope Method: Average Conveyance
Computational Flow Regime: Mixed Flow

FLOW DATA

Flow Title: Existing Conditions
Flow File : p:\2PDA0104\Hydr\LHS\Modeling\Model E\HecRas E\PME2.f01

Flow Data (cfs)

River	Reach	RS	Q2	Q5	Q10	Q25	Q50	Q100	Q100HC
Segunda	DeshechaMiddle	5293.413	17	124	279	941	1829	2680	6785

Boundary Conditions

River	Reach	Profile	Upstream	Downstream
Segunda	DeshechaMiddle	Q2	Normal S = .003	Normal S = .01
Segunda	DeshechaMiddle	Q5	Normal S = .003	Normal S = .01
Segunda	DeshechaMiddle	Q10	Normal S = .003	Normal S = .01
Segunda	DeshechaMiddle	Q25	Normal S = .003	Normal S = .01
Segunda	DeshechaMiddle	Q50	Normal S = .003	Normal S = .01
Segunda	DeshechaMiddle	Q100	Normal S = .003	Normal S = .01
Segunda	DeshechaMiddle	Q100HC	Normal S = .003	Normal S = .01

GEOMETRY DATA

Geometry Title: Existing Conditions
Geometry File : p:\2PDA0104\Hydr\LHS\Modeling\Model E\HecRas E\PME2.g01

CROSS SECTION RIVER: Segunda Deshecha
REACH: Middle RS: 5293.413

INPUT
Description:
Station Elevation Data num= 28

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	117.08	2.97	115.74	11.55	112.15	20.41	109.5	35.59	105.38
39.82	104.43	47.25	101.31	52.7	100.09	62.44	98.2	82.49	97.9
97.01	94.82	101.36	93.9	105.98	92.52	109.58	92.11	117.8	91.72
126.68	91.21	144.01	90.17	147.18	90.24	158.08	90.48	159.36	90.75
161.3	91.19	164.51	92.13	165	92.46	165.91	93.07	175.42	99.24
195.94	112.59	204.33	116.78	207.29	118.83				

Manning's n Values num= 2

Sta	n Val	Sta	n Val
0	.035	147.18	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
126.68	161.3	154.94	167.43	155.78	.1	.3

CROSS SECTION RIVER: Segunda Deshecha
REACH: Middle RS: 5125.981

INPUT
Description:
Station Elevation Data num= 35

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	118.44	.45	118.4	2.48	118.06	4.95	117.03	10.48	115.09
14.67	113.49	33.9	106.13	54.33	102.1	73.95	98.39	79.86	95.56
84.84	92.96	90.27	91.64	102.97	91.74	104.15	91.71	117.36	91.33
128.73	91	143.59	90.58	145.29	90.51	149.26	90.7	158.76	91.03
176.19	91.8	178.63	92.08	179.53	92.29	182.45	93.16	188.06	93.83
199.51	95.19	207.06	96.08	230.38	99.07	233.12	99.4	240.06	100.47
248.43	103.59	260.54	106	260.82	106.06	261.21	106.17	293.39	118.9

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.02	14.67	.035	117.36	.05	199.51	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
128.73	158.76	154.63	138.12	145.8	.1	.3

CROSS SECTION RIVER: Segunda Deshecha
REACH: Middle RS: 4987.865

INPUT
Description:
Station Elevation Data num= 30

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	118.03	67.57	116.53	113.97	116.71	140.27	115.45	156.09	115.24
170.9	113.69	175.12	113.12	179.71	112.5	186.93	111.59	192.24	109.41
206.97	103.93	217.37	99.84	220.92	98.52	232.14	93.71	232.3	93.67
257.7	86.91	259.46	86.44	260.44	86.17	270.18	85.26	272.72	85.18
280.27	85.99	290.72	87.22	301.51	88.07	304.81	88.33	312.44	90.62
320.35	92.35	321.09	92.52	331.33	98.1	350.05	108.29	368.15	119.34

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.02	257.7	.05	331.33	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
260.44	280.27	155.78	147.9	147.51	.1	.3

CROSS SECTION RIVER: Segunda Deshecha
REACH: Middle RS: 4839.967

INPUT
Description:
Station Elevation Data num= 29

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	111.55	25.94	111.31	69.28	110.95	132.08	107.63	143.01	107.02
149.73	106.71	157.86	106.72	166.95	105.91	176.88	104.07	179.72	103.06

Manning's n Values num= 2

Sta	n Val	Sta	n Val
0	.02	241.25	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
216.55	234.71	779.19	728.61	714.74	.3	.5

Ineffective Flow num= 2

Sta L	Sta R	Elev	Permanent
888		F	
888		F	

CULVERT RIVER: Segunda Deshecha
REACH: Middle RS: 4815

INPUT
Description:
Distance from Upstream XS = 25
Deck/Roadway Width = 700
Weir Coefficient = 2.6
Upstream Deck/Roadway Coordinates

```
    num=        2
     Sta Hi Cord Lo Cord      Sta Hi Cord Lo Cord
       0     112        0      350     112        0

Upstream Bridge Cross Section Data
Station Elevation Data     num=       29
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  111.55   25.94  111.31   69.28  110.95  132.08  107.63  143.01  107.02
  149.73  106.71  157.86  106.72  166.95  105.91  176.88  104.07  179.72  103.06
  192.53   96.21     193   95.98  197.51   93.78  201.38    90.9  206.09   88.15
  208.86   86.36  216.55   83.99  223.18   83.19  234.71   84.11  237.42   84.42
  241.25   85.94  243.14   86.69  243.52   86.83  245.41   87.52  265.47   99.83
  268.03   101.4  272.78  104.46  280.86  109.79  283.83  111.29

Manning's n Values         num=        2
     Sta   n Val     Sta   n Val
       0     .02  241.25     .05

Bank Sta: Left   Right    Coeff Contr.   Expan.
        216.55  234.71             .3       .5
Ineffective Flow     num=        2
   Sta L   Sta R    Elev  Permanent
888        F
888        F

Downstream  Deck/Roadway Coordinates
    num=        2
     Sta Hi Cord Lo Cord      Sta Hi Cord Lo Cord
       0     105        0      350     105        0

Downstream Bridge Cross Section Data
Station Elevation Data     num=       28
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0     105   16.52  104.45   57.54   102.5    70.5  101.73  109.81  100.78
  145.21  100.04  155.13   99.98  161.01   99.15  166.95   98.24  171.02   95.89
  177.77   92.43  190.21   86.04  204.97   79.09  210.28   78.21  212.31   77.96
  216.74   77.53  218.37   77.58  225.48   77.82  225.78   77.82  238.06   78.16
  239.12   78.18  241.49   78.55  250.49   80.88  256.69   83.37  268.19   88.57
  300.36  103.03  303.75  104.78  307.57  105.48

Manning's n Values         num=        2
     Sta   n Val     Sta   n Val
       0     .02  218.37     .05

Bank Sta: Left   Right    Coeff Contr.   Expan.
        210.28  239.12             .3       .5
Ineffective Flow     num=        2
   Sta L   Sta R    Elev  Permanent
888        F
888        F

Upstream Embankment side slope              =       0 horiz. to 1.0 vertical
Downstream Embankment side slope            =       0 horiz. to 1.0 vertical
Maximum allowable submergence for weir flow =     .95
Elevation at which weir flow begins         =
Energy head used in spillway design         =
Spillway height used in design              =
Weir crest shape                            = Broad Crested

Number of Culverts =  1

Culvert Name      Shape      Rise    Span
Culvert #1          Box        16      14
FHWA Chart # 8 - flared wingwalls
FHWA Scale # 1 - Wingwall flared 30 to 75 deg.
Solution Criteria = Highest U.S. EG
Culvert Upstrm Dist  Length    n Value   Entrance Loss Coef   Exit Loss Coef
                 25     700        .02                 .08                1
Number of Barrels =  2
Upstream   Elevation =  85
Centerline Stations
    Sta.    Sta.
     218     234
Downstream Elevation =  78
Centerline Stations
    Sta.    Sta.
     216     232

CULVERT OUTPUT    Profile #Q100
Culvert ID : Culvert #1

  Culv Q (cfs)            2680.00    Culv Ful Lngh (ft)
  # Barrels                     2    Culv Vel US (ft/s)        14.55
  Q Barrel (cfs)          1340.00    Culv Vel DS (ft/s)         8.49
  E.G. US. (ft)             95.41    Culv Inv El Up (ft)       85.00
  W.S. US. (ft)             94.18    Culv Inv El Dn (ft)       78.00
  E.G. DS (ft)              90.29    Culv Frctn Ls (ft)         4.47
  W.S. DS (ft)              89.28    Culv Ext Lss (ft)          0.10
  Delta EG (ft)              5.11    Culv Ent Lss (ft)          0.54
  Delta WS (ft)              4.90    Q Weir (cfs)
  E.G. IC (ft)              95.41    Weir Sta Lft (ft)
  E.G. OC (ft)              95.13    Weir Sta Rgt (ft)
  Culvert Control           Inlet    Weir Submerg
  Culv WS Inlet (ft)        91.58    Weir Max Depth (ft)
  Culv WS Outlet (ft)       89.28    Weir Avg Depth (ft)
  Culv Nml Depth (ft)        5.92    Wr Flw Area (sq ft)
  Culv Crt Depth (ft)        6.58    Min El Weir Flow (ft)    112.01
```

Note: During supercritical analysis, the culvert direct step method went to normal depth. The program then assumed normal depth at the outlet.
Note: During the supercritical calculations a hydraulic jump occurred inside of the culvert.

CROSS SECTION RIVER: Segunda Deshecha
REACH: Middle RS: 4111.352

INPUT
Description:
Station Elevation Data num= 28

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	105	16.52	104.45	57.54	102.5	70.5	101.73	109.81	100.78
145.21	100.04	155.13	99.98	161.01	99.15	166.95	98.24	171.02	95.89
177.77	92.43	190.21	86.04	204.97	79.09	210.28	78.21	212.31	77.96
216.74	77.53	218.37	77.58	225.48	77.82	225.78	77.82	238.06	78.16
239.12	78.18	241.49	78.55	250.49	80.88	256.69	83.37	268.19	88.57
300.36	103.03	303.75	104.78	307.57	105.48				

Manning's n Values num= 2

Sta	n Val	Sta	n Val
0	.02	218.37	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
210.28	239.12	123.12	121.03	118.86	.3	.5

Ineffective Flow num= 2

Sta L	Sta R	Elev	Permanent
888	F		
888	F		

CROSS SECTION RIVER: Segunda Deshecha
REACH: Middle RS: 3990.318

INPUT
Description:
Station Elevation Data num= 29

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	104.97	3.8	104.92	4.94	104.92	87.47	100.76	116.47	99.56
144	99.66	156.4	97.65	157.14	97.44	159.5	96.11	166.99	92.42
194.16	79.07	195.83	78.55	203.99	77.6	210.75	76.83	216.27	77.06
229.39	77.59	231.97	77.69	235.56	77.85	236.26	78.03	245.55	80.25
257.53	84.88	272.37	90.68	279.45	92.64	294.68	94.08	309.35	96.39
337.45	99.8	337.83	99.84	349.76	103.96	354.55	105.11		

Manning's n Values num= 2

Sta	n Val	Sta	n Val
0	.02	216.27	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
203.99	229.39	242.67	248.06	249.8	.1	.3

CROSS SECTION RIVER: Segunda Deshecha
REACH: Middle RS: 3742.260

INPUT
Description:
Station Elevation Data num= 26

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	102.02	44.44	101.14	98.27	100.1	117.61	99.86	131.62	98.91
137.52	95.64	144.22	92.15	146.65	90.88	164.53	81.2	167.95	79.43
176.47	77.86	181.5	77.17	184.82	76.69	200.51	77.02	207.4	77.13
211.46	77.78	212	77.86	218.51	79.1	221.8	80.64	230.36	84.37
231.78	84.82	253.52	91.69	262.48	94.37	266.78	96.45	275.02	100.29
286.15	106.11								

Manning's n Values num= 2

Sta	n Val	Sta	n Val
0	.02	231.78	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
181.5	207.4	205.14	201.57	199.28	.3	.5

Ineffective Flow num= 2

Sta L	Sta R	Elev	Permanent

REACH: Middle RS: 3720

INPUT
Description:
Distance from Upstream XS = 22
Deck/Roadway Width = 160
Weir Coefficient = 2.6
Upstream Deck/Roadway Coordinates
num= 2

Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord
0	100	0	350	100	0

Upstream Bridge Cross Section Data
Station Elevation Data num= 26

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	102.02	44.44	101.14	98.27	100.1	117.61	99.86	131.62	98.91
137.52	95.64	144.22	92.15	146.65	90.88	164.53	81.2	167.95	79.43
176.47	77.86	181.5	77.17	184.82	76.69	200.51	77.02	207.4	77.13
211.46	77.78	212	77.86	218.51	79.1	221.8	80.64	230.36	84.37
231.78	84.82	253.52	91.69	262.48	94.37	266.78	96.45	275.02	100.29
286.15	106.11								

```
Manning's n Values          num=        2
     Sta   n Val      Sta   n Val
       0     .02   231.78     .05

Bank Sta: Left   Right    Coeff Contr.   Expan.
         181.5   207.4              .3       .5
Ineffective Flow      num=        2
   Sta L   Sta R    Elev  Permanent
888        F
888        F

Downstream  Deck/Roadway Coordinates
    num=        2
     Sta Hi Cord Lo Cord      Sta Hi Cord Lo Cord
       0      98        0      350      98        0

Downstream Bridge Cross Section Data
Station Elevation Data     num=       32
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0   98.43   10.76    98.1   14.49   98.09   85.18   93.96   85.68   93.95
   87.31   93.87  139.76   92.29  154.25   84.26  164.22   78.73  165.34   78.16
  167.06   77.34  169.26    76.5  170.49   76.08  180.72   72.19  184.04   71.55
  188.96   71.57  195.71    72.3  200.49   72.43  208.72   72.65  215.14   74.42
  218.66   76.12  219.25   76.44  228.24   81.43  232.93   83.66  236.97   84.92
  242.53      87  251.59    90.4  262.28   92.68  274.03   94.93  283.83   95.45
  291.65   95.94  323.37   98.46

Manning's n Values          num=        3
     Sta   n Val      Sta   n Val      Sta   n Val
       0     .02   200.49     .05   242.53     .02

Bank Sta: Left   Right    Coeff Contr.   Expan.
         170.49  218.66              .3       .5
Ineffective Flow      num=        2
   Sta L   Sta R    Elev  Permanent
888        F
888        F

Upstream Embankment side slope                =       0 horiz. to 1.0 vertical
Downstream Embankment side slope              =       0 horiz. to 1.0 vertical
Maximum allowable submergence for weir flow =     .95
Elevation at which weir flow begins           =
Energy head used in spillway design           =
Spillway height used in design                =
Weir crest shape                              = Broad Crested

Number of Culverts =  1

Culvert Name      Shape      Rise    Span
Culvert #1            Box       16      14
FHWA Chart # 8 - flared wingwalls
FHWA Scale # 1 - Wingwall flared 30 to 75 deg.
Solution Criteria = Highest U.S. EG
Culvert Upstrm Dist  Length    n Value   Entrance Loss Coef   Exit Loss Coef
                 22     160        .02                   .8                1
Number of Barrels =  2
Upstream   Elevation =  77.2
Centerline Stations
    Sta.    Sta.
     187     203
Downstream Elevation =  72.6
Centerline Stations
    Sta.    Sta.
     186     202

CULVERT OUTPUT    Profile #Q100
Culvert ID : Culvert #1

  Culv Q (cfs)            2680.00    Culv Ful Lngh (ft)
  # Barrels                     2    Culv Vel US (ft/s)        14.55
  Q Barrel (cfs)          1340.00    Culv Vel DS (ft/s)         8.55
  E.G. US. (ft)             89.70    Culv Inv El Up (ft)       77.20
  W.S. US. (ft)             88.81    Culv Inv El Dn (ft)       72.60
  E.G. DS (ft)              84.71    Culv Frctn Ls (ft)         2.13
  W.S. DS (ft)              83.80    Culv Ext Lss (ft)          0.22
  Delta EG (ft)              4.99    Culv Ent Lss (ft)          2.63
  Delta WS (ft)              5.01    Q Weir (cfs)
  E.G. IC (ft)              87.46    Weir Sta Lft (ft)
  E.G. OC (ft)              89.70    Weir Sta Rgt (ft)
  Culvert Control          Outlet    Weir Submerg
  Culv WS Inlet (ft)        83.78    Weir Max Depth (ft)
  Culv WS Outlet (ft)       83.80    Weir Avg Depth (ft)
  Culv Nml Depth (ft)        4.06    Wr Flw Area (sq ft)
  Culv Crt Depth (ft)        6.58    Min El Weir Flow (ft)    100.01


Note:    During the supercritical calculations a hydraulic jump occurred inside of the culvert.

CROSS SECTION           RIVER: Segunda Deshecha
REACH: Middle              RS: 3540.685

INPUT
Description:
Station Elevation Data     num=       32
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0   98.43   10.76    98.1   14.49   98.09   85.18   93.96   85.68   93.95
   87.31   93.87  139.76   92.29  154.25   84.26  164.22   78.73  165.34   78.16
```

167.06	77.34	169.26	76.5	170.49	76.08	180.72	72.19	184.04	71.55
188.96	71.57	195.71	72.3	200.49	72.43	208.72	72.65	215.14	74.42
218.66	76.12	219.25	76.44	228.24	81.43	232.93	83.66	236.97	84.92
242.53	87	251.59	90.4	262.28	92.68	274.03	94.93	283.83	95.45
291.65	95.94	323.37	98.46						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.02	200.49	.05	242.53	.02

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
170.49	218.66	141.61	143.77	144.57	.3	.5

Ineffective Flow num= 2

Sta L	Sta R	Elev	Permanent
888		F	
888		F	

CROSS SECTION RIVER: Segunda Deshecha
REACH: Middle RS: 3396.911

INPUT
Description:
Station Elevation Data num= 29

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	98.45	21.02	98.08	38.3	97.42	73.42	96.52	140.88	94.52
152.41	93.25	164.61	92.02	171.35	88.66	174.69	86.99	192.33	79.24
193.89	78.47	195.65	78.05	204.14	77.26	212.83	76.05	218.09	75.32
233.71	75.89	238.08	75.96	249.99	77.72	256.21	78.64	258.29	78.9
264.49	81.57	276.56	86.52	291.3	91.46	295.8	92.38	299.01	93.03
327.55	95.57	353.86	98.06	357.12	98.55	360.73	99.1		

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.02	212.83	.05	295.8	.02	357.12	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
212.83	238.08	85.78	94.69	101.52	.1	.3

CROSS SECTION RIVER: Segunda Deshecha
REACH: Middle RS: 3302.220

INPUT
Description:
Station Elevation Data num= 36

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	98.4	61.54	97.31	89.87	96.74	108.86	95.89	189.02	93.75
217.58	92.48	221.53	89.49	223.85	87.74	230.44	84.32	239.14	79.61
242.53	78.58	251.09	73.71	253.84	72.63	259.28	71.68	262.48	71.24
266.33	70.71	268.12	70.68	271.61	70.85	279.49	71.23	284.97	71.49
290.28	72.08	293.49	73.13	298.25	75.66	307.03	79.14	307.45	79.31
321.98	86.12	331.36	89.18	335.78	90.57	348.08	92.68	348.71	92.82
353.47	93.19	365.8	94.13	406.47	98.29	407.85	98.42	409.17	98.66
411.01	99.08								

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.02	279.49	.05	353.47	.02	411.01	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
259.28	290.28	273.08	321.92	331.8	.3	.5

Ineffective Flow num= 2

Sta L	Sta R	Elev	Permanent
888		F	
888		F	

CULVERT RIVER: Segunda Deshecha
REACH: Middle RS: 3300

INPUT
Description:
Distance from Upstream XS = 3
Deck/Roadway Width = 300
Weir Coefficient = 2.6

Upstream Bridge Cross Section Data
Station Elevation Data num= 36

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	98.4	61.54	97.31	89.87	96.74	108.86	95.89	189.02	93.75
217.58	92.48	221.53	89.49	223.85	87.74	230.44	84.32	239.14	79.61
242.53	78.58	251.09	73.71	253.84	72.63	259.28	71.68	262.48	71.24
266.33	70.71	268.12	70.68	271.61	70.85	279.49	71.23	284.97	71.49
290.28	72.08	293.49	73.13	298.25	75.66	307.03	79.14	307.45	79.31
321.98	86.12	331.36	89.18	335.78	90.57	348.08	92.68	348.71	92.82
353.47	93.19	365.8	94.13	406.47	98.29	407.85	98.42	409.17	98.66
411.01	99.08								

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.02	279.49	.05	353.47	.02	411.01	.05

Bank Sta: Left	Right	Coeff Contr.	Expan.
259.28	290.28	.3	.5

Ineffective Flow num= 2

Sta L	Sta R	Elev	Permanent

```
888       F
888       F

Downstream  Deck/Roadway Coordinates
    num=       2
     Sta Hi Cord Lo Cord     Sta Hi Cord Lo Cord
       0      92       0     500      92       0

Downstream Bridge Cross Section Data
Station Elevation Data    num=      28
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0   92.09      .8   91.78   21.93    84.7   22.16   84.65   22.41   84.55
    57.7   70.03   60.86   68.73   63.92   66.96   65.42   66.58   70.53   65.82
   77.74   64.75   79.04   64.75   86.66   64.78  110.55   65.78  112.12   66.25
  115.05   66.41  118.33   68.16   121.7   70.43  125.42   72.93   143.8    78.5
  146.05   79.15  146.26   79.22   146.4   79.28  166.53   88.81  170.98   90.84
  172.58   91.72  173.58   91.83  174.86   92.01

Manning's n Values        num=       2
     Sta   n Val     Sta   n Val
       0     .05   86.66     .02

Bank Sta: Left   Right    Coeff Contr.   Expan.
         70.53  110.55            .3       .5
Ineffective Flow     num=       2
   Sta L   Sta R    Elev  Permanent
888       F
888       F

Upstream Embankment side slope                =       0 horiz. to 1.0 vertical
Downstream Embankment side slope              =       0 horiz. to 1.0 vertical
Maximum allowable submergence for weir flow =     .95
Elevation at which weir flow begins           =
Energy head used in spillway design           =
Spillway height used in design                =
Weir crest shape                              = Broad Crested

Number of Culverts =  1

Culvert Name     Shape      Rise    Span
Culvert #1           Box      16      14
FHWA Chart # 8 - flared wingwalls
FHWA Scale # 1 - Wingwall flared 30 to 75 deg.
Solution Criteria = Highest U.S. EG
Culvert Upstrm Dist  Length    n Value   Entrance Loss Coef   Exit Loss Coef
                  3     300        .02                   .8                1
Number of Barrels =  2
Upstream   Elevation =  71.8
Centerline Stations
    Sta.    Sta.
     266     282
Downstream Elevation =  65.4
Centerline Stations
    Sta.    Sta.
      80      96

CULVERT OUTPUT    Profile #Q100
Culvert ID : Culvert #1

  Culv Q (cfs)            2680.00    Culv Ful Lngh (ft)
  # Barrels                     2    Culv Vel US (ft/s)        14.55
  Q Barrel (cfs)          1340.00    Culv Vel DS (ft/s)         6.82
  E.G. US. (ft)             84.30    Culv Inv El Up (ft)       71.80
  W.S. US. (ft)             83.48    Culv Inv El Dn (ft)       65.40
  E.G. DS (ft)              80.03    Culv Frctn Ls (ft)         1.51
  W.S. DS (ft)              79.44    Culv Ext Lss (ft)          0.13
  Delta EG (ft)              4.26    Culv Ent Lss (ft)          2.63
  Delta WS (ft)              4.04    Q Weir (cfs)
  E.G. IC (ft)              82.12    Weir Sta Lft (ft)
  E.G. OC (ft)              84.30    Weir Sta Rgt (ft)
  Culvert Control          Outlet    Weir Submerg
  Culv WS Inlet (ft)        78.38    Weir Max Depth (ft)
  Culv WS Outlet (ft)       79.44    Weir Avg Depth (ft)
  Culv Nml Depth (ft)        4.50    Wr Flw Area (sq ft)
  Culv Crt Depth (ft)        6.58    Min El Weir Flow (ft)     92.01


Note:    During the supercritical calculations a hydraulic jump occurred inside of the culvert.

CROSS SECTION          RIVER: Segunda Deshecha
REACH: Middle             RS: 2980.298

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data    num=      28
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0   92.09      .8   91.78   21.93    84.7   22.16   84.65   22.41   84.55
    57.7   70.03   60.86   68.73   63.92   66.96   65.42   66.58   70.53   65.82
   77.74   64.75   79.04   64.75   86.66   64.78  110.55   65.78  112.12   66.25
  115.05   66.41  118.33   68.16   121.7   70.43  125.42   72.93   143.8    78.5
  146.05   79.15  146.26   79.22   146.4   79.28  166.53   88.81  170.98   90.84
  172.58   91.72  173.58   91.83  174.86   92.01

Manning's n Values        num=       2
     Sta   n Val     Sta   n Val
       0     .05   86.66     .02

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
```

```
        70.53  110.55          201.18  192.88  193.87              .3        .5
Ineffective Flow     num=       2
   Sta L   Sta R    Elev  Permanent
888       F
888       F

CROSS SECTION          RIVER: Segunda Deshecha
REACH: Middle             RS: 2787.418

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data    num=      18
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0   92.84     7.4   90.56   10.34   89.18   19.88   84.43   27.32   80.13
    49.2   71.29    52.5   69.96   58.99   67.32   61.67   66.88   75.06   65.38
   80.26   64.65   81.58    64.7   85.85   65.29   92.31   66.21  104.47   71.52
  106.99   72.62  150.88   91.79  155.69   92.07

Manning's n Values        num=       2
     Sta   n Val     Sta   n Val
       0     .05   58.99     .02

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         75.06   85.85            203.66  202.05  200.43              .1        .3

CROSS SECTION          RIVER: Segunda Deshecha
REACH: Middle             RS: 2585.366

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data    num=      21
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0   91.92     .56   91.83   15.71   84.19   27.16   78.38    42.5   72.31
   46.43   70.74   55.68   67.06    66.9   64.97   70.01    64.4   73.57   64.33
    79.2   64.28    81.3   64.73   91.97    66.9  100.24   70.37  100.85   70.62
  130.28   83.12  136.83    85.7  155.97   90.56  159.27   91.54  160.54   91.74
  164.06   91.93

Manning's n Values        num=       2
     Sta   n Val     Sta   n Val
       0     .05  100.24     .02

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
          66.9    81.3            182.68  182.49  181.61              .1        .3

CROSS SECTION          RIVER: Segunda Deshecha
REACH: Middle             RS: 2402.878

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data    num=      35
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0   92.59    7.79   90.64    8.89   90.34   18.03   87.08   18.93   86.74
   28.89   81.67   30.73   80.55      44   76.98   48.09   75.41   50.76   74.31
   64.58   70.29   70.24   68.42   72.74   67.59   82.11   61.43   82.94   61.12
   84.95    60.5   87.56    59.6   88.95   59.13   90.46   59.48   92.21   59.59
   93.82   60.57  107.98   69.05  113.17   70.65  113.71   70.82  116.43   72.28
  128.47   76.54  150.63   84.17  154.25   85.36  162.29   85.56   183.9   86.66
   185.4   86.85  188.12   87.14  203.01   88.86  226.71   91.76  229.54   91.86

Manning's n Values        num=       2
     Sta   n Val     Sta   n Val
       0     .05  107.98     .02

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         82.94   93.82            946.4  919.68  899.68              .3        .5
Ineffective Flow     num=       2
   Sta L   Sta R    Elev  Permanent
888       F
888       F

CULVERT                RIVER: Segunda Deshecha
REACH: Middle             RS: 2360


Deck/Roadway Width        =      850
Weir Coefficient          =      2.6
Upstream  Deck/Roadway Coordinates
    num=       2
     Sta Hi Cord Lo Cord     Sta Hi Cord Lo Cord
       0      92       0     250      92       0

Upstream Bridge Cross Section Data
Station Elevation Data    num=      35
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0   92.59    7.79   90.64    8.89   90.34   18.03   87.08   18.93   86.74
   28.89   81.67   30.73   80.55      44   76.98   48.09   75.41   50.76   74.31
   64.58   70.29   70.24   68.42   72.74   67.59   82.11   61.43   82.94   61.12
   84.95    60.5   87.56    59.6   88.95   59.13   90.46   59.48   92.21   59.59
   93.82   60.57  107.98   69.05  113.17   70.65  113.71   70.82  116.43   72.28
  128.47   76.54  150.63   84.17  154.25   85.36  162.29   85.56   183.9   86.66
   185.4   86.85  188.12   87.14  203.01   88.86  226.71   91.76  229.54   91.86

Manning's n Values        num=       2
     Sta   n Val     Sta   n Val
       0     .05  107.98     .02
```

```
Bank Sta: Left   Right    Coeff Contr.   Expan.
        82.94   93.82            .3        .5
Ineffective Flow     num=       2
   Sta L   Sta R    Elev  Permanent
888       F
888       F

Downstream  Deck/Roadway Coordinates
    num=       2
     Sta Hi Cord Lo Cord     Sta Hi Cord Lo Cord
       0      80       0     250      80       0

Downstream Bridge Cross Section Data
Station Elevation Data    num=      17
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0   78.56    1.42   78.27   16.12   68.88   26.47   62.59   35.62   57.74
   38.07   56.44   42.84   54.26    45.2   52.77   53.37   52.14   58.67    51.6
   64.79   52.52   68.45   54.17   71.23   55.56   77.46   58.68   82.03   61.11
   114.4   78.33  121.56   79.22

Manning's n Values        num=       1
     Sta   n Val
       0     .02

Bank Sta: Left   Right    Coeff Contr.   Expan.
        42.84   68.45            .3        .5
Ineffective Flow     num=       2
   Sta L   Sta R    Elev  Permanent
888       F
888       F

Upstream Embankment side slope              =       0 horiz. to 1.0 vertical
Downstream Embankment side slope            =       0 horiz. to 1.0 vertical
Maximum allowable submergence for weir flow =     .95
Elevation at which weir flow begins         =
Energy head used in spillway design         =
Spillway height used in design              =
Weir crest shape                            = Broad Crested

Number of Culverts =  1

Culvert Name      Shape      Rise    Span
Culvert #1          Arch      18      18
FHWA Chart # 41- Arch; Corrugated metal
FHWA Scale # 1 - 90 Degree headwall
Solution Criteria = Highest U.S. EG
Culvert Upstrm Dist  Length    n Value   Entrance Loss Coef   Exit Loss Coef
                43     850        .02                   .8                1
Upstream   Elevation =  62
           Centerline Station =  89
Downstream Elevation =  52.5
           Centerline Station =  57

CULVERT OUTPUT    Profile #Q100
Culvert ID : Culvert #1

  Culv Q (cfs)            2680.00    Culv Ful Lngh (ft)
  # Barrels                     1    Culv Vel US (ft/s)        17.65
  Q Barrel (cfs)          2680.00    Culv Vel DS (ft/s)        19.83
  E.G. US. (ft)             79.51    Culv Inv El Up (ft)       62.00
  W.S. US. (ft)             78.40    Culv Inv El Dn (ft)       52.50
  E.G. DS (ft)              65.38    Culv Frctn Ls (ft)         9.28
  W.S. DS (ft)              60.97    Culv Ext Lss (ft)          0.98
  Delta EG (ft)             14.12    Culv Ent Lss (ft)          3.87
  Delta WS (ft)             17.43    Q Weir (cfs)
  E.G. IC (ft)              76.46    Weir Sta Lft (ft)
  E.G. OC (ft)              79.51    Weir Sta Rgt (ft)
  Culvert Control          Outlet    Weir Submerg
  Culv WS Inlet (ft)        70.80    Weir Max Depth (ft)
  Culv WS Outlet (ft)       60.25    Weir Avg Depth (ft)
  Culv Nml Depth (ft)        7.75    Wr Flw Area (sq ft)
  Culv Crt Depth (ft)        8.80    Min El Weir Flow (ft)     92.01


Note:    During supercritical analysis, the culvert direct step method went to normal depth.  The
         program then assumed normal depth at the outlet.
Note:    The flow in the culvert is entirely supercritical.

CROSS SECTION          RIVER: Segunda Deshecha
REACH: Middle             RS: 1483.193

INPUT
Description:
Station Elevation Data    num=      17
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0   78.56    1.42   78.27   16.12   68.88   26.47   62.59   35.62   57.74
   38.07   56.44   42.84   54.26    45.2   52.77   53.37   52.14   58.67    51.6
   64.79   52.52   68.45   54.17   71.23   55.56   77.46   58.68   82.03   61.11
   114.4   78.33  121.56   79.22

Manning's n Values        num=       1
     Sta   n Val
       0     .02

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
        42.84   68.45            28.86   29.22   29.53              .3        .5
Ineffective Flow     num=       2
```

Sta L	Sta R	Elev	Permanent
888	F		
888	F		

CROSS SECTION RIVER: Segunda Deshecha
REACH: Middle RS: 1453.97*

INPUT
Description:
Station Elevation Data num= 29

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	78.16	.4	78	1.63	77.62	3.65	76.49	15.02	69.73
18.54	67.85	21.56	66.29	30.45	61.12	36.85	57.69	39.39	56.32
40.97	55.48	43.79	53.99	46.75	52.54	49.28	51.65	51.03	50.63
57.09	50.13	61.03	49.72	65.32	50.42	67.88	51.58	69.31	52.26
70.88	52.89	72.69	53.63	77.6	56.17	82.09	58.58	82.54	58.82
89.32	62.46	117.46	77.56	120.69	78.48	125.19	79.08		

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.02	49.28	.02	67.88	.02	125.19	.02

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
49.28	67.88	28.86	29.22	29.53	.1	.3

CROSS SECTION RIVER: Segunda Deshecha
REACH: Middle RS: 1424.75*

INPUT
Description:
Station Elevation Data num= 29

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	77.75	.46	77.5	1.85	76.97	4.12	75.83	16.98	68.63
20.97	66.81	24.37	65.29	34.43	59.65	41.66	55.73	44.54	54.18
46.33	53.23	49.52	51.53	52.86	49.81	55.72	49.03	56.86	48.49
60.82	48.12	63.38	47.83	65.84	48.33	67.32	48.99	68.85	49.68
70.54	50.23	72.47	50.87	77.75	53.67	82.57	56.27	83.04	56.53
90.32	60.46	120.52	76.79	123.99	78.26	128.81	78.94		

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.02	55.72	.02	67.32	.02	128.81	.02

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
55.72	67.32	28.86	29.22	29.53	.1	.3

CROSS SECTION RIVER: Segunda Deshecha
REACH: Middle RS: 1395.537

INPUT
Description:
Station Elevation Data num= 17

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	77.35	.51	77.01	4.6	75.17	18.94	67.52	27.19	64.29
46.48	53.78	49.69	52.03	58.97	47.09	62.16	46.42	65.74	45.95
66.75	46.4	68.39	47.1	72.26	48.1	83.04	53.96	91.32	58.47
127.29	78.04	132.44	78.8						

Manning's n Values num= 1

Sta	n Val
0	.02

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
62.16	66.75	41.77	40.58	39.63	.1	.3

CROSS SECTION RIVER: Segunda Deshecha
REACH: Middle RS: 1354.96*

INPUT
Description:
Station Elevation Data num= 42

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	76.29	.7	75.92	1.25	75.7	5.02	73.65	5.13	73.59
89.05	45.82	90.32	46.15	91.59	46.36	93.15	46.99	96.82	47.94
97.76	48.4	107.06	53.47	112.47	56.42	114.92	57.76	121.26	61.21
127.66	64.67	130.64	66.36	135.67	69.25	145.69	74.95	148.32	76.28
149.07	76.67	153.96	77.58						

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.02	85.46	.02	91.59	.02	153.96	.02

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
85.46	91.59	41.77	40.58	39.63	.1	.3

CROSS SECTION RIVER: Segunda Deshecha
REACH: Middle RS: 1314.38*

INPUT
Description:
Station Elevation Data num= 42

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	75.23	.89	74.83	1.59	74.57	6.39	71.7	6.53	71.62
6.73	71.57	8.05	71.32	27.69	66.96	33.14	65.79	39.03	64.8

47.57	63.28	48.72	63.02	57.22	61.33	63.03	59.92	77.01	57.09
81.32	56.25	86.94	55.17	91.18	54.36	91.91	54.17	94.91	53.38
96.92	52.53	103.17	48.84	103.76	48.56	107.48	46.78	108.76	46.4
112.37	45.69	114.39	46.13	116.43	46.33	117.91	46.88	121.39	47.78
122.27	48.17	131.08	52.98	136.2	55.77	138.52	57.04	144.53	60.32
150.58	63.57	153.4	65.23	158.17	68.14	167.65	73.8	170.14	74.95
170.85	75.3	175.48	76.37						

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.02	108.76	.02	116.43	.02	175.48	.02

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
108.76	116.43	41.77	40.58	39.63	.1	.3

CROSS SECTION RIVER: Segunda Deshecha
REACH: Middle RS: 1273.81*

INPUT
Description:
Station Elevation Data num= 42

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	74.18	1.08	73.74	1.93	73.44	7.75	69.75	7.93	69.65
8.17	69.61	9.77	69.39	33.63	65.86	40.24	64.92	47.4	64.09
57.76	62.77	59.16	62.56	69.48	61.36	76.53	60.14	93.51	58.07
98.74	57.49	105.56	56.74	110.71	56.18	111.6	56	115.24	55.27
117.68	54.3	125.28	49.71	125.99	49.32	130.51	46.89	132.05	46.39
135.68	45.56	138.47	46.11	141.28	46.29	142.67	46.76	145.95	47.61
146.78	47.94	155.09	52.48	159.93	55.13	162.12	56.33	167.79	59.42
173.5	62.48	176.17	64.11	180.66	67.03	189.61	72.64	191.96	73.61
192.63	73.93	197	75.15						

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.02	132.05	.02	141.28	.02	197	.02

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
132.05	141.28	41.77	40.58	39.63	.1	.3

CROSS SECTION RIVER: Segunda Deshecha
REACH: Middle RS: 1233.23*

INPUT
Description:
Station Elevation Data num= 42

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	73.12	1.27	72.65	2.27	72.31	9.12	67.8	9.33	67.68
9.61	67.64	11.5	67.47	39.56	64.75	47.34	64.05	55.76	63.39
67.95	62.27	69.59	62.1	81.74	61.38	90.03	60.36	110.01	59.06
116.16	58.73	124.19	58.3	130.25	57.99	131.29	57.82	135.57	57.15
138.44	56.06	147.38	50.58	148.21	50.09	153.53	46.99	155.35	46.38
159	45.43	162.54	46.08	166.12	46.26	167.43	46.65	170.51	47.45
171.3	47.71	179.11	51.99	183.66	54.48	185.72	55.61	191.05	58.53
196.42	61.38	198.93	62.98	203.16	65.92	211.57	71.49	213.78	72.28
214.41	72.56	218.52	73.94						

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.02	155.35	.02	166.12	.02	218.52	.02

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
155.35	166.12	41.77	40.58	39.63	.1	.3

CROSS SECTION RIVER: Segunda Deshecha
REACH: Middle RS: 1192.660

INPUT
Description:
Station Elevation Data num= 30

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	72.06	2.61	71.18	10.49	65.85	10.73	65.71	11.05	65.67
45.49	63.64	64.12	62.69	80.03	61.64	94	61.41	103.53	60.58
126.51	60.04	149.78	59.8	150.98	59.65	155.9	59.04	159.2	57.83
170.44	50.86	176.56	47.1	178.65	46.37	182.31	45.3	186.62	46.06
190.96	46.22	195.81	47.48	207.39	53.84	214.31	57.63	219.34	60.28
221.69	61.86	225.65	64.81	233.53	70.34	235.6	70.95	240.04	72.72

Manning's n Values num= 1

Sta	n Val
0	.02

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
178.65	190.96	39.46	40.8	41.34	.1	.3

CROSS SECTION RIVER: Segunda Deshecha
REACH: Middle RS: 1151.85*

INPUT
Description:
Station Elevation Data num= 51

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	70.76	2.51	70.04	10.1	65.74	10.33	65.63	10.64	65.59
43.79	63.8	61.73	62.94	69.68	62.47	77.04	61.99	90.49	61.66
99.67	60.9	105.44	60.73	107.25	60.67	108.21	60.63	109.56	60.55
118.32	60.12	121.79	59.94	130.95	59.59	144.19	58.33	145.34	58.11
150.08	57.21	151.71	56.58	153.26	55.96	164.08	49.34	166.45	47.9
169.7	46.09	169.97	45.94	171.98	45.3	175.45	44.34	179.22	45
183.02	45.17	185.51	45.94	187.27	46.55	188.44	46.95	193.5	49.75

195.25	50.69	197.1	51.63	201.39	53.72	204.3	55.14	207.73	56.71
209.12	57.31	214.75	59.64	217.38	61	221.8	63.52	224.2	64.82
230.61	68.58	232.7	69.2	232.93	69.28	233.34	69.45	233.76	69.64
237.89	71.51								

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.02	171.98	.02	183.02	.02	237.89	.02

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
171.98	183.02	39.46	40.8	41.34	.1	.3

CROSS SECTION RIVER: Segunda Deshecha
REACH: Middle RS: 1111.05*

INPUT
Description:
Station Elevation Data num= 51

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	69.46	2.42	68.91	9.71	65.63	9.93	65.55	10.23	65.52
42.09	63.95	59.33	63.2	66.97	62.79	74.06	62.33	86.98	61.91
95.8	61.22	101.35	61.02	103.1	60.94	104.02	60.89	105.31	60.77
113.73	60.11	117.07	59.85	125.87	59.23	138.6	56.86	139.71	56.57
144.26	55.39	145.83	54.74	147.32	54.08	157.72	47.82	160	46.45
163.12	44.9	163.38	44.78	165.31	44.22	168.58	43.38	171.82	43.93
175.08	44.13	177.84	45.08	179.78	45.89	181.07	46.43	186.67	49.54
188.6	50.56	190.65	51.52	195.39	53.6	198.6	55.02	202.4	56.47
203.94	56.99	210.16	59	213.06	60.14	217.96	62.24	220.6	63.32
227.7	66.83	230	67.51	230.26	67.61	230.71	67.81	231.17	68.04
235.74	70.29								

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.02	165.31	.02	175.08	.02	235.74	.02

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
165.31	175.08	39.46	40.8	41.34	.1	.3

CROSS SECTION RIVER: Segunda Deshecha
REACH: Middle RS: 1070.25*

INPUT
Description:
Station Elevation Data num= 51

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	68.17	2.32	67.77	9.32	65.52	9.53	65.46	9.81	65.44
40.4	64.11	56.94	63.45	64.27	63.11	71.07	62.68	83.47	62.16
91.94	61.55	97.27	61.31	98.94	61.21	99.82	61.15	101.07	60.98
109.14	60.1	112.34	59.75	120.79	58.88	133.01	55.39	134.07	55.03
138.44	53.56	139.94	52.89	141.37	52.21	151.36	46.3	153.55	45.01
156.54	43.71	156.79	43.62	158.65	43.15	161.72	42.41	164.42	42.87
167.13	43.08	170.16	44.23	172.29	45.24	173.7	45.9	179.83	49.32
181.95	50.43	184.19	51.41	189.38	53.48	192.91	54.89	197.07	56.23
198.75	56.66	205.56	58.35	208.75	59.28	214.11	60.95	217.01	61.82
224.78	65.07	227.3	65.82	227.58	65.94	228.08	66.17	228.59	66.44
233.6	69.08								

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.02	158.65	.02	167.13	.02	233.6	.02

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
158.65	167.13	39.46	40.8	41.34	.1	.3

CROSS SECTION RIVER: Segunda Deshecha
REACH: Middle RS: 1029.45*

INPUT
Description:
Station Elevation Data num= 51

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	66.87	2.22	66.64	8.92	65.41	9.13	65.38	9.4	65.37
38.7	64.27	54.55	63.7	61.57	63.43	68.08	63.02	79.97	62.42
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
175.3	50.3	177.74	51.3	183.38	53.36	187.21	54.77	191.73	56
193.57	56.34	200.97	57.71	204.43	58.42	210.26	59.67	213.41	60.33
221.86	63.31	224.61	64.13	224.91	64.27	225.45	64.53	226	64.84
231.45	67.86								

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.02	151.98	.02	159.19	.02	231.45	.02

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
151.98	159.19	39.46	40.8	41.34	.1	.3

CROSS SECTION RIVER: Segunda Deshecha
REACH: Middle RS: 988.654

INPUT
Description:
Station Elevation Data num= 26

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	65.57	58.87	63.75	89.09	61.89	90.62	61.76	91.43	61.67

92.57	61.41	99.97	60.08	110.64	58.17	128.18	49.21	140.64	42.12
143.38	41.34	145.31	41	147.99	40.49	151.25	40.99	154.8	42.51
157.3	43.92	166.16	48.89	168.65	50.17	171.28	51.19	181.52	54.64
186.4	55.76	209.82	58.83	221.91	62.44	222.82	62.89	223.42	63.24
229.3	66.65								

Manning's n Values num= 1

Sta	n Val
0	.02

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
145.31	151.25	28.61	37.35	40.77	.1	.3

CROSS SECTION RIVER: Segunda Deshecha
REACH: Middle RS: 951.304*

INPUT
Description:
Station Elevation Data num= 62

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	65.51	1.99	65.38	3.82	65.27	9.65	65.06	59.41	63.25
81.75	61.9	89.9	61.43	91.45	61.32	92.27	61.24	93.42	61.02
97.66	60.38	100.88	59.8	105.88	58.91	111.63	57.83	111.65	57.82
112.65	57.37	121.52	53.52	124.53	52.12	129.35	49.77	130.3	49.26
131.85	48.43	133.6	47.4	141.93	42.41	144.69	41.37	146.64	40.81
147.27	40.53	151.14	39.97	151.44	40.01	151.71	40.06	153.31	40.39
155	40.76	156.31	41.28	156.46	41.36	156.65	41.47	158.45	42.54
159.19	42.97	159.71	43.25	159.73	43.26	163.07	45	163.31	45.13
168.18	47.13	174.1	49.83	174.88	50.17	175.92	50.6	178.2	51.41
180.04	51.93	181.7	52.38	192.5	54.94	195.35	55.51	195.45	55.52
199.68	56.17	201.86	56.49	212.15	57.4	215.54	57.85	222.93	58.71
233.08	59.68	249.19	62.84	250.41	63.22	250.48	63.25	251.21	63.52
256.25	65.44	259.04	66.44						

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.02	146.64	.02	155	.02	259.04	.02

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
146.64	155	28.61	37.35	40.77	.1	.3

CROSS SECTION RIVER: Segunda Deshecha
REACH: Middle RS: 913.955*

INPUT
Description:
Station Elevation Data num= 62

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	65.44	2.01	65.25	3.86	65.1	9.74	64.84	59.95	62.76
82.49	61.42	90.72	60.98	92.28	60.87	93.1	60.8	94.26	60.63
98.55	60.1	101.8	59.52	106.84	58.63	112.64	57.48	112.66	57.48
113.67	57.08	122.62	53.86	125.66	52.6	130.52	50.33	131.48	49.85
133.05	49.07	134.81	47.99	143.21	42.7	146	41.41	147.97	40.62
148.86	40.12	154.29	39.45	154.63	39.5	154.95	39.55	156.8	40
158.75	40.53	160.39	41.14	160.57	41.26	160.81	41.42	163.07	42.98
163.99	43.61	164.64	44	164.67	44.01	168.83	46.08	169.14	46.23
175.23	48.18	182.62	51.11	183.59	51.45	184.9	51.9	187.74	52.65
190.04	53.16	192.12	53.56	205.61	55.97	209.18	56.38	209.3	56.39
214.59	56.96	217.32	57.23	230.18	58.03	234.42	58.6	243.65	59.59
256.33	60.53	276.48	63.24	277.99	63.55	278.09	63.57	278.99	63.81
285.29	65.44	288.79	66.24						

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.02	147.97	.02	158.75	.02	288.79	.02

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
147.97	158.75	28.61	37.35	40.77	.1	.3

CROSS SECTION RIVER: Segunda Deshecha
REACH: Middle RS: 876.606*

INPUT
Description:
Station Elevation Data num= 62

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	65.38	2.02	65.12	3.89	64.92	9.83	64.62	60.48	62.26
83.23	60.93	91.53	60.52	93.1	60.43	93.94	60.37	95.11	60.24
99.43	59.82	102.71	59.25	107.8	58.35	113.65	57.13	113.67	57.13
114.69	56.79	123.72	54.2	126.78	53.07	131.69	50.89	132.66	50.44
134.24	49.7	136.02	48.58	144.5	42.99	147.31	41.44	149.29	40.44
150.44	39.72	157.44	38.94	157.83	38.98	158.19	39.04	160.29	39.62
162.51	40.29	164.47	41.01	164.69	41.16	164.97	41.37	167.68	43.41
168.78	44.25	169.56	44.74	169.6	44.76	174.6	47.16	174.96	47.33
182.27	49.24	191.14	52.38	192.31	52.74	193.87	53.2	197.29	53.89
200.05	54.38	202.55	54.75	218.73	56.99	223.02	57.25	223.16	57.25
229.5	57.75	232.77	57.96	248.21	58.65	253.3	59.35	264.38	60.46
279.59	61.38	303.76	63.63	305.58	63.88	305.69	63.89	306.78	64.09
314.34	65.45	318.53	66.03						

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.02	149.29	.02	162.51	.02	318.53	.02

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
149.29	162.51	28.61	37.35	40.77	.1	.3

CROSS SECTION RIVER: Segunda Deshecha

REACH: Middle RS: 839.257*

INPUT
Description:
Station Elevation Data num= 62

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	65.31	2.04	64.99	3.93	64.74	9.91	64.4	61.02	61.76
83.97	60.45	92.35	60.06	93.93	59.98	94.77	59.94	95.95	59.85
100.32	59.55	103.62	58.97	108.76	58.07	114.66	56.79	114.68	56.78
115.71	56.49	124.82	54.54	127.91	53.55	132.87	51.45	133.84	51.02
135.44	50.34	137.23	49.16	145.78	43.27	148.62	41.47	150.62	40.25
152.03	39.32	160.59	38.42	161.02	38.47	161.43	38.54	163.78	39.23
166.26	40.06	168.55	40.87	168.8	41.06	169.14	41.32	172.3	43.85
173.58	44.89	174.49	45.49	174.54	45.51	180.37	48.24	180.79	48.44
189.32	50.29	199.67	53.65	201.03	54.02	202.85	54.51	206.84	55.13
210.05	55.61	212.97	55.94	231.85	58.02	236.85	58.11	237.01	58.12
244.42	58.53	248.23	58.69	266.24	59.28	272.17	60.09	285.1	61.34
302.85	62.23	331.04	64.03	333.16	64.2	333.3	64.22	334.56	64.37
343.38	65.45	348.28	65.83						

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.02	150.62	.02	166.26	.02	348.28	.02

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
150.62	166.26	28.61	37.35	40.77	.1	.3

CROSS SECTION RIVER: Segunda Deshecha
REACH: Middle RS: 801.908

INPUT
Description:
Station Elevation Data num= 41

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	65.25	2.06	64.86	3.96	64.56	10	64.18	84.71	59.96
101.2	59.27	109.72	57.79	115.67	56.44	116.73	56.2	125.92	54.88
129.04	54.02	135.02	51.61	136.63	50.97	138.44	49.75	151.95	40.06
153.61	38.92	163.74	37.9	164.22	37.95	164.67	38.03	167.27	38.85
170.01	39.83	172.63	40.74	172.92	40.96	173.3	41.27	176.91	44.29
178.38	45.53	179.42	46.24	186.62	49.54	196.36	51.35	208.19	54.92
211.83	55.81	220.06	56.83	244.97	59.04	250.87	58.98	259.33	59.32
284.27	59.91	291.05	60.84	305.82	62.22	360.9	64.54	372.43	65.46
378.02	65.62								

Manning's n Values num= 1

Sta	n Val
0	.02

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
151.95	170.01	185.68	176.67	173.7	.3	.5

Ineffective Flow num= 2

Sta L	Sta R	Elev	Permanent
888		F	
888		F	

CULVERT RIVER: Segunda Deshecha
REACH: Middle RS: 790

INPUT
Description:
Distance from Upstream XS = 12
Deck/Roadway Width = 150
Weir Coefficient = 2.6
Upstream Deck/Roadway Coordinates
num= 2

Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord
0	60	0	400	60	0

Upstream Bridge Cross Section Data
Station Elevation Data num= 41

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	65.25	2.06	64.86	3.96	64.56	10	64.18	84.71	59.96
101.2	59.27	109.72	57.79	115.67	56.44	116.73	56.2	125.92	54.88

211.83	55.81	220.06	56.83	244.97	59.04	250.87	58.98	259.33	59.32
284.27	59.91	291.05	60.84	305.82	62.22	360.9	64.54	372.43	65.46
378.02	65.62								

Manning's n Values num= 1

Sta	n Val
0	.02

Bank Sta: Left	Right	Coeff Contr.	Expan.
151.95	170.01	.3	.5

Ineffective Flow num= 2

Sta L	Sta R	Elev	Permanent
888		F	
888		F	

Downstream Deck/Roadway Coordinates
num= 2

Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord
0	60	0	400	60	0

Downstream Bridge Cross Section Data

```
Station Elevation Data     num=      29
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0    65.6   19.19   65.29   23.39   65.11   26.81   65.02   34.13   64.49
   62.93   61.04   84.24   58.01   87.58   57.11   109.3   52.73  111.51   52.33
  112.28   52.15  125.38    45.6  136.18   40.21  138.22   39.17  139.04    38.9
  144.96    38.5  146.25   38.41  151.57   38.04  160.64   37.89  161.22   37.95
  161.97    38.2  162.58    38.4  171.66   40.97  173.49   42.28  178.17   45.65
  196.16   58.17  204.28   62.37  212.32   64.86  217.68   65.42

Manning's n Values         num=       1
     Sta   n Val
       0     .02

Bank Sta: Left   Right    Coeff Contr.   Expan.
        144.96  162.58            .3       .5
Ineffective Flow     num=       2
   Sta L   Sta R    Elev  Permanent
888        F
888        F

Upstream Embankment side slope                =       0 horiz. to 1.0 vertical
Downstream Embankment side slope              =       0 horiz. to 1.0 vertical
Maximum allowable submergence for weir flow =     .95
Elevation at which weir flow begins           =
Energy head used in spillway design           =
Spillway height used in design                =
Weir crest shape                              = Broad Crested

Number of Culverts =  1

Culvert Name      Shape      Rise    Span
Culvert #1           Box       18      18
FHWA Chart # 8 - flared wingwalls
FHWA Scale # 1 - Wingwall flared 30 to 75 deg.
Solution Criteria = Highest U.S. EG
Culvert Upstrm Dist  Length    n Value   Entrance Loss Coef   Exit Loss Coef
                 12     150        .02                   .8                1
Upstream   Elevation =  39.6
           Centerline Station =  161
Downstream Elevation =  38.4
           Centerline Station =  154

CULVERT OUTPUT    Profile #Q100
Culvert ID : Culvert #1

  Culv Q (cfs)             2680.00    Culv Ful Lngh (ft)
  # Barrels                      1    Culv Vel US (ft/s)        16.86
  Q Barrel (cfs)           2680.00    Culv Vel DS (ft/s)        17.70
  E.G. US. (ft)              56.38    Culv Inv El Up (ft)       39.60
  W.S. US. (ft)              55.11    Culv Inv El Dn (ft)       38.40
  E.G. DS (ft)               51.35    Culv Frctn Ls (ft)         1.17
  W.S. DS (ft)               46.94    Culv Ext Lss (ft)          0.33
  Delta EG (ft)               5.03    Culv Ent Lss (ft)          3.53
  Delta WS (ft)               8.17    Q Weir (cfs)
  E.G. IC (ft)               53.69    Weir Sta Lft (ft)
  E.G. OC (ft)               56.38    Weir Sta Rgt (ft)
  Culvert Control           Outlet    Weir Submerg
  Culv WS Inlet (ft)         48.43    Weir Max Depth (ft)
  Culv WS Outlet (ft)        46.81    Weir Avg Depth (ft)
  Culv Nml Depth (ft)         8.41    Wr Flw Area (sq ft)
  Culv Crt Depth (ft)         8.83    Min El Weir Flow (ft)     60.01


Note:    During supercritical analysis, the culvert direct step method went to normal depth.  The
         program then assumed normal depth at the outlet.
Note:    The flow in the culvert is entirely supercritical.

CROSS SECTION          RIVER: Segunda Deshecha
REACH: Middle             RS: 625.239

INPUT
Description:
Station Elevation Data     num=      29
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0    65.6   19.19   65.29   23.39   65.11   26.81   65.02   34.13   64.49
   62.93   61.04   84.24   58.01   87.58   57.11   109.3   52.73  111.51   52.33
  112.28   52.15  125.38    45.6  136.18   40.21  138.22   39.17  139.04    38.9
  144.96    38.5  146.25   38.41  151.57   38.04  160.64   37.89  161.22   37.95
  161.97    38.2  162.58    38.4  171.66   40.97  173.49   42.28  178.17   45.65
  196.16   58.17  204.28   62.37  212.32   64.86  217.68   65.42

Manning's n Values         num=       1
     Sta   n Val
       0     .02

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
        144.96  162.58            42.81   39.23   37.69              .3       .5
Ineffective Flow     num=       2
   Sta L   Sta R    Elev  Permanent
888        F
888        F

CROSS SECTION          RIVER: Segunda Deshecha
REACH: Middle             RS: 586.007*

INPUT
Description:
Station Elevation Data     num=      47
```

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	64.68	2.36	64.45	18.26	64.12	22.26	63.95	23.93	63.9
25.52	63.86	32.25	63.39	32.48	63.37	36.91	62.84	44.18	61.99
59.9	60.09	80.18	57.24	83.36	56.44	87.43	55.66	91.12	54.84
101.25	52.32	104.03	51.63	106.13	51.14	106.87	50.94	116.93	45.81
119.33	44.55	129.61	39.18	131.56	38.15	131.73	38.08	132.34	37.9
137.97	37.44	139.14	37.36	143.95	37.03	152.16	36.85	152.82	36.93
153.66	37.17	154.35	37.36	156.48	37.92	162.53	39.75	163.1	39.94
164.87	41.21	166.82	42.61	169.38	44.46	186.73	56.58	191.49	59.18
192.67	59.82	194.56	60.87	194.8	60.96	196.59	61.64	202.32	63.81
207.37	64.84	207.49	64.86						

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.02	137.97	.02	154.35	.02	207.49	.02

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
137.97	154.35	42.81	39.23	37.69	.1	.3

CROSS SECTION RIVER: Segunda Deshecha
REACH: Middle RS: 546.775*

INPUT
Description:
Station Elevation Data num= 47

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	63.76	2.24	63.33	17.34	62.96	21.13	62.79	22.72	62.74
24.22	62.69	30.62	62.28	30.84	62.26	35.04	61.75	41.94	60.96
56.86	59.14	76.12	56.47	79.13	55.77	83	55.07	86.51	54.21
96.12	51.32	98.76	50.53	100.76	49.95	101.45	49.73	111.01	44.75
113.29	43.5	123.05	38.15	124.89	37.13	125.06	37.06	125.63	36.89
130.98	36.39	132.03	36.32	136.34	36.01	143.69	35.82	144.41	35.9
145.35	36.13	146.11	36.32	148.16	36.82	154	38.7	154.55	38.92
156.25	40.14	158.13	41.49	160.59	43.26	177.31	55	181.89	57.63
183.02	58.28	184.85	59.38	185.08	59.48	186.8	60.26	192.32	62.77
197.18	64.26	197.3	64.3						

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.02	130.98	.02	146.11	.02	197.3	.02

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
130.98	146.11	42.81	39.23	37.69	.1	.3

CROSS SECTION RIVER: Segunda Deshecha
REACH: Middle RS: 507.543*

INPUT
Description:
Station Elevation Data num= 47

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	62.84	2.12	62.22	16.41	61.79	20.01	61.63	21.51	61.58
22.93	61.53	28.98	61.16	29.19	61.14	33.17	60.66	39.71	59.93
53.83	58.19	72.05	55.71	74.91	55.1	78.57	54.48	81.89	53.58
90.99	50.32	93.49	49.42	95.38	48.77	96.04	48.52	105.08	43.7
107.24	42.45	116.48	37.13	118.23	36.11	118.38	36.03	118.93	35.89
123.99	35.33	124.91	35.27	128.72	35	135.21	34.78	136.01	34.88
137.04	35.1	137.88	35.28	139.85	35.72	145.46	37.64	145.99	37.89
147.62	39.06	149.43	40.36	151.8	42.07	167.88	53.41	172.29	56.08
173.38	56.74	175.13	57.88	175.35	58	177.01	58.88	182.32	61.72
186.99	63.69	187.1	63.74						

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.02	123.99	.02	137.88	.02	187.1	.02

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
123.99	137.88	42.81	39.23	37.69	.1	.3

CROSS SECTION RIVER: Segunda Deshecha
REACH: Middle RS: 468.311*

INPUT

21.64	60.36	27.35	60.04	27.55	60.02	31.3	59.56	37.47	58.9
50.79	57.24	67.99	54.94	70.69	54.44	74.14	53.89	77.27	52.95
85.86	49.32	88.22	48.32	90	47.58	90.62	47.31	99.16	42.64
101.2	41.4	109.91	36.1	111.56	35.09	111.71	35.01	112.22	34.89
117	34.28	117.8	34.22	121.11	33.99	126.74	33.74	127.61	33.86
128.73	34.07	129.64	34.23	131.54	34.62	136.92	36.59	137.43	36.87
139	37.99	140.74	39.24	143.02	40.88	158.45	51.82	162.69	54.53
163.73	55.2	165.42	56.38	165.63	56.52	167.22	57.5	172.31	60.68
176.8	63.12	176.91	63.18						

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.02	117	.02	129.64	.02	176.91	.02

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
117	129.64	42.81	39.23	37.69	.1	.3

CROSS SECTION RIVER: Segunda Deshecha
REACH: Middle RS: 429.079*

INPUT

Description:
Station Elevation Data num= 47

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	61	1.88	59.99	14.56	59.46	17.75	59.31	19.08	59.25
20.35	59.2	25.71	58.93	25.9	58.91	29.43	58.47	35.23	57.87
47.76	56.29	63.93	54.17	66.46	53.77	69.71	53.3	72.66	52.33
80.73	48.32	82.95	47.22	84.62	46.39	85.21	46.1	93.23	41.59
95.15	40.35	103.35	35.07	104.9	34.07	105.03	33.98	105.52	33.89
110.01	33.22	110.69	33.18	113.49	32.97	118.26	32.71	119.2	32.84
120.42	33.03	121.4	33.19	123.22	33.52	128.39	35.53	128.87	35.84
130.38	36.92	132.04	38.11	134.23	39.68	149.02	50.24	153.08	52.99
154.09	53.67	155.7	54.89	155.9	55.03	157.43	56.12	162.31	59.63
166.62	62.55	166.72	62.62						

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.02	110.01	.02	121.4	.02	166.72	.02

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
110.01	121.4	42.81	39.23	37.69	.1	.3

CROSS SECTION RIVER: Segunda Deshecha
REACH: Middle RS: 389.848

INPUT
Description:
Station Elevation Data num= 23

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	60.08	1.76	58.88	17.87	58.09	24.08	57.81	27.56	57.38
32.99	56.84	65.28	52.71	68.04	51.7	75.6	47.32	87.31	40.53
98.36	32.96	103.02	32.17	109.79	31.67	113.17	32.15	114.91	32.42
119.85	34.48	123.35	36.99	143.48	51.44	144.44	52.13	146.18	53.55
147.64	54.74	156.43	61.98	156.53	62.06				

Manning's n Values num= 1

Sta	n Val
0	.02

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
103.02	113.17	34.65	40.94	42.19	.1	.3

CROSS SECTION RIVER: Segunda Deshecha
REACH: Middle RS: 348.907*

INPUT
Description:
Station Elevation Data num= 49

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	59.97	1.81	58.91	11.8	57.94	14.47	57.74	18.33	57.3
20.6	57.04	23.31	56.81	24.7	56.75	28.27	56.37	33.79	55.88
33.84	55.87	41.37	55.13	42.57	54.98	45.68	54.52	66.96	51.78
69.79	50.89	77.55	47.16	84.86	43.64	89.24	40.98	89.56	40.79
90.9	39.87	95.93	36.42	100.89	33.03	102.2	32.66	103.15	32.45
105.67	32	110.01	31.59	111.91	31.45	114.03	31.74	115.15	31.97
116.96	32.22	117.05	32.26	121	33.68	122.08	34.08	122.15	34.12
123.54	35.08	125.71	36.57	128.38	38.4	141.61	47.46	145.71	50.28
146.6	50.97	147.6	51.75	149.4	53.29	150.92	54.58	152.68	56.09
155.73	58.61	159.39	61.37	160.04	61.88	160.14	61.96		

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.02	105.67	.02	115.15	.02	160.14	.02

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
105.67	115.15	34.65	40.94	42.19	.1	.3

CROSS SECTION RIVER: Segunda Deshecha
REACH: Middle RS: 307.966*

INPUT
Description:
Station Elevation Data num= 49

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	59.86	1.85	58.93	12.09	57.48	14.83	57.2	18.79	56.5
21.12	56.1	23.89	55.75	25.32	55.68	28.98	55.35	34.64	54.91
34.69	54.91	42.41	54.36	43.64	54.21	46.83	53.68	68.64	50.85
71.55	50.07	79.5	46.99	87	44.09	91.49	41.26	91.81	41.05
93.18	40.11	98.34	36.58	103.43	33.1	104.77	32.57	105.74	32.32
108.33	31.83	112.3	31.37	114.03	31.23	116.06	31.49	117.13	31.79
119	32.02	119.1	32.05	123.19	33.32	124.31	33.68	124.39	33.71
125.83	34.66	128.08	36.14	130.84	37.97	144.55	46.92	148.8	49.74
149.72	50.51	150.75	51.37	152.62	53.03	154.19	54.42	156.02	56.05
159.18	58.65	162.97	61.28	163.64	61.77	163.75	61.85		

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.02	108.33	.02	117.13	.02	163.75	.02

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
108.33	117.13	34.65	40.94	42.19	.1	.3

CROSS SECTION RIVER: Segunda Deshecha
REACH: Middle RS: 267.026*

INPUT
Description:
Station Elevation Data num= 49

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev

0	59.75	1.9	58.96	12.39	57.02	15.19	56.66	19.25	55.71
21.64	55.15	24.48	54.69	25.94	54.62	29.69	54.34	35.49	53.94
35.54	53.94	43.45	53.58	44.71	53.43	47.98	52.84	70.33	49.91
73.3	49.26	81.44	46.83	89.13	44.54	93.73	41.53	94.06	41.32
95.46	40.35	100.75	36.73	105.96	33.17	107.34	32.49	108.33	32.18
110.98	31.66	114.58	31.14	116.16	31.02	118.09	31.24	119.11	31.61
121.05	31.83	121.15	31.85	125.39	32.95	126.54	33.28	126.62	33.31
128.11	34.25	130.44	35.72	133.3	37.54	147.49	46.38	151.89	49.2
152.84	50.04	153.91	50.98	155.84	52.76	157.47	54.26	159.36	56
162.63	58.7	166.55	61.19	167.25	61.67	167.36	61.75		

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.02	110.98	.02	119.11	.02	167.36	.02

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
110.98	119.11	34.65	40.94	42.19	.1	.3

CROSS SECTION RIVER: Segunda Deshecha
REACH: Middle RS: 226.085*

INPUT
Description:
Station Elevation Data num= 49

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	59.64	1.94	58.98	12.68	56.56	15.56	56.12	19.71	54.91
22.15	54.21	25.06	53.63	26.56	53.56	30.4	53.32	36.34	52.98
36.39	52.98	44.49	52.81	45.78	52.66	49.12	51.99	72.01	48.98
75.05	48.45	83.39	46.67	91.26	44.99	95.97	41.81	96.31	41.58
97.75	40.58	103.16	36.88	108.5	33.23	109.9	32.4	110.92	32.05
113.64	31.49	116.87	30.91	118.28	30.8	120.12	31	121.09	31.43
123.09	31.63	123.2	31.64	127.58	32.59	128.77	32.87	128.86	32.9
130.4	33.83	132.8	35.3	135.76	37.1	150.43	45.85	154.97	48.65
155.96	49.57	157.06	50.6	159.06	52.5	160.74	54.1	162.7	55.96
166.08	58.74	170.14	61.09	170.85	61.57	170.97	61.64		

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.02	113.64	.02	121.09	.02	170.97	.02

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
113.64	121.09	34.65	40.94	42.19	.1	.3

CROSS SECTION RIVER: Segunda Deshecha
REACH: Middle RS: 185.145

INPUT
Description:
Station Elevation Data num= 31

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	59.53	12.98	56.1	15.92	55.58	22.67	53.26	25.65	52.57
37.19	52.01	45.53	52.04	46.85	51.89	50.27	51.15	93.39	45.44
98.21	42.08	100.03	40.82	105.57	37.03	112.47	32.32	113.51	31.91
116.29	31.32	119.15	30.68	120.4	30.58	122.15	30.75	123.07	31.25
125.25	31.44	129.77	32.22	131.09	32.49	132.68	33.42	138.22	36.67
153.37	45.31	158.06	48.11	166.04	55.91	169.53	58.79	173.72	61
174.58	61.54								

Manning's n Values num= 1

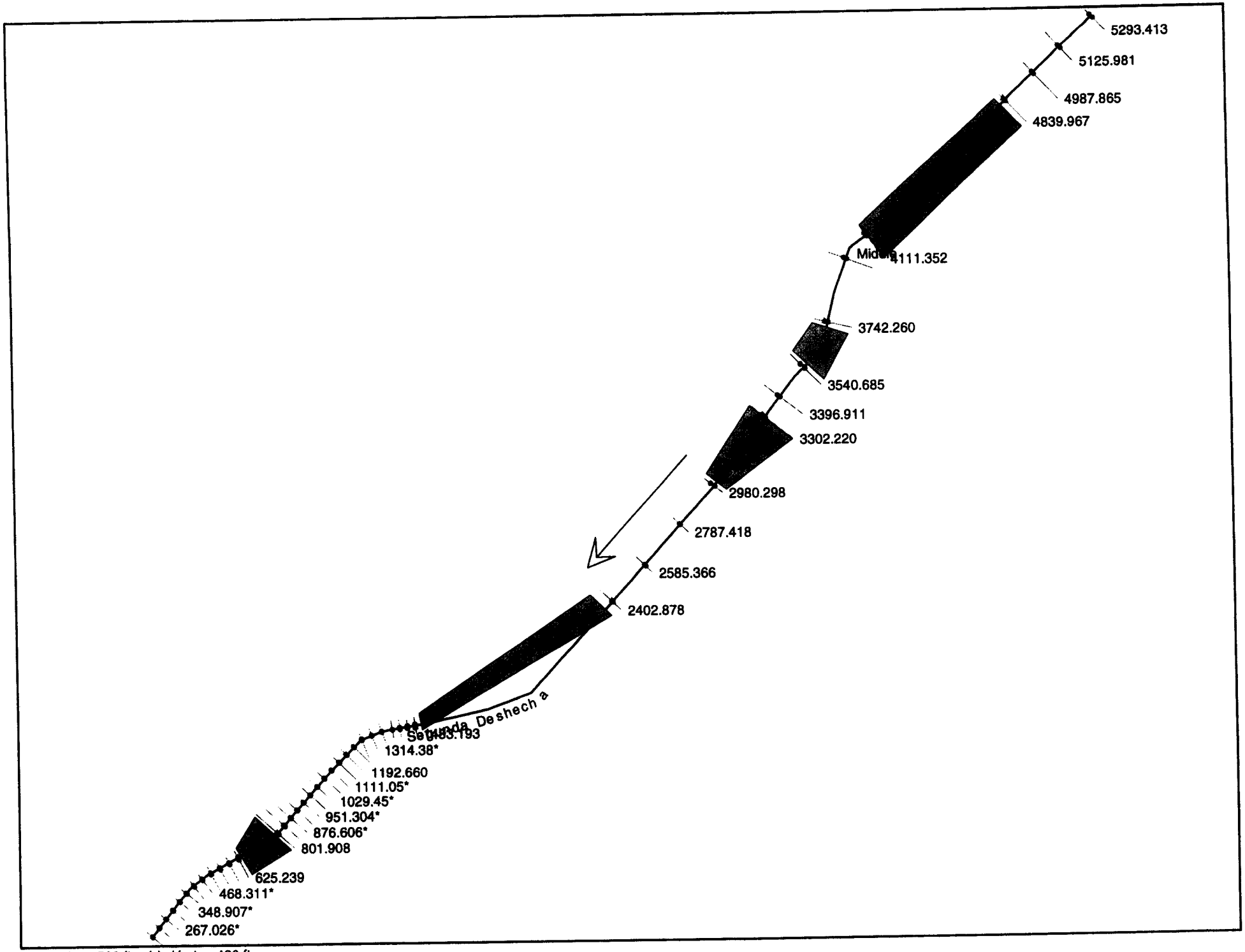
Sta	n Val
0	.02

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
116.29	123.07	0	0	0	.1	.3

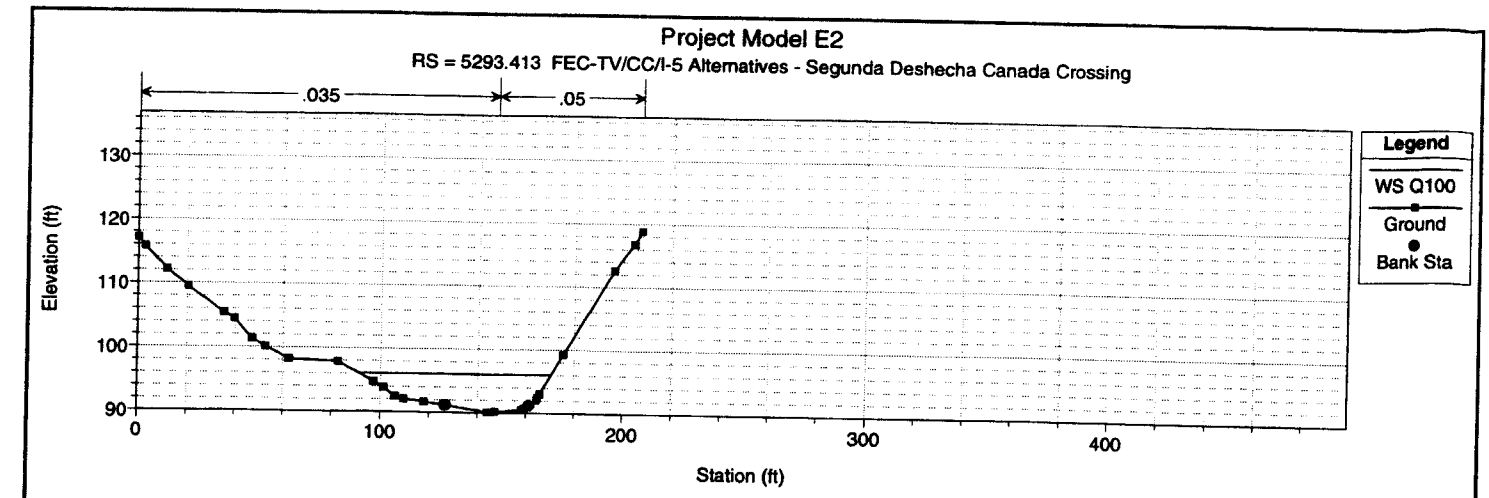
Profile Output Table - Standard Table 1

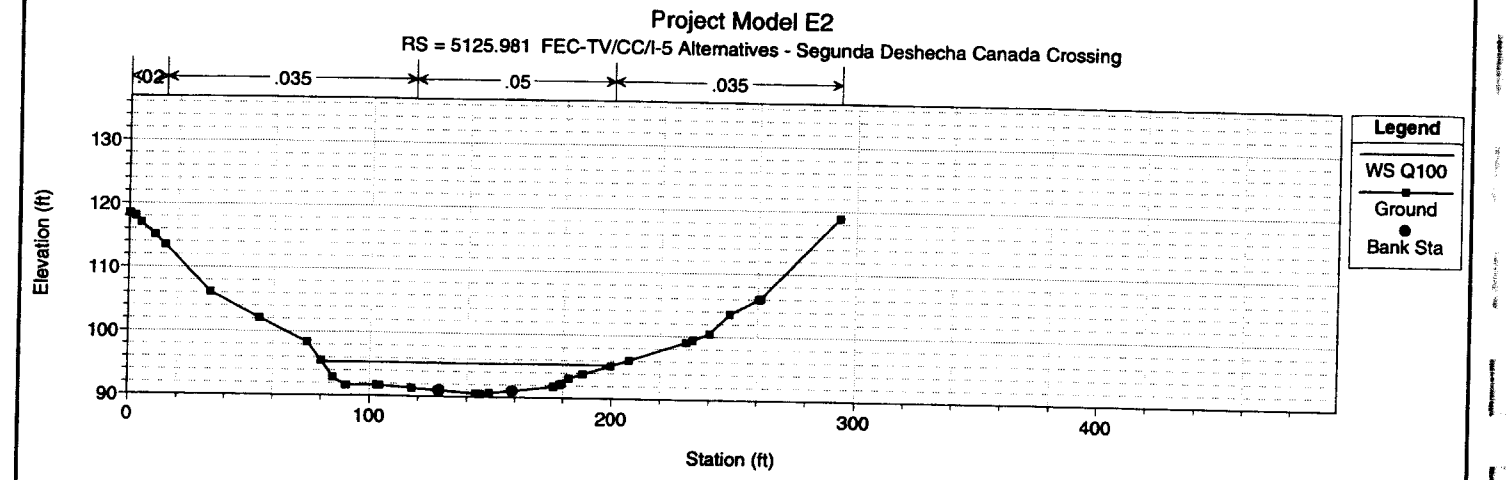
Reach	River Sta	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
		(cfs)	(ft)	(ft)	(ft)	(ft)	(ft/ft)	(ft/s)	(sq ft)	(ft)	
Middle	5293.413	2680.00	90.17	96.11	95.14	97.21	0.006115	9.09	333.27	79.69	0.68
Middle	4839.967	2680.00	83.19	94.18	90.42	95.41	0.000665	9.19	302.71	59.57	0.50
Middle	4815	Culvert									
Middle	4111.352	2680.00	77.53	89.28	84.26	90.29	0.001263	7.63	341.72	85.85	0.40
Middle	3990.318	2680.00	76.83	89.62		89.84	0.000228	4.16	832.51	96.95	0.21
Middle	3742.260	2680.00	76.69	88.81	83.26	89.70	0.000384	7.58	355.04	93.94	0.39
Middle	3720	Culvert									
Middle	3540.685	2680.00	71.55	83.80	78.42	84.71	0.000912	7.66	349.71	78.29	0.40
Middle	3396.911	2680.00	75.32	83.78		84.40	0.001449	4.56	515.65	87.91	0.28
Middle	3302.220	2680.00	70.68	83.48	77.44	84.30	0.000506	7.25	368.91	84.34	0.36
Middle	3300	Culvert									
Middle	2980.298	2680.00	64.75	79.44	71.29	80.03	0.000380	6.19	432.72	111.89	0.29
Middle	2787.418	2680.00	64.65	79.61		79.79	0.000107	4.57	853.63	94.38	0.21

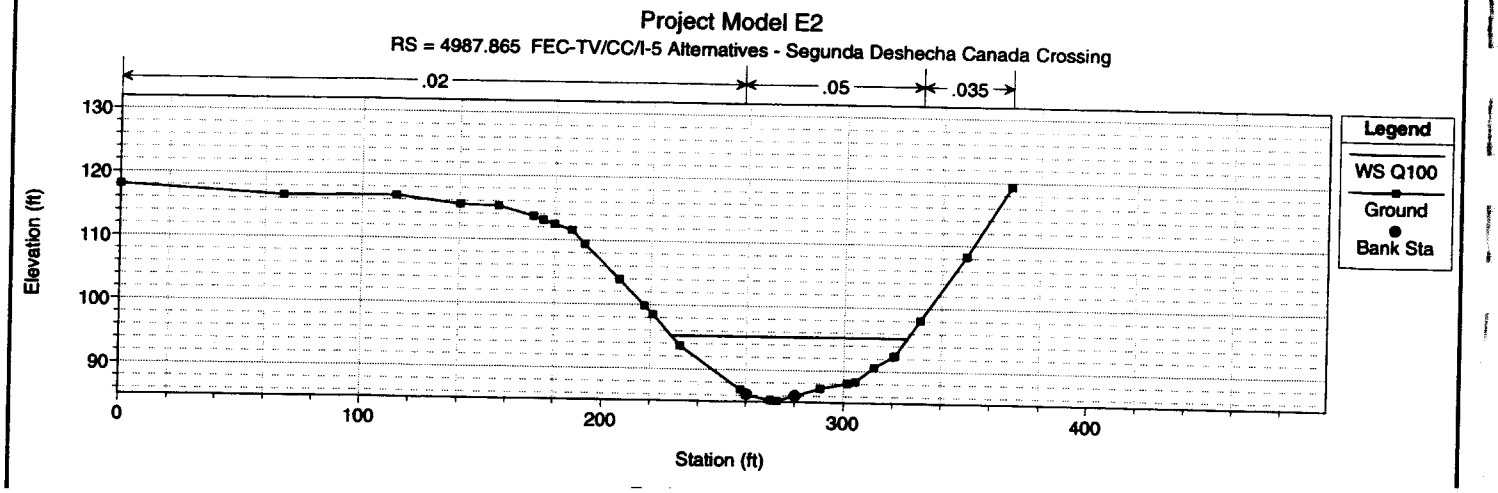
Middle	2585.366	2680.00	64.28	79.59		79.74	0.000383	3.55	905.78	97.20	0.16
Middle	2402.878	2680.00	59.13	78.40	69.62	79.51	0.001946	8.82	318.88	95.14	0.36
Middle	2360	Culvert									
Middle	1483.193	2680.00	51.60	59.36	60.96	65.96	0.005603	20.61	130.04	46.19	0.36
Middle	1395.537	2680.00	45.95	52.00	55.22	63.51	0.021796	34.86	105.85	29.71	2.55
Middle	1192.660	2680.00	45.30	51.39	53.87	59.29	0.012459	25.55	128.46	33.35	1.92
Middle	988.654	2680.00	40.49	56.15		56.56	0.000258	7.32	576.68	74.77	0.33
Middle	801.908	2680.00	37.90	55.11	47.44	56.38	0.000371	9.03	296.69	84.64	0.39
Middle	790	Culvert									
Middle	625.239	2680.00	37.89	46.04	46.93	51.50	0.004061	18.78	142.84	54.22	0.39
Middle	389.848	2680.00	31.67	37.07	39.87	46.41	0.016546	28.40	116.39	31.09	2.21
Middle	185.145	2680.00	30.58	37.40	39.14	42.96	0.008344	23.29	150.45	34.46	1.60

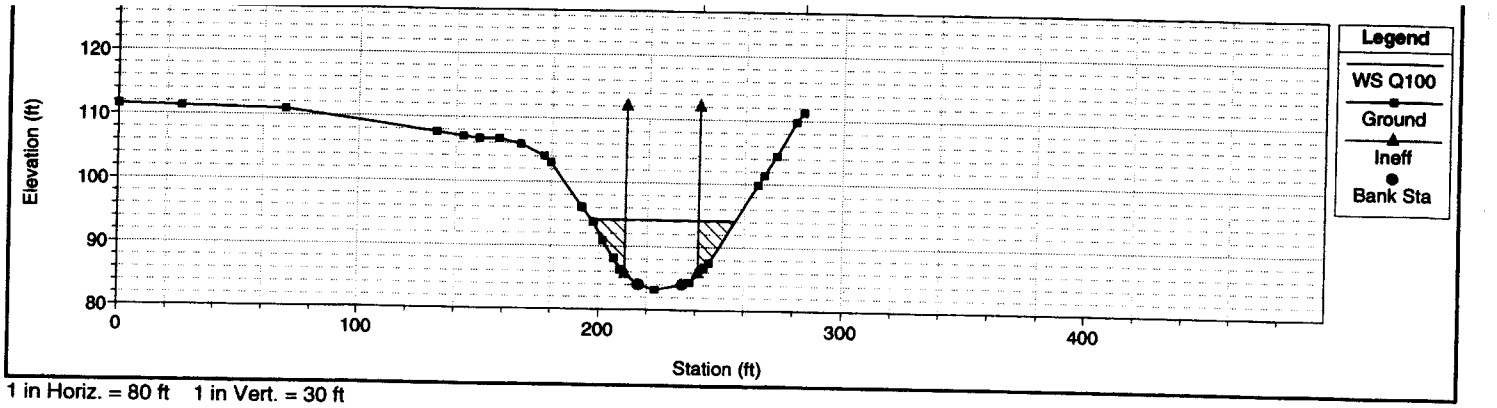


1 in Horiz. = 500 ft 1 in Vert. = 400 ft





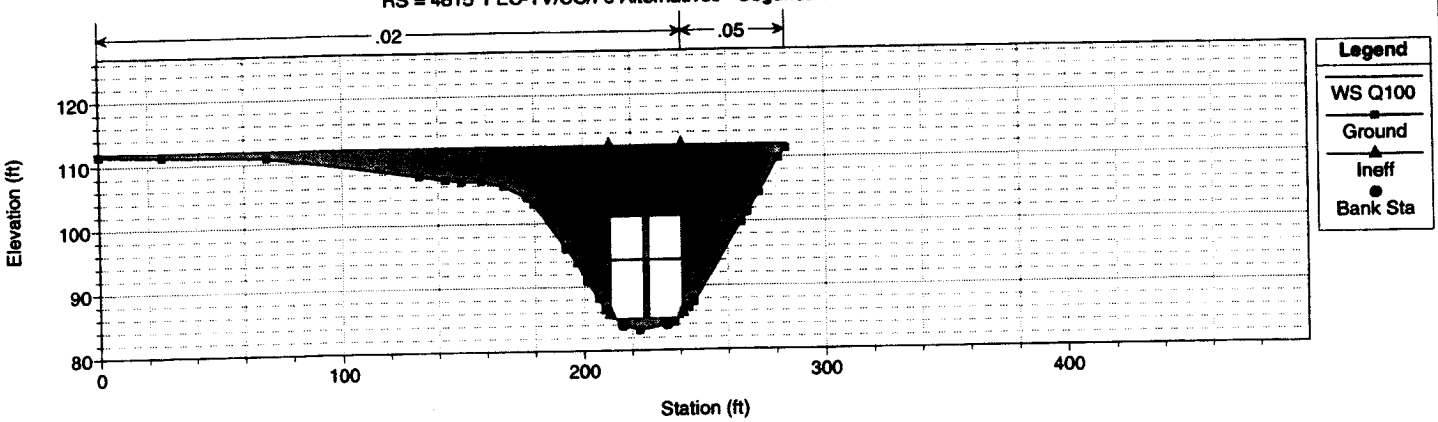




1 in Horiz. = 80 ft 1 in Vert. = 30 ft

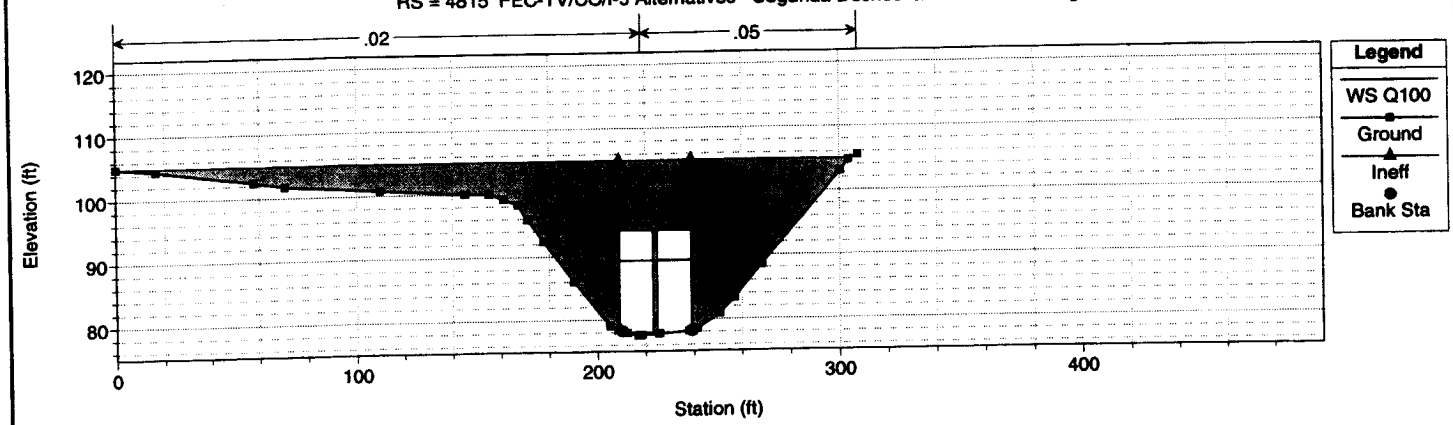
Project Model E2

RS = 4815 FEC-TV/CC/I-5 Alternatives - Segunda Deshecha Canada Crossing



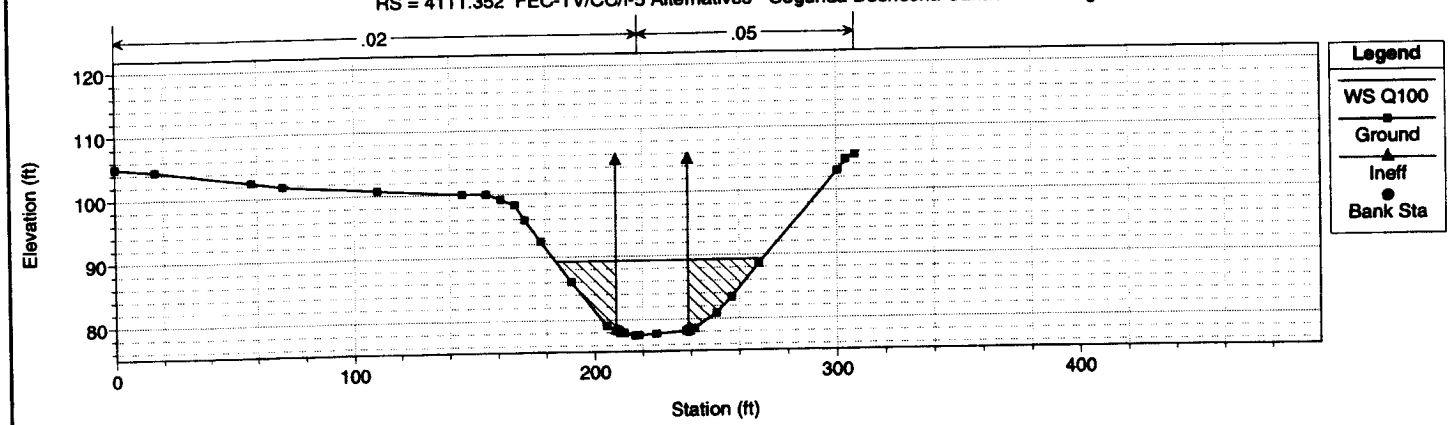
Project Model E2

RS = 4815 FEC-TV/CC/I-5 Alternatives - Segunda Deshecha Canada Crossing



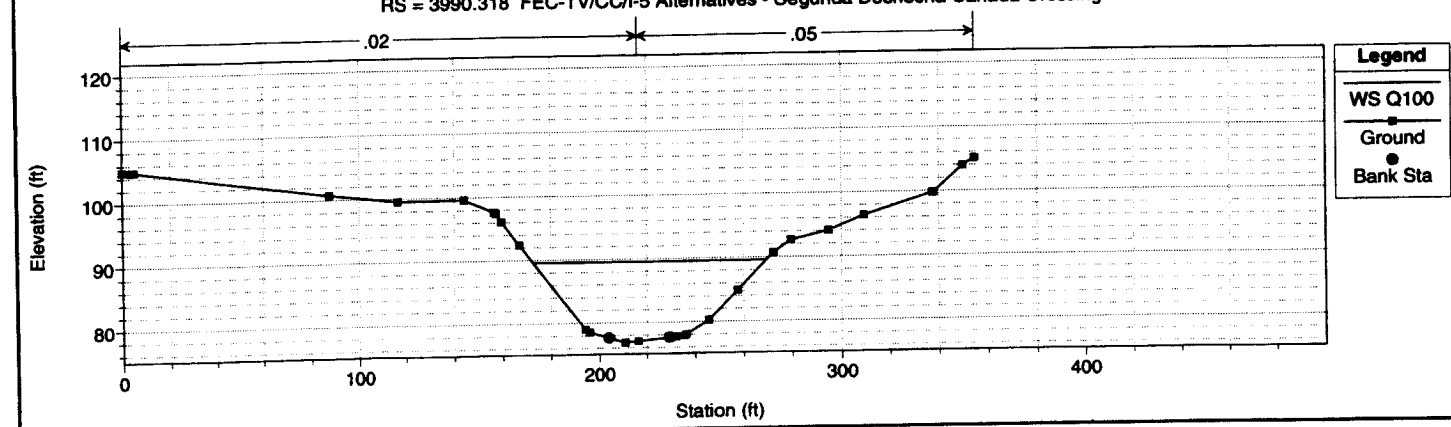
Project Model E2

RS = 4111.352 FEC-TV/CC/I-5 Alternatives - Segunda Deshecha Canada Crossing



Project Model E2

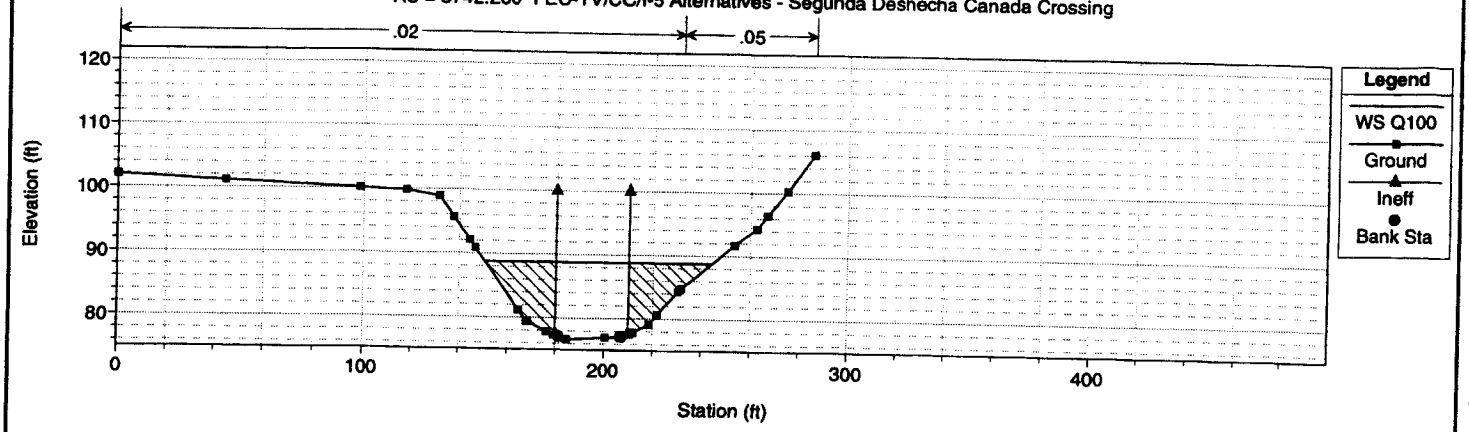
RS = 3990.318 FEC-TV/CC/I-5 Alternatives - Segunda Deshecha Canada Crossing



1 in Horiz. = 80 ft 1 in Vert. = 30 ft

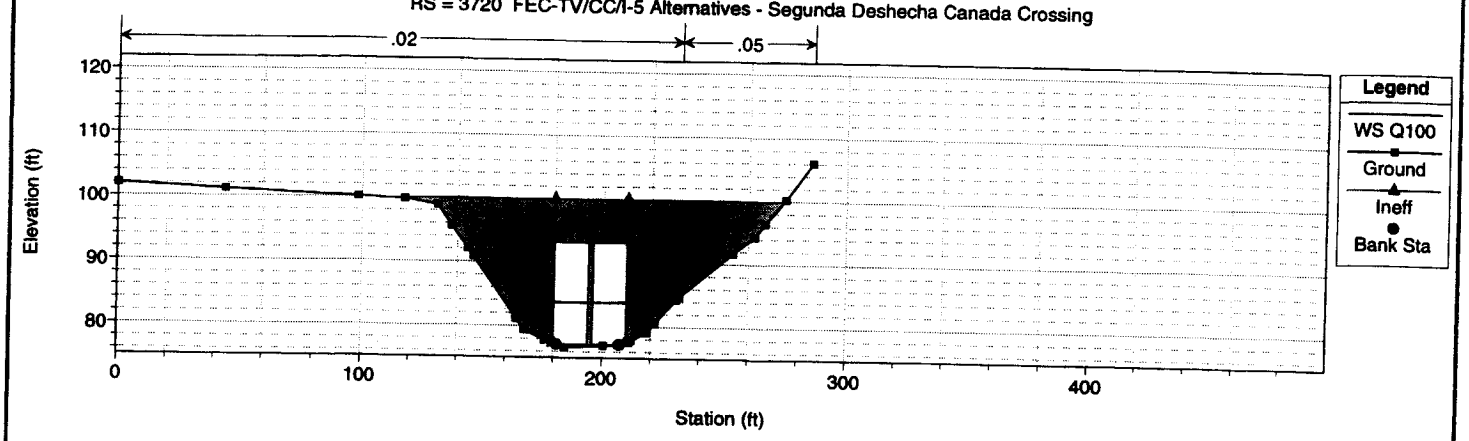
Project Model E2

RS = 3742.260 FEC-TV/CC/I-5 Alternatives - Segunda Deshecha Canada Crossing



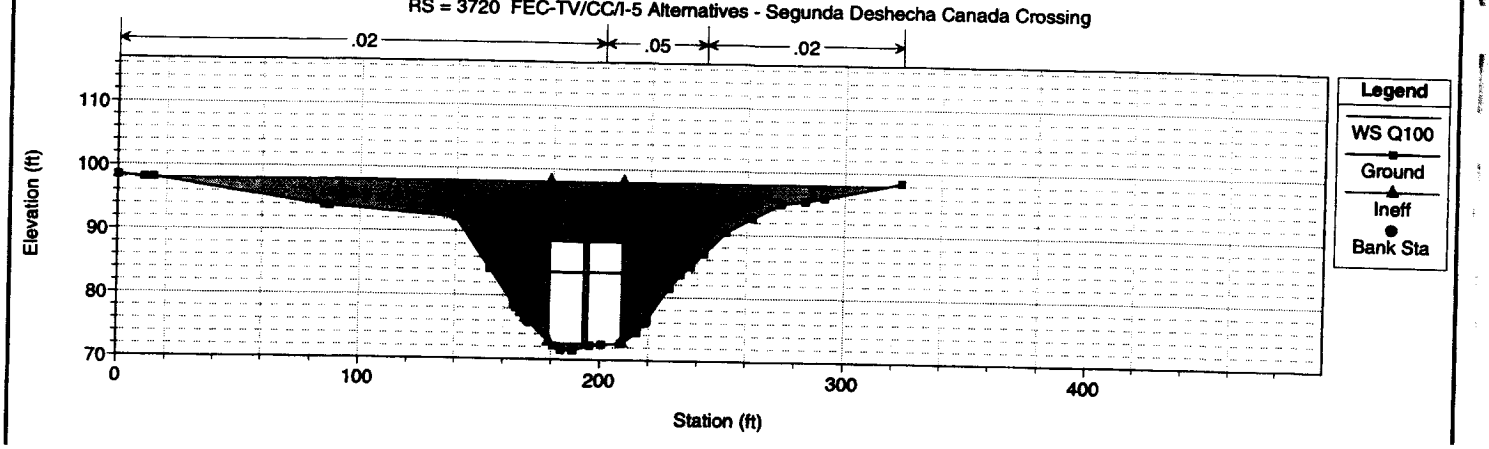
Project Model E2

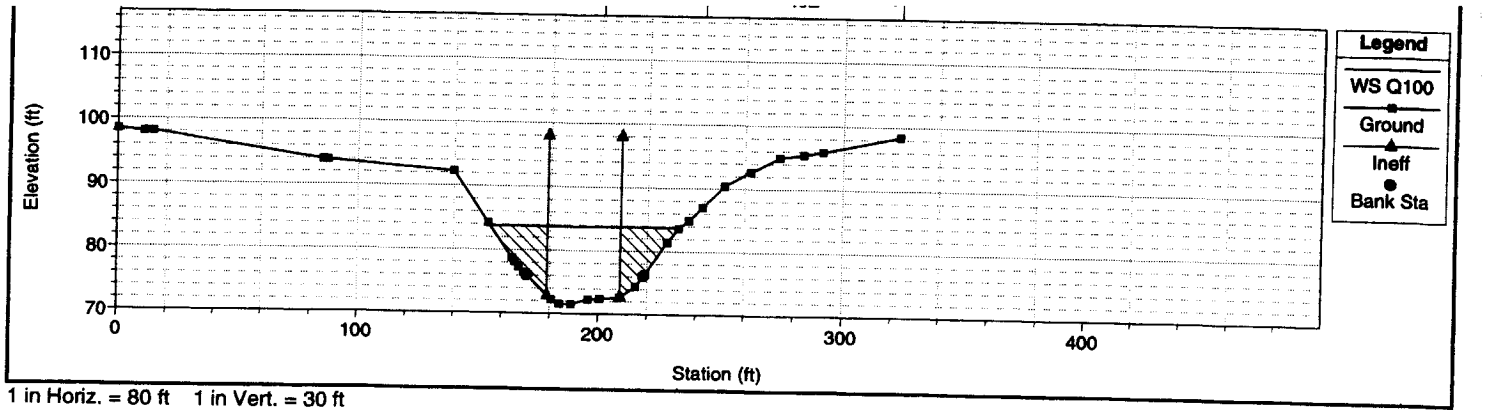
RS = 3720 FEC-TV/CC/I-5 Alternatives - Segunda Deshecha Canada Crossing



Project Model E2

RS = 3720 FEC-TV/CC/I-5 Alternatives - Segunda Deshecha Canada Crossing

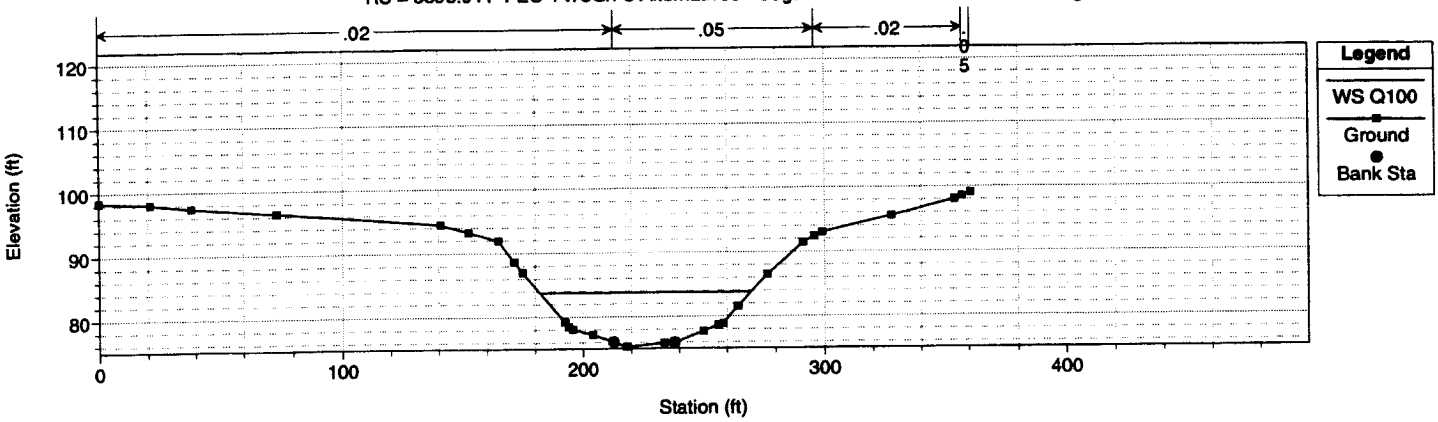




1 in Horiz. = 80 ft 1 in Vert. = 30 ft

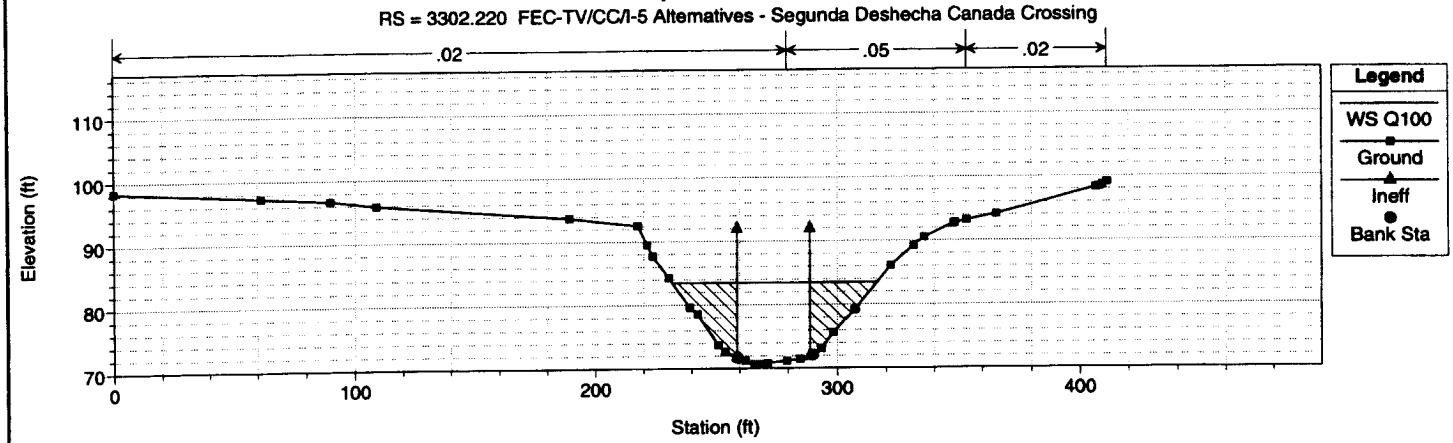
Project Model E2

RS = 3396.911 FEC-TV/CC/I-5 Alternatives - Segunda Deshecha Canada Crossing



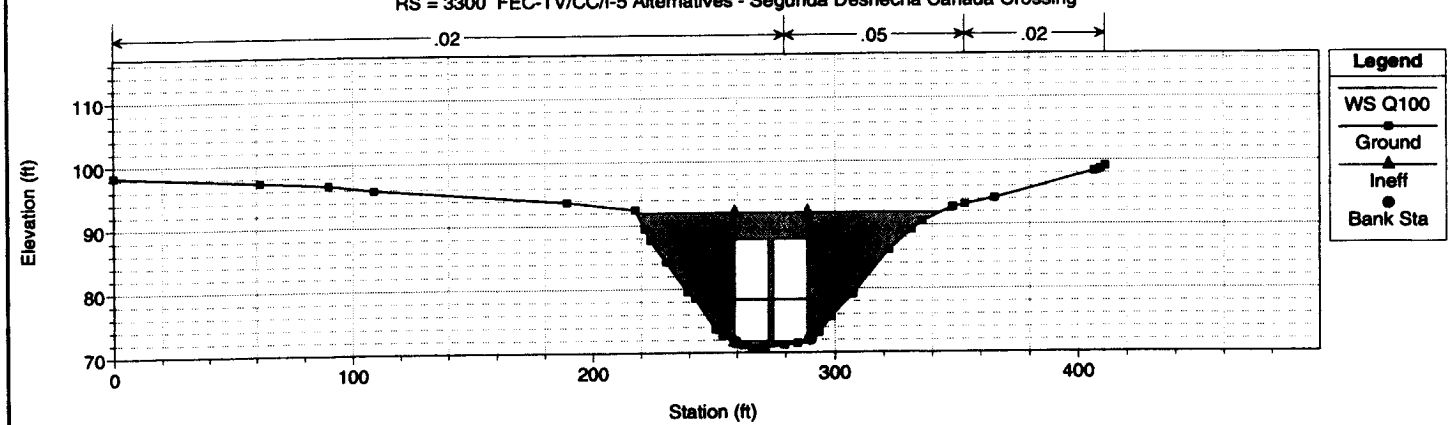
Project Model E2

RS = 3302.220 FEC-TV/CC/I-5 Alternatives - Segunda Deshecha Canada Crossing



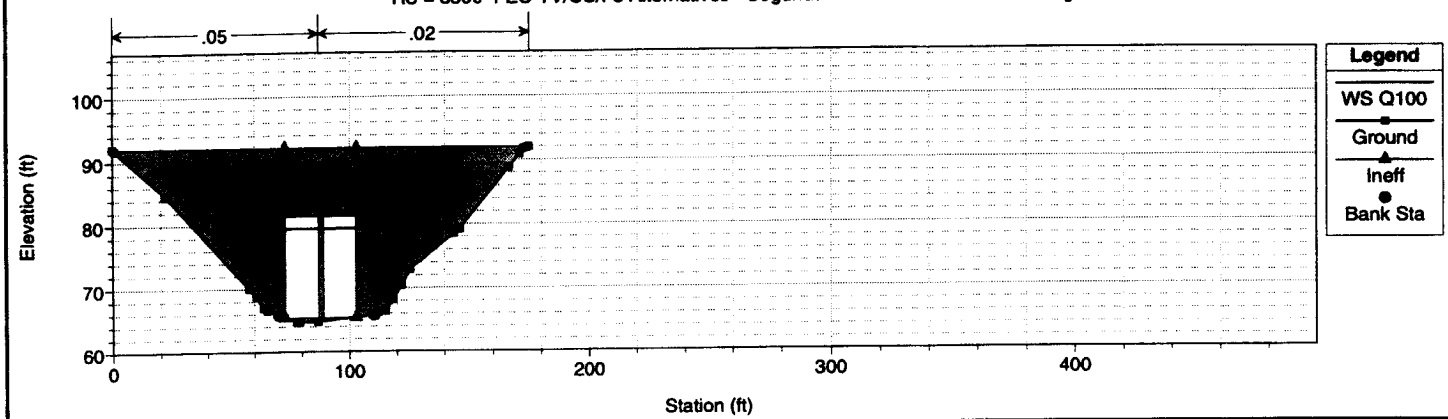
Project Model E2

RS = 3300 FEC-TV/CC/I-5 Alternatives - Segunda Deshecha Canada Crossing

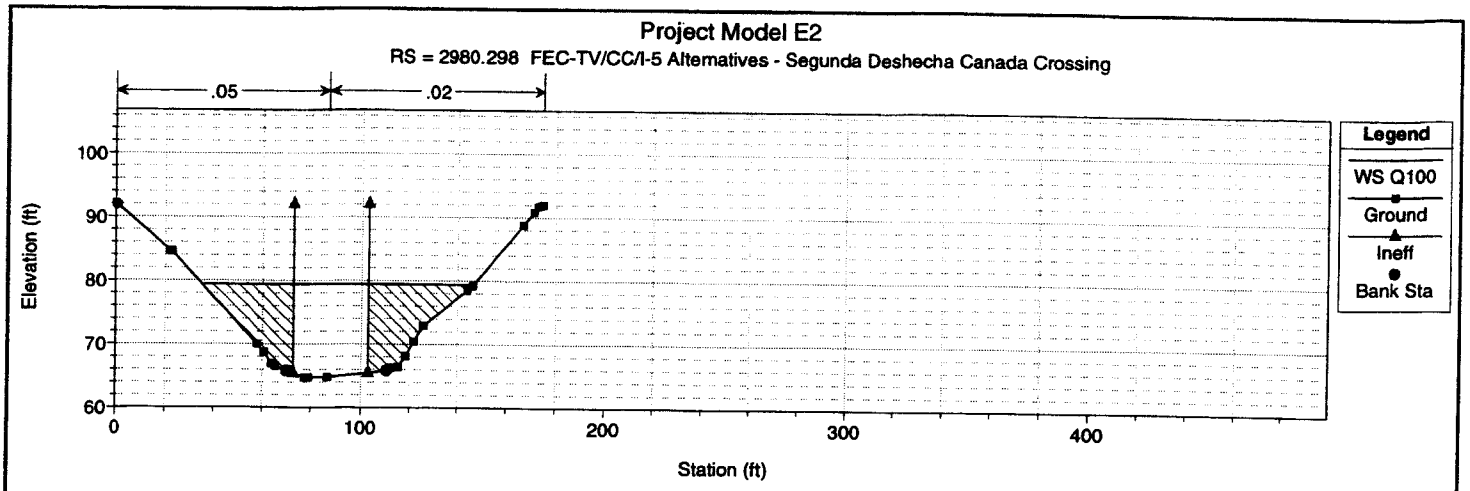


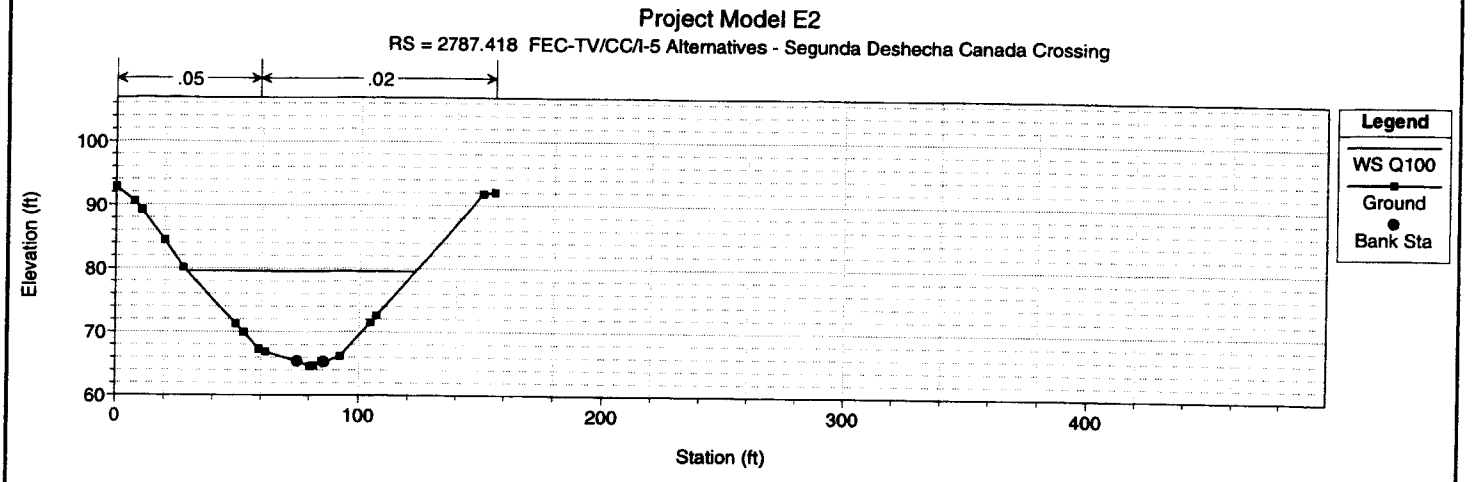
Project Model E2

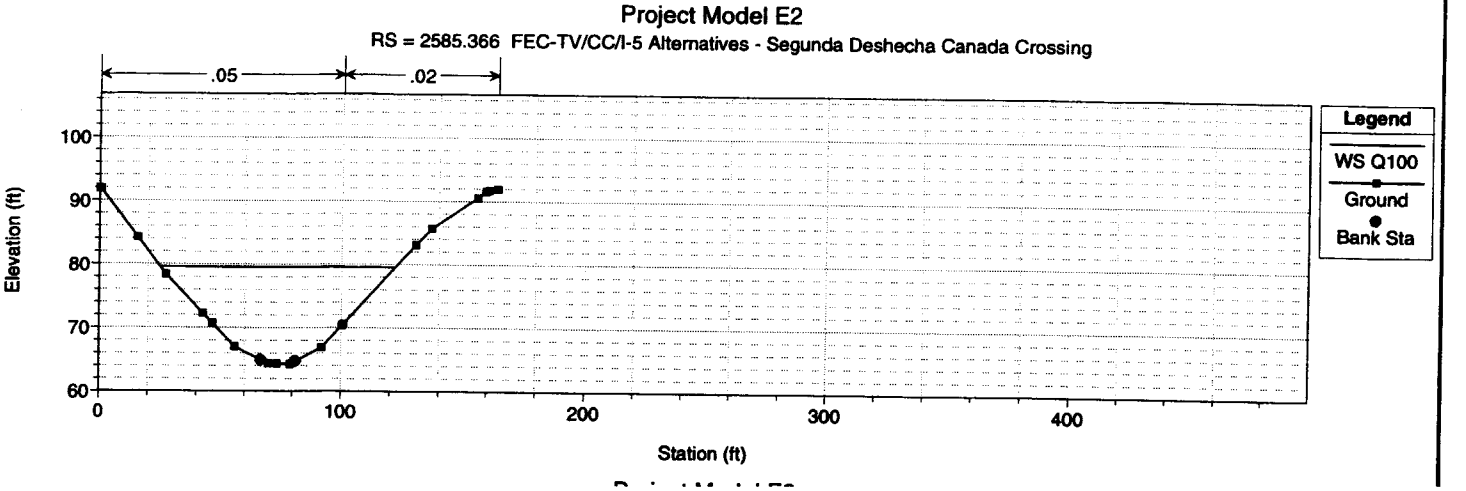
RS = 3300 FEC-TV/CC/I-5 Alternatives - Segunda Deshecha Canada Crossing

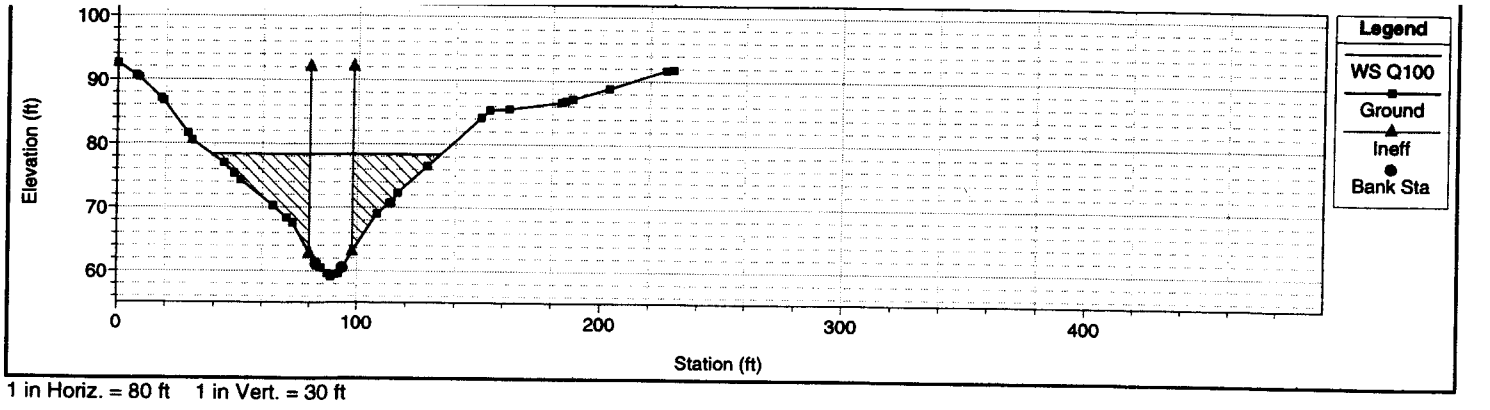


1 in Horiz. = 80 ft 1 in Vert. = 30 ft





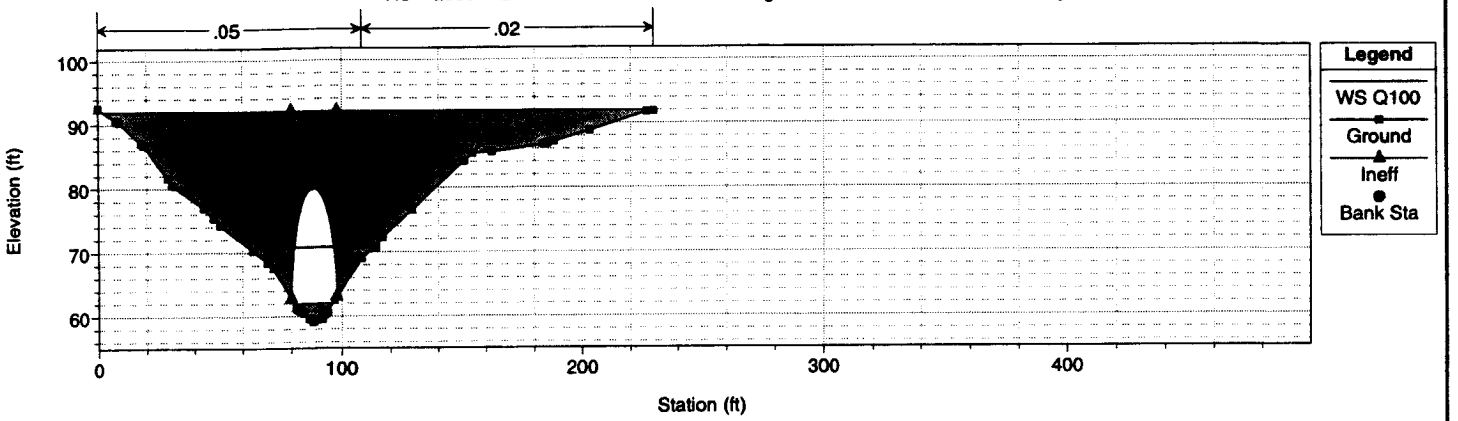




1 in Horiz. = 80 ft 1 in Vert. = 30 ft

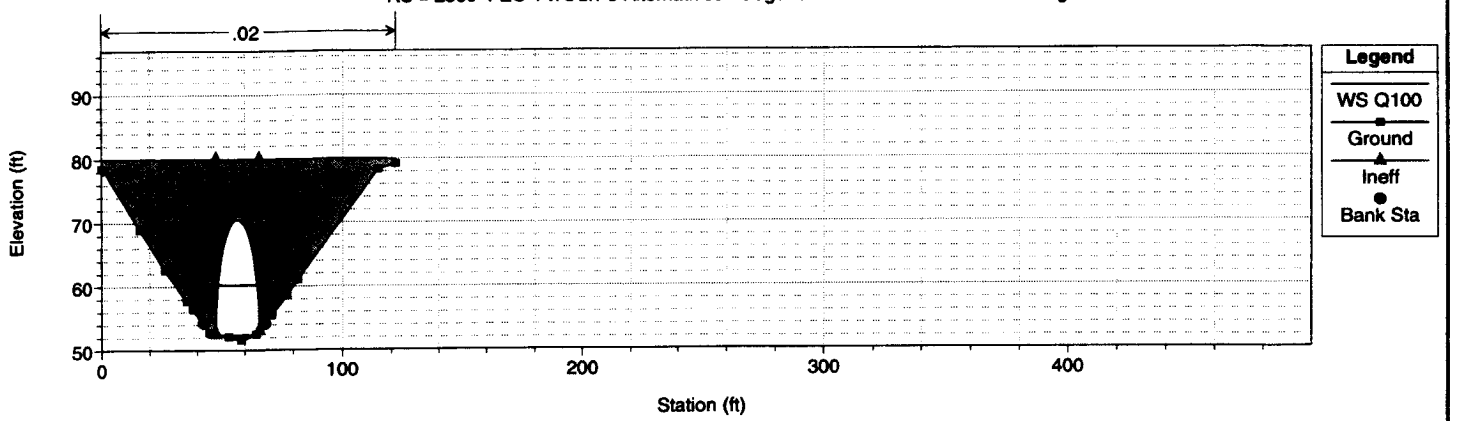
Project Model E2

RS = 2360 FEC-TV/CC/I-5 Alternatives - Segunda Deshecha Canada Crossing



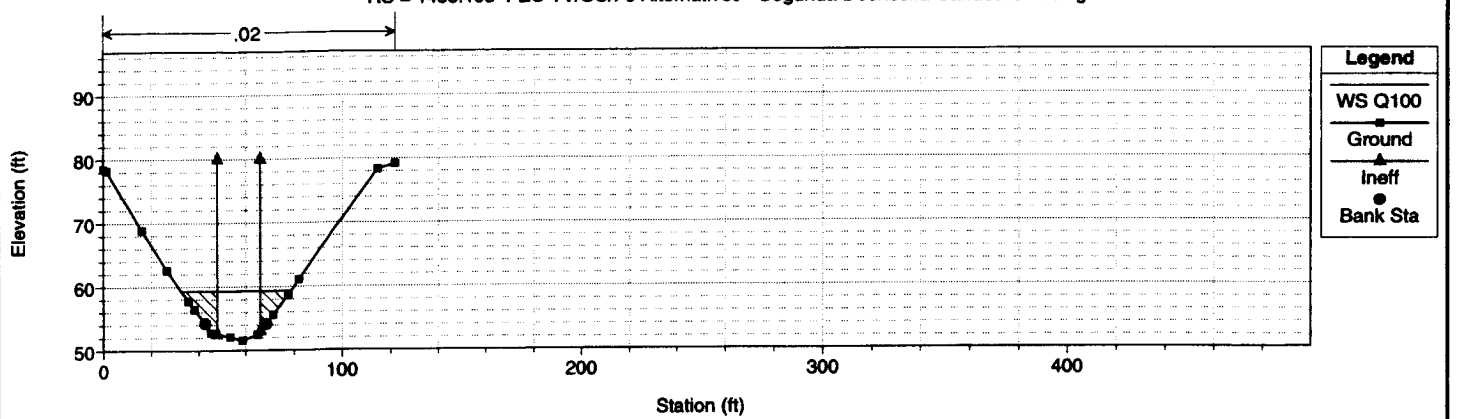
Project Model E2

RS = 2360 FEC-TV/CC/I-5 Alternatives - Segunda Deshecha Canada Crossing



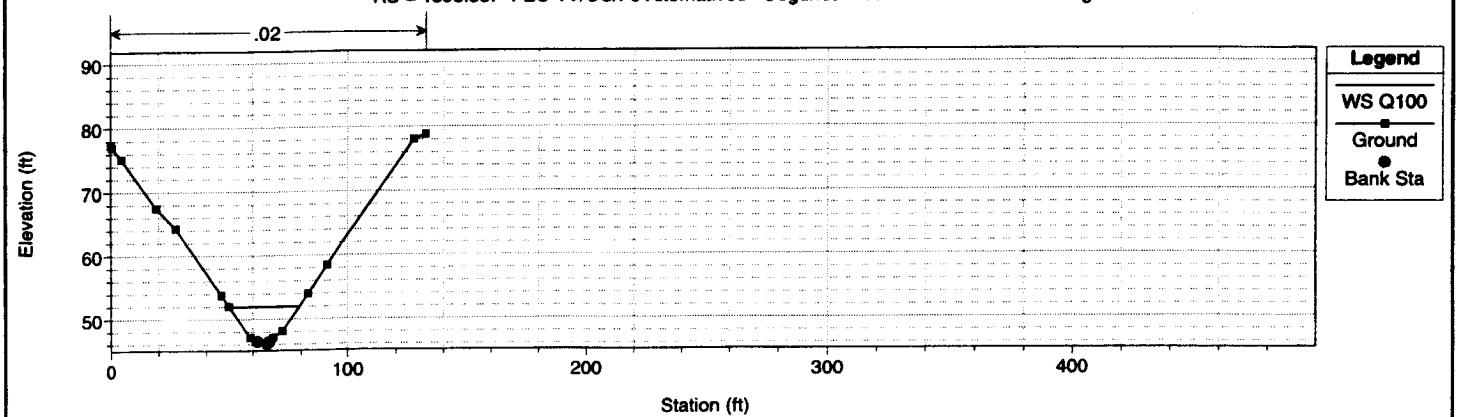
Project Model E2

RS = 1483.193 FEC-TV/CC/I-5 Alternatives - Segunda Deshecha Canada Crossing



Project Model E2

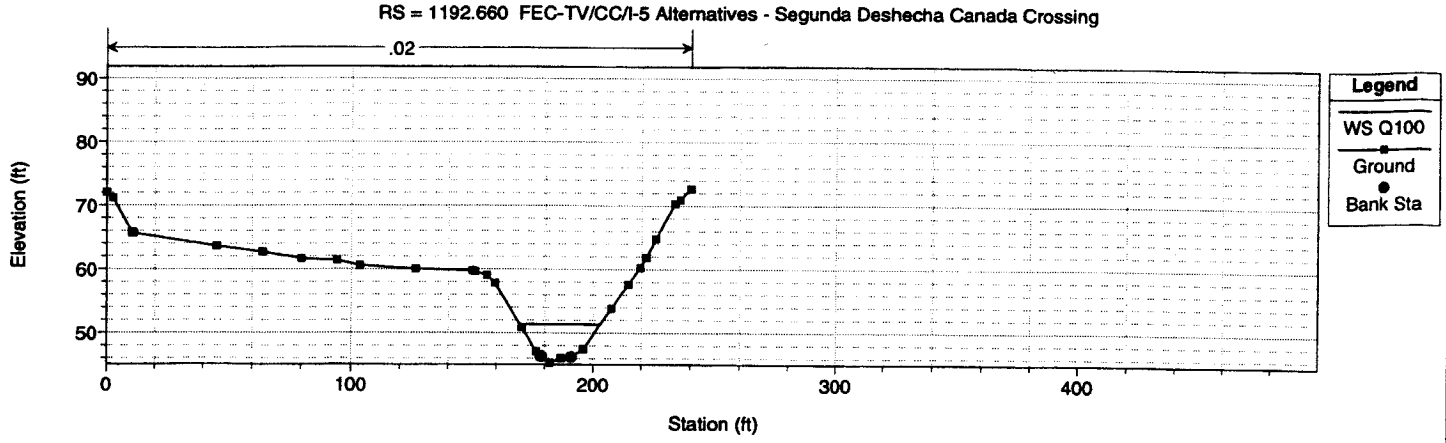
RS = 1395.537 FEC-TV/CC/I-5 Alternatives - Segunda Deshecha Canada Crossing



1 in Horiz. = 80 ft 1 in Vert. = 30 ft

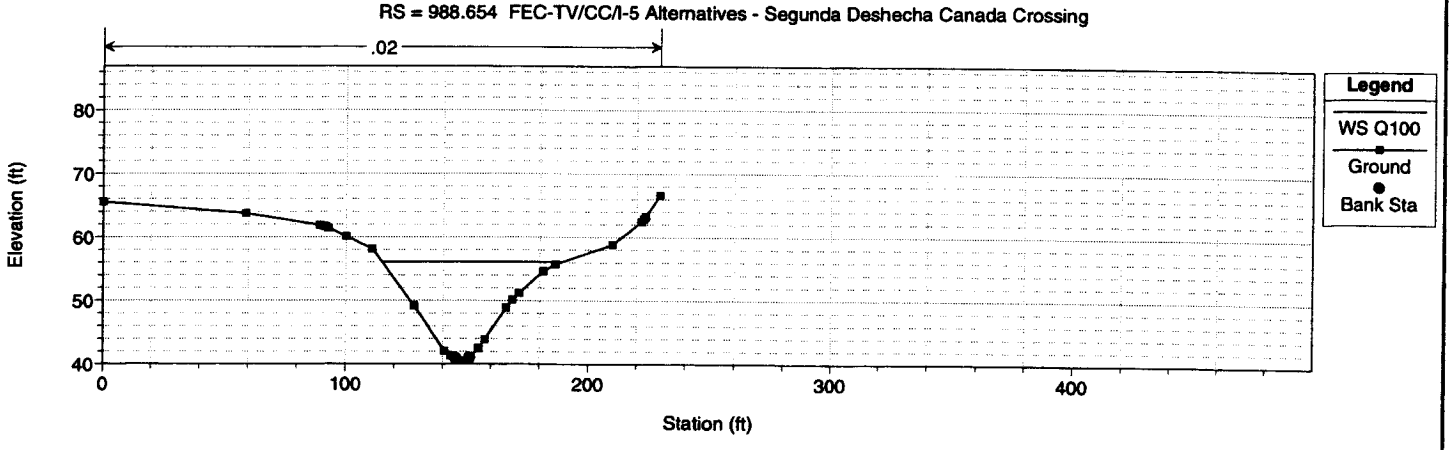
Project Model E2

RS = 1192.660 FEC-TV/CC/I-5 Alternatives - Segunda Deshecha Canada Crossing



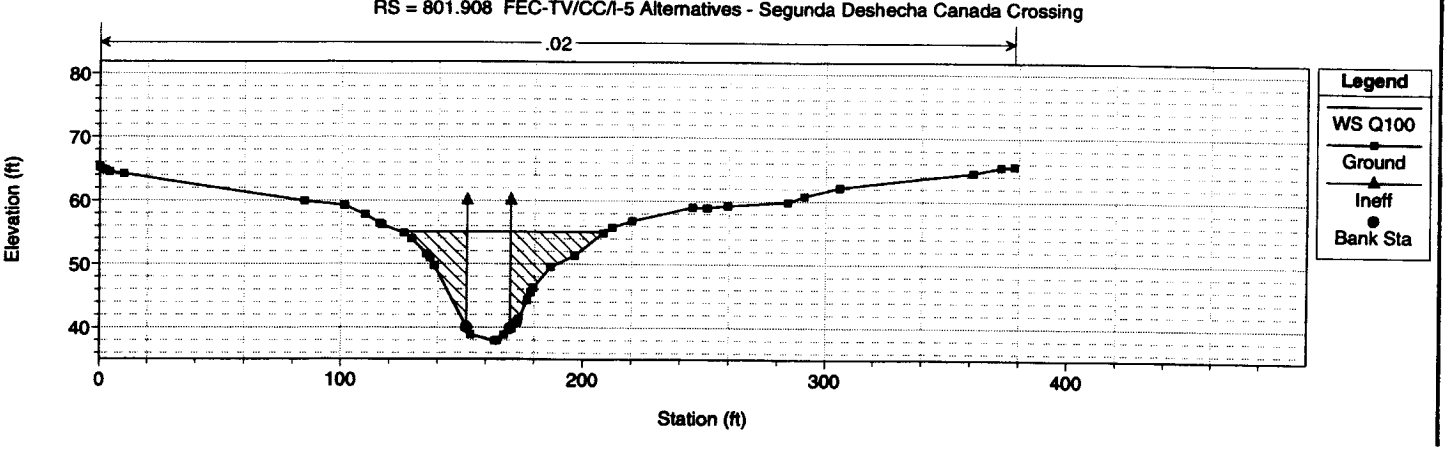
Project Model E2

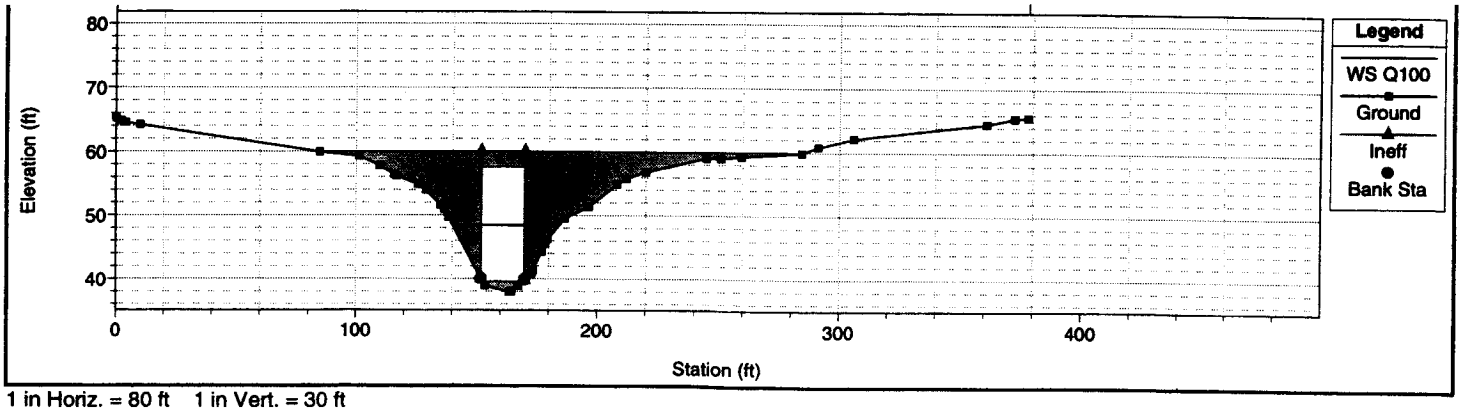
RS = 988.654 FEC-TV/CC/I-5 Alternatives - Segunda Deshecha Canada Crossing



Project Model E2

RS = 801.908 FEC-TV/CC/I-5 Alternatives - Segunda Deshecha Canada Crossing

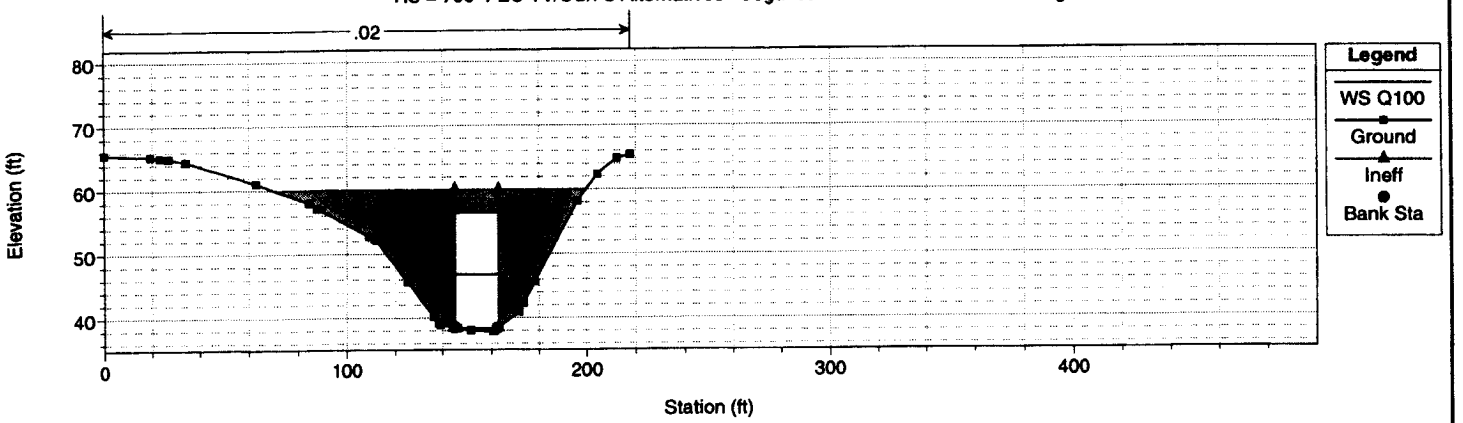




1 in Horiz. = 80 ft 1 in Vert. = 30 ft

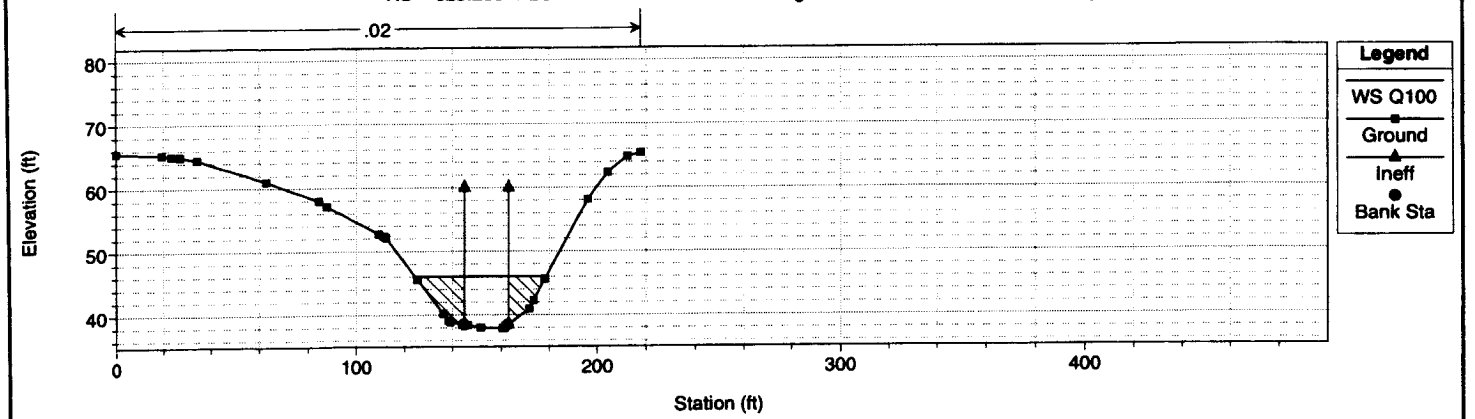
Project Model E2

RS = 790 FEC-TV/CC/I-5 Alternatives - Segunda Deshecha Canada Crossing



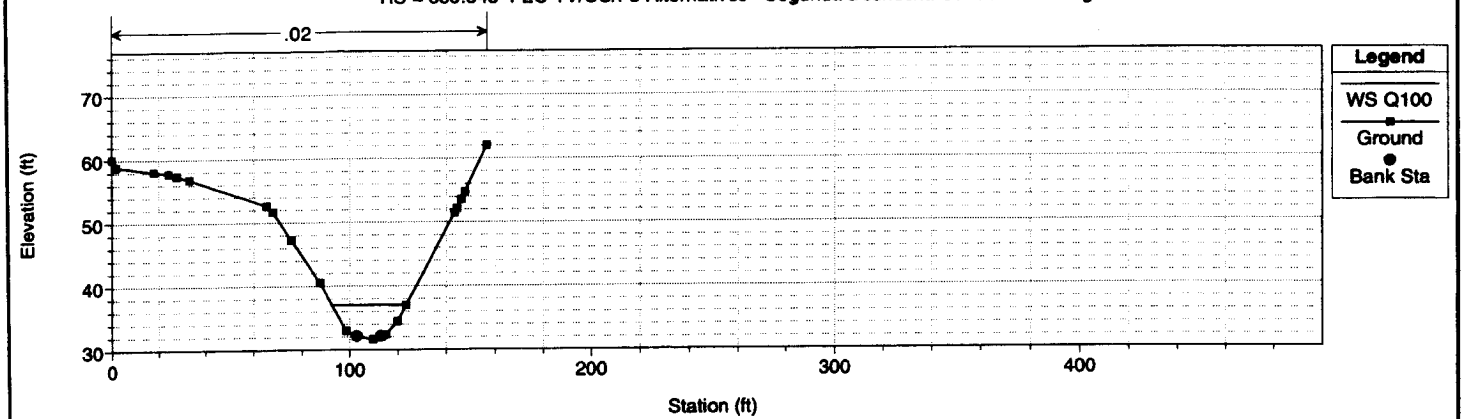
Project Model E2

RS = 625.239 FEC-TV/CC/I-5 Alternatives - Segunda Deshecha Canada Crossing



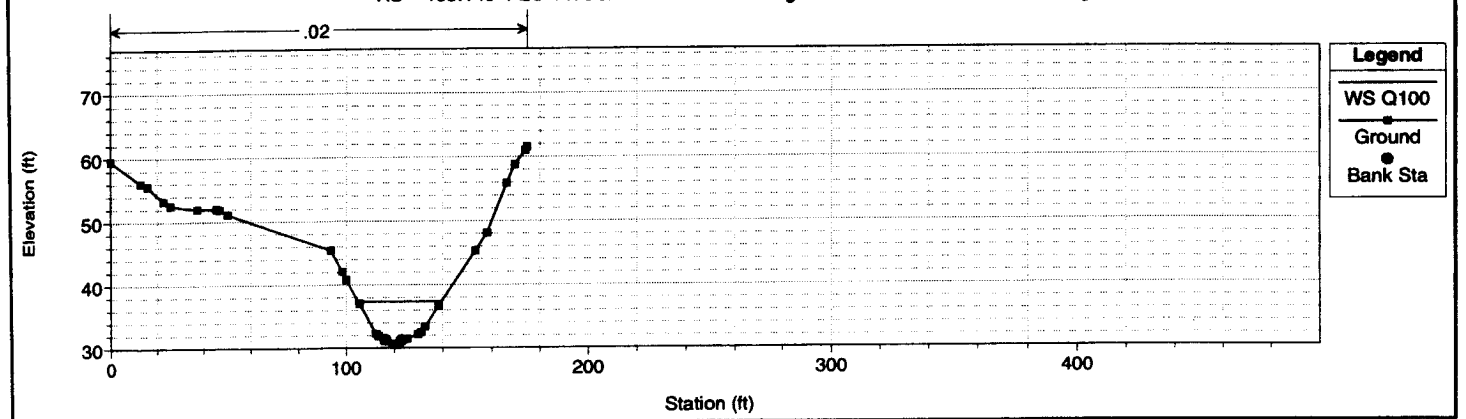
Project Model E2

RS = 389.848 FEC-TV/CC/I-5 Alternatives - Segunda Deshecha Canada Crossing

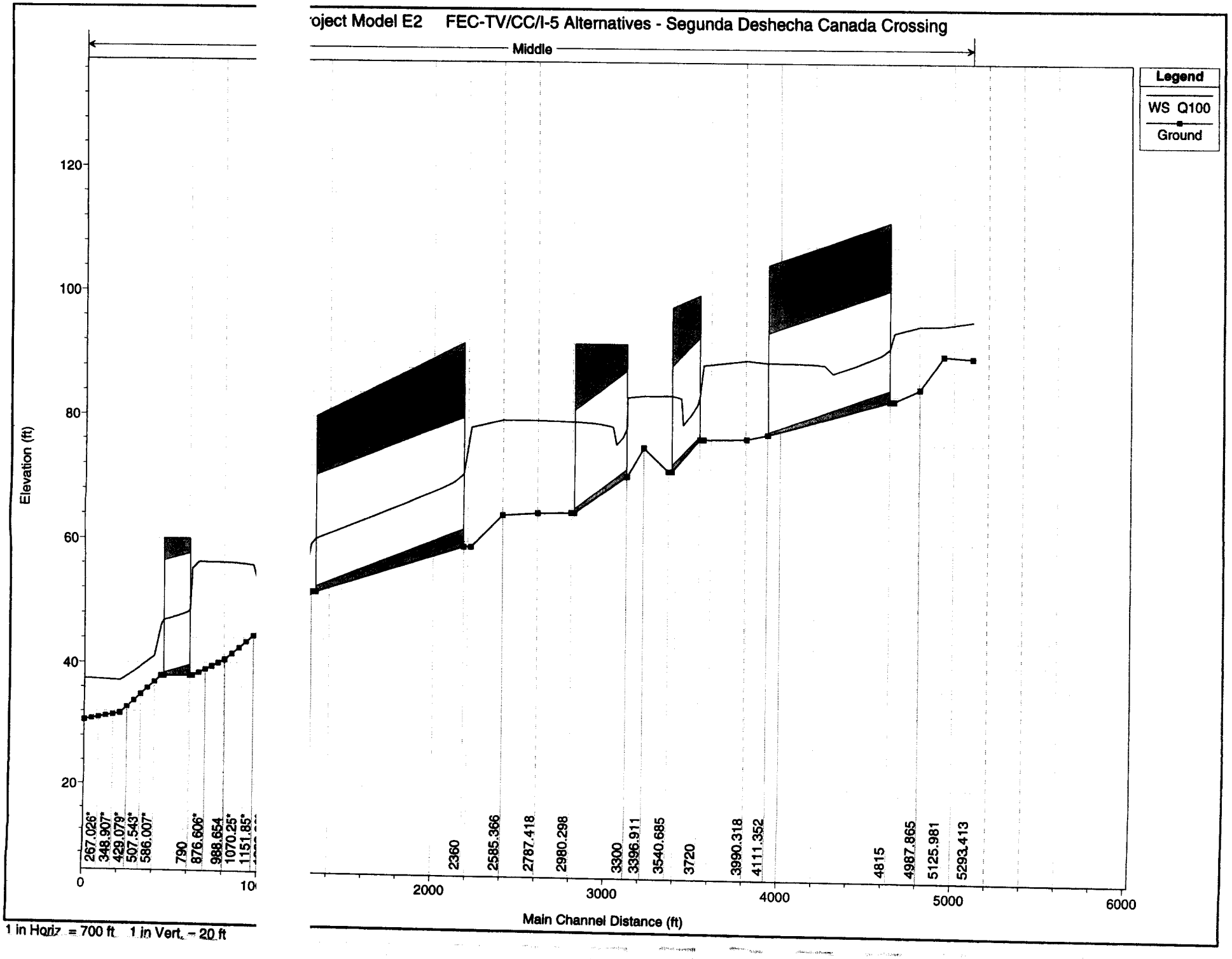


Project Model E2

RS = 185.145 FEC-TV/CC/I-5 Alternatives - Segunda Deshecha Canada Crossing



1 in Horiz. = 80 ft 1 in Vert. = 30 ft


oject Model E2 FEC-TV/CC/I-5 Alternatives - Segunda Deshecha Canada Crossing
Middle
Legend
WS Q100
Ground
Elevation (ft)
120
100
80
60
40
20
0
10
267.026*
348.907*
429.079*
507.543*
586.007*
790
876.606*
988.654
1070.25*
1151.85*
2360
2585.366
2787.418
2980.298
3300
3396.911
3540.685
3720
3990.318
4111.352
4815
4987.865
5125.981
5293.413
2000
3000
4000
5000
6000
Main Channel Distance (ft)
1 in Horiz. = 700 ft 1 in Vert. = 20 ft

APPENDIX H
HYDRAULIC MODEL INPUT & RESULTS
FEC-AFV ALTERNATIVE AT SAN MATEO CREEK
(MODEL "F1")

Appendix H. **Hydraulic Model Input & Results**

FEC-AFV Alternative at San Mateo Creek (Model F1)

- Model Report
- Project geometry, plan view
- Cross Sections comparing 100-yr existing and project geometries and water surface elevations
- Geometry and water surface elevation profile

Cross sections associated with the proposed bridge structures include:

4330	(14207)
4300	(14109)
4270	(14009)
4239	(13906)
4210	(13813)
4182	(13722)
4150	(13616)
4117	(13509)
4087	(13408)
4059	(13315)
696	(2284)
633	(2075)
581	(1907)
518	(1701)
465	(1525)

HEC-RAS Version 3.0.1 Mar 2001
U.S. Army Corp of Engineers
Hydrologic Engineering Center
609 Second Street, Suite D
Davis, California 95616-4687
(916) 756-1104

```
X     X  XXXXXX    XXXX        XXXX       XX      XXXX
X     X  X        X    X       X   X     X  X    X
X     X  X        X            X   X    X    X   X
XXXXXXX  XXXX     X       XXX  XXXX     XXXXXX    XXXX
X     X  X        X            X  X     X    X        X
X     X  X        X    X       X   X    X    X        X
X     X  XXXXXX    XXXX        X    X   X    X   XXXXX
```

PROJECT DATA
Project Title: Project Model - Model F1
Project File : PMF1.prj
Run Date and Time: 2/20/03 1:59:04 PM

Project in English units

Project Description:
FEC-AFV Alternative - San Mateo Creek Crossing

PLAN DATA

Plan Title: Existing Flow/Existing Geometry
Plan File : p:\2PDA0104\Hydr\LHS\Modeling\Model F\HecRas F\PMF1.p01

Geometry Title: Existing Conditions
Geometry File : p:\2PDA0104\Hydr\LHS\Modeling\Model F\HecRas F\PMF1.g01

Flow Title : Existing Conditions
Flow File : p:\2PDA0104\Hydr\LHS\Modeling\Model F\HecRas F\PMF1.f01

Plan Summary Information:
Number of: Cross Sections = 65 Mulitple Openings = 0
Culverts = 0 Inline Weirs = 0
Bridges = 2

Computational Information
Water surface calculation tolerance = 0.01
Critical depth calculaton tolerance = 0.01
Maximum number of interations = 20
Maximum difference tolerance = 0.3
Flow tolerance factor = 0.001

Computation Options
Critical depth computed only where necessary
Conveyance Calculation Method: At breaks in n values only
Friction Slope Method: Average Conveyance
Computational Flow Regime: Mixed Flow

FLOW DATA

Flow Title: Existing Conditions
Flow File : p:\2PDA0104\Hydr\LHS\Modeling\Model F\HecRas F\PMF1.f01

Flow Data (cfs)

River	Reach	RS	Q2	Q5	Q10	Q25	Q50	Q100	Q100HC
San Mateo Creek	Lower	17108.89	406	3317	6999	18122	31354	47312	118891

Boundary Conditions

River	Reach	Profile	Upstream	Downstream
San Mateo Creek	Lower	Q2	Normal S = .006	Normal S = .02
San Mateo Creek	Lower	Q5	Normal S = .006	Normal S = .02
San Mateo Creek	Lower	Q10	Normal S = .006	Normal S = .02
San Mateo Creek	Lower	Q25	Normal S = .006	Normal S = .02
San Mateo Creek	Lower	Q50	Normal S = .006	Normal S = .02
San Mateo Creek	Lower	Q100	Normal S = .006	Normal S = .02
San Mateo Creek	Lower	Q100HC	Normal S = .006	Normal S = .02

GEOMETRY DATA

Geometry Title: Existing Conditions
Geometry File : p:\2PDA0104\Hydr\LHS\Modeling\Model F\HecRas F\PMF1.g01

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 17108.89

INPUT
Description:
Station Elevation Data num= 46

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	120.75	.81	121.04	1.78	120.67	4.05	120.84	13.67	119.46
14.81	119.29	20.35	118.29	33.94	112.82	36.33	111.61	53.11	108.38
60.66	106.83	64.52	105.74	76.4	101.3	80.08	99.85	85.2	99.46
94.94	97.68	123.07	96.44	130.94	96.19	180.28	94.67	237.64	92.32
262.46	91.83	287.07	91.35	296	91.17	314.51	90.89	336.36	90.54
396.81	91.24	451.1	91.74	478.44	92	500.45	92.2	559.42	92.73
615.14	93.98	665.2	95.1	697.16	95.7	805.4	97.75	927.5	98.02
990	98.16	1068.09	98.36	1093.95	98.45	1161.3	99.85	1251.51	103.52
1276.7	105.53	1306.04	108.99	1323.44	112.19	1343.95	115.78	1366.42	122.23
1366.98	122.41								

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	13.67	.05	287.07	.035	451.1	.05	615.14	.02
697.16	.05								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
262.46	478.44	209.32	199.68	212.7	.1	.3

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 16909.21

INPUT
Description:
Station Elevation Data num= 55

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	128.27	15.8	125.94	45.09	120.69	49.9	117.6	54.91	117.56
60.95	114.45	74.12	114.82	82.19	115.04	99.57	111.74	104.05	111.28
120.9	105.64	124.97	105.79	128.5	105.6	156.37	97.99	161.01	97.09
165.78	97.01	259.66	95.8	260.54	95.81	264.29	95.82	267.37	95.76
280.36	95.25	347.94	92.57	364.69	91.85	367.53	91.73	370.62	91.54
378.08	91.08	404.48	90.32	452.34	89.19	474.39	88.74	482.51	88.57
508.49	89.06	553.83	89.9	603.88	90.41	688.67	91.27	720.78	91.84
745.93	92.31	978.43	97.79	992.93	98.14	1006.63	98.39	1010.32	98.4
1020.37	98.42	1037.73	98.47	1056.47	98.51	1119.87	98.68	1188.69	100.01
1264.05	101.26	1295.7	102.31	1381.31	105.51	1417.66	109.47	1423.04	110.44
1434.43	113.59	1442.99	115.48	1452.2	118.19	1459.29	120.37	1482.47	126.98

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	74.12	.05	370.62	.035	474.39	.05	978.43	.02
1037.73	.05								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
404.48	603.88	217.14	203.08	206.1	.1	.3

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 16706.13

INPUT
Description: Updated Manning's N Distribution
Station Elevation Data num= 67

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	119.46	.74	119.19	12.87	122.22	35.59	121.32	44.35	120.03
79.73	113.67	85.54	109.9	87.26	109.89	94.61	106.07	104.53	106.36
120.48	106.83	123.01	106.35	125.76	105.96	134.54	104.98	134.66	104.96
136.65	104.68	182.14	99.73	188.3	99.49	203.1	98.83	241.84	97.17
278.97	94.53	285.87	93.89	289.69	93.35	294.06	92.73	294.15	92.68
294.66	92.43	298.65	90.52	305.48	87.25	308.4	85.64	309.72	85.24
314.43	84.65	318.21	84.71	333.12	85.47	356.07	86.29	356.99	86.26
373.31	85.83	395.71	85.24	441.59	84.03	444.45	83.98	449.64	84.03
547.17	85.18	553.94	85.27	581.73	86.67	638.41	89.62	669.45	90.87
784.96	92.7	786.01	92.71	789.56	92.71	880.25	94.36	1096.03	98.28
1104.6	98.39	1119.92	98.6	1128.3	98.72	1148.02	99.39	1179.65	101.72
1201.75	103.35	1222.95	103.37	1297.84	105.36	1355.02	107.33	1363.25	107.79
1380.87	108.65	1413.42	110.59	1428.19	111.98	1438.13	113.88	1456.27	119.5

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	104.53	.05	298.65	.035	373.31	.05	1119.92	.02
1179.65	.05								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
305.48	581.73	213.02	200.49	184.93	.1	.3

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 16505.64

INPUT
Description:
Station Elevation Data num= 77

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	126.05	1.37	125.54	27.32	125.58	32.56	124.47	47.84	124.04
52.45	121.86	101.03	112.23	107.32	112.47	116.54	115.88	125.08	115.62
134.89	112.2	149.97	115.61	178.34	114.4	179.93	114.17	193.76	111.79
194.09	113.24	195.06	113.95	197.6	113.81	205.11	113.44	215.48	112.84
234.81	111.52	243.48	110.93	252.97	109.06	261.15	106.09	280.99	101.05
289.72	98.62	298.84	97.6	348.04	94.87	362.25	94.03	368.98	93.43
370.83	93.26	376.84	91.85	379.04	91.89	379.19	91.89	383.5	90.52
386.37	88.58	387.58	87.58	390.78	85.27	393.04	84.68	395.94	84.58

406.89	85.17	429.58	85.69	452.84	85.14	456.19	85.06	476.82	84.57
508.12	84.72	571.38	85.04	669.78	85.12	697.85	86.32	705.27	86.39
719.01	87.62	732.71	88.8	741.95	89.84	756.7	91	759.88	91.2
767.73	91.75	775.18	91.78	777.34	91.81	800.99	91.21	903.4	91.42
984.69	91.8	1176.72	96.13	1202.67	96.91	1266.47	98.82	1295.94	101.4
1341.75	103.58	1363.77	104.63	1374.75	105.12	1395.49	106.07	1401.08	106.05
1408.84	106.43	1420.89	107.02	1461.65	109.91	1468.94	110.12	1593.75	115.6
1653.58	117.97	1677.19	119.45						

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	234.81	.05	368.98	.035	452.84	.05	1341.75	.02
1408.84	.05								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
387.58	719.01	199.4	206.45	210.25	.1	.3

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 16299.19

INPUT
Description:
Station Elevation Data num= 56

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	107.69	14.56	107.33	24.8	106.81	35.8	106.73	54.63	107.1
97.11	104.72	104.21	104.33	113.06	103.81	114.46	103.65	135.06	100.95
140.46	99.93	151.97	96.7	154.75	95.42	161.68	91.9	166.47	91.38
169.28	91.08	179.69	88.6	189.53	88.36	197.37	86.84	199.55	86.04
208.09	85.5	208.95	85.45	219.51	84.99	223.92	84.8	291.32	84.9
292.25	84.9	320.46	85.22	325.71	85.28	326.87	85.29	487.99	85.64
530.99	85.72	570.95	86.84	598.43	87.62	630.44	89.51	733.82	90.23
891.53	92.46	991.05	95.5	1009.17	96.06	1043.73	96.94	1081.09	97.81
1203.26	100.69	1260.4	102.31	1271.03	102.61	1287.28	103.08	1298.69	103.74
1305.61	104.68	1317.89	108.46	1320.57	109.28	1324.84	110.4	1343.79	115.41
1346.55	116.65	1361.13	118.6	1364.78	119.14	1373.38	119.65	1379.73	120.03
1387.25	120.43								

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	97.11	.05	166.47	.035	291.32	.05	1317.89	.02
1373.38	.05								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
197.37	570.95	219.05	193.6	180.85	.1	.3

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 16105.61

INPUT
Description:
Station Elevation Data num= 57

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	108.95	22.96	103.79	23.91	103.32	25.91	102.75	27.73	102.03
56.88	102.5	57.63	102.33	74.85	102.03	75.07	101.92	82.62	100.38
82.83	100.3	83.13	101.07	83.64	101.46	91.47	101.33	93.4	101.3
102.48	101.13	114.12	100.45	138.5	99.54	157.57	98.29	166.14	98.34
189.61	94.26	195.98	92.55	232.82	89.59	242.41	88.39	246	88.14
250.29	88.17	276.94	86.02	278.97	85.87	343.02	84.71	345.68	84.67
372.51	84.59	423.9	84.43	448.61	84.46	476.5	84.48	493.68	84.49
512.2	84.52	600.56	84.68	644.89	85.93	740.98	87.69	850.33	87.85
973.35	89.62	1086.6	91.69	1118.02	92.45	1127.42	92.65	1197.77	93.96
1252.48	94.79	1274.34	96.5	1375.35	99.54	1377.18	99.61	1391.33	101.05
1439.07	105.7	1440.92	105.88	1489.04	112.49	1504.66	114.2	1516.2	115.67
1549.94	119.93	1552.11	120.25						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.05	372.51	.035	512.2	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
278.97	644.89	33.01	38.98	40.87	.1	.3

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 16066.6*

INPUT
Description:
Station Elevation Data num= 115

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	110.25	26.62	105.38	27.72	104.97	30.04	104.45	30.77	104.23
32.15	103.76	65.94	101.79	66.81	101.59	74.99	100.92	75.18	100.89
75.58	100.85	75.95	100.8	86.44	100.71	86.77	100.7	87.02	100.6
95.73	99.18	95.77	99.17	96.02	99.1	96.37	99.71	96.96	100
106.03	99.66	108.27	99.58	111.91	99.44	114	99.37	118.8	99.18
122.27	98.95	132.29	98.31	154.13	97.24	160.55	96.94	169.04	96.37
182.66	95.76	192.59	95.8	219.8	92.55	227.18	91.18	268.94	88.88
269.89	88.82	272.96	88.54	281.01	87.82	284.62	87.63	285.17	87.61
290.14	87.61	310.04	86.43	316.06	86.04	317.34	85.97	317.62	85.95
319.03	85.64	321.03	85.35	323.39	85.02	324.69	85.23	329.41	85.66
329.82	85.66	332.33	85.41	338.71	85.3	344.66	85.19	371.58	84.7
398.55	84.2	401.67	84.15	433.15	83.9	440.13	83.85	459.01	83.4
473.53	83.34	491.31	83.23	492.37	83.22	493.46	83.22	516.56	83.26
531.77	83.29	542.63	83.31	558.69	83.33	566.05	83.35	576.01	83.41
645.29	83.82	658.61	83.9	670.42	84.25	700.06	85.07	789.97	86.97
840.12	87.32	865.86	87.41	888.14	87.54	892.3	87.58	919.43	88.16
978.94	89.48	998.26	89.91	1004.86	90.05	1007.42	90.11	1018.67	90.4
1079.58	92.34	1093.28	92.77	1096.66	92.88	1113.39	93.28	1135.7	93.93
1142.79	94.12	1151.59	94.35	1217.42	95.87	1249.1	96.51	1268.61	96.91

1270.07	97.01	1289.07	98.36	1292.58	98.47	1346.8	99.96	1353.23	100.13
1356.04	100.22	1358.35	100.29	1383.59	101.06	1385.3	101.12	1398.54	102.34
1443.22	106.27	1444.95	106.42	1448.91	106.91	1489.98	112.13	1504.59	113.64
1506.03	113.81	1515.39	114.92	1532.36	116.91	1546.97	118.63	1549	118.91

Manning's n Values num= 9

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	317.34	.047	323.39	.038	433.15	.038	566.05	.05
700.06	.047	998.26	.035	1358.35	.038	1549	.05		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
329.82	700.06	33.01	38.98	40.87	.1	.3

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 16027.6*

INPUT
Description:
Station Elevation Data num= 115

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	111.55	30.27	106.97	31.52	106.63	34.16	106.15	34.99	105.96
36.56	105.49	74.99	101.07	75.98	100.85	85.29	99.64	85.51	99.58
85.96	99.5	86.38	99.41	98.31	99.38	98.69	99.36	98.98	99.29
108.88	97.97	108.93	97.96	109.21	97.9	109.6	98.35	110.27	98.55
120.6	98	123.14	97.87	127.29	97.64	129.66	97.53	135.11	97.23
139.07	96.94	150.46	96.17	175.3	94.73	182.6	94.33	192.26	93.68
207.75	93.23	219.05	93.27	249.99	90.83	258.39	89.81	305.88	88.1
306.96	88.05	310.45	87.83	319.6	87.25	323.71	87.1	324.34	87.07
329.99	87.05	352.63	86.08	359.47	85.72	360.93	85.65	361.24	85.64
362.84	85.12	365.13	84.68	367.81	84.18	369.3	84.61	374.72	85.55
375.19	85.56	378.07	85.09	385.39	84.96	392.22	84.83	423.12	84.26
454.07	83.7	457.66	83.64	493.79	83.22	501.8	83.12	523.47	82.27
540.14	82.21	560.55	82.03	561.76	82.02	563.01	82.01	584.5	82.07
598.66	82.11	608.76	82.14	623.71	82.18	630.55	82.2	639.81	82.3
704.27	82.98	716.67	83.13	727.65	83.46	755.23	84.2	838.97	86.26
885.67	86.87	909.64	87.01	930.39	87.23	934.27	87.31	959.54	88.06
1014.96	89.78	1032.95	90.33	1039.1	90.52	1041.48	90.6	1051.97	90.95
1108.69	93.65	1121.45	94.25	1124.6	94.39	1140.18	94.87	1160.96	95.58
1167.57	95.8	1175.76	96.04	1237.07	97.78	1266.58	98.55	1284.75	99.02
1286.1	99.11	1303.8	100.22	1307.07	100.32	1357.57	101.56	1363.55	101.7
1366.17	101.78	1368.33	101.84	1391.83	102.57	1393.43	102.63	1405.76	103.62
1447.37	106.84	1448.98	106.97	1452.67	107.35	1490.92	111.78	1504.53	113.09
1505.86	113.23	1514.59	114.17	1530.38	115.87	1543.99	117.33	1545.88	117.56

Manning's n Values num= 9

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	360.93	.044	367.81	.041	493.79	.041	623.71	.05
755.23	.044	1032.95	.035	1368.33	.041	1545.88	.05		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
375.19	755.23	33.01	38.98	40.87	.1	.3

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 15988.6*

INPUT
Description:
Station Elevation Data num= 115

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	112.86	33.93	108.56	35.33	108.28	38.29	107.86	39.22	107.7
40.98	107.22	84.05	100.36	85.16	100.11	95.59	98.35	95.84	98.27
96.34	98.16	96.81	98.02	110.18	98.05	110.6	98.03	110.93	97.97
122.03	96.76	122.08	96.75	122.39	96.7	122.84	96.98	123.59	97.09
135.16	96.33	138.01	96.15	142.66	95.84	145.31	95.69	151.43	95.28
155.86	94.93	168.63	94.03	196.47	92.22	204.66	91.73	215.47	91
232.84	90.7	245.5	90.73	280.18	89.12	289.59	88.44	342.82	87.32
344.03	87.28	347.95	87.12	358.2	86.68	362.8	86.56	363.51	86.54
369.84	86.5	395.21	85.73	402.88	85.4	404.52	85.34	404.87	85.33
406.66	84.59	409.22	84.01	412.22	83.33	413.91	83.98	420.03	85.44
420.56	85.45	423.81	84.77	432.07	84.62	439.79	84.48	474.66	83.83
509.6	83.19	513.65	83.12	554.44	82.53	563.47	82.4	587.93	81.15
606.75	81.07	629.79	80.82	631.16	80.81	632.57	80.79	652.45	80.87
665.54	80.92	674.89	80.96	688.72	81.02	695.05	81.05	703.62	81.19
1192.34	97.47	1199.93	97.74	1256.72	99.69	1284.05	100.59	1300.88	101.14
1302.14	101.22	1318.53	102.08	1321.56	102.17	1368.34	103.16	1373.88	103.27
1376.3	103.34	1378.3	103.4	1400.07	104.09	1401.55	104.14	1412.97	104.91
1451.51	107.41	1453.01	107.51	1456.43	107.8	1491.85	111.42	1504.46	112.53
1505.7	112.65	1513.78	113.43	1528.41	114.82	1541.02	116.03	1542.77	116.22

Manning's n Values num= 9

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	404.52	.041	412.22	.044	554.44	.044	674.89	.05
810.39	.041	1067.65	.035	1378.3	.044	1542.77	.05		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
420.56	810.39	33.01	38.98	40.87	.1	.3

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 15949.6*

INPUT
Description:
Station Elevation Data num= 115

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev

0	114.16	37.58	110.15	39.14	109.93	42.41	109.56	43.44	109.43
45.39	108.95	93.11	99.64	94.33	99.37	105.89	97.07	106.16	96.95
106.72	96.81	107.24	96.63	122.06	96.73	122.52	96.7	122.88	96.65
135.18	95.55	135.24	95.54	135.58	95.5	136.07	95.62	136.91	95.64
149.73	94.67	152.89	94.43	158.03	94.04	160.97	93.86	167.75	93.33
172.66	92.92	186.8	91.89	217.64	89.72	226.71	89.13	238.69	88.31
257.92	88.17	271.95	88.19	310.37	87.4	320.8	87.07	379.76	86.54
381.1	86.51	385.44	86.4	396.8	86.11	401.9	86.02	402.67	86
409.7	85.94	437.8	85.38	446.29	85.07	448.1	85.03	448.49	85.02
450.48	84.07	453.32	83.34	456.64	82.49	458.52	83.36	465.34	85.32
465.93	85.35	469.55	84.45	478.76	84.29	487.35	84.12	526.2	83.4
565.13	82.68	569.64	82.6	615.08	81.84	625.15	81.67	652.4	80.02
673.36	79.93	699.03	79.62	700.55	79.6	702.12	79.58	720.4	79.68
732.43	79.74	741.03	79.79	753.73	79.87	759.55	79.9	767.43	80.08
822.24	81.31	832.78	81.58	842.12	81.89	865.56	82.47	936.96	84.83
976.78	85.96	997.21	86.2	1014.9	86.62	1018.21	86.78	1039.75	87.85
1087.01	90.38	1102.34	91.18	1107.59	91.46	1109.62	91.57	1118.56	92.06
1166.92	96.27	1177.8	97.2	1180.48	97.42	1193.77	98.04	1211.48	98.9
1217.11	99.14	1224.1	99.44	1276.37	101.6	1301.53	102.62	1317.02	103.25
1318.17	103.32	1333.26	103.95	1336.05	104.03	1379.1	104.76	1384.2	104.84
1386.44	104.9	1388.28	104.96	1408.32	105.61	1409.68	105.65	1420.19	106.2
1455.66	107.98	1457.04	108.05	1460.18	108.24	1492.79	111.06	1504.4	111.98
1505.53	112.07	1512.97	112.68	1526.44	113.78	1538.04	114.73	1539.65	114.87

Manning's n Values num= 9

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	448.1	.038	456.64	.047	565.13	.047	720.4	.05
865.56	.038	1102.34	.035	1388.28	.047	1539.65	.05		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
465.93	865.56	33.01	38.98	40.87	.1	.3

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 15910.69

INPUT
Description:
Station Elevation Data num= 63

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	115.46	47.67	111.16	116.19	95.78	116.49	95.64	117.1	95.46
117.67	95.24	133.93	95.4	148.33	94.34	173.4	92.24	176.63	92.02
189.45	90.91	238.81	87.21	261.91	85.62	416.7	85.76	422.93	85.69
440.99	85.48	480.38	85.03	489.7	84.75	491.69	84.72	492.12	84.71
494.3	83.55	501.06	81.64	503.13	82.74	510.65	85.21	511.3	85.24
515.29	84.13	525.44	83.95	534.91	83.77	577.74	82.97	686.82	80.95
716.86	78.9	739.97	78.79	768.27	78.41	769.95	78.39	771.68	78.37
799.32	78.56	824.05	78.75	881.22	80.47	899.35	81.1	920.73	81.61
1022.33	85.51	1041	85.8	1057.16	86.32	1079.86	87.74	1123.03	90.68
1137.04	91.61	1141.83	91.93	1151.85	92.62	1196.03	97.58	1205.97	98.67
1208.42	98.93	1236.74	100.56	1319	104.66	1334.21	105.42	1350.54	105.88
1389.87	106.36	1394.53	106.41	1396.57	106.46	1398.25	106.52	1463.94	108.69
1505.37	111.49	1524.47	112.73	1536.54	113.53				

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	491.69	.035	768.27	.05	1137.04	.035	1398.25	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
511.3	920.73	44.06	38.94	33.57	.1	.3

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 15871.7*

INPUT
Description:
Station Elevation Data num= 115

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	114.46	47.13	110.2	114.87	96.4	115.16	96.28	115.77	96.12
116.33	95.93	132.41	95.83	146.64	94.74	171.43	92.64	173.33	92.5
174.62	92.34	176.75	92.05	184.81	91.43	186.62	91.31	187.29	91.26
192.54	90.97	218.92	89.25	236.09	87.93	244.65	87.32	255.72	86.45
258.93	86.19	279.53	85.72	284.53	85.61	296.86	85.48	328.74	85.3
400.54	85.31	411.96	85.26	418.12	85.17	435.97	84.9	437.88	84.87
444.57	84.91	448.14	84.81	458.05	84.6	474.92	84.34	484.13	84.05
486.1	84.02	486.52	84.01	488.68	83.03	495.36	81.4	497.86	82.29
506.93	84.25	507.72	84.27	512.53	83.3	514.13	83.26	515.55	83.22
518.37	83.15	520.89	83.09	522.26	83.08	524.78	83.05	524.85	83.05
528.01	83	536.21	82.9	567.47	82.5	586.58	82.26	587.9	82.24
598.24	82.14	599.25	82.12	641.07	81.69	719.54	80.69	722.56	80.54
748.96	79.26	755.79	78.93	771.8	78.85	783.68	78.79	797.63	78.64
797.89	78.63	803.63	78.57	812.08	78.47	817.84	78.4	819.87	78.38
821.95	78.36	845.8	78.57	867.13	78.79	916.44	80.34	932.08	80.91
950.52	81.38	958.09	81.69	975.01	82.5	1007.47	84.14	1011.93	84.37
1023.16	84.81	1041.69	85.73	1045.25	85.91	1061.05	86.37	1062.65	86.42
1077.72	87.06	1079.29	87.16	1088.35	87.75	1098.88	88.46	1139.13	91.4
1152.19	92.33	1156.66	92.65	1162.26	93.06	1166	93.33	1195.79	96.6
1207.19	97.88	1216.46	98.89	1218.74	99.14	1244.01	100.73	1245.15	100.8
1302.23	103.68	1321.84	104.66	1336.02	105.37	1351.25	105.83	1376.53	106.24
1387.92	106.47	1392.26	106.55	1394.16	106.61	1395.73	106.68	1437.2	108.28
1456.97	109.01	1467.16	109.7	1495.6	111.56	1513.41	112.68	1524.66	113.4

Manning's n Values num= 13

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	486.1	.038	495.36	.047	567.47	.035	598.24	.038
797.63	.05	845.8	.047	932.08	.038	950.52	.035	1041.69	.035
1152.19	.035	1395.73	.047	1524.66	.047				

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.

507.72	950.52	44.06	38.94	33.57	.1	.3

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 15832.8*

INPUT
Description:
Station Elevation Data num= 115

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	113.46	46.59	109.23	113.55	97.03	113.84	96.92	114.44	96.79
114.99	96.62	130.88	96.27	144.96	95.15	169.45	93.03	171.34	92.89
172.61	92.66	174.72	92.26	182.69	91.73	184.47	91.64	185.14	91.61
190.32	91.43	216.4	89.98	233.38	88.66	241.83	88.03	252.78	87.05
255.95	86.75	276.32	85.8	281.26	85.57	293.44	85.31	324.96	84.91
395.94	84.87	407.22	84.75	413.31	84.64	430.96	84.31	432.84	84.28
439.45	84.43	442.99	84.29	452.78	83.97	469.45	83.65	478.56	83.36
480.5	83.32	480.92	83.31	483.05	82.51	489.66	81.16	492.59	81.84
503.22	83.3	504.14	83.3	509.78	82.46	511.64	82.41	513.32	82.36
516.61	82.26	519.57	82.18	521.18	82.17	524.13	82.14	524.21	82.14
527.91	82.11	537.51	82.03	574.13	81.71	596.51	81.52	598.06	81.51
610.17	81.46	611.35	81.45	660.35	81.22	752.26	80.42	755.8	80.31
786.72	79.23	794.73	78.95	813.48	78.86	827.4	78.79	843.73	78.64
844.04	78.63	850.77	78.57	860.66	78.46	867.41	78.39	869.78	78.37
872.23	78.34	892.27	78.59	910.2	78.82	951.66	80.21	964.81	80.71
980.31	81.14	987.33	81.47	1003.02	82.38	1033.13	84.33	1037.26	84.6
1047.68	85.02	1064.86	86.11	1068.16	86.31	1082.82	86.98	1084.31	87.04
1098.28	87.79	1099.74	87.9	1108.14	88.46	1117.91	89.19	1155.23	92.12
1167.35	93.05	1171.49	93.37	1176.69	93.79	1180.15	94.04	1207.78	96.99
1218.35	98.18	1226.95	99.12	1229.07	99.35	1252.5	100.98	1253.55	101.04
1306.49	103.76	1324.68	104.66	1337.83	105.32	1351.95	105.79	1375.41	106.27
1385.96	106.58	1389.99	106.7	1391.75	106.76	1393.21	106.83	1431.67	108.58
1450.01	109.33	1459.46	109.97	1485.83	111.62	1502.34	112.63	1512.78	113.27

Manning's n Values num= 13

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	480.5	.04	489.66	.045	537.51	.035	596.51	.04
813.48	.05	860.66	.045	951.66	.04	980.31	.035	1064.86	.035
1167.35	.035	1393.21	.045	1512.78	.045				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
504.14	980.31	44.06	38.94	33.57	.1	.3

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 15793.8*

INPUT
Description:
Station Elevation Data num= 115

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	112.46	46.04	108.27	112.22	97.65	112.51	97.57	113.1	97.45
113.65	97.31	129.36	96.7	143.27	95.55	167.48	93.43	169.34	93.28
170.6	92.99	172.68	92.47	180.56	92.04	182.32	91.98	182.98	91.97
188.11	91.9	213.88	90.72	230.66	89.38	239.02	88.74	249.84	87.65
252.97	87.32	273.1	85.88	277.98	85.54	290.03	85.14	321.18	84.52
391.33	84.43	402.48	84.25	408.5	84.12	425.94	83.73	427.81	83.68
434.34	83.96	437.83	83.76	447.51	83.34	463.99	82.96	472.99	82.66
474.91	82.62	475.33	82.6	477.43	81.99	483.96	80.92	487.31	81.39
499.5	82.34	500.55	82.33	507.02	81.63	509.16	81.56	511.08	81.49
514.85	81.37	518.24	81.27	520.09	81.26	523.47	81.24	523.56	81.24
527.8	81.21	538.81	81.15	580.79	80.92	606.45	80.79	608.22	80.79
622.1	80.79	623.46	80.78	679.62	80.75	784.98	80.16	789.04	80.07
824.48	79.2	833.66	78.98	855.16	78.87	871.11	78.79	889.84	78.64
890.19	78.63	897.9	78.56	909.25	78.46	916.97	78.38	919.7	78.36
922.5	78.33	938.75	78.6	953.28	78.86	986.88	80.09	997.54	80.52
1010.1	80.91	1016.57	81.24	1031.04	82.26	1058.78	84.52	1062.6	84.83
1072.2	85.24	1088.04	86.48	1091.08	86.71	1104.59	87.58	1105.96	87.65
1118.84	88.53	1120.18	88.64	1127.93	89.18	1136.93	89.91	1171.34	92.84
1182.5	93.78	1186.32	94.1	1191.11	94.51	1194.31	94.75	1219.77	97.39
1229.52	98.47	1237.44	99.34	1239.39	99.55	1260.99	101.22	1261.96	101.28
1310.76	103.83	1327.52	104.67	1339.64	105.27	1352.66	105.74	1374.28	106.31
1384.01	106.69	1387.72	106.84	1389.35	106.92	1390.68	106.99	1426.14	108.87
1443.04	109.65	1451.75	110.23	1476.06	111.69	1491.28	112.57	1500.9	113.14

1182.5	.035	1390.68	.043	1500.9	.043

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
499.5	1010.1	44.06	38.94	33.57	.1	.3

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 15754.9*

INPUT
Description:
Station Elevation Data num= 115

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	111.45	45.5	107.3	110.9	98.27	111.19	98.21	111.77	98.11
112.32	98.01	127.84	97.13	141.58	95.96	165.51	93.83	167.35	93.68
168.59	93.31	170.65	92.68	178.43	92.34	180.17	92.32	180.83	92.32
185.89	92.36	211.36	91.46	227.94	90.1	236.2	89.44	246.9	88.25
249.99	87.88	269.88	85.97	274.71	85.5	286.61	84.96	317.4	84.13
386.72	83.99	397.74	83.75	403.69	83.59	420.92	83.14	422.77	83.09
429.22	83.49	432.67	83.24	442.24	82.71	458.52	82.27	467.42	81.97
469.32	81.92	469.73	81.9	471.81	81.47	478.26	80.68	482.04	80.94
495.78	81.38	496.97	81.36	504.26	80.79	506.68	80.72	508.84	80.63

513.09	80.48	516.92	80.36	519	80.35	522.81	80.34	522.92	80.34
527.7	80.32	540.12	80.28	587.44	80.14	616.38	80.05	618.38	80.06
634.04	80.11	635.56	80.11	698.89	80.28	817.71	79.9	822.28	79.84
862.24	79.18	872.6	79	896.83	78.88	914.83	78.79	935.94	78.64
936.34	78.63	945.03	78.56	957.83	78.45	966.54	78.37	969.61	78.34
972.77	78.32	985.22	78.62	996.36	78.89	1022.1	79.96	1030.27	80.32
1039.9	80.68	1045.81	81.01	1059.05	82.14	1084.44	84.7	1087.93	85.07
1096.72	85.45	1111.21	86.85	1114	87.12	1126.36	88.18	1127.61	88.27
1139.4	89.26	1140.63	89.38	1147.71	89.89	1155.95	90.63	1187.44	93.56
1197.66	94.5	1201.15	94.82	1205.53	95.23	1208.46	95.46	1231.76	97.78
1240.68	98.77	1247.93	99.57	1249.72	99.76	1269.48	101.46	1270.37	101.51
1315.02	103.9	1330.36	104.67	1341.46	105.22	1353.37	105.69	1373.15	106.34
1382.05	106.81	1385.45	106.98	1386.94	107.07	1388.16	107.15	1420.6	109.16
1436.07	109.96	1444.04	110.5	1466.29	111.75	1480.22	112.52	1489.02	113.01

Manning's n Values num= 13

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	469.32	.045	478.26	.04	540.12	.035	616.38	.045
862.24	.05	896.83	.04	1022.1	.045	1039.9	.035	1111.21	.035
1197.66	.035	1388.16	.04	1489.02	.04				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
495.78	1039.9	44.06	38.94	33.57	.1	.3

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 15716.0*

INPUT
Description:
Station Elevation Data num= 115

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	110.45	44.96	106.34	109.58	98.89	109.86	98.85	110.44	98.78
110.98	98.7	126.31	97.57	139.89	96.36	163.54	94.23	165.35	94.07
166.58	93.63	168.61	92.9	176.31	92.65	178.03	92.65	178.67	92.67
183.68	92.82	208.84	92.19	225.23	90.83	233.39	90.15	243.95	88.86
247.01	88.45	266.67	86.05	271.43	85.47	283.2	84.79	313.61	83.75
382.11	83.55	393	83.25	398.87	83.07	415.91	82.56	417.73	82.5
424.11	83.01	427.52	82.71	436.97	82.09	453.06	81.58	461.85	81.27
463.72	81.21	464.13	81.2	466.18	80.95	472.56	80.44	476.77	80.49
492.07	80.43	493.39	80.39	501.51	79.96	504.19	79.87	506.6	79.76
511.34	79.59	515.59	79.44	517.91	79.44	522.15	79.43	522.27	79.43
527.59	79.42	541.42	79.41	594.1	79.35	626.32	79.32	628.54	79.33
645.97	79.44	647.67	79.44	718.17	79.81	850.43	79.63	855.52	79.6
900.01	79.15	911.53	79.03	938.51	78.89	958.54	78.79	982.05	78.65
982.49	78.63	992.17	78.56	1006.41	78.45	1016.11	78.36	1019.53	78.33
1023.05	78.3	1031.7	78.63	1039.43	78.93	1057.32	79.83	1063	80.13
1069.69	80.44	1075.06	80.79	1087.07	82.02	1110.1	84.89	1113.27	85.3
1121.24	85.66	1134.39	87.22	1136.91	87.52	1148.13	88.78	1149.27	88.89
1159.96	90	1161.07	90.12	1167.5	90.61	1174.98	91.36	1203.54	94.28
1212.81	95.22	1215.98	95.54	1219.96	95.95	1222.61	96.17	1243.75	98.18
1251.84	99.07	1258.42	99.79	1260.04	99.97	1277.97	101.71	1278.78	101.75
1319.29	103.98	1333.2	104.67	1343.27	105.17	1354.07	105.65	1372.02	106.37
1380.1	106.92	1383.18	107.13	1384.53	107.22	1385.64	107.3	1415.07	109.46
1429.1	110.28	1436.34	110.77	1456.52	111.82	1469.15	112.47	1477.14	112.88

Manning's n Values num= 13

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	463.72	.048	472.56	.037	529.79	.035	598.95	.048
852.76	.05	917.05	.037	1027.69	.048	1069.69	.035	1134.39	.035
1212.81	.035	1385.64	.037	1477.14	.037				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
472.56	1069.69	44.06	38.94	33.57	.1	.3

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 15677.08

INPUT
Description:
Station Elevation Data num= 57

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	109.45	163.36	94.46	166.58	93.11	174.18	92.95	175.88	92.99
181.46	93.28	206.32	92.93	230.57	90.86	241.01	89.46	263.45	86.13
268.16	85.43	279.78	84.62	309.83	83.36	377.5	83.11	412.69	81.91
418.99	82.54	422.36	82.19	431.7	81.46	466.86	80.2	501.71	79.02
504.36	78.9	509.58	78.7	514.27	78.53	516.82	78.53	521.63	78.53
527.49	78.53	600.76	78.56	636.25	78.58	657.9	78.76	659.77	78.77
737.44	79.34	888.76	79.37	937.77	79.12	980.19	78.9	1028.15	78.65
1028.64	78.63	1039.3	78.56	1054.99	78.44	1073.32	78.29	1099.48	80.21
1104.3	80.56	1115.08	81.9	1135.76	85.08	1138.6	85.53	1145.76	85.87
1157.56	87.59	1169.9	89.38	1181.52	90.86	1187.29	91.32	1234.38	96.67
1255.74	98.57	1286.46	101.95	1323.55	104.05	1370.89	106.4	1409.54	109.75
1428.63	111.04	1465.26	112.75						

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	527.49	.035	600.76	.05	937.77	.035	1054.99	.05
1157.56	.035								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
466.86	1099.48	229.4	221.5	185.6	.1	.3

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 15455.59

INPUT
Description:
Station Elevation Data num= 59

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	103.47	148.03	89.5	151.79	87.95	155.29	89.39	162.5	89.98
163.5	89.86	164.28	88.85	165.22	88.54	174.14	89.25	177.38	88.84
190.1	88.38	227.99	87.78	257.22	88.02	310.79	86.75	344.65	86.45
344.8	86.43	344.99	86.41	353.69	85.2	364.24	80.91	369.99	79.11
372.44	78.61	375.87	78.39	393.22	78.38	394.28	78.43	414.05	81.65
421.98	82.99	435.46	83.47	448.43	82.56	468.78	82.25	527.06	80.29
587.08	79.88	603.56	79.81	619.51	79.46	620.85	79.43	693.92	77.81
700.31	77.82	750.85	77.87	759.57	77.95	777.49	78.11	799.72	78.29
996.6	78.49	1078.38	78.57	1111.65	78.42	1139.72	77.64	1151.85	77.87
1158.21	77.93	1191.98	78.25	1195.12	78.5	1212.5	79.92	1223.08	80.71
1232.14	82.47	1251.76	85.3	1265.05	88.28	1265.95	88.51	1293.69	95.43
1299.46	96.69	1330.26	101.19	1339.88	102.24	1346.75	102.68		

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	619.51	.035	700.31	.05	996.6	.035	1158.21	.05
1265.95	.035								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
620.85	1212.5	159.78	172.75	206.99	.1	.3

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 15282.84

INPUT
Description:
Station Elevation Data num= 46

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	99.77	79.19	91.79	163.92	83.84	165.72	83.12	173.95	86.37
176.04	86.53	176.09	86.54	179.99	86.12	183.03	82.6	185.78	81.8
190.97	81.5	263.66	80.17	317.75	79.37	326.51	79.33	360.01	79.15
445.67	79.87	467.64	79.2	531.25	78.92	618.07	78.97	629.39	79.25
645.34	78.82	674.47	78.63	683.23	78.57	754.21	78.05	822.24	77.56
842.94	77.41	859.25	77.29	894.35	76.95	946.46	76.79	1046.88	76.48
1055.15	76.42	1109.14	77.46	1171.17	78.65	1180.15	78.79	1185.6	78.84
1189.7	78.88	1290.61	79.29	1381.99	83.75	1394.14	84.34	1398.84	84.96
1419.07	90.82	1419.69	90.98	1433.7	94.54	1448.51	97.68	1472.52	101.46
1478.85	102.36								

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	754.21	.035	842.94	.05	946.46	.035	1109.14	.05
1419.69	.035								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
683.23	1171.17	247.92	206.82	172.28	.1	.3

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 15076.02

INPUT
Description: Updated Manning's N Distribution
Station Elevation Data num= 57

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	90.8	1.69	90.63	13.58	87.59	13.79	87.42	14.49	87.6
15.22	88.14	15.91	88.28	41.76	78.13	41.94	78.1	42.19	78.01
42.28	77.99	55.3	77.02	115.81	78.15	126.67	78.13	155.44	78.25
199.32	77.85	223.18	78.41	278.75	78.69	331.77	78.96	347.59	79.04
353.33	78.98	471.93	78.78	517.94	78.76	530.82	78.75	650.81	78.12
742.79	77.53	766.68	76.98	791.33	76.73	803.9	76.67	828.76	76.53
832.3	76.51	870.05	76.38	877.4	76.34	921.58	76.01	922.42	76
1000.08	75.56	1086.41	74.9	1110.54	74.89	1130.87	74.89	1241.57	74.4
1242.24	74.4	1242.61	74.4	1247.69	74.45	1352.49	76.06	1368.28	76.29
1386.22	76.94	1444.46	79.49	1478.6	82.25	1493.34	83.8	1537.29	85.57
1574.24	86.1	1583.51	88.28	1588.7	88.99	1599.75	90.43	1620.49	93.87
1624.37	94.75	1657.52	102.33						

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	828.76	.035	1110.54	.05	1624.37	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.

INPUT
Description:
Station Elevation Data num= 102

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	85.71	12.02	85.54	84.69	84.01	115.69	84.58	122.25	84.06
135.89	84.25	140.72	84.13	148.96	84.22	163.53	83.46	170.14	83.69
180.94	84.32	188.18	84.35	203.22	85.3	214.01	86.68	227.06	88.59
233.92	89.04	244.06	88.98	255.48	88.64	274.96	85.55	279.95	85.37
285.41	85.38	345.12	85.24	358.94	84.14	368.61	84.17	379.99	84.1
394.43	82.83	407.08	81.79	411.48	81.5	413.55	81.42	415.79	81.2
436.02	78.75	456.72	75.67	467.78	74.19	482.26	73	498.77	71.6
498.88	71.59	498.98	71.59	499.26	71.58	543.54	71.16	545.95	71.12
557.88	69.94	573.39	70.17	600.68	71.01	611.99	72.36	618.47	72.86
626.92	74.37	632.61	75.49	646.15	77.94	672.57	79.06	673.13	79.12
673.38	79.12	673.91	79.12	717.83	80.5	721.69	81.14	731.52	82.22
735.62	83.38	745.68	85.33	752.97	85.22	766.99	85.79	769.73	85.33
774.17	84.21	782.63	81.2	786.14	79.37	788.83	78.86	797.92	78.63
799.44	78.58	830.86	77.57	854.94	75.75	869.77	74.3	871.02	74.05
876.56	72.94	884.68	72.79	927.26	71.32	936.34	71.44	973.58	71.92
1063.37	72.93	1070.28	73	1101.46	73.44	1161.36	72.65	1197.58	72.17

1201.91	72.11	1249.77	73.25	1258.24	73.29	1269.35	73.28	1331.21	73.32
1508.61	74.05	1540.15	75.26	1556.07	75.63	1588.29	76.78	1601.93	78.41
1619.6	78.68	1628.2	79.54	1638.14	80.8	1664.12	82.56	1667.77	82.9
1678.11	83.03	1734.35	86.27	1741.16	86.8	1747.77	87.5	1791.04	94.49
1792.03	94.77	1814.62	100.63						

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	871.02	.035	1161.36	.05	1814.62	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
871.02	1508.61	230.23	202.58	217.82	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 14640.75

INPUT
Description:
Station Elevation Data num= 87

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	78.41	17.94	78.88	40.67	79.7	90.61	81.17	138.03	82.4
146.04	83.25	160	84.44	162.45	85.4	176.19	91.96	195.58	96.33
210.45	98.33	211.77	98.47	213.87	98.58	215.99	98.71	222.02	99.07
223.99	98.74	231.75	97.7	237.74	94.84	256.35	85.77	262.42	84.67
276.58	83.42	324.2	82.2	382.56	81.2	386.06	81.07	428.68	79.58
470.85	78.72	482.36	78.44	490.35	78.43	559.67	79.16	605.61	79.57
611.79	79.04	628.24	78.14	644.17	77.61	654.59	77.36	685	76.25
710.13	74.66	712.25	74.49	714.16	74	798.82	70.79	805.49	70.45
820.16	70.6	827.56	70.69	895.57	71.62	903.17	72.18	931.44	76.2
940.83	77.72	945.2	79.46	953.88	82.79	959.1	84.66	960.81	85.18
962.3	85.3	976.01	85.63	982.58	84.9	990.45	83.3	1009.76	78.74
1014.64	78.62	1028	78.56	1038.03	78.46	1050.69	78.32	1056.04	78.28
1061.36	77.78	1092.37	74.85	1112.5	74.06	1126.06	72.97	1130.35	72.62
1134.8	72.25	1135.37	72.2	1141.04	71.87	1189.06	72.15	1241.8	72.44
1266.91	72.58	1309.02	72.55	1408.2	72.46	1573.59	72.7	1619.99	73.21
1648.69	73.64	1672.47	74.07	1694.78	75.87	1711.39	77.4	1718.87	79.1
1728.33	83.61	1730.68	84.61	1735.89	88.04	1748.19	95.79	1757.16	99.5
1759.66	100.4	1768.94	102.99						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.05	1061.36	.035	1309.02	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
1112.5	1672.47	142.45	166.43	154.49	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 14474.32

INPUT
Description:
Station Elevation Data num= 78

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	108.23	7.05	108.12	14.85	108.01	19.46	107.52	32.2	105.34
43.5	100.08	55.52	94.24	60.33	91.88	64.41	91.25	94	87.21
95.64	87.03	136.25	82.08	140.72	81.63	152.05	79.6	153.84	79.51
176.78	78.22	213.92	77.71	306.58	77.97	334.86	78.81	385.42	78.75
494.34	78.64	516.51	78.62	568.95	78.46	639.11	78.26	667.2	78.23
695.34	77.02	722.47	75.87	749.21	74.93	795.77	75.99	822.43	76.68
843.49	77.7	868.21	78.93	873.36	79.24	881.73	79.29	890.57	78.45
893.93	75.8	898.72	72.54	904.92	71.28	911.85	70.69	944.2	70.48
976.68	70.98	1001.51	71.13	1014.62	71.21	1035.38	71.3	1051.2	71.82
1084.53	76.22	1100.85	77.95	1106.06	78.15	1121.94	79.13	1122.26	79.15
1122.38	79.16	1152.01	79.26	1161.52	79.17	1192.95	76.51	1212.88	74.82
1217.7	74.42	1239.31	73.21	1263.85	71.95	1265.85	71.96	1288.45	71.95
1306.74	71.94	1446.22	71.84	1486.6	71.82	1517.38	71.8	1554.33	71.86
1588.08	71.93	1700.47	73.17	1711.72	73.34	1761.27	75.3	1766.78	75.48
1768.31	75.68	1786.6	79.01	1794.15	84.11	1811.94	93.98	1817.4	96.95
1819.42	97.87	1826.77	100.04	1835.31	102.7				

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.02	385.42	.035	568.95	.05	1192.95	.035	1486.6	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
1239.31	1700.47	199.28	178.47	167.43	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 14295.85

INPUT
Description: Updated Manning's N Distribution
Station Elevation Data num= 83

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	114.43	9.24	113.91	14.57	113.39	23.2	111.82	25.07	111.38
39.73	104.24	46.74	99.88	54.3	97.23	60.26	95.57	70.78	92.65
96.37	88.99	118.4	87.41	132.59	85.93	152.52	85.29	171.21	85.2
182.49	84.43	192.33	83.73	199.7	83.4	260.19	79.39	288.49	78.81
327.06	78.42	334.41	78.38	360.28	78.49	521.98	79.07	548.04	79.04

767.17	78.75	779.9	78.72	879.98	78.5	882.5	78.5	886.03	78.49
890.19	78.4	1028.06	76.75	1031.78	76.64	1034.63	76.55	1039.64	76.43
1123.57	74.47	1153.45	74.06	1220.01	76.92	1230.33	76.95	1240.38	78.18
1254.54	78.73	1263.32	79.1	1275.86	78.62	1288.88	78.59	1307.3	78.72
1309.61	78.43	1323.37	76.46	1335.24	75.44	1353.82	73.39	1354.64	73.29
1379.68	73.45	1401.56	73.4	1440.37	72.72	1453.85	72.82	1469.98	72.75
1517.64	72.3	1618.82	71.34	1655.06	71	1738.96	70.82	1783.15	70.72
1793.46	70.81	1811.86	70.96	1833.82	71.13	1897.96	71.64	1906.52	71.68
1907.25	71.75	1980.28	71.46	1986.91	71.94	2015.83	72.5	2018.94	73.36
2022.54	75.23	2029.21	78.48	2038.38	84.77	2043.31	87.7	2063.23	103.36
2063.55	103.64	2063.7	103.71	2082.33	109.85	2083.02	110.14	2085.68	110.87
2096.86	114.2	2104.03	117.4	2107.83	117.84				

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.02	548.04	.035	779.9	.05	1517.64	.035	1833.82	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
1469.98	2015.83	93.39	88.97	84.07	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 14206.87

INPUT
Description: Updated Manning's N Distribution
Station Elevation Data num= 73

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	97.26	10.99	96.35	24.79	95.13	47.53	92.21	49.01	92.13
49.31	92.11	116.41	88.21	125.61	87.46	158.8	84.42	192.35	83.87
241.23	80.8	258.87	80.03	263.37	79.91	264.72	79.93	300.98	79.3
310.07	79.32	382.89	78.58	404.15	78.46	480.32	78.78	595.77	79.2
677.87	79.09	800.58	78.94	830.93	78.83	859.8	78.73	920.82	78.54
993.7	78.44	1057.97	77.67	1249.46	76.59	1255.01	76.46	1260.41	76.39
1265.26	76.29	1330.37	75.31	1336.95	75.49	1354.86	75.65	1357.26	75.91
1374.71	77.27	1394.77	78.32	1405.67	78.83	1437.21	78.7	1452.51	78.72
1478.81	76.15	1489.92	73.88	1514.82	73.71	1521.78	73.57	1545.64	73.1
1575.12	73.03	1661.87	72.2	1744.96	71.41	1865.23	70.26	1878.99	70.13
1904.13	70.42	1953.89	72.32	1968	72.12	1981.53	71.92	2008	71.67
2047.55	71.3	2058.03	72.18	2079.75	71.88	2087.59	70.84	2096.76	71.68
2104.16	72.17	2116.03	73.23	2116.47	73.29	2117.01	73.65	2121.09	78.53
2129.6	88.28	2132.86	90.96	2142.46	97.96	2147.9	101.53	2154.06	104.41
2160.17	107.51	2166.98	111.04	2186.67	115.76				

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.02	677.87	.035	830.93	.05	1661.87	.035	1968	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
1575.12	2116.03	100.64	98.26	92.36	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 14108.61

INPUT
Description: Updated Manning's N Distribution
Station Elevation Data num= 65

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	94.25	6.24	93.65	10.28	93.31	11.98	93.09	85.53	89.28
127.3	86.83	186.6	81.95	189.42	81.69	192.16	81.64	196.74	81.35
251.96	79.52	266.27	79.14	300.67	79.54	321.81	79.17	355.6	79.25
404.74	78.75	440.89	78.54	572.84	79.1	636.92	79.33	746.5	79.2
839.37	78.88	879.42	78.74	927.02	78.59	1044.69	78.41	1059.49	78.25
1109.86	77.81	1356.83	75.43	1395.3	75.27	1418.29	75.26	1467.57	78.22
1477.69	78.67	1502.54	77.91	1516.45	76.46	1572.62	73.24	1583	73.02
1604.35	72.6	1767.6	72.19	1769.49	72.18	1844.35	71.46	1932.03	70.62
1962.32	70.97	1980.79	71.18	2041.72	71.86	2083.83	72.33	2087.39	72.34
2088.14	72.34	2093.25	72.24	2171.96	70.83	2177.82	70.82	2190.76	71.52

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.02	839.37	.05	1769.49	.035	2041.72	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
1604.35	2198.69	93.55	99.45	106.38	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 14009.16

INPUT
Description:
Station Elevation Data num= 66

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	93.29	7.72	92.32	62.52	90.8	132.12	86.6	149.89	85.68
158.74	85.16	173.07	83.98	232.69	79.87	255.75	79.13	265.77	78.81
297.43	78.03	335.32	78.89	357.02	79.14	362.56	79.04	422.01	79.18
446.54	78.93	498.12	78.63	690.12	79.44	698.83	79.48	713.17	79.46

875.56	78.9	923.79	78.73	954.2	78.64	1030.24	78.52	1117.03	77.56
1426.08	74.84	1472.13	74.39	1479.08	74.36	1483.21	74.36	1491.98	74.89
1555.9	77.71	1577.05	78.68	1579.07	78.75	1648.33	74.68	1673.87	72.27
1688.14	72.2	1705.24	72.13	1868.98	71.68	1893.1	71.62	1959.36	71.43
1971.74	71.4	2001.53	71.12	2024.5	71.39	2080.05	71.47	2168.6	71.6
2177.07	71.61	2241.75	71.72	2266.51	71.73	2272.94	72.17	2279.11	72.89
2287.03	72.97	2291.6	73.07	2294.64	74.83	2295.96	75.73	2312.73	97.79
2315.5	101.44	2315.72	101.72	2316.74	102.67	2322.85	108.42	2324.94	109.94
2337.52	115.66	2342.69	117.62	2346.03	117.54	2360.58	118.46	2363.08	118.74
2366.38	118.7								

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.02	875.56	.05	1893.1	.035	2177.07	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
1673.87	2272.94	100.03	103.03	102.07	.1	.3

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 13906.13

INPUT
Description:
Station Elevation Data num= 76

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	92.54	5.96	92.16	14.1	91.4	14.65	91.37	15.11	91.34
15.49	91.31	23.03	91.22	82.25	89.97	107.38	88.4	162.65	85
180.35	84.65	209.77	82.61	267.6	79.07	281.9	78.01	312.97	75.46
325.14	75.19	352.53	74.24	379.51	75.7	384.55	75.3	393.62	75.99
402	76.8	430.21	78.73	441.39	78.8	459.71	79.08	463.86	79.09
472.95	79.11	475.87	79.08	541.11	78.7	612.9	79.01	714.38	79.21
747.77	79.17	825.98	79.17	927.71	78.82	951.83	78.74	970.64	78.68
1008.39	78.62	1123.02	77.31	1160.28	76.88	1220.67	76.32	1416.22	74.52
1594.78	72.94	1626.09	74.6	1652.51	74.95	1670.3	74.33	1697.19	73.46
1712.24	72.03	1757.27	71.8	1845.23	71.43	1994.38	71	2001.9	70.98
2060.05	70.77	2065.38	70.82	2156.22	71.71	2187.44	71.73	2216.87	71.76
2281.67	71.79	2294.86	71.52	2308.13	71.24	2318.98	71.96	2335.46	71.67
2350.65	70.56	2359.01	70.89	2369.1	72.27	2371.4	72.66	2378.54	78.57
2378.75	78.74	2379.61	79.32	2387.68	84.68	2398.09	88.77	2398.61	88.95
2399.29	89.07	2401.06	89.44	2401.09	89.45	2423.44	96.8	2432.18	99.53
2441.34	101.86								

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.02	463.86	.02	927.71	.05	1123.02	.035	1220.67	.05
2001.9	.035	2294.86	.05						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
1712.24	2369.1	92.63	93.13	94.58	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888		F	

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 13813.01

INPUT
Description:
Station Elevation Data num= 79

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	90.43	46.07	88.91	114.69	85.85	118.94	85.75	122.66	85.6
159.5	84.03	195.94	79.72	201.81	79.01	209.78	78.25	245.97	76.05
266.61	73.93	285.45	73.75	326.82	71.64	333.67	71.75	375.69	72.47
445.49	72.53	550.13	72.09	620.9	71	656.67	71.04	711.19	71.03
718.16	70.94	731.07	71.06	739.91	71.67	743.89	72.44	745.13	72.67
750.49	74.78	765.8	77.26	766.52	77.35	768.87	76.86	784.64	74.93
816.22	76.55	817.91	76.62	831.36	78.54	857.99	78.51	971.85	78.7
977.08	78.7	998.84	78.73	1016.4	78.19	1037.65	78.21	1052.24	78.04
1223.56	76.05	1338.8	74.98	1478.15	73.72	1505.61	73.47	1578.36	72.98
1686.09	72.24	1720.96	72.19	1830.79	72.17	1836.11	72.17	1868.32	72.11
1999.95	70.82	2002.4	70.81	2003.94	70.75	2104.48	70.37	2128.22	70.29
2146.2	70.26	2155.3	70.3	2189.66	70.59	2312.43	71.63	2325.19	71.74
2342.82	72.01	2389.64	70.97	2410.55	70.56	2411.18	70.55	2411.33	70.56
2411.6	70.54	2430.18	70.28	2436.8	70.19	2462.58	71.71	2462.84	71.79
2463.83	72.47	2464.05	72.19	2469.44	75.54	2482.82	87.24	2485.38	89.34
2487.8	91.33	2498.73	97.95	2500.37	98.5	2505.34	99.05		

Manning's n Values num= 8

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	977.08	.05	1052.24	.035	1478.15	.02	1578.36	.05
2104.48	.035	2430.18	.05	2505.34	.07				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
1868.32	2464.05	96.66	91.12	77.43	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888		F	

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 13721.89

INPUT
Description:
Station Elevation Data num= 90

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	90.28	24.23	89.47	70.68	88.17	86.02	86.92	114.97	85.99
139.93	84.78	145.11	84.27	148.3	83.92	183.76	78.12	202.89	74.51
214.49	72.52	228.47	70.92	252.92	70.57	297.87	71.4	337.91	72.06

384.48	72.82	391.81	72.76	409.01	72.93	569.03	72.42	633.84	72.16
649.31	71.94	656.83	71.92	704.02	71.52	707.56	71.5	714.34	73.04
722.66	74.99	724.91	75.44	727.08	76.17	734.66	78.44	736.91	78.12
748.66	75.71	759.32	72.77	762.57	72.39	788.31	71.03	791.65	70.85
793.61	70.71	794.7	70.74	814.87	70.89	868.87	71.37	872.51	71.28
877.29	71.39	911.66	72.31	913.77	72.68	930.02	73.56	931.36	73.5
940.33	73.62	944.5	73.81	973.65	75.4	986.82	75.23	1023.97	74.38
1052.35	74.83	1192.68	74.83	1201.55	75	1234.43	75.25	1247.95	75.21
1644.56	72.51	1670.3	72.34	1764.51	72.2	1773.04	72.2	1888.95	72.18
1895.47	72.01	1915.14	71.61	1959.71	70.65	1974.64	71.04	1979.44	70.33
2093.85	70.04	2132.78	69.97	2227.8	69.82	2230.8	69.82	2258.7	69.96
2358.2	70.45	2379.47	70.65	2385.16	70.71	2394.71	70.87	2405.93	71.07
2433.02	71.17	2449.26	71.56	2457.25	71.74	2466.83	71.66	2494.92	71.44
2512.08	71.93	2514.62	72.56	2523.68	79.04	2538.85	92.04	2545.46	98.14
2554.03	105.93	2559.41	110.87	2564.42	112.19	2564.78	112.23	2569.62	111.96

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	1644.56	.02	1773.04	.05	2132.78	.035	2466.83	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
1915.14	2449.26	104.34	105.73	83.35	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 13616.16

INPUT
Description:
Station Elevation Data num= 95

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	95.01	15.77	94.44	34.73	94.26	63.86	92.57	92.64	90.27
100.55	89.27	153.81	82.69	179.27	78.86	190.9	75.98	195.5	75.49
211.74	72.15	233.92	70.7	273.77	70.47	322.28	71.21	358.12	71.82
379.11	71.93	408.3	71.7	512.29	72.71	644.61	72.29	691.05	72.28
701.3	72.3	718.18	71.43	735.63	71.52	739.28	71.58	744.9	71.94
754.05	76.6	758.51	78.58	759.54	78.86	761.42	78.81	773.81	78.48
780.8	76.21	785.34	74.89	796.4	71.76	799.94	71.43	809.31	71.73
836.65	71.9	892.27	72.77	930.42	71.77	951.08	71.17	960.83	72.14
962.75	72.77	965.32	73.68	974.83	77.41	983.99	78.89	985.37	79.01
987.44	78.45	1007.92	72.09	1018.18	71.38	1024.04	70.97	1031.04	71.25
1064.23	72.32	1093.85	72.87	1325.6	74.67	1415.22	74.44	1710.54	72.44
1802.82	72.3	1856.63	72.22	1867.61	72.21	1911.84	72.2	1932.71	71.68
1938.19	71.56	2035.15	69.85	2233.34	69.59	2308.39	69.49	2349.11	69.38
2379.02	69.33	2402.86	69.42	2406.17	69.43	2410.53	69.46	2484.49	69.46
2507.8	69.32	2508.7	69.32	2511.82	69.3	2555.84	68.35	2573.55	67.23
2583.14	66.29	2586.46	65.96	2590.24	65.67	2601.22	66.68	2611.07	67.65
2616.44	68.56	2619.87	69.14	2626.5	69.81	2632.67	71.05	2636.99	71.41
2642.67	75.18	2647.19	77.16	2651.48	79.87	2657.93	82.83	2670.46	89.09
2672.78	90.02	2675.05	90.48	2682.44	91.86	2688.41	92.83	2690.77	92.84

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	1802.82	.02	1856.63	.05	2233.34	.035	2583.14	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
2035.15	2626.5	106.9	107.52	109.59	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 13508.64

INPUT
Description:
Station Elevation Data num= 94

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	95.93	6.15	95.74	39.53	94.35	48.72	93.72	57.1	93.23
61.06	92.91	102.02	87.74	144.07	82.09	151.59	80.64	183.13	72.99
191.78	72.16	219.64	71.5	309.54	71.01	345.07	71.21	367.65	71.29
818.25	71.47	880.41	73.38	887.53	73.6	888.24	73.61	889.6	73.63
892.76	73.54	965.48	72.45	965.75	72.53	965.99	72.51	968.67	72.49
995.54	72.67	1003.56	72.1	1013.47	72.22	1042.52	72.17	1074.98	72.23
1109.24	72.28	1361.45	74.15	1526.67	73.69	1601.26	73.18	1695.99	72.55
1840.1	72.33	1855.93	72.31	1895.86	71.9	1902.27	71.84	1949.95	71.15
2050.43	69.31	2211.81	69.03	2286.18	68.84	2378.95	68.61	2470.11	67.92
2476.62	67.9	2495.28	67.89	2521.95	67.89	2565.39	67.57	2592	67.38
2595.65	67.28	2633.78	66.25	2635.65	66.21	2648.62	65.95	2690.12	65.11
2695.5	64.82	2698.98	64.98	2703.66	65.79	2704.06	65.89	2707.19	67.92
2709.83	68.61	2714.56	69.27	2721.53	77.11	2725.47	80.07	2727.32	81.44
2743.62	92.08	2745.38	93.66	2753.46	95.9	2753.91	96.02	2756.1	95.99
2762.06	96.4	2768.15	96.75	2772.69	97.26	2788.03	98.13		

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	1840.1	.02	1895.86	.05	2286.18	.035	2648.62	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
2050.43	2714.56	89.44	101.07	116.92	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent

888 F

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 13407.57

INPUT
Description:
Station Elevation Data num= 102

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	93.74	32.24	92.16	48.91	91.54	96.09	91.22	132.82	88.08
135.54	87.82	143	86.85	199.43	80.26	217.47	77.85	235.12	77.02
266.7	74.58	307.28	73.54	354.35	71.71	426.96	71.72	442.42	71.73
541.67	71.67	661.47	72.39	675.58	71.63	720.26	71.82	776.8	71.61
792.98	71.38	821.25	70.68	833.25	71.91	836.38	72.21	841.38	74.43
847.53	77.21	850.49	78.05	854.1	78.73	857.18	78.53	858.14	78.17
862.77	76.45	874.36	72.62	878.13	71.98	898.24	72.21	914.78	71.96
944.91	72.55	968.16	72.78	1002.2	71.62	1010.49	71.55	1016.34	71.44
1030.06	71.98	1031.16	72.26	1038.7	76.22	1042.51	77.97	1044.65	78.33
1053.74	78.17	1057.48	77.42	1062.96	74.1	1063.58	74.06	1068.61	71.92
1073.4	71.83	1080.35	71.72	1093.47	71.7	1207.79	71.94	1316.02	72.13
1500.94	73.6	1596.95	73.38	1721.05	73.11	1791.98	72.64	1859.49	72.53
1982.05	71.27	2012.08	70.96	2018.47	70.89	2123.39	69.35	2151.1	69.03
2167.88	68.62	2176.54	68.64	2183.51	68.72	2402.48	68.13	2462.91	67.97
2598.65	66.92	2654.31	66.62	2660.1	66.58	2664.53	66.6	2669.76	66.57
2774.87	65.92	2805.76	65.72	2810.59	65.69	2822.92	65.19	2834.38	64.73
2847.11	64.24	2852.95	64.63	2857.46	64.93	2861.13	65.32	2863.19	66.92
2865.03	67.51	2867.43	69	2868.52	69.86	2876.62	75	2892.51	84.04
2893.72	84.35	2895.52	84.79	2903.25	85.49	2909.12	86.18	2920.53	86.33
2925.33	86.71	2930.06	87.59	2978.88	90.84	2991.07	91.7	2993.13	92.04
2995.16	92.28	3003.11	93.01						

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	1982.05	.02	2012.08	.05	2402.48	.035	2822.92	.035
2852.95	.05								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
2151.1	2867.43	95.24	92.14	91.38	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent

888 F

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 13315.43

INPUT
Description:
Station Elevation Data num= 94

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	92.37	48.24	90.74	104.79	86.53	134.15	85.14	150.09	84.65
168.88	82.74	205.62	78.17	255.87	76.49	292.04	74.79	340.93	73.77
386.48	71.99	419.8	71.99	603.33	72	638.41	72.21	691.28	69.13
750.71	69.17	791.18	69.15	827.43	70.12	836.9	70.4	846.96	71.82
850.53	72.27	863.22	78.21	864.14	78.71	872.17	78.93	872.59	78.94
872.72	78.9	891.98	72.54	901.98	69.38	912.59	68.66	921	67.6
981.83	70.09	984.79	70.26	985.32	70.26	985.84	70.28	987.07	70.39
1056.81	71.86	1066.85	71.97	1110.41	71.71	1110.78	71.71	1169.07	71.38
1284.66	71.63	1471.9	71.96	1587.84	72.9	1786.7	72.46	1825.86	72.59
1894.49	71.61	2055.73	71.3	2055.96	71.3	2070.39	71.29	2072.43	71.34
2075.04	71.43	2086.88	71.49	2095.85	71.55	2107.2	71.35	2136.89	68.9
2182.4	67.51	2226.09	66.5	2303.2	66.75	2361.98	67.47	2484.16	67.2
2491.8	67.15	2570.4	66.58	2734.58	65.37	2759.22	65.24	2784.58	65.34
2887.37	65.73	2932.42	65.9	2934.69	65.89	2935.37	65.86	2936.1	65.86
2937.24	65.83	2940.25	65.8	2946.58	65.76	2978.7	65.35	2982.37	65.1
2984.8	65.77	2985.75	66.06	2985.88	66.6	2986.32	67.22	2990.16	69.62
2991.47	70.68	2993.36	72.26	2998.53	73.99	2999.61	74.31	3002.35	75.03
3036.03	79.84	3049.82	81.54	3061.08	82.33	3067.73	83.11	3078.3	85.15
3094.99	94.72	3103.97	99.78	3110.4	102.53	3114.75	104.55		

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	2055.73	.02	2086.88	.05	2491.8	.035	2990.16	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
2182.4	2986.32	395.33	410.1	440.35	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent

888 F

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 12905.33

INPUT
Description:
Station Elevation Data num= 110

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	93.53	8.94	92.81	12.86	92.58	21.37	92.42	75	88.52
119.37	85.3	151.36	82.61	159.86	82.35	181.68	80.01	207.47	78.46
280.15	75.79	315.78	74.33	410.87	72.29	417.03	72.21	435.69	72.41
608.09	72.57	637.12	72.56	651.24	69.94	659.02	69.32	662.84	68.46
663.99	68.45	683.25	66.39	721.77	66.53	742.22	66.68	763.86	66.92
782.63	67.15	836.9	69.71	847.94	70.06	849.5	70.22	853.01	70.49
872.91	72.29	883.79	74.72	885.7	75.28	887.66	75.3	893.09	75.49
898.77	74.5	905.28	73.17	907.69	72.26	911.2	69.82	915.49	67.44
923.04	65.18	955.74	64.57	979.48	63.54	1012.57	63.44	1030.68	63.99
1044.9	64.94	1053.6	64.86	1056.58	66.16	1060.81	67.68	1064.12	69.1
1066.55	70.49	1080.18	72.59	1090.29	72.57	1115.14	72.39	1273.23	71.38
1303.49	71.21	1356.83	71.31	1654.83	71.73	1677.09	71.89	1708.19	71.8

1796.13	72.07	1876.91	71.75	2054.9	68.24	2073.05	67.89	2075.92	67.97
2108.71	68.74	2126.96	69.16	2168.26	71.06	2174.61	71.41	2188.21	72.17
2193.39	72.25	2200.37	71.13	2231.23	66.53	2249.65	65.34	2258.16	64.43
2273.46	64.7	2331.83	65.73	2333.6	65.73	2336.35	65.71	2337.46	65.72
2339.36	65.72	2356.36	65.72	2471.15	65.74	2716.21	65.8	2782.85	65.21
2915.49	65.84	2927.34	65.85	3009.56	65.93	3011.51	65.9	3038.99	65.39
3056.6	65.4	3099.89	65.82	3126.83	65.67	3127.2	65.67	3144.61	63.94
3169.67	62.49	3179.14	62.49	3215.34	62.47	3228.33	62.47	3242.92	63.84
3253.1	64.6	3255.64	65.06	3259.54	66.88	3266.26	72.71	3274.58	80.86
3276.1	82.12	3279.28	84.73	3283.12	85.74	3293.27	87.83	3294.87	88.3

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	2108.71	.02	2174.61	.05	2273.46	.035	2339.36	.05
2471.15	.035	3294.87	.05						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
2231.23	3259.54	1161.81	1209.87	1227.39	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 11695.46

INPUT
Description:
Station Elevation Data num= 133

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	95.11	2.21	94.93	11.41	94.03	52.62	92.7	58.81	91.73
65.23	91.41	72.89	90.05	86.67	86.23	88.14	86.09	97.43	84.97
121.79	83.73	160.94	82.22	328.18	73.68	350.27	72.95	408.73	72.21
415.23	72.17	436.65	72.47	525.46	73.46	562.85	72.83	599.83	72.15
614.25	72.57	622.39	72.84	629.02	73.05	638.53	72.27	640.65	71.88
647.32	70.35	660.58	66.72	682.58	66.02	699.46	64.71	709.54	64.54
727.57	64.5	806.68	63.44	845.64	63.6	849.21	63.83	859.29	65.14
862.56	65.28	865.03	65.87	872.11	69.92	875.55	71.91	876.48	72.06
887.24	73.47	895.63	73.53	905.91	72.8	907.95	72.42	920.58	66.82
921.58	66.36	924.05	66.02	931.15	64.9	937.02	64.55	998.42	64.3
1047.95	63.93	1065.11	64.38	1070.37	65.21	1071.26	65.35	1082.68	70.47
1085.37	71.75	1089.35	72.42	1090.51	72.55	1093.23	72.55	1133.54	72.47
1157.77	72.53	1232.93	70.28	1443.76	68.69	1454.46	68.64	1467.99	68.67
1695.89	69.45	1851.89	68.23	1915.31	67.36	2042.89	66.27	2091.23	65.66
2094.91	65.66	2129.83	65.66	2169.05	65.67	2173.4	65.82	2180.47	65.12
2190.07	64.96	2237.15	64.21	2255.6	64.35	2266.67	63.85	2274.22	63.53
2374.13	59.22	2374.24	59.22	2393.35	59.26	2444.07	59.27	2478.98	59.28
2566.64	59.3	2723.39	58.77	2760.87	58.64	2852.67	60.52	2864.18	60.43
2885	60.09	2902.24	60.48	2920.42	60.72	2925.76	61.47	2937.98	63.54
2946.64	64.77	2950.35	65.79	2957.34	65.48	2958.05	65.58	2961.9	63.54
2966.39	60.93	2967.8	60.23	2968.57	59.85	2973.41	58.75	2976.47	58.74
3168.63	59.02	3188.71	58.95	3203.49	58.98	3217.96	58.98	3229.93	58.98
3280.64	57.81	3282.03	57.71	3300.8	56.41	3331.69	54.08	3348.55	53.64
3360.83	53.78	3380.37	53.82	3388.07	53.92	3395.96	54.52	3421.59	56.41
3421.69	56.43	3435.66	58.75	3436.13	58.82	3445.06	60.33	3457.28	64.57
3460.12	65.78	3467.61	70.09	3468.42	70.58	3468.89	71.01	3469.2	71.21
3481.04	81.02	3487.44	84.61	3491.52	86.82				

Manning's n Values num= 9

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	2094.91	.02	2129.83	.05	2374.24	.035	2444.07	.05
2478.98	.035	2723.39	.05	2967.8	.035	3421.69	.05		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
2967.8	3445.06	914.27	997.45	1009.86	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 10698.02

INPUT
Description:

482.68	64.53	625.32	64.17	655.12	64.66	698.48	64.11	705.86	64.12
898.81	64.73	930.71	64.93	1098.97	65.16	1508.72	66.48	1674.25	65.58
1923.44	62.81	1927.88	62.76	2006.27	61.84	2163.88	60.05	2189.39	59.76
2232.57	59.75	2262.84	59.75	2370.22	59.31	2439.73	59.57	2452.6	58.9
2458.58	59.47	2468.44	59.57	2500.08	63.48	2501.18	63.58	2501.59	63.67
2502.18	63.75	2539.41	65.26	2539.8	65.28	2571.06	65.42	2608.71	65.43
2617.45	65.43	2620.22	65.63	2634.3	66.75	2640.32	66.11	2644.74	65.55
2646.51	65.33	2652.01	62.56	2658.27	59.11	2663.4	58.4	2704.38	57.28
2706.45	57.26	2713.43	57.34	2713.51	57.34	2751.57	56.15	2761.55	57.49
2820.29	56.76	2821.16	56.77	2821.36	56.76	2821.46	56.76	2822.06	56.73
2950.91	53.64	2988.21	52.69	2995.95	52.5	2997.88	52.45	3053.94	47.32
3082.65	46.23	3091.94	45.84	3115.03	45.13	3125.6	45.19	3131.48	45.22
3152.86	45.6	3185	48.25	3187.42	48.39	3191.44	48.63	3194.29	48.78
3194.5	48.79	3215.72	51.07	3229.66	52.46	3233.87	52.65	3243.96	52.44
3258.72	52.05	3266.03	52.52	3268.63	53.47	3273.17	55.75	3275.4	56.89
3283.07	60.66	3287.07	63.28	3289.07	64.63	3293.8	70.74	3295.07	72.23
3300.16	76.93	3301.52	77.95	3317.99	86.45	3328.07	92.21	3332.97	94.94
3350.99	102.48	3355.08	104.54	3357.74	104.9	3364.48	105.61	3373.08	105.69
3384.12	108.62	3401.84	110.76	3413.24	111.48	3434.72	114.28		

Manning's n Values num= 8

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	1923.44	.02	2163.88	.035	2232.57	.05	2644.74	.035
2713.43	.05	2988.21	.035	3194.29	.05				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
2820.29	3275.4	601.47	594.45	599.46	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 10103.57

INPUT
Description:
Station Elevation Data num= 82

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	67.34	130.33	65.81	195.26	65.09	221.36	64.83	248.87	64.13
336.13	62.4	510.97	58.61	523.87	59.15	555.28	59.35	902.03	63.9
947.08	64.18	1035.49	64.29	1427.38	62.94	1509.66	61.96	1635.36	61.06
1812.24	59.81	1855.93	59.55	1914.45	59.19	2093.27	58.16	2121.07	58.27
2263.61	58.85	2275.77	58.53	2319.92	57.15	2324.87	56.99	2334.86	57.08
2346.69	57.59	2380.02	58.42	2386.2	58.51	2393.6	58.6	2417.19	58.65
2452.49	58.56	2457.43	58.54	2471.42	58.41	2488.91	57.27	2527.02	56.51
2534.65	56.49	2538.38	56.56	2575.98	54.47	2587.15	53.99	2592.03	53.76
2597.8	53.19	2618.19	52.63	2620.91	52.55	2632.34	52.33	2654.67	51.29
2668.03	51.68	2694.8	52.62	2754.59	52.54	2808.44	52.52	2838.38	52.2
2848.01	52.42	2875.4	52.48	2919	51.9	2960	51.14	2966.18	51.23
3000.02	51.69	3010.18	51.92	3012.58	51.92	3018.26	51.9	3026.7	52.62
3027.81	52.58	3029.55	53.28	3031.73	54.53	3033.14	56.4	3035.24	58.56
3038.06	61.59	3040.77	64.63	3052.2	70.04	3054.13	71	3058.65	72.16
3062.92	73.23	3081.15	78.33	3115.32	80.62	3140.42	82.29	3142.37	82.42
3143.83	82.52	3145.71	82.6	3200.24	85.72	3277.48	89.45	3281.55	89.6
3297.95	90.61	3314.17	91.66						

Manning's n Values num= 8

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	1855.93	.02	2121.07	.05	2319.92	.02	2386.2	.05
2452.49	.02	2618.19	.05	3115.32	.035				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
2597.8	3029.55	615.7	627.48	572.22	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 9476.099

INPUT
Description:
Station Elevation Data num= 62

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	68.47	61.01	65.67	61.94	65.64	62.56	65.62	191.76	65.28
280.56	64.56	503.79	60.62	569.49	59.38	581.88	59.13	596.07	59.13
609.58	59.19	1350.6	59.4	1492.58	59.09	1811.19	58.99	1915.94	58.67
2001.84	57.84	2179.62	57.61	2206.51	57.32	2301.51	55.49	2371.26	54.15
2453.33	52.57	2458	52.51	2469.05	52.45	2472.74	52.46	2483.67	52.57
2512.72	52.75	2715.36	53.39	2737.41	52.13	2759.94	50.84	2763.9	50.85
2793.27	48.06	2806.09	46.73	2811.55	46.28	2814.12	46.16	2816.12	46.07
2900.54	45.96	2946.77	45.95	2996.02	45.94	3020.52	45.94	3029.82	46.99
3036.84	48.06	3056.8	50.29	3069.71	50.99	3080.21	52.98	3081.9	53.29
3085.7	55.29	3104.93	65.39	3108.17	66.23	3123.12	71.35	3127.23	71.79
3140.84	73.68	3157.57	74.58	3173.3	75.2	3191.88	75.93	3263.73	79.05
3286.95	79.33	3327.83	80.76	3341.46	80.89	3355.65	81.15	3377.36	83.57
3433.65	86.54	3487.14	86.18						

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	2301.51	.02	2371.26	.05	3173.3	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
2793.27	3036.84	632.1	587.55	573.86	.1	.3

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 8888.551

INPUT
Description:
Station Elevation Data num= 64

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	80.35	.13	80.36	13.56	79.85	91.05	76.49	277.46	69.9
359.03	66.43	407.56	65.16	534.91	62.09	578.82	60.58	608.84	60.26
728.64	58.62	1086.65	56.94	1387.14	56.2	1640.07	55.84	1920.87	54.3
1950.03	53.95	1964.74	53.78	1996.69	53.68	2016.78	53.47	2121.09	52.31
2122.38	52.3	2169.63	52.39	2257.06	52.5	2287.36	52.52	2319.48	50.53
2333.25	48.89	2357.53	46.81	2410.42	45.84	2442.82	45.86	2463.2	45.86
2490.3	45.87	2581.97	45.73	2582.94	45.73	2682.65	45.56	2736.89	46
2740.31	46.02	2852.96	46.94	2879.31	47.47	2985.08	50.07	2992.5	50.31
3017.87	51.83	3031.05	52.58	3036.67	52.1	3038.71	51.96	3061.21	50.41
3076.83	50.19	3168.61	52.51	3177.53	52.88	3186.39	54.03	3208.61	57.19
3218.04	59.25	3233.68	64.84	3235.03	65.19	3272.77	74.95	3277.04	76.17
3283.12	78.11	3290.21	79.03	3293.84	79.59	3297.84	80.31	3318.47	82.17
3328.94	83.11	3385.03	85.12	3419.86	85.85	3421.11	85.92		

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	1950.03	.02	2121.09	.05	2463.2	.035	2736.89	.05

3318.47 .035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
2357.53	2852.96	583.69	598.13	621.47	.1	.3

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 8290.415

INPUT
Description:
Station Elevation Data num= 82

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	79.85	16.23	79.94	50.96	78.61	58.27	78.26	267.42	69.91
432.85	63.96	524.53	61.37	650.86	59.02	770.15	57.4	819.9	56.94
1162.11	54.1	1449.92	54.41	1662.02	54.01	1800.97	55.21	1858.71	55.33
1870.69	54.31	1883.34	53.23	1893.09	53	1896.58	52.37	1906	48.35
1909.55	47.31	1919.76	45.35	1922.53	45.03	1936.15	45.19	1964.88	45.32
2050.56	45.81	2087.83	46.02	2105.8	45.77	2142.88	45.61	2152.49	45.66
2190.09	45.04	2194.46	45.12	2227.79	45.74	2228.65	45.74	2230.72	45.77
2302.39	45.81	2500.84	45.93	2569.75	44.11	2626.16	42.43	2626.24	42.43
2658.69	42.32	2671.47	42.29	2672.93	42.32	2740.82	44	2770.06	44.76
2792.68	45.35	2809.63	45.63	2811.18	45.65	2816.82	45.75	2853.21	45.97
2905.56	46.07	2998.53	47.05	3063.33	47.23	3101.47	47.19	3172.75	50.53
3189.52	50.97	3218.09	51.57	3218.82	51.65	3219.13	51.72	3220.85	52.11
3225.81	52.88	3235.37	56.7	3238.75	58.13	3249.65	60.74	3261.17	64.7
3261.77	64.78	3266.83	65.64	3270.86	66.88	3288.17	72.13	3295.58	72.19
3300.09	73.2	3311.97	73.85	3319.71	74.16	3332.25	75.37	3345.66	76.26
3377.92	78.4	3402.5	79.29	3452.98	80.5	3473.27	81.31	3480.09	81.5
3487.84	81.88	3597.48	86.98						

Manning's n Values num= 8

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	1870.69	.02	2050.56	.05	2194.46	.035	2302.39	.05
2626.16	.035	2770.06	.05	3345.66	.035				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
2087.83	2905.56	624.1	622.8	620.76	.1	.3

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 7667.615

INPUT
Description:
Station Elevation Data num= 102

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	73.94	29.83	73.49	70.61	72.31	76.47	72.08	177.17	68.44
257.15	64.74	375.32	61.78	508.97	59.22	625.85	55.8	727.73	54.12
829	52.98	931.72	52.51	1078.07	51.83	1324.06	51.93	1416.77	51.91
1777.42	52.44	1830.59	53.41	1874.61	52.29	1919.49	52.33	1985.09	51.85
2021.56	50.31	2042.49	49.5	2051.59	49.2	2077.77	48.32	2101.43	48.1
2118.34	46.93	2122.34	46.71	2127.32	46.43	2127.71	46.37	2129.16	45.91
2150.56	39.04	2153.31	38.71	2167.01	38.37	2189.83	37.72	2208.97	37.41
2232.38	37.85	2285.17	38.63	2299.2	38.82	2337.92	39.33	2434.8	39.66
2626.47	39.42	2642.31	39.41	2652.92	39.39	2723.67	39.31	2749.1	39.28
2760.55	39.28	2773.19	39.57	2789.59	39.96	2794.72	40.32	2809.9	44.41
2812.64	44.92	2815.64	45.74	2817.86	46.01	2818.48	45.97	2841.34	39.28
2841.81	39.07	2842.23	38.98	2872.15	38.81	2907.81	38.44	2935.48	38.12
2951.52	38.44	2974.57	37.97	2988.73	38.57	3005.42	38.94	3033.83	38.79
3059.77	39.07	3083.4	40.38	3099.38	39.38	3122.38	39.82	3124.41	39.74
3125.32	39.76	3127.3	39.8	3131.3	39.8	3170.36	39.21	3180.14	38.83
3204.98	39.18	3225.45	39.12	3226.2	39.21	3228.44	39.42	3265.11	44.66
3270.22	45.7	3281.89	47.55	3284.32	48.63	3295.56	51.82	3299.55	52.71
3306.94	56.42	3307.44	56.54	3307.56	56.57	3308.65	56.97	3328.65	63.22
3335.81	64.6	3342.12	65.89	3347.61	66.81	3360.37	69.05	3380.5	72.57
3388.42	73.07	3403.38	73.92	3412.24	74.76	3454.54	77.16	3487.97	77.95
3529.46	79.67	3537.23	80.04						

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	2051.59	.02	2122.34	.035	2299.2	.05	2652.92	.035
2723.67	.05	3360.37	.02						

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan

INPUT
Description:
Station Elevation Data num= 67

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	72.96	117.54	71.06	288.52	63.65	337.8	62.28	450	59.02
535.24	56.66	661.84	52.95	791.61	52.24	962.44	51.42	1250.11	49.88
1607.77	48.32	1833.42	47.4	2081.58	48.29	2321.68	48.59	2414.49	49.01
2443.12	48.75	2452.3	48.51	2452.36	48.51	2463.84	48.22	2494.04	45.94
2494.69	45.89	2495.34	45.7	2512.82	40.39	2514.09	40.26	2527.76	38.82
2531.78	38.39	2561.5	37.77	2621.18	35.85	2654.9	34.51	2728	33.82
2788.9	34.67	2810.72	34.58	2828.79	34.5	2835.31	34.61	2852.52	35.21
2867.31	35.64	2898.33	36.53	2957.86	37.77	2959.46	37.8	3015.31	38.57
3019.63	38.63	3085.13	39.31	3195.17	39.47	3453.83	37.66	3485.15	38.02
3525.61	36.97	3530.18	36.84	3544.46	37.01	3552.2	37.52	3573.96	38.12
3581.72	39.88	3586.91	43.03	3590.77	44.9	3597.22	46.35	3607.98	47.7
3621.87	48.65	3625.51	48.9	3649.4	51.09	3662.71	53.03	3670.82	55.79
3679.78	59.08	3692.34	60.59	3722.18	64.8	3745.5	65.93	3759.57	66.65
3763.49	66.71	3772.78	67.07						

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	2452.3	.05	2527.76	.035	2867.31	.05	3621.87	.02

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
2531.78	3573.96	569.88	563.21	532.8	.1	.3

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 6553.777

INPUT
Description:
Station Elevation Data num= 67

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	74.74	2.14	74.75	71.35	71.83	245.13	68.96	477.05	58.84
674.44	52.54	788.4	50.77	924.42	48.76	950.91	48.27	1364.63	47.14
1459.47	47.19	1536.34	46.96	1986.82	45.12	2284.68	45.81	2580.32	45.84
2705.18	45.5	2780.9	45.57	2898.39	45.74	2933.39	45.79	2954.52	46.14
2965.63	46.2	2983.47	46.27	3044.72	46.59	3083.22	46.8	3088.15	46.11
3088.84	46.06	3095.34	45.61	3097.99	44.61	3109.84	39.3	3123.82	38.62
3174.27	35.12	3228.69	34.06	3262.1	33.43	3265.35	33.36	3285.04	32.93
3375.66	32.93	3397.73	32.94	3421.43	32.94	3525.69	32.87	3562.15	32.84
3618.36	32.62	3702.27	32.28	3702.89	32.28	3754.12	32.22	3790.01	32.21
3843.61	33.65	3893.13	35.16	3936.47	36.23	3958.66	37.28	3976.05	38.1
3981.88	39.71	3984.69	40.21	3988.93	41.96	3996.9	46.49	4015.5	47.51
4037.36	48.71	4046.22	49.32	4054.55	49.56	4064.65	49.89	4126.52	51.65
4134.54	51.66	4206.32	52.02	4251.39	52.86	4267.36	54.31	4312.4	56.73
4372.53	59.52	4412.63	61.01						

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	3044.72	.02	3088.84	.035	3265.35	.05	3397.73	.035
3618.36	.05	4015.5	.02						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
3174.27	3893.13	469.22	407.1	351.14	.1	.3

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 6146.684

INPUT
Description: Updated Manning's N Distribution
Station Elevation Data num= 103

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	67.37	73.94	66.21	281.44	57.36	460.67	51.79	738.33	47.62
855.23	45.95	861.94	45.96	868.72	46.34	870.48	46.57	874.41	47.48
877.58	47.8	1199.64	43.91	1346.56	44.45	1370.86	44.24	1861.14	42.72
2188.85	43.37	2366.94	44.17	2690.87	44.97	2791.78	45.17	3014.8	44
3126.98	43.15	3162.65	43.05	3198.36	44.59	3219.78	45.27	3234.4	45.58
3264.38	46.22	3293.7	46.07	3311.26	45.57	3325.14	44.79	3336.98	45.06
3352.36	44.4	3373.25	41.02	3374.86	40.77	3376.23	40.49	3378.86	40.35
3381.42	40.08	3382.13	40	3389.66	39.28	3392.69	39.13	3459.2	37.82
3511.56	38.17	3523.07	37.98	3543.15	37.83	3556.05	37.64	3582.52	38.33
3598.62	37.92	3619.82	37.63	3647.76	34.53	3675.46	34.13	3697.23	33.81
3737.97	33.37	3763.67	32.92	3774.27	32.73	3822.48	32.67	3935.19	32.53
3971.58	32.48	4054.03	32.69	4068.32	32.4	4093.99	31.89	4104.15	31.6
4116.51	32.69	4120.1	33.01	4123.97	33.1	4129.79	35.14	4132.13	35.87
4138.29	39.7	4144.43	43.03	4146.87	45.14	4148.3	45.76	4151.89	46.4
4166.22	45.73	4180.9	45.16	4194.78	45.7	4208.68	46.3	4216.59	46.99
4260.17	46.68	4294.45	46.79	4329.78	48.38	4379.38	48.63	4549.26	47.05
4587.08	47.84	4621.53	48.99	4653.62	51.46	4687.91	52.76	4704.58	52.97
4713.51	53.08	4745.95	53.64	4767.84	55.71	4780.44	57.46	4785.49	58.45
4789.67	59.19	4799.79	63.62	4801.91	64.59	4806.18	65.99	4822.81	71.26
4842.1	78.88	4843.16	79.37	4853.9	85.67	4862.42	89.5	4873.75	93.65
4887.25	97.07	4894.23	98.15	4900.61	98.79				

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	3234.4	.02	3381.42	.035	3675.46	.05	3822.48	.035
4116.51	.02	4704.58	.05						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
3647.76	4129.79	280.12	247.83	242.98	.1	.3

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 5898.852

INPUT
Description:
Station Elevation Data num= 74

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	54.42	396.05	39.79	449.33	39.53	867.45	38.96	942.47	39.42
989.29	39.63	1658.74	42.41	1811.89	43.06	1875.95	43.27	1936.43	43.22
2199.24	42.45	2223.83	42.43	2260.33	42.11	2350.7	41.33	2368.57	40.51
2411.02	39.43	2416.88	39.28	2440.34	38.62	2459.04	37.97	2483.51	36.28
2552.4	35.84	2599.38	35.77	2601.8	35.77	2623.6	36.48	2693.25	38.42
2708.23	39.35	2721.65	39.19	2770.51	39.18	2797.98	37.64	2825.42	35.79
2833.18	35.27	2850.05	34	2860.92	33.08	2878.16	32.82	2881.96	32.76
2902.98	32.59	2999.9	33.11	3010.01	33.14	3053.25	33.3	3054.55	33.36
3060.75	33.64	3081.03	33.05	3111.07	32.4	3111.88	32.64	3115.25	33.33
3115.74	34	3117.54	35.18	3121.34	38.21	3123.17	38.79	3124.81	39.53
3149.5	42.03	3167.05	44.51	3193.07	45.12	3215.98	46.56	3231.87	46.9
3239.81	46.81	3275.55	46.42	3380.58	45.16	3414.31	45.06	3455.06	45.29
3491.3	46.01	3541.73	46.23	3605.7	48.37	3616.53	48.72	3618.08	48.77
3623.65	49.17	3648.73	51.18	3665.08	52.51	3683.68	57.4	3689.53	58.85
3701.64	60.59	3718.68	62.87	3744.57	66.56	3767.22	69.82		

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val

```
       0     .035 2260.33      .02 2411.02     .035 2599.38      .05 2825.42     .035
 3239.81      .02 3616.53      .05

Bank Sta: Left   Right    Lengths: Left Channel   Right      Coeff Contr.   Expan.
       2850.05 3115.74            604.78  585.72  573.19              .1        .3
Ineffective Flow     num=        1
   Sta L   Sta R    Elev  Permanent
888        F

CROSS SECTION          RIVER: San Mateo Creek
REACH: Lower              RS: 5313.135

INPUT
Description:
Station Elevation Data    num=      65
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0    54.8   235.9   35.44  377.06   35.34  407.89   35.07  474.34   32.93
  484.38   32.81  517.48   34.18  558.19   36.22  572.64   36.28 1081.71   38.43
 1730.88   40.34 1838.88   41.44 1922.89   40.19 1944.98   39.87 1946.14   39.81
 1947.51   39.76 2071.35   36.04 2166.08   33.77 2192.86   32.86 2207.76    32.8
 2378.28   32.12 2384.91   32.11 2528.49   32.05 2733.34   32.68 2768.74   32.82
 2797.22    32.8 2907.86   31.84 2955.55   31.32 2982.22   31.03 2991.16   31.06
 3069.24   31.32 3080.18   31.24 3122.41    30.9 3130.16   30.85 3133.53   31.01
 3136.32   31.35 3145.48   32.39 3153.92   37.51 3154.56    37.9 3155.56   38.35
 3158.71   39.74 3159.79   39.91 3163.25   40.32 3164.99   40.37 3171.31   40.51
 3173.89   40.79 3228.93   41.25 3234.23   41.29 3236.17   41.32 3319.53   45.76
 3324.98   45.83  3355.5   45.72 3365.71   45.15 3382.83   43.86 3391.49   43.98
 3431.96   45.92 3448.73    46.4 3454.08   46.98 3475.98   49.36 3509.76    52.7
 3520.54   57.38  3526.3    59.6 3542.39   64.53 3548.64   66.63 3560.91   71.06

Manning's n Values        num=       5
     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val
       0    .035 1922.89     .02 2207.76     .05 2955.55    .035 3454.08     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right      Coeff Contr.   Expan.
       2797.22 3145.48            604.02  623.42   637.2              .1        .3
Ineffective Flow     num=        1
   Sta L   Sta R    Elev  Permanent
888        F

CROSS SECTION          RIVER: San Mateo Creek
REACH: Lower              RS: 4689.719

INPUT
Description:
Station Elevation Data    num=      56
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0   50.59    5.54    50.1   16.15    49.6   23.42   49.07   197.5   32.89
  240.38    32.9  387.06   32.88  467.24   32.94  633.12   33.02 1195.92    36.5
 1491.91   38.33  1533.6   38.56 1611.23   38.32  1676.8   38.37 1720.88   37.97
 1733.94   38.62 1755.25    38.9 1772.27   37.68 1778.83   37.11 1801.66   34.35
 1820.46   33.84 1852.87   32.96 1912.02   32.49 1913.47   32.47 2024.61   31.11
 2128.28   30.42 2223.82   30.53 2359.57    28.7 2386.54   28.48 2534.69    27.3
 2585.14    27.2 2636.08   26.73 2782.14   25.37 2815.27   26.01 2872.84   23.84
 3012.04   23.21 3020.96   23.24 3075.22   24.09 3158.31   25.38    3191   26.39
 3194.81   26.51  3211.9   27.08 3239.93      28 3259.34   29.49 3272.86   31.14
  3283.9   32.16 3287.07   32.58 3293.44   33.43 3304.17    36.6 3315.74   39.95
 3337.62   42.38 3377.29   44.79 3406.49   47.33 3412.31   47.71 3416.72   48.32
 3416.91   48.34

Manning's n Values        num=       5
     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val
       0    .035 1195.92     .02 1913.47     .05 3075.22    .035  3211.9     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right      Coeff Contr.   Expan.
       2585.14  3211.9            557.08  599.98  624.49              .1        .3
Ineffective Flow     num=        1
   Sta L   Sta R    Elev  Permanent
888        F

CROSS SECTION          RIVER: San Mateo Creek
REACH: Lower              RS: 4089.740

       0   43.73  120.02   32.57  131.17   32.57  253.76   31.11  357.24   32.72
     427   32.77  899.22   32.98  954.04   33.32  993.06   33.55 1222.54    34.9
 1471.85   35.92 1705.94   34.44 1743.07   34.06 1777.93    33.7 1813.15   33.33
 1910.27   31.81 2036.45   28.67 2135.46    27.2 2288.12   25.54    2333   26.35
  2484.7    26.4 2540.37   26.42 2640.58   25.78 2741.76   25.56 2849.16   25.52
 3080.64   26.31 3081.74   26.32 3095.12   26.39 3102.66   26.27 3106.67    26.2
 3116.51   26.34 3145.31   27.09 3172.38   27.65 3180.44   27.82 3183.26    27.7
 3186.33   27.58 3202.22   26.94 3203.62   27.23 3205.09   28.53 3208.91    30.7
 3212.53   35.02 3212.79   35.32 3219.19   37.95 3219.44   38.02 3219.93   38.04
 3226.98   38.68 3236.81   38.22 3248.61   39.25 3257.08   39.88 3269.27   41.94
 3289.72   45.01 3346.69   49.12 3362.24   50.24 3384.82   51.78  3392.9   52.57
 3399.42   53.43 3407.75   54.71 3416.41   56.08 3477.19   65.71 3486.14   68.15

Manning's n Values        num=       7
     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val
       0    .035 1743.07     .02 1777.93     .05 3102.66    .035 3172.38     .05
 3346.69     .07 3416.41     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right      Coeff Contr.   Expan.
       2135.46 3145.31            589.66  603.63  611.39              .1        .3
Ineffective Flow     num=        1
```

```
   Sta L   Sta R    Elev  Permanent
888        F

CROSS SECTION           RIVER: San Mateo Creek
REACH: Lower               RS: 3486.110

INPUT
Description:
Station Elevation Data     num=       71
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0   46.29  164.35   29.36  170.65   29.14  191.87   28.38  194.63   28.28
  197.81   27.46   214.3   26.61  218.17   25.64  221.29   25.46  236.53   24.81
  427.84   25.58  485.93   26.09  545.78   26.08  561.55   26.23   566.9   26.28
  642.16   27.68  660.34   27.89  777.29   31.38  781.75   31.52  782.34   31.54
  782.75   31.57  783.12   31.57  914.19   32.95     938   32.41  961.74    32.7
 1060.96   32.15 1484.48   33.24 1802.93   34.08 1912.47   34.47 2024.12    33.2
 2043.89   32.97 2057.85   32.81  2104.9   32.26 2122.22   31.43 2159.87   29.34
  2170.7   28.93 2182.95   28.24 2195.59   27.58 2201.42   26.91 2330.08   23.53
 2435.73   20.75 2455.24   20.59 2503.12   19.86 2521.29   19.73 2523.59   19.71
 2690.84   17.56 2853.72   14.86 2859.84   14.93 2870.57   15.13 3028.74   16.36
 3069.91   16.52 3112.95   16.69 3124.02   16.88 3135.84   17.01 3137.38   17.04
 3165.78   17.62 3171.12   17.92 3179.97   18.42 3213.55   20.32 3218.35   20.85
 3244.42   23.69 3284.83   28.14 3300.66   29.84 3305.02   30.69 3314.02    32.6
 3324.12   38.65 3348.28   55.29 3359.46   64.31 3363.44   66.09 3370.03   68.46
 3373.53   69.23

Manning's n Values         num=        5
     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val
       0    .035 2024.12     .02 2057.85     .05 3069.91    .035 3171.12     .07

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
       2435.73 3218.35            577.29  602.58  615.08              .1       .3
Ineffective Flow     num=        1
   Sta L   Sta R    Elev  Permanent
888        F

CROSS SECTION           RIVER: San Mateo Creek
REACH: Lower               RS: 2883.526

INPUT
Description:
Station Elevation Data     num=       64
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0   43.87  138.59   25.27  144.34   25.32  155.04   25.36  280.43   25.37
  674.52   26.23  703.51   26.26  745.97   27.28  773.14   27.93 1090.82   30.95
 1473.75   31.96 1666.35   32.14 1987.05   30.26 1995.18   30.17 2049.39   29.29
    2070   28.97 2129.96   27.88  2184.8    26.9 2187.91   27.91  2192.7   27.96
 2197.21   29.24 2202.11   28.51 2203.97   28.52 2205.47   27.61 2207.06   27.26
 2208.89   26.15 2213.35   25.91 2220.99   25.72 2397.39    21.6 2470.49   19.84
  2556.9   17.85 2588.28   17.51 2637.19   15.79  2730.4   14.12 2756.38   14.59
 2761.02   14.65 2778.21   14.83 2858.77   15.67 2870.81   16.19  2891.7   17.09
 2895.51   17.12 2905.94   17.23 2934.43   19.59 2957.04   19.85 2959.64   19.84
 2961.43   20.49 2966.51   21.04 2966.67   21.06 2995.29    26.1 3002.44   25.94
 3011.47   26.86 3014.13   27.24 3015.87   27.92 3022.73    34.3 3027.64   39.08
    3036   48.34 3044.12   55.97  3056.9   67.69 3058.44   68.95 3066.94   75.22
 3074.67   80.81 3080.16   85.53 3086.85   91.92  3086.9   91.96

Manning's n Values         num=        4
     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val
       0    .035 2129.96     .05 2778.21    .035 2870.81     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
       2470.49 2957.04            193.46  203.76  211.14              .1       .3
Ineffective Flow     num=        2
   Sta L   Sta R    Elev  Permanent
888        T
888        F

CROSS SECTION           RIVER: San Mateo Creek
REACH: Lower               RS: 2679.762

INPUT
Description:
Station Elevation Data     num=       65
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0   45.67  152.32   25.49  152.41   25.46  152.57   25.37  152.72   25.31
  152.79    25.3  152.89   25.27  153.02   25.22  153.12   25.22  153.24   25.16
  153.33   25.11  153.43   25.08  153.53   25.05  153.63   25.03  153.67   25.03
  154.23   25.06  155.91   25.03  157.89   25.03     685   26.22   729.8   26.27
 1169.08    30.4 1188.39   30.44  1207.6    30.5 1402.35   30.69 1687.97   30.94
 1883.46   29.77 2002.09   28.51 2131.34   26.39 2171.25   26.45  2174.8   26.43
 2255.35   26.14  2261.8   26.09 2291.45   25.82 2306.04   24.96 2320.77    23.7
 2334.58    21.2 2348.29   19.69 2368.87   20.19 2402.21   21.36 2439.75   20.12
 2446.69   19.89 2497.77   19.68 2543.21   19.57 2661.08    14.9 2684.03   14.19
 2696.76   14.24 2707.56   14.28 2708.82   14.29 2746.46   14.85 2766.76   16.57
 2783.75   17.87 2807.02   19.65 2809.85   19.63 2824.64   19.51 2846.41   20.28
 2856.24   21.35 2856.84   21.42 2861.82    23.3 2864.07   23.87  2868.1   30.22
 2872.97    37.3 2876.16   41.47 2889.55   57.34 2890.45   58.31 2899.74   68.73

Manning's n Values         num=        5
     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val
       0    .035  2174.8     .07  2261.8     .05 2696.76    .035 2783.75     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
       2402.21 2856.24            387.64  396.16  397.97              .1       .3
Ineffective Flow     num=        2
   Sta L   Sta R    Elev  Permanent
888        T
```

888 F

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 2283.606

INPUT
Description:
Station Elevation Data num= 86

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	50.74	42.78	45.14	46.09	43.64	52.72	39.85	58.82	37.31
61.61	36.95	65.89	35.72	71.12	33.52	75.43	33.36	80.7	30.98
84.08	29.01	88.42	27.45	92.78	26.21	97.15	25.21	98.62	25.11
122.61	26.69	198.23	25.43	293.95	25.53	627.39	26.31	659.77	26.35
868.5	26.56	1089.31	28.67	1293.99	29.12	1313	29.19	1603.67	29.45
1749.84	29.39	1784.45	29.15	1932.01	27.38	2047.8	26.16	2065.96	26.39
2097.45	26.35	2101.37	26.02	2108.61	25.28	2124.15	21.46	2130.46	21.08
2136.12	21.06	2142.2	21.81	2157.02	25.66	2167.33	26.38	2167.53	26.39
2175.98	27.04	2189.51	26.68	2204.26	25.94	2286.03	26.1	2286.09	26.1
2287.27	26.1	2361.89	20.7	2375.17	19.79	2463.42	18.67	2533.64	19.71
2553.3	19.74	2601.28	19.8	2630.31	19.88	2668.83	19.99	2683.93	19.35
2699.63	18.69	2701.74	18.64	2742.9	17.75	2749.25	17.45	2750.91	17.37
2754.51	17.37	2764.19	17.89	2775.18	18.47	2801.95	19.93	2812.08	21.62
2823.26	23.74	2831.99	26.57	2838.6	31.04	2844.01	34.82	2847.37	36.09
2849.48	36.44	2857.12	35.86	2868.74	37.27	2873.98	37.97	2878.95	39.58
2884.38	42.66	2886.96	44.69	2888.97	46.04	2890.89	47.23	2911.85	58.02
2919.17	62.34	2940.49	73.07	2952.28	78.22	2954.21	79.14	2954.89	79.33
2968.95	82.03								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	2167.33	.07	2286.09	.05	2553.3	.035	2701.74	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
2375.17	2801.95	218.79	208.19	198.85	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Permanent
888	T		
888	F		

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 2075.420

INPUT
Description:
Station Elevation Data num= 87

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	56.14	14.77	54.31	19	52.24	27.57	46.86	35.56	43.25
39.25	42.77	44.96	41.01	52.02	37.81	57.89	37.63	65.16	34.08
69.88	31.11	75.99	28.75	82.17	26.85	88.44	25.31	90.58	25.16
126.36	27.69	254.47	25.75	460.21	26.05	596.07	26.4	637.79	26.45
957.52	26.78	1023.17	26.78	1089.97	26.83	1353.33	27.4	1459.51	27.35
1581.22	27.4	1936.42	26.32	1943.98	26.24	1949.29	26.07	1956.6	25.84
2078.61	22.19	2098.24	21.45	2109.81	20.82	2118.13	20.67	2130.12	20.28
2141.05	19.69	2151.46	20.58	2183.71	21.18	2203.83	22.33	2208.77	22.61
2216.07	23.3	2222.31	24.59	2247.77	25.87	2255.23	26.38	2281.94	25.74
2320.81	25.31	2324.59	25.1	2414.84	20.13	2419.95	19.76	2435.57	18.62
2445.33	18.15	2495.95	15.99	2535.91	14.32	2558.42	13.37	2601.04	13.16
2662.71	13.1	2663.22	13.1	2686.86	14.05	2687.18	14.06	2714.03	16
2741.84	18	2763.44	19.28	2774.96	19.63	2789.04	20.05	2827.31	21.15
2832.73	21.64	2838.78	22.73	2852.04	24.01	2853.37	24.68	2855.4	25.2
2863.67	27.8	2871.29	31.67	2889.08	41.1	2904.28	43.42	2905.7	43.98
2910.35	44.37	2918.94	46.39	2921.14	47.14	2934.71	54.07	2935.48	54.48
2936.41	55.21	2955.33	68.92	2957.51	70.01	2964.63	74.6	2978.74	78.46
2987.73	78.95	3018.94	79.77						

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	2203.83	.07	2324.59	.05	2535.91	.035	2686.86	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
2495.95	2714.03	167.27	168.07	167.81	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Permanent

REACH: Lower RS: 1907.350

INPUT
Description:
Station Elevation Data num= 66

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	44.14	8.14	40.06	15.75	35.14	25.65	31.24	35.72	28.07
45.97	25.5	49.47	25.25	108.86	29.55	333.9	26.31	503.43	26.59
568.57	26.47	620	26.24	715.16	25.82	922.32	25.68	1102.29	25.73
1684.23	23.31	1876.22	23.1	1960.34	20.75	2123.72	19.23	2153.15	18.62
2187.86	17.51	2202.67	17.03	2221.09	17.59	2232.69	18.93	2232.87	18.94
2233.62	19.26	2239.75	21.26	2249.93	25.47	2259.31	26.83	2291.49	25.66
2309.73	25.25	2319.57	24.93	2333.71	23.84	2344.88	22.98	2381.9	19.92
2423.76	16.33	2453.52	14.85	2474.37	13.94	2508.74	13.18	2555.4	12.14
2619.59	10.65	2632.17	10.36	2668.37	12.74	2677.94	13.33	2685.8	13.81
2707.32	10.96	2709.78	10.6	2710.95	10.66	2736.96	13.36	2742.11	14.13
2743.31	14.78	2762.87	17.25	2773.99	19.15	2782.14	20.53	2790.38	20.96
2812.63	23.5	2833.42	26.13	2840.74	28.23	2858.94	33.06	2864.5	36.86
2881.91	46.17	2889.82	50.73	2902.76	58.27	2910.76	63.13	2911.45	63.3
2917.14	65.31								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	2187.86	.07	2333.71	.05	2508.74	.035	2742.11	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
2453.52	2743.31	205	206.77	220.21	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Permanent
888	T		
888	F		

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 1700.584

INPUT
Description: Updated Manning's N Distribution
Station Elevation Data num= 88

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	51.57	5.89	48.65	17.96	40.9	33.64	34.78	49.57	29.8
65.75	25.78	71.26	25.38	164.51	32.07	424.44	28.26	435.81	28.64
456.68	28.36	480.09	27.56	521.88	26.72	628.46	26.53	695.8	26.23
832.49	25.62	924.21	24.72	975.25	24.61	1001.28	24.66	1097.17	23.95
1904.23	20.27	1954.8	20.01	2008.9	19.38	2032.35	19.16	2250.8	17.41
2263.36	17.56	2267.25	17.61	2270.07	17.66	2281.28	17.89	2295.91	18.31
2307.04	18.63	2315.53	19.61	2326.96	22.62	2336.55	25.3	2353.74	26.81
2356.82	27.13	2363.23	26.93	2383.7	26.36	2405.78	21.32	2412.11	20.56
2413.65	20.66	2416.62	20.86	2429.98	24.04	2430.84	24.04	2440.61	23.56
2440.74	23.54	2440.82	23.53	2462.16	19.51	2473.05	16.02	2478.88	13.19
2496.22	13.42	2530.96	13.57	2549.15	13.63	2633.31	13.54	2641.5	13.54
2646.06	13.41	2655.02	13.17	2674.52	12.63	2678.56	12.5	2708	11.55
2725.66	10.98	2731.49	10.79	2737.91	10.54	2744.96	10.91	2757.58	12.14
2759.22	12.74	2761.01	13.31	2765.65	15.01	2773.4	18.28	2775.26	19.73
2783.33	22.93	2784.63	23.27	2792.92	25.03	2795.85	25.7	2796.54	25.7
2798.66	25.83	2835.35	27.58	2844.32	29.5	2864.09	33.52	2877.06	40.47
2894.05	49.55	2894.66	49.8	2908.66	57.76	2909.94	58.43	2916.25	60.82
2928.34	65.53	2934.9	66.29	2943.48	67.12				

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	2295.91	.07	2413.65	.05	2678.56	.035	2708	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
2473.05	2765.65	191.48	175.29	163.76	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Permanent
888	T		
888	F		

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 1525.293

INPUT
Description:
Station Elevation Data num= 78

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	51.07	5.07	47.72	26.85	39	49.08	31.89	71.8	26.11
79.57	25.54	194.28	33.97	213.43	35.33	257	34.67	319.43	36.65
432.1	35.1	465.96	33.93	560.72	30.37	651.59	27.46	661.61	27.13
719.9	25.24	898.8	23.32	1140.23	22.67	1274.91	22.87	1794.68	18.94
1828.89	18.72	1940.3	18.45	2055.67	18.11	2245.94	18.88	2286.04	19.11
2300.32	19.03	2342.84	18.78	2371.7	19.47	2373.54	19.69	2375.71	19.36
2382.38	18.32	2388.08	16.96	2399.37	17.01	2416.19	17.48	2436.79	19.12
2441.57	20.55	2456.96	26.12	2474.44	28.13	2475.92	28.33	2485.12	27.98
2488.94	27.69	2495.78	26.09	2510.48	19.33	2510.88	19.12	2511.05	19.12
2530.93	19.8	2536.26	19.82	2557.09	19.91	2567.51	20.6	2576.45	20.27
2613.85	15.31	2628.35	13.34	2636.67	12.85	2652.73	12.23	2717.45	9.03
2725	8.84	2752.8	8.14	2792.83	9.26	2799.13	9.44	2803.06	9.59
2805.02	9.98	2822.59	11.82	2827.86	13.22	2833.37	15.07	2837.72	18.7
2846.22	23.39	2849.21	25.06	2861.99	28.36	2867.24	29.72	2868.81	30.21
2886.11	39.95	2886.67	40.17	2899.72	44.58	2902.16	45.24	2920	52.33
2934.84	58.15	2940.66	60.74	2949.13	63.81				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.035	2300.32	.07	2536.26	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
2613.85	2833.37	330.77	218.57	153.37	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Permanent
888	T		
888	F		

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 1306.721

INPUT
Description:
Station Elevation Data num= 90

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	50.27	7.39	50.71	13.86	51.26	25.56	52.19	28.23	52.38
32.56	52.69	37.15	52.7	55.11	52.64	66.57	52.55	84.24	52.96
85.62	52.94	86.9	52.9	88.44	52.94	120.44	52.73	125.16	52.69
134.36	52.8	135.53	52.82	152.02	52.1	171.05	53.23	178.87	53.3
242.82	52.98	248.31	52.92	271.23	53.28	275.12	53.21	277.91	53.21
336.46	53.28	338.36	53.3	339.29	53.35	341.53	53.35	365.78	53.08
389.33	52.59	396.79	52.51	407.25	52.6	411.86	52.3	415.45	51.1
422.62	46.99	434.58	39.78	439.64	37.68	457.1	30.09	483.3	20.4

483.48	20.34	483.5	20.33	483.6	20.3	507.69	14.45	528.46	13.2
530.21	13.11	558.45	11.61	561.4	11.47	611.24	10.54	621.64	10.3
641.47	9.84	679.09	10.12	699.71	10.62	718.91	11.08	735.19	11.03
748.6	11.41	756.57	11.69	768.08	12.29	787.67	14.67	795.7	17.97
802.54	20.15	816.15	25.4	817.26	25.75	818.08	26.14	818.77	26.26
840.21	32.25	847.14	32.63	849.85	33.19	854.99	36.28	867.48	44.01
874.58	47.69	878.1	49.51	890.65	55.08	895.99	58.26	897.3	58.74
899.18	59.58	908.75	63.85	911.62	64.34	919.2	64.45	925.85	64.35
927.15	64.29	934.51	64.5	940.09	64.07	944.42	64.19	958.07	65
1000	65.57	1005.44	65.51	1007.75	65.54	1014.93	65.6	1033.54	66.55

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.02	134.36	.05	899.18	.02

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
507.69	787.67	221.39	253.51	221.56	.3	.5

BRIDGE RIVER: San Mateo Creek
REACH: Lower RS: 1300

INPUT
Description: I-5 Bridge
Distance from Upstream XS = 20
Deck/Roadway Width = 162
Weir Coefficient = 2.6
Upstream Deck/Roadway Coordinates
num= 6

Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord
0	50.03	0	401.9	58.07	0	401.9	58.07	52.49
907.9	68.19	62.61	907.9	68.19	0	1200	74.03	0

Upstream Bridge Cross Section Data
Station Elevation Data num= 90

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	50.27	7.39	50.71	13.86	51.26	25.56	52.19	28.23	52.38
32.56	52.69	37.15	52.7	55.11	52.64	66.57	52.55	84.24	52.96
85.62	52.94	86.9	52.9	88.44	52.94	120.44	52.73	125.16	52.69
134.36	52.8	135.53	52.82	152.02	52.1	171.05	53.23	178.87	53.3
242.82	52.98	248.31	52.92	271.23	53.28	275.12	53.21	277.91	53.21
336.46	53.28	338.36	53.3	339.29	53.35	341.53	53.35	365.78	53.08
389.33	52.59	396.79	52.51	407.25	52.6	411.86	52.3	415.45	51.1
422.62	46.99	434.58	39.78	439.64	37.68	457.1	30.09	483.3	20.4
483.48	20.34	483.5	20.33	483.6	20.3	507.69	14.45	528.46	13.2
530.21	13.11	558.45	11.61	561.4	11.47	611.24	10.54	621.64	10.3
641.47	9.84	679.09	10.12	699.71	10.62	718.91	11.08	735.19	11.03
748.6	11.41	756.57	11.69	768.08	12.29	787.67	14.67	795.7	17.97
802.54	20.15	816.15	25.4	817.26	25.75	818.08	26.14	818.77	26.26
840.21	32.25	847.14	32.63	849.85	33.19	854.99	36.28	867.48	44.01
874.58	47.69	878.1	49.51	890.65	55.08	895.99	58.26	897.3	58.74
899.18	59.58	908.75	63.85	911.62	64.34	919.2	64.45	925.85	64.35
927.15	64.29	934.51	64.5	940.09	64.07	944.42	64.19	958.07	65
1000	65.57	1005.44	65.51	1007.75	65.54	1014.93	65.6	1033.54	66.55

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.02	134.36	.05	899.18	.02

Bank Sta: Left	Right	Coeff Contr.	Expan.
507.69	787.67	.3	.5

Downstream Deck/Roadway Coordinates
num= 6

Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord
0	53.47	0	230	58.07	0	230	58.07	52.49
736	68.19	62.61	736	68.19	0	1200	77.47	0

Downstream Bridge Cross Section Data
Station Elevation Data num= 79

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	48.99	.6	48.97	35.35	49.91	61.75	53.81	61.78	53.81
61.81	53.82	83.28	54.31	91.24	54.54	98.22	54.53	109	54.19
114.66	54.06	138.42	54.21	143.5	54.25	175.83	54.37	183.22	54.15
391.04	14.4	429.91	13.32	443.95	12.85	481.63	11.63	504.45	12.84
504.82	12.85	541.43	13.82	570.22	15	602	16.29	602.23	16.31
603.01	16.42	630.2	20.63	634.39	22.22	653.73	27.04	654.8	27.32
656.2	27.75	679.92	35.43	682.86	35.51	690.33	39.43	697.91	43.37
713.85	53.87	721.88	58.53	724.16	59.87	729.07	61.76	733.98	63.4
744.31	63.95	750.69	64.23	752.82	64.22	753.93	64.41	765.94	66.02
768.65	66.34	774.72	66.48	780.96	66.85	792.91	66.81	804.58	66.96
814.86	66.99	828.41	67.2	846.92	66.85	867.3	66.49	896.4	66.97
900.58	67.04	914.56	67.11	934.65	66.8	943.58	67.55		

Manning's n Values num= 2

Sta	n Val	Sta	n Val
0	.05	896.4	.02

Bank Sta: Left	Right	Coeff Contr.	Expan.
302.37	570.22	.3	.5

Upstream Embankment side slope = 0 horiz. to 1.0 vertical
Downstream Embankment side slope = 0 horiz. to 1.0 vertical
Maximum allowable submergence for weir flow = .95
Elevation at which weir flow begins = 60

Energy head used in spillway design =
Spillway height used in design =
Weir crest shape = Broad Crested

Number of Piers = 4

Pier Data
Pier Station Upstream= 501.9 Downstream= 330
Upstream num= 2

Width	Elev	Width	Elev
12.25	0	12.25	168

Downstream num= 2

Width	Elev	Width	Elev
12.25	0	12.25	168

Pier Data
Pier Station Upstream= 603.9 Downstream= 432
Upstream num= 2

Width	Elev	Width	Elev
12.25	0	12.25	168

Downstream num= 2

Width	Elev	Width	Elev
12.25	0	12.25	168

Pier Data
Pier Station Upstream= 705.9 Downstream= 534
Upstream num= 2

Width	Elev	Width	Elev
12.25	0	12.25	168

Downstream num= 2

Width	Elev	Width	Elev
12.25	0	12.25	168

Pier Data
Pier Station Upstream= 807.9 Downstream= 636
Upstream num= 2

Width	Elev	Width	Elev
12.25	0	12.25	168

Downstream num= 2

Width	Elev	Width	Elev
12.25	0	12.25	168

Number of Bridge Coefficient Sets = 1

Low Flow Methods and Data
Energy
Selected Low Flow Methods = Energy

High Flow Method
Energy Only

Additional Bridge Parameters
Add Friction component to Momentum
Do not add Weight component to Momentum
Class B flow critical depth computations use critical depth
inside the bridge at the upstream end
Criteria to check for pressure flow = Upstream energy grade line

BRIDGE OUTPUT Profile #Q100
Opening : Single BR

E.G. US. (ft)	31.55	Element	Inside BR US	Inside BR DS
W.S. US. (ft)	30.58	E.G. Elev (ft)	31.40	30.61
Q Total (cfs)	47312.00	W.S. Elev (ft)	30.08	28.84
Q Bridge (cfs)	47312.00	Crit W.S. (ft)	21.64	23.55
Q Weir (cfs)		Max Chl Dpth (ft)	20.24	17.21
Weir Sta Lft (ft)		Vel Total (ft/s)	8.99	10.61
Weir Sta Rgt (ft)		Flow Area (sq ft)	5264.58	4460.43
Weir Submerg		Froude # Chl	0.38	0.49
Weir Max Depth (ft)		Specif Force (cu ft)	60717.41	48081.00
Min El Weir Flow (ft)	60.00	Hydr Depth (ft)	16.13	13.42
Min El Prs (ft)	62.57	W.P. Total (ft)	452.03	443.07
Delta EG (ft)	1.39	Conv. Total (cfs)	856363.8	637343.9
Delta WS (ft)	1.86	Top Width (ft)	326.34	332.47
BR Open Area (sq ft)	15758.87	Frctn Loss (ft)	0.65	0.28
BR Open Vel (ft/s)	10.61	C & E Loss (ft)	0.14	0.17
Coef of Q		Shear Total (lb/sq ft)	2.22	3.46
Br Sel Method	Energy only	Power Total (lb/ft s)	19.94	36.74

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 1053.212

INPUT
Description:
Station Elevation Data num= 79

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	48.99	.6	48.97	35.35	49.91	61.75	53.81	61.78	53.81
61.81	53.82	83.28	54.31	91.24	54.54	98.22	54.53	109	54.19
114.66	54.06	138.42	54.21	143.5	54.25	175.83	54.37	183.22	54.15
200.82	54.33	209.98	53.9	220.67	54.17	226.57	53.67	229.54	53.24
232.27	52.57	234.56	51.54	237.5	50.31	251.74	41.4	271.79	32
286.55	24.61	302.37	15.01	306.27	14.37	311.05	13.38	315.99	12.63
320.82	12.88	343.05	13.99	347.74	14.27	351.53	14.31	381.31	14.6
391.04	14.4	429.91	13.32	443.95	12.85	481.63	11.63	504.45	12.84
504.82	12.85	541.43	13.82	570.22	15	602	16.29	602.23	16.31
603.01	16.42	630.2	20.63	634.39	22.22	653.73	27.04	654.8	27.32
656.2	27.75	679.92	35.43	682.86	35.51	690.33	39.43	697.91	43.37

713.85	53.87	721.88	58.53	724.16	59.87	729.07	61.76	733.98	63.4
744.31	63.95	750.69	64.23	752.82	64.22	753.93	64.41	765.94	66.02
768.65	66.34	774.72	66.48	780.96	66.85	792.91	66.81	804.58	66.96
814.86	66.99	828.41	67.2	846.92	66.85	867.3	66.49	896.4	66.97
900.58	67.04	914.56	67.11	934.65	66.8	943.58	67.55		

Manning's n Values num= 2

Sta	n Val	Sta	n Val
0	.05	896.4	.02

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
302.37	570.22	331.16	386.26	449.77	.3	.5

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 977.176

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 57

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	32.89	.37	32.89	19.41	33.13	84.16	34.51	88.96	34.54
90.58	34.51	97.36	34.36	99.09	34.31	102.02	34.03	119.08	32.09
123.45	30.02	131.06	28.22	136.27	26.19	152.7	22.08	158.91	19.86
170.94	15.17	173.08	14.25	178.58	13.28	178.89	13.22	180.93	12.68
219.95	13.45	229.16	13.55	232.38	13.74	237.43	13.79	262.37	13.5
270.48	13.33	306.25	12.6	358.06	11.49	362.22	11.6	363.09	11.64
379.14	12.37	428.4	14.61	447.41	17.86	466.86	18.2	486.76	19.28
491.92	19.62	502.84	24.68	505.09	25.48	507.65	26.42	510.83	27.44
521.28	30.25	532.71	31.62	536.89	32.69	546.1	37.23	548.97	38.63
552.13	39.52	561.19	40.26	590.09	42.36	595.7	43.23	609.69	45.52
624.82	45.97	630.04	46.06	641.6	48.42	647.07	48.5	667.36	50.14
686.06	50.58	686.84	50.61						

Manning's n Values num= 1

Sta	n Val
0	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
178.58	379.14	50.27	50.41	43.68	.3	.5

BRIDGE RIVER: San Mateo Creek
REACH: Lower RS: 970

INPUT
Description: Old PCH Bridge
Distance from Upstream XS = 7
Deck/Roadway Width = 32.81
Weir Coefficient = 2.6
Upstream Deck/Roadway Coordinates
num= 6

Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord
0	30.81	0	100	32.81	0	100	32.81	27.23
536.35	39.37	33.79	536.35	39.37	0	600	40.64	0

Upstream Bridge Cross Section Data
Station Elevation Data num= 57

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	32.89	.37	32.89	19.41	33.13	84.16	34.51	88.96	34.54
90.58	34.51	97.36	34.36	99.09	34.31	102.02	34.03	119.08	32.09
123.45	30.02	131.06	28.22	136.27	26.19	152.7	22.08	158.91	19.86
170.94	15.17	173.08	14.25	178.58	13.28	178.89	13.22	180.93	12.68
219.95	13.45	229.16	13.55	232.38	13.74	237.43	13.79	262.37	13.5
270.48	13.33	306.25	12.6	358.06	11.49	362.22	11.6	363.09	11.64
379.14	12.37	428.4	14.61	447.41	17.86	466.86	18.2	486.76	19.28
491.92	19.62	502.84	24.68	505.09	25.48	507.65	26.42	510.83	27.44
521.28	30.25	532.71	31.62	536.89	32.69	546.1	37.23	548.97	38.63
552.13	39.52	561.19	40.26	590.09	42.36	595.7	43.23	609.69	45.52
624.82	45.97	630.04	46.06	641.6	48.42	647.07	48.5	667.36	50.14
686.06	50.58	686.84	50.61						

Manning's n Values num= 1

Sta	n Val
0	.05

Downstream Deck/Roadway Coordinates
num= 6

Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord
0	30.81	0	100	32.81	0	100	32.81	27.23
536.35	39.37	33.79	536.35	39.37	0	600	40.64	0

Downstream Bridge Cross Section Data
Station Elevation Data num= 56

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	29.25	4.51	29.43	20.29	29.64	22.58	29.67	54.24	31.33
70	31.77	72.17	31.8	76.46	32.44	79.54	33	88.17	33.38
96.39	31.6	101.24	31.3	126.59	20.07	136.33	15.74	144.27	14.64
152.53	14.4	157.07	14.26	170.89	12.52	184.84	12.47	196.68	12.42
215.24	12.34	238.1	12.55	241.16	12.55	282.15	11.76	321.28	10.98
324.1	10.92	344.58	11.46	391.53	12.69	404.33	13.19	405.31	13.23
416.29	13.73	427.47	15.65	449.87	19.11	456.43	20.52	465.42	24.49
475.77	26.6	489.07	28.61	504.05	31.95	513.05	35.57	514.14	36.01
520.05	37.56	525.37	38.44	530.68	39.04	539.86	38.93	555.66	40.79
589.31	43.25	598.2	43.9	605.71	44.17	615.17	44.71	626.9	45.92
634.09	46.07	651.03	49.07	659.84	49.21	681.48	50.21	685.93	50.48
693.31	50.92								

```
Manning's n Values          num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .05  513.05     .02  589.31     .05

Bank Sta: Left   Right    Coeff Contr.   Expan.
        152.53  344.58              .3       .5

Upstream Embankment side slope              =       0 horiz. to 1.0 vertical
Downstream Embankment side slope            =       0 horiz. to 1.0 vertical
Maximum allowable submergence for weir flow =     .95
Elevation at which weir flow begins         =     110
Energy head used in spillway design         =
Spillway height used in design              =
Weir crest shape                            = Broad Crested

Number of Piers =  4

Pier Data
Pier Station     Upstream=  162.34    Downstream=  162.34
Upstream     num=       2
    Width   Elev    Width   Elev
   12.25       0   12.25     229
Downstream     num=       2
    Width   Elev    Width   Elev
   12.25       0   12.25     229

Pier Data
Pier Station     Upstream=  264.34    Downstream=  264.34
Upstream     num=       2
    Width   Elev    Width   Elev
   12.25       0   12.25     229
Downstream     num=       2
    Width   Elev    Width   Elev
   12.25       0   12.25     229

Pier Data
Pier Station     Upstream=  366.34    Downstream=  366.34
Upstream     num=       2
    Width   Elev    Width   Elev
   12.25       0   12.25     229
Downstream     num=       2
    Width   Elev    Width   Elev
   12.25       0   12.25     229

Pier Data
Pier Station     Upstream=  468.34    Downstream=  468.34
Upstream     num=       2
    Width   Elev    Width   Elev
   12.25       0   12.25     229
Downstream     num=       2
    Width   Elev    Width   Elev
   12.25       0   12.25     229

Number of Bridge Coefficient Sets =  1

Low Flow Methods and Data
       Energy
Selected Low Flow Methods = Energy

High Flow Method
       Energy Only

Additional Bridge Parameters
       Add Friction component to Momentum
       Do not add Weight component to Momentum
       Class B flow critical depth computations use critical depth
           inside the bridge at the upstream end
       Criteria to check for pressure flow = Upstream energy grade line

BRIDGE OUTPUT    Profile #Q100
Opening : Single BR

  E.G. US. (ft)                28.42    Element                 Inside BR US  Inside BR DS
  W.S. US. (ft)                26.35    E.G. Elev (ft)               28.04         27.23
  Q Total (cfs)            47312.00     W.S. Elev (ft)               23.42         22.66
  Q Bridge (cfs)           47312.00     Crit W.S. (ft)               23.42         22.66
  Q Weir (cfs)                          Max Chl Dpth (ft)            11.93         11.74
  Weir Sta Lft (ft)                     Vel Total (ft/s)             17.10         16.92
  Weir Sta Rgt (ft)                     Flow Area (sq ft)          2766.83       2795.87
  Weir Submerg                          Froude # Chl                 0.96          0.98
  Weir Max Depth (ft)                   Specif Force (cu ft)       38978.34      39010.05
  Min El Weir Flow (ft)        110.00   Hydr Depth (ft)              9.11          9.20
  Min El Prs (ft)               33.79   W.P. Total (ft)            369.18        366.99
  Delta EG (ft)                  1.17   Conv. Total (cfs)         328947.7      326026.6
  Delta WS (ft)                  6.63   Top Width (ft)             303.81        303.77
  BR Open Area (sq ft)        5156.27   Frctn Loss (ft)
  BR Open Vel (ft/s)            17.10   C & E Loss (ft)
  Coef of Q                             Shear Total (lb/sq ft)       9.68         10.02
  Br Sel Method              Momentum   Power Total (lb/ft s)      165.51        169.49


Warning: Pier drag coefficient of 2.0 assumed for Class B flow.
Warning: During the class B momentum calculations, the supercritical downstream energy was higher
         than one of the upstream energies.  This is not physically possible.  The supercritical answer
         was backed out from an upstream energy.
Note:    The momentum method has computed a class B profile.
Note:    The energy method has computed a class B profile.
```

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 926.767

INPUT
Description:
Station Elevation Data num= 56

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	29.25	4.51	29.43	20.29	29.64	22.58	29.67	54.24	31.33
70	31.77	72.17	31.8	76.46	32.44	79.54	33	88.17	33.38
96.39	31.6	101.24	31.3	126.59	20.07	136.33	15.74	144.27	14.64
152.53	14.4	157.07	14.26	170.89	12.52	184.84	12.47	196.68	12.42
215.24	12.34	238.1	12.55	241.16	12.55	282.15	11.76	321.28	10.98
324.1	10.92	344.58	11.46	391.53	12.69	404.33	13.19	405.31	13.23
416.29	13.73	427.47	15.65	449.87	19.11	456.43	20.52	465.42	24.49
475.77	26.6	489.07	28.61	504.05	31.95	513.05	35.57	514.14	36.01
520.05	37.56	525.37	38.44	530.68	39.04	539.86	38.93	555.66	40.79
589.31	43.25	598.2	43.9	605.71	44.17	615.17	44.71	626.9	45.92
634.09	46.07	651.03	49.07	659.84	49.21	681.48	50.21	685.93	50.48
693.31	50.92								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.05	513.05	.02	589.31	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
152.53	344.58	197.34	259.8	349.98	.3	.5

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 666.956

INPUT
Description: Updated Manning's N Distribution
Station Elevation Data num= 49

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	33.02	1.35	33.04	8.65	33.12	30.8	31.1	42.56	29.97
50	29.25	62.16	27.01	63.65	26.67	64.93	26.17	74.65	23.12
84.37	19.74	86.38	19.52	89.01	19.85	133.79	22.24	134.15	22.27
159.53	21.92	165.53	21.66	180.4	20.09	228.59	13.27	231.95	12.14
235.4	11.04	236.33	10.72	241.52	9.02	247.9	6.93	253.65	6.12
254.2	6.04	271.29	6.36	297.87	5.87	351.04	6.33	385.58	6.79
398.35	6.96	412.59	7.47	413.83	7.53	447.08	9.01	477.96	10.39
512.64	12.73	551.71	13.35	614.27	14.49	638.54	14.72	680.93	17.25
686.32	17.57	714.97	18.74	737.8	19.67	746.93	20.04	752.92	20.65
773.29	23.85	806.8	28.99	839.21	34.23	851.16	36.59		

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.02	42.56	.05	680.93	.02	714.97	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
241.52	447.08	187.2	184.7	178.1	.1	.3

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 482.270

INPUT
Description: Updated Manning's N Distribution
Station Elevation Data num= 48

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	36.42	9.65	33.24	15.01	32.16	32.78	30.31	49.46	28.57
55.27	27.77	81.73	26.6	87.4	26.19	88.06	26.15	107.47	23.41
115.16	22.33	116.57	22	162.37	18.02	163.67	17.92	251.33	16.33
252.08	16.33	253.16	16.25	322.39	13.16	334.08	12.38	352.55	11.37
370.58	9.79	381.86	8.14	386.95	7.4	400.88	7.22	428.26	6.67
431.06	6.61	491.01	5.27	527.34	5.05	565.92	6.28	566.05	6.28
631.1	8.1	707.57	12.27	723.73	13.01	786.61	13.09	807.94	13.12
893.68	13.28	909.24	13.8	961.41	13.84	977.55	13.86	994.19	14.92
1006.45	15.7	1042.54	19.54	1046.98	20.08	1063.09	24.32	1079.91	30.34
1088.51	33.07	1092.19	34.36	1092.51	34.49				

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val

381.86	631.1	215.55	198.2	189.25	.1	.3

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 284.051

INPUT
Description: Updated Manning's N Distribution
Station Elevation Data num= 49

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	29.29	14.99	25.99	15.5	26.02	18.96	25.77	25.76	25.36
90.16	21.53	153.47	17.75	180.86	16.81	196.92	16.19	210.26	15.71
254.28	15.45	262.8	15.33	273.55	15.03	375.82	12.63	386.67	12.49
398.3	11.44	540.33	7.72	557.56	7.12	573.23	6.8	587.64	6.79
607.67	6.73	618.25	6.7	740	6.37	740.69	6.38	742.97	6.44
743.19	6.45	813.41	7.82	818	8.11	820.46	8.22	827.66	8.04
874.75	9.08	880.64	9.17	905.24	10.67	932.78	12.86	946.65	12.46
982.37	12.36	997.9	11.46	1031.24	13.14	1043.3	13.06	1125.93	12.49
1170.38	12.94	1172.1	12.95	1197.86	13.09	1219.04	13.2	1227.3	12.98
1232.68	13.82	1245.69	18.25	1269.03	25.93	1288.02	30.34		

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	25.76	.02	90.16	.05	1043.3	.035	1172.1	.02
1197.86	.05								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
540.33	813.41	216.3	198.7	198.95	.1	.3

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 85.341

INPUT
Description: Updated Manning's N Distribution
Station Elevation Data num= 41

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	29.1	7.21	26.82	11.67	26.16	31.09	24.98	46	24.19
64.71	23.2	107.34	21.1	119.79	20.49	201.37	15.73	256.42	13.63
328.02	12.88	354.26	12.74	357.36	12.66	373.28	12.5	678.15	7.34
761.15	7.26	870.99	6.93	976.8	6.61	1046.13	6.4	1046.94	6.4
1047.19	6.39	1047.33	6.39	1047.81	6.38	1049.08	6.38	1143.89	5.54
1192.74	5.15	1277.42	5.45	1351.66	6.37	1351.75	6.37	1351.78	6.37
1373.79	7.14	1410.76	8.43	1426.05	8.97	1426.1	8.97	1426.95	9.08
1466.22	14.03	1468.42	14.73	1474.52	16.25	1506.75	24.56	1523.54	27.51
1533.44	29.48								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	46	.02	107.34	.05	1410.76	.02	1426.1	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
870.99	1373.79	68.18	85.34	37.96	.1	.3

Profile Output Table - Standard Table 1

Reach	River Sta	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
		(cfs)	(ft)	(ft)	(ft)	(ft)	(ft/ft)	(ft/s)	(sq ft)	(ft)	
Lower	17108.89	47312.00	90.54	100.55	99.32	101.81	0.003984	11.07	5787.63	1100.19	0.64
Lower	16909.21	47312.00	88.57	98.08	98.08	100.44	0.010714	14.80	4264.44	834.49	0.89
Lower	16706.13	47312.00	83.98	96.56	94.62	98.39	0.005141	11.88	4966.45	750.62	0.62
Lower	16505.64	47312.00	84.57	95.57		97.31	0.005563	11.39	5033.87	816.50	0.62
Lower	16299.19	47312.00	84.80	94.14	93.15	96.00	0.006984	11.74	4729.44	789.33	0.70
Lower	16105.61	47312.00	84.43	91.85	91.85	94.26	0.011426	13.77	4271.07	888.68	0.91
Lower	15910.69	47312.00	78.37	87.19	87.96	90.66	0.015630	15.77	3507.37	832.04	1.10
Lower	15677.08	47312.00	78.29	86.50		87.69	0.004884	9.06	5647.35	889.13	0.58
Lower	15455.59	47312.00	77.64	84.52	83.81	86.22	0.008814	11.00	4732.79	890.95	0.78
Lower	15282.84	47312.00	76.42	83.21		84.67	0.008406	11.01	5352.15	1188.78	0.80
Lower	15076.02	47312.00	74.40	82.78		83.41	0.002925	7.16	8063.58	1453.72	0.47
Lower	14843.33	47312.00	71.32	81.99	78.38	82.80	0.002258	7.44	6885.27	1200.25	0.44
Lower	14640.75	47312.00	71.87	80.73	78.65	82.09	0.004753	9.57	5144.87	1349.66	0.59
Lower	14474.32	47312.00	71.80	80.90	78.64	81.39	0.001742	6.54	9148.26	1644.63	0.39
Lower	14295.85	47312.00	70.72	80.41	77.28	81.04	0.001945	7.12	8582.48	1787.21	0.42
Lower	14206.87	47312.00	70.13	79.72	77.52	80.77	0.003408	8.88	6856.20	1845.41	0.55
Lower	14108.61	47312.00	70.62	79.18	77.41	80.36	0.004546	9.29	6259.30	1700.70	0.60
Lower	14009.16	47312.00	71.12	77.71		79.66	0.009564	11.72	4674.47	1152.57	0.84
Lower	13906.13	47312.00	70.56	77.31	77.31	78.61	0.007244	9.83	5551.34	1373.05	0.71
Lower	13813.01	47312.00	70.19	76.05	76.05	77.74	0.010791	11.23	4663.09	1789.37	0.88
Lower	13721.89	47312.00	69.82	75.40	75.25	76.16	0.005269	8.00	6966.80	2295.40	0.63
Lower	13616.16	47312.00	65.67	75.00	74.67	75.66	0.003958	7.57	7773.38	2380.62	0.56
Lower	13508.64	47312.00	64.82	74.72	74.03	75.28	0.002785	6.90	8663.52	2515.95	0.47
Lower	13407.57	47312.00	64.24	72.73	72.50	74.66	0.010519	11.44	4413.09	2080.63	0.87
Lower	13315.43	47312.00	65.10	72.64	71.06	73.83	0.004608	8.93	5655.31	2433.33	0.63
Lower	12905.33	47312.00	62.47	69.92	69.40	71.40	0.007716	9.82	4948.47	1575.23	0.81
Lower	11695.46	47312.00	53.64	64.46	62.76	65.39	0.003349	8.71	6446.78	1450.03	0.59
Lower	10698.02	47312.00	45.13	62.36	58.13	63.23	0.001545	7.95	7156.58	1162.03	0.42
Lower	10103.57	47312.00	51.14	60.87	59.65	61.85	0.003742	8.16	5973.38	1639.52	0.49
Lower	9476.099	47312.00	45.94	56.89	56.18	58.66	0.006997	12.11	4900.05	860.16	0.65
Lower	8888.551	47312.00	45.56	53.98	52.20	55.27	0.004394	9.84	5883.93	1238.64	

0.61										
Lower	8290.415	47312.00	42.29	49.30	49.30	51.30	0.010679	9.73	4667.75	1242.83
0.83										
Lower	7667.615	47312.00	37.41	46.26	43.10	46.84	0.002622	6.32	7801.48	1145.73
0.42										
Lower	7116.984	47312.00	33.82	45.24		45.73	0.001530	5.64	8484.68	1095.45
0.35										
Lower	6553.777	47312.00	32.21	44.71		45.10	0.000796	5.10	9657.79	896.05
0.26										
Lower	6146.684	47312.00	31.60	44.00		44.66	0.001257	7.01	7835.47	1876.37
0.37										
Lower	5898.852	47312.00	32.40	41.50	41.32	43.88	0.006315	14.05	4256.35	1904.18
0.85										
Lower	5313.135	47312.00	30.85	36.45	36.45	38.37	0.013968	12.82	4401.76	1484.29
1.03										
Lower	4689.719	47312.00	23.21	34.25	30.69	34.71	0.001801	6.03	9360.87	2139.61
0.35										
Lower	4089.740	47312.00	25.52	32.60	30.05	33.21	0.003739	6.45	7690.26	1580.19
0.44										
Lower	3486.110	47312.00	14.86	32.40	22.22	32.58	0.000355	3.57	14640.44	2090.57
0.16										
Lower	2883.526	47312.00	14.12	32.16	23.33	32.35	0.000414	4.13	15757.61	2933.16
0.18										
Lower	2679.762	47312.00	14.19	32.02	24.64	32.25	0.000561	4.58	14122.75	2766.30
0.21										
Lower	2283.606	47312.00	17.37	31.80	26.41	32.02	0.000621	4.57	13964.39	2760.79
0.23										
Lower	2075.420	47312.00	13.10	31.75	24.33	31.91	0.000281	4.47	17253.47	2802.58
0.19										
Lower	1907.350	47312.00	10.36	31.76	21.58	31.86	0.000145	3.38	20078.93	2829.70
0.14										
Lower	1700.584	47312.00	10.54	31.73	22.29	31.83	0.000159	2.77	18461.27	2783.79
0.11										
Lower	1525.293	47312.00	8.14	31.57	22.22	31.78	0.000331	4.11	13130.64	2453.77
0.16										
Lower	1306.721	47312.00	9.84	30.58	20.96	31.55	0.001444	8.11	6198.21	378.29
0.33										
Lower	1300	Bridge								
Lower	1053.212	47312.00	11.63	28.73		30.16	0.002981	9.97	5062.38	380.90
0.45										
Lower	977.176	47312.00	11.49	26.35	22.86	28.42	0.005338	12.34	4211.74	371.57
0.59										
Lower	970	Bridge								
Lower	926.767	47312.00	10.92	19.72	21.83	27.23	0.040559	23.12	2186.42	325.33
1.48										
Lower	666.956	47312.00	5.87	17.86	17.86	21.23	0.011808	16.06	3[illegible]2.30	497.16
0.85										
Lower	482.270	47312.00	5.05	17.07	16.09	18.81	0.006662	11.80	4830.16	809.02
0.63										
Lower	284.051	47312.00	6.37	14.89	14.89	17.00	0.012526	13.40	4424.28	956.24
0.83										
Lower	85.341	47312.00	5.15	11.12	11.43	13.57	0.023747	13.50	3905.57	988.58
1.06										

HEC-RAS Version 3.0.1 Mar 2001
U.S. Army Corp of Engineers
Hydrologic Engineering Center
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Davis, California 95616-4687
(916) 756-1104

```
X     X  XXXXXX    XXXX        XXXX       XX      XXXX
X     X  X        X    X       X   X     X  X    X
X     X  X        X            X   X    X    X   X
XXXXXXX  XXXX     X       XXX  XXXX     XXXXXX    XXXX
X     X  X        X            X  X     X    X        X
X     X  X        X    X       X   X    X    X        X
X     X  XXXXXX    XXXX        X    X   X    X   XXXXX
```

PROJECT DATA
Project Title: Project Model - Model F1
Project File : PMF1.prj
Run Date and Time: 2/20/03 5:28:26 PM

Project in English units

Project Description:
FEC-AFV Alternative - San Mateo Creek Crossing

PLAN DATA

Plan Title: Existing Flow/Proposed-Ultimate Geometry
Plan File : p:\2PDA0104\Hydr\LHS\Modeling\Model F\HecRas F\PMF1.p03

Geometry Title: Proposed Conditions - Ultimate
Geometry File : p:\2PDA0104\Hydr\LHS\Modeling\Model F\HecRas F\PMF1.g03

Flow Title : Existing Conditions
Flow File : p:\2PDA0104\Hydr\LHS\Modeling\Model F\HecRas F\PMF1.f01

Plan Summary Information:
Number of: Cross Sections = 65 Mulitple Openings = 0
Culverts = 0 Inline Weirs = 0
Bridges = 2

Computational Information
Water surface calculation tolerance = 0.01
Critical depth calculaton tolerance = 0.01
Maximum number of interations = 20
Maximum difference tolerance = 0.3
Flow tolerance factor = 0.001

Computation Options
Critical depth computed only where necessary
Conveyance Calculation Method: At breaks in n values only
Friction Slope Method: Average Conveyance
Computational Flow Regime: Mixed Flow

FLOW DATA

Flow Title: Existing Conditions
Flow File : p:\2PDA0104\Hydr\LHS\Modeling\Model F\HecRas F\PMF1.f01

Flow Data (cfs)

River	Reach	RS	Q2	Q5	Q10	Q25	Q50	Q100	Q100HC
San Mateo Creek	Lower	17108.89	406	3317	6999	18122	31354	47312	118891

Boundary Conditions

River	Reach	Profile	Upstream	Downstream
San Mateo Creek	Lower	Q2	Normal S = .006	Normal S = .02
San Mateo Creek	Lower	Q5	Normal S = .006	Normal S = .02
San Mateo Creek	Lower	Q10	Normal S = .006	Normal S = .02
San Mateo Creek	Lower	Q25	Normal S = .006	Normal S = .02
San Mateo Creek	Lower	Q50	Normal S = .006	Normal S = .02
San Mateo Creek	Lower	Q100	Normal S = .006	Normal S = .02
San Mateo Creek	Lower	Q100HC	Normal S = .006	Normal S = .02

GEOMETRY DATA

Geometry Title: Proposed Conditions - Ultimate
Geometry File : p:\2PDA0104\Hydr\LHS\Modeling\Model F\HecRas F\PMF1.g03

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 17108.89

INPUT
Description: CS Modified 2:1 Slope Sta 980
Station Elevation Data num= 38

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	120.75	.81	121.04	1.78	120.67	4.05	120.84	13.67	119.46
14.81	119.29	20.35	118.29	33.94	112.82	36.33	111.61	53.11	108.38
60.66	106.83	64.52	105.74	76.4	101.3	80.08	99.85	85.2	99.46
94.94	97.68	123.07	96.44	130.94	96.19	180.28	94.67	237.64	92.32
262.46	91.83	287.07	91.35	296	91.17	314.51	90.89	336.36	90.54
396.81	91.24	451.1	91.74	478.44	92	500.45	92.2	559.42	92.73
615.14	93.98	665.2	95.1	697.16	95.7	805.4	97.75	927.5	98.02
980	98.14	1140	178.14	1366.98	178.14				

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	13.67	.05	287.07	.035	451.1	.05	615.14	.02
697.16	.05								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
262.46	478.44	209.32	199.68	212.7	.1	.3

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 16909.21

INPUT
Description: CS Modified 2:1 Slope Sta 1120
Station Elevation Data num= 47

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	128.27	15.8	125.94	45.09	120.69	49.9	117.6	54.91	117.56
60.95	114.45	74.12	114.82	82.19	115.04	99.57	111.74	104.05	111.28
120.9	105.64	124.97	105.79	128.5	105.6	156.37	97.99	161.01	97.09
165.78	97.01	259.66	95.8	260.54	95.81	264.29	95.82	267.37	95.76
280.36	95.25	347.94	92.57	364.69	91.85	367.53	91.73	370.62	91.54
378.08	91.08	404.48	90.32	452.34	89.19	474.39	88.74	482.51	88.57
508.49	89.06	553.83	89.9	603.88	90.41	688.67	91.27	720.78	91.84
745.93	92.31	978.43	97.79	992.93	98.14	1006.63	98.39	1010.32	98.4
1020.37	98.42	1037.73	98.47	1056.47	98.51	1119.87	98.68	1120	98.68
1310	193.68	1482.47	193.68						

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	74.12	.05	370.62	.035	474.39	.05	978.43	.02
1037.73	.05								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
404.48	603.88	217.14	203.08	206.1	.1	.3

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 16706.13

INPUT
Description: Updated Manning's N Distribution, CS Modified 2:1 Slope Sta 1110
Station Elevation Data num= 54

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	119.46	.74	119.19	12.87	122.22	35.59	121.32	44.35	120.03
79.73	113.67	85.54	109.9	87.26	109.89	94.61	106.07	104.53	106.36
120.48	106.83	123.01	106.35	125.76	105.96	134.54	104.98	134.66	104.96
136.65	104.68	182.14	99.73	188.3	99.49	203.1	98.83	241.84	97.17
278.97	94.53	285.87	93.89	289.69	93.35	294.06	92.73	294.15	92.68
294.66	92.43	298.65	90.52	305.48	87.25	308.4	85.64	309.72	85.24
314.43	84.65	318.21	84.71	333.12	85.47	356.07	86.29	356.99	86.26
373.31	85.83	395.71	85.24	441.59	84.03	444.45	83.98	449.64	84.03
547.17	85.18	553.94	85.27	581.73	86.67	638.41	89.62	669.45	90.87
784.96	92.7	786.01	92.71	789.56	92.71	880.25	94.36	1096.03	98.28
1104.6	98.39	1110	98.46	1320	203.46	1493.23	203.46		

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	104.53	.05	298.65	.035	373.31	.05

REACH: Lower RS: 16505.64

INPUT
Description: CS Modified 2:1 Slope Sta 1240
Station Elevation Data num= 66

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	126.05	1.37	125.54	27.32	125.58	32.56	124.47	47.84	124.04
52.45	121.86	101.03	112.23	107.32	112.47	116.54	115.88	125.08	115.62
134.89	112.2	149.97	115.61	178.34	114.4	179.93	114.17	193.76	111.79
194.09	113.24	195.06	113.95	197.6	113.81	205.11	113.44	215.48	112.84
234.81	111.52	243.48	110.93	252.97	109.06	261.15	106.09	280.99	101.05
289.72	98.62	298.84	97.6	348.04	94.87	362.25	94.03	368.98	93.43
370.83	93.26	376.84	91.85	379.04	91.89	379.19	91.89	383.5	90.52
386.37	88.58	387.58	87.58	390.78	85.27	393.04	84.68	395.94	84.58
406.89	85.17	429.58	85.69	452.84	85.14	456.19	85.06	476.82	84.57
508.12	84.72	571.38	85.04	669.78	85.12	697.85	86.32	705.27	86.39
719.01	87.62	732.71	88.8	741.95	89.84	756.7	91	759.88	91.2
767.73	91.75	775.18	91.78	777.34	91.81	800.99	91.21	903.4	91.42
984.69	91.8	1176.72	96.13	1202.67	96.91	1240	98.03	1460	208.03
1677.19	208.03								

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	234.81	.05	368.98	.035	452.84	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
387.58	719.01	199.4	206.45	210.25	.1	.3

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 16299.19

INPUT
Description: CS Modified 2:1 Slope Sta 1140
Station Elevation Data num= 43

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	107.69	14.56	107.33	24.8	106.81	35.8	106.73	54.63	107.1
97.11	104.72	104.21	104.33	113.06	103.81	114.46	103.65	135.06	100.95
140.46	99.93	151.97	96.7	154.75	95.42	161.68	91.9	166.47	91.38
169.28	91.08	179.69	88.6	189.53	88.36	197.37	86.84	199.55	86.04
208.09	85.5	208.95	85.45	219.51	84.99	223.92	84.8	291.32	84.9
292.25	84.9	320.46	85.22	325.71	85.28	326.87	85.29	487.99	85.64
530.99	85.72	570.95	86.84	598.43	87.62	630.44	89.51	733.82	90.23
891.53	92.46	991.05	95.5	1009.17	96.06	1043.73	96.94	1081.09	97.81
1140	99.2	1270	164.2	1387.25	164.2				

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	97.11	.05	166.47	.035	291.32	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
197.37	570.95	219.07	193.58	180.85	.1	.3

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 16105.61

INPUT
Description: CS Modified 2:1 Slope Sta 1270
Station Elevation Data num= 49

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	108.95	22.96	103.79	23.91	103.32	25.91	102.75	27.73	102.03
56.88	102.5	57.63	102.33	74.85	102.03	75.07	101.92	82.62	100.38
82.83	100.3	83.13	101.07	83.64	101.46	91.47	101.33	93.4	101.3
102.48	101.13	114.12	100.45	138.5	99.54	157.57	98.29	166.14	98.34
189.61	94.26	195.98	92.55	232.82	89.59	242.41	88.39	246	88.14
250.29	88.17	276.94	86.02	278.97	85.87	343.02	84.71	345.68	84.67
372.51	84.59	423.9	84.43	448.61	84.46	476.5	84.48	493.68	84.49
512.2	84.52	600.56	84.68	644.89	85.93	740.98	87.69	850.33	87.85
973.35	89.62	1086.6	91.69	1118.02	92.45	1127.42	92.65	1197.77	93.96
1252.48	94.79	1270	96.16	1410	166.16	1552.11	166.16		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.05	372.51	.035	512.2	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
278.97	644.89	33.01	38.98	40.87	.1	.3

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 16066.6*

INPUT
Description:
Station Elevation Data num= 105

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	110.25	26.62	105.38	27.72	104.97	30.04	104.45	30.77	104.23
32.15	103.76	65.94	101.79	66.81	101.59	74.99	100.92	75.18	100.89
75.58	100.85	75.95	100.8	86.44	100.71	86.77	100.7	87.02	100.6
95.73	99.18	95.77	99.17	96.02	99.1	96.37	99.71	96.96	100
106.03	99.66	108.27	99.58	111.91	99.44	114	99.37	118.8	99.18
122.27	98.95	132.29	98.31	154.13	97.24	160.55	96.94	169.04	96.37
182.66	95.76	192.59	95.8	219.8	92.55	227.18	91.18	268.94	88.88
269.89	88.82	272.96	88.54	281.01	87.82	284.62	87.63	285.17	87.61
290.14	87.61	310.04	86.43	316.06	86.04	317.34	85.97	317.62	85.95
319.03	85.64	321.03	85.35	323.39	85.02	324.69	85.23	329.41	85.66
329.82	85.66	332.33	85.41	338.71	85.3	344.66	85.19	371.58	84.7
398.55	84.2	401.67	84.15	433.15	83.9	440.13	83.85	459.01	83.4
473.53	83.34	491.31	83.23	492.37	83.22	493.46	83.22	516.56	83.26
531.77	83.29	542.63	83.31	558.69	83.33	566.05	83.35	576.01	83.41
645.29	83.82	658.61	83.9	670.42	84.25	700.06	85.07	791.98	87.05
824.15	87.29	846.95	87.38	866.69	87.51	894.42	87.83	896.59	87.85
947.15	89.02	964.26	89.42	970.11	89.55	982.35	89.84	1014.28	90.81
1036.31	91.55	1048.45	91.95	1051.44	92.05	1086.03	92.9	1122.62	93.76
1152.68	94.62	1161.67	94.85	1186.5	95.44	1205.08	95.88	1225.02	96.28
1228.97	96.35	1273.06	97	1278.75	97.08	1281.24	97.12	1281.31	97.12
1283.3	97.27	1285.43	97.42	1298.07	99.28	1432	166.24	1549	166.24

Manning's n Values num= 9

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	317.34	.047	323.39	.038	433.15	.038	566.05	.05
700.06	.047	1014.28	.035	1432	.038	1549	.05		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
329.82	700.06	33.01	38.98	40.87	.1	.3

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 16027.6*

INPUT
Description:

Station Elevation Data num= 105

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	111.55	30.27	106.97	31.52	106.63	34.16	106.15	34.99	105.96
36.56	105.49	74.99	101.07	75.98	100.85	85.29	99.64	85.51	99.58
85.96	99.5	86.38	99.41	98.31	99.38	98.69	99.36	98.98	99.29
108.88	97.97	108.93	97.96	109.21	97.9	109.6	98.35	110.27	98.55
120.6	98	123.14	97.87	127.29	97.64	129.66	97.53	135.11	97.23
139.07	96.94	150.46	96.17	175.3	94.73	182.6	94.33	192.26	93.68
207.75	93.23	219.05	93.27	249.99	90.83	258.39	89.81	305.88	88.1
306.96	88.05	310.45	87.83	319.6	87.25	323.71	87.1	324.34	87.07
329.99	87.05	352.63	86.08	359.47	85.72	360.93	85.65	361.24	85.64
362.84	85.12	365.13	84.68	367.81	84.18	369.3	84.61	374.72	85.55
375.19	85.56	378.07	85.09	385.39	84.96	392.22	84.83	423.12	84.26
454.07	83.7	457.66	83.64	493.79	83.22	501.8	83.12	523.47	82.27
540.14	82.21	560.55	82.03	561.76	82.02	563.01	82.01	584.5	82.07
598.66	82.11	608.76	82.14	623.71	82.18	630.55	82.2	639.81	82.3
704.27	82.98	716.67	83.13	727.65	83.46	755.23	84.2	842.98	86.41
873.7	86.85	895.47	86.98	914.31	87.21	940.78	87.8	942.85	87.85
991.12	89.44	1007.45	89.96	1013.04	90.15	1024.72	90.53	1055.21	91.99
1076.24	93.06	1087.83	93.63	1090.68	93.77	1123.71	94.82	1158.64	95.84
1187.34	96.78	1195.92	97.05	1219.63	97.74	1237.36	98.26	1256.4	98.68
1260.17	98.74	1302.26	99.34	1307.7	99.41	1310.08	99.46	1310.14	99.46
1312.03	99.58	1314.07	99.71	1326.14	102.4	1454	166.33	1545.88	166.33

Manning's n Values num= 9

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	360.93	.044	367.81	.041	493.79	.041	623.71	.05
755.23	.044	1055.21	.035	1454	.041	1545.88	.05		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
375.19	755.23	33.01	38.98	40.87	.1	.3

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 15988.6*

INPUT
Description:
Station Elevation Data num= 105

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	112.86	33.93	108.56	35.33	108.28	38.29	107.86	39.22	107.7
40.98	107.22	84.05	100.36	85.16	100.11	95.59	98.35	95.84	98.27
96.34	98.16	96.81	98.02	110.18	98.05	110.6	98.03	110.93	97.97
122.03	96.76	122.08	96.75	122.39	96.7	122.84	96.98	123.59	97.09
135.16	96.33	138.01	96.15	142.66	95.84	145.31	95.69	151.43	95.28
155.86	94.93	168.63	94.03	196.47	92.22	204.66	91.73	215.47	91
232.84	90.7	245.5	90.73	280.18	89.12	289.59	88.44	342.82	87.32
344.03	87.28	347.95	87.12	358.2	86.68	362.8	86.56	363.51	86.54
369.84	86.5	395.21	85.73	402.88	85.4	404.52	85.34	404.87	85.33
406.66	84.59	409.22	84.01	412.22	83.33	413.91	83.98	420.03	85.44
420.56	85.45	423.81	84.77	432.07	84.62	439.79	84.48	474.66	83.83
509.6	83.19	513.65	83.12	554.44	82.53	563.47	82.4	587.93	81.15
606.75	81.07	629.79	80.82	631.16	80.81	632.57	80.79	652.45	80.87
665.54	80.92	674.89	80.96	688.72	81.02	695.05	81.05	703.62	81.19
763.26	82.14	774.72	82.35	784.89	82.67	810.39	83.34	893.99	85.78
923.24	86.4	943.98	86.59	961.93	86.91	987.14	87.78	989.12	87.86
1035.09	89.85	1050.65	90.51	1055.97	90.74	1067.1	91.23	1096.14	93.18
1116.17	94.56	1127.21	95.31	1129.93	95.49	1161.38	96.73	1194.66	97.91
1221.99	98.95	1230.17	99.25	1252.75	100.05	1269.64	100.65	1287.78	101.08
1291.37	101.14	1331.47	101.68	1336.64	101.75	1338.91	101.79	1338.97	101.79
1340.77	101.89	1342.72	102	1354.21	105.52	1476	166.41	1542.77	166.41

Manning's n Values num= 9

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	404.52	.041	412.22	.044	554.44	.044	674.89	.05
810.39	.041	1096.14	.035	1476	.044	1542.77	.05		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
420.56	810.39	33.01	38.98	40.87	.1	.3

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 15949.6*

INPUT

45.39	108.95	93.11	99.64	94.33	99.37	105.89	97.07	106.16	96.95
106.72	96.81	107.24	96.63	122.06	96.73	122.52	96.7	122.88	96.65
135.18	95.55	135.24	95.54	135.58	95.5	136.07	95.62	136.91	95.64
149.73	94.67	152.89	94.43	158.03	94.04	160.97	93.86	167.75	93.33
172.66	92.92	186.8	91.89	217.64	89.72	226.71	89.13	238.69	88.31
257.92	88.17	271.95	88.19	310.37	87.4	320.8	87.07	379.76	86.54
381.1	86.51	385.44	86.4	396.8	86.11	401.9	86.02	402.67	86
409.7	85.94	437.8	85.38	446.29	85.07	448.1	85.03	448.49	85.02
450.48	84.07	453.32	83.34	456.64	82.49	458.52	83.36	465.34	85.32
465.93	85.35	469.55	84.45	478.76	84.29	487.35	84.12	526.2	83.4
565.13	82.68	569.64	82.6	615.08	81.84	625.15	81.67	652.4	80.02
673.36	79.93	699.03	79.62	700.55	79.6	702.12	79.58	720.4	79.68
732.43	79.74	741.03	79.79	753.73	79.87	759.55	79.9	767.43	80.08
822.24	81.31	832.78	81.58	842.12	81.89	865.56	82.47	944.99	85.14
972.79	85.96	992.49	86.19	1009.54	86.62	1033.5	87.76	1035.38	87.86
1079.06	90.27	1093.84	91.06	1098.9	91.34	1109.47	91.92	1137.07	94.37
1156.1	96.07	1166.59	96.99	1169.17	97.21	1199.06	98.65	1230.68	99.98
1256.65	101.11	1264.42	101.45	1285.88	102.35	1301.93	103.03	1319.16	103.48
1322.57	103.53	1360.67	104.02	1365.59	104.08	1367.74	104.13	1367.79	104.13
1369.51	104.21	1371.36	104.29	1382.28	108.63	1498	166.5	1539.65	166.5

Manning's n Values num= 9

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	448.1	.038	456.64	.047	565.13	.047	720.4	.05
865.56	.038	1109.47	.035	1498	.047	1539.65	.05		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
465.93	865.56	33.01	38.98	40.87	.1	.3

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 15910.69

INPUT
Description: CS Modified 2:1 Slope Sta 1400
Station Elevation Data num= 62

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	115.46	47.67	111.16	116.19	95.78	116.49	95.64	117.1	95.46
117.67	95.24	133.93	95.4	148.33	94.34	173.4	92.24	176.63	92.02
189.45	90.91	238.81	87.21	261.91	85.62	416.7	85.76	422.93	85.69
440.99	85.48	480.38	85.03	489.7	84.75	491.69	84.72	492.12	84.71
494.3	83.55	501.06	81.64	503.13	82.74	510.65	85.21	511.3	85.24
515.29	84.13	525.44	83.95	534.91	83.77	577.74	82.97	686.82	80.95
716.86	78.9	739.97	78.79	768.27	78.41	769.95	78.39	771.68	78.37
799.32	78.56	824.05	78.75	881.22	80.47	899.35	81.1	920.73	81.61
1022.33	85.51	1041	85.8	1057.16	86.32	1079.86	87.74	1123.03	90.68
1137.04	91.61	1141.83	91.93	1151.85	92.62	1196.03	97.58	1205.97	98.67
1208.42	98.93	1236.74	100.56	1319	104.66	1334.21	105.42	1350.54	105.88
1389.87	106.36	1394.53	106.41	1396.57	106.46	1398.25	106.52	1400	106.58
1520	166.58	1536.54	166.58						

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	491.69	.035	768.27	.05	1137.04	.035	1398.25	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
511.3	920.73	44.06	38.94	33.57	.1	.3

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 15871.7*

INPUT
Description:
Station Elevation Data num= 115

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	114.46	47.13	110.2	114.87	96.4	115.16	96.28	115.77	96.12
116.33	95.93	132.41	95.83	146.64	94.74	171.43	92.64	173.33	92.5
174.62	92.34	176.75	92.05	184.81	91.43	186.62	91.31	187.29	91.26
192.54	90.97	218.92	89.25	236.09	87.93	244.65	87.32	255.72	86.45
258.93	86.19	279.53	85.72	284.53	85.61	296.86	85.48	328.74	85.3
400.54	85.31	411.96	85.26	418.12	85.17	435.97	84.9	437.88	84.87
444.57	84.91	448.14	84.81	458.05	84.6	474.92	84.34	484.13	84.05
486.1	84.02	486.52	84.01	488.68	83.03	495.36	81.4	497.86	82.29
506.93	84.25	507.72	84.27	512.53	83.3	514.13	83.26	515.55	83.22
518.37	83.15	520.89	83.09	522.26	83.08	524.78	83.05	524.85	83.05
528.01	83	536.21	82.9	567.47	82.5	586.58	82.26	587.9	82.24
598.24	82.14	599.25	82.12	641.07	81.69	719.54	80.69	722.56	80.54
748.96	79.26	755.79	78.93	771.8	78.85	783.68	78.79	797.63	78.64
797.89	78.63	803.63	78.57	812.08	78.47	817.84	78.4	819.87	78.38
821.95	78.36	845.8	78.57	867.13	78.79	916.44	80.34	932.08	80.91
950.52	81.38	958.09	81.69	975.01	82.5	1007.47	84.14	1011.93	84.37
1023.16	84.81	1041.69	85.73	1045.25	85.91	1061.05	86.37	1062.65	86.42
1077.72	87.06	1079.29	87.16	1088.35	87.75	1098.88	88.46	1139.13	91.4
1152.19	92.33	1156.66	92.65	1162.26	93.06	1166	93.33	1195.79	96.6
1207.19	97.88	1216.46	98.89	1218.74	99.14	1244.01	100.73	1245.15	100.8
1302.23	103.68	1321.84	104.66	1336.02	105.37	1351.25	105.83	1376.53	106.24
1387.92	106.47	1392.26	106.55	1394.16	106.61	1395.73	106.68	1437.2	108.28
1456.97	109.01	1467.16	109.7	1495.6	111.56	1513.41	112.68	1524.66	113.4

Manning's n Values num= 13

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	486.1	.038	495.36	.047	567.47	.035	598.24	.038
797.63	.05	845.8	.047	932.08	.038	950.52	.035	1041.69	.035
1152.19	.035	1395.73	.047	1524.66	.047				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
507.72	950.52	44.06	38.94	33.57	.1	.3

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 15832.8*

INPUT
Description:
Station Elevation Data num= 115

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	113.46	46.59	109.23	113.55	97.03	113.84	96.92	114.44	96.79
114.99	96.62	130.88	96.27	144.96	95.15	169.45	93.03	171.34	92.89
172.61	92.66	174.72	92.26	182.69	91.73	184.47	91.64	185.14	91.61
190.32	91.43	216.4	89.98	233.38	88.66	241.83	88.03	252.78	87.05
255.95	86.75	276.32	85.8	281.26	85.57	293.44	85.31	324.96	84.91
395.94	84.87	407.22	84.75	413.31	84.64	430.96	84.31	432.84	84.28
439.45	84.43	442.99	84.29	452.78	83.97	469.45	83.65	478.56	83.36
480.5	83.32	480.92	83.31	483.05	82.51	489.66	81.16	492.59	81.84
503.22	83.3	504.14	83.3	509.78	82.46	511.64	82.41	513.32	82.36
516.61	82.26	519.57	82.18	521.18	82.17	524.13	82.14	524.21	82.14
527.91	82.11	537.51	82.03	574.13	81.71	596.51	81.52	598.06	81.51
610.17	81.46	611.35	81.45	660.35	81.22	752.26	80.42	755.8	80.31
786.72	79.23	794.73	78.95	813.48	78.86	827.4	78.79	843.73	78.64
844.04	78.63	850.77	78.57	860.66	78.46	867.41	78.39	869.78	78.37
872.23	78.34	892.27	78.59	910.2	78.82	951.66	80.21	964.81	80.71

980.31	81.14	987.33	81.47	1003.02	82.38	1033.13	84.33	1037.26	84.6
1047.68	85.02	1064.86	86.11	1068.16	86.31	1082.82	86.98	1084.31	87.04
1098.28	87.79	1099.74	87.9	1108.14	88.46	1117.91	89.19	1155.23	92.12
1167.35	93.05	1171.49	93.37	1176.69	93.79	1180.15	94.04	1207.78	96.99
1218.35	98.18	1226.95	99.12	1229.07	99.35	1252.5	100.98	1253.55	101.04
1306.49	103.76	1324.68	104.66	1337.83	105.32	1351.95	105.79	1375.41	106.27
1385.96	106.58	1389.99	106.7	1391.75	106.76	1393.21	106.83	1431.67	108.58
1450.01	109.33	1459.46	109.97	1485.83	111.62	1502.34	112.63	1512.78	113.27

Manning's n Values num= 13

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	480.5	.04	489.66	.045	537.51	.035	596.51	.04
813.48	.05	860.66	.045	951.66	.04	980.31	.035	1064.86	.035
1167.35	.035	1393.21	.045	1512.78	.045				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
504.14	980.31	44.06	38.94	33.57	.1	.3

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 15793.8*

INPUT
Description:
Station Elevation Data num= 115

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	112.45	46.04	108.27	112.22	97.65	112.51	97.57	113.1	97.45
113.65	97.31	129.36	96.7	143.27	95.55	167.48	93.43	169.34	93.28
170.6	92.99	172.68	92.47	180.56	92.04	182.32	91.98	182.98	91.97
188.11	91.9	213.88	90.72	230.66	89.38	239.02	88.74	249.84	87.65
252.97	87.32	273.1	85.88	277.98	85.54	290.03	85.14	321.18	84.52
391.33	84.43	402.48	84.25	408.5	84.12	425.94	83.73	427.81	83.68
434.34	83.96	437.83	83.76	447.51	83.34	463.99	82.96	472.99	82.66
474.91	82.62	475.33	82.6	477.43	81.99	483.96	80.92	487.31	81.39
499.5	82.34	500.55	82.33	507.02	81.63	509.16	81.56	511.08	81.49
514.85	81.37	518.24	81.27	520.09	81.26	523.47	81.24	523.56	81.24
527.8	81.21	538.81	81.15	580.79	80.92	606.45	80.79	608.22	80.79
622.1	80.79	623.46	80.78	679.62	80.75	784.98	80.16	789.04	80.07
824.48	79.2	833.66	78.98	855.16	78.87	871.11	78.79	889.84	78.64
890.19	78.63	897.9	78.56	909.25	78.46	916.97	78.38	919.7	78.36
922.5	78.33	938.75	78.6	953.28	78.86	986.88	80.09	997.54	80.52
1010.1	80.91	1016.57	81.24	1031.04	82.26	1058.78	84.52	1062.6	84.83
1072.2	85.24	1088.04	86.48	1091.08	86.71	1104.59	87.58	1105.96	87.65
1118.84	88.53	1120.18	88.64	1127.93	89.18	1136.93	89.91	1171.34	92.84
1182.5	93.78	1186.32	94.1	1191.11	94.51	1194.31	94.75	1219.77	97.39
1229.52	98.47	1237.44	99.34	1239.39	99.55	1260.99	101.22	1261.96	101.28
1310.76	103.83	1327.52	104.67	1339.64	105.27	1352.66	105.74	1374.28	106.31
1384.01	106.69	1387.72	106.84	1389.35	106.92	1390.68	106.99	1426.14	108.87
1443.04	109.65	1451.75	110.23	1476.06	111.69	1491.28	112.57	1500.9	113.14

Manning's n Values num= 13

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	474.91	.043	483.96	.043	538.81	.035	606.45	.043
824.48	.05	889.84	.043	986.88	.043	1010.1	.035	1088.04	.035
1182.5	.035	1390.68	.043	1500.9	.043				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
499.5	1010.1	44.06	38.94	33.57	.1	.3

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 15754.9*

INPUT
Description:
Station Elevation Data num= 115

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	111.45	45.5	107.3	110.9	98.27	111.19	98.21	111.77	98.11
112.32	98.01	127.84	97.13	141.58	95.96	165.51	93.83	167.35	93.68
168.59	93.31	170.65	92.68	178.43	92.34	180.17	92.32	180.83	92.32
185.89	92.36	211.36	91.46	227.94	90.1	236.2	89.44	246.9	88.25
249.99	87.88	269.88	85.97	274.71	85.5	286.61	84.96	317.4	84.13
386.72	83.99	397.74	83.75	403.69	83.59	420.92	83.14	422.77	83.09
429.22	83.49	432.67	83.24	442.24	82.71	458.52	82.27	467.42	81.97
469.32	81.92	469.73	81.9	471.81	81.47	478.26	80.68	482.04	80.94
862.24	79.18	872.6	79	896.83	78.88	914.83	78.79	935.94	78.64
936.34	78.63	945.03	78.56	957.83	78.45	966.54	78.37	969.61	78.34
972.77	78.32	985.22	78.62	996.36	78.89	1022.1	79.96	1030.27	80.32
1039.9	80.68	1045.81	81.01	1059.05	82.14	1084.44	84.7	1087.93	85.07
1096.72	85.45	1111.21	86.85	1114	87.12	1126.36	88.18	1127.61	88.27
1139.4	89.26	1140.63	89.38	1147.71	89.89	1155.95	90.63	1187.44	93.56
1197.66	94.5	1201.15	94.82	1205.53	95.23	1208.46	95.46	1231.76	97.78
1240.68	98.77	1247.93	99.57	1249.72	99.76	1269.48	101.46	1270.37	101.51
1315.02	103.9	1330.36	104.67	1341.46	105.22	1353.37	105.69	1373.15	106.34
1382.05	106.81	1385.45	106.98	1386.94	107.07	1388.16	107.15	1420.6	109.16
1436.07	109.96	1444.04	110.5	1466.29	111.75	1480.22	112.52	1489.02	113.01

Manning's n Values num= 13

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	469.32	.045	478.26	.04	540.12	.035	616.38	.045
862.24	.05	896.83	.04	1022.1	.045	1039.9	.035	1111.21	.035
1197.66	.035	1388.16	.04	1489.02	.04				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
495.78	1039.9	44.06	38.94	33.57	.1	.3

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 15716.0*

INPUT
Description:
Station Elevation Data num= 115

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	110.45	44.96	106.34	109.58	98.89	109.86	98.85	110.44	98.78
110.98	98.7	126.31	97.57	139.89	96.36	163.54	94.23	165.35	94.07
166.58	93.63	168.61	92.9	176.31	92.65	178.03	92.65	178.67	92.67
183.68	92.82	208.84	92.19	225.23	90.83	233.39	90.15	243.95	88.86
247.01	88.45	266.67	86.05	271.43	85.47	283.2	84.79	313.61	83.75
382.11	83.55	393	83.25	398.87	83.07	415.91	82.56	417.73	82.5
424.11	83.01	427.52	82.71	436.97	82.09	453.06	81.58	461.85	81.27
463.72	81.21	464.13	81.2	466.18	80.95	472.56	80.44	476.77	80.49
492.07	80.43	493.39	80.39	501.51	79.96	504.19	79.87	506.6	79.76
511.34	79.59	515.59	79.44	517.91	79.44	522.15	79.43	522.27	79.43
527.59	79.42	541.42	79.41	594.1	79.35	626.32	79.32	628.54	79.33
645.97	79.44	647.67	79.44	718.17	79.81	850.43	79.63	855.52	79.6
900.01	79.15	911.53	79.03	938.51	78.89	958.54	78.79	982.05	78.65
982.49	78.63	992.17	78.56	1006.41	78.45	1016.11	78.36	1019.53	78.33
1023.05	78.3	1031.7	78.63	1039.43	78.93	1057.32	79.83	1063	80.13
1069.69	80.44	1075.06	80.79	1087.07	82.02	1110.1	84.89	1113.27	85.3
1121.24	85.66	1134.39	87.22	1136.91	87.52	1148.13	88.78	1149.27	88.89
1159.96	90	1161.07	90.12	1167.5	90.61	1174.98	91.36	1203.54	94.28
1212.81	95.22	1215.98	95.54	1219.96	95.95	1222.61	96.17	1243.75	98.18
1251.84	99.07	1258.42	99.79	1260.04	99.97	1277.97	101.71	1278.78	101.75
1319.29	103.98	1333.2	104.67	1343.27	105.17	1354.07	105.65	1372.02	106.37
1380.1	106.92	1383.18	107.13	1384.53	107.22	1385.64	107.3	1415.07	109.46
1429.1	110.28	1436.34	110.77	1456.52	111.82	1469.15	112.47	1477.14	112.88

Manning's n Values num= 13

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	463.72	.047	472.56	.038	529.79	.035	598.95	.047
852.76	.05	917.05	.038	1027.69	.047	1069.69	.035	1134.39	.035
1212.81	.035	1385.64	.038	1477.14	.038				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
472.56	1069.69	44.06	38.93	33.57	.1	.3

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 15677.08

INPUT
Description:
Station Elevation Data num= 57

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	109.45	163.36	94.46	166.58	93.11	174.18	92.95	175.88	92.99
181.46	93.28	206.32	92.93	230.57	90.86	241.01	89.46	263.45	86.13
268.16	85.43	279.78	84.62	309.83	83.36	377.5	83.11	412.69	81.91
418.99	82.54	422.36	82.19	431.7	81.46	466.86	80.2	501.71	79.02
504.36	78.9	509.58	78.7	514.27	78.53	516.82	78.53	521.63	78.53
527.49	78.53	600.76	78.56	636.25	78.58	657.9	78.76	659.77	78.77
737.44	79.34	888.76	79.37	937.77	79.12	980.19	78.9	1028.15	78.65
1028.64	78.63	1039.3	78.56	1054.99	78.44	1073.32	78.29	1099.48	80.21
1104.3	80.56	1115.08	81.9	1135.76	85.08	1138.6	85.53	1145.76	85.87
1157.56	87.59	1169.9	89.38	1181.52	90.86	1187.29	91.32	1234.38	96.67
1255.74	98.57	1286.46	101.95	1323.55	104.05	1370.89	106.4	1409.54	109.75
1428.63	111.04	1465.26	112.75						

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	527.49	.035	600.76	.05	937.77	.035	1054.99	.05
1157.56	.035								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
466.86	1099.48	229.4	221.49	185.61	.1	.3

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 15455.59

INPUT
Description:
Station Elevation Data num= 59

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	103.47	148.03	89.5	151.79	87.95	155.29	89.39	162.5	89.98
163.5	89.86	164.28	88.85	165.22	88.54	174.14	89.25	177.38	88.84
190.1	88.38	227.99	87.78	257.22	88.02	310.79	86.75	344.65	86.45
344.8	86.43	344.99	86.41	353.69	85.2	364.24	80.91	369.99	79.11
372.44	78.61	375.87	78.39	393.22	78.38	394.28	78.43	414.05	81.65
421.98	82.99	435.46	83.47	448.43	82.56	468.78	82.25	527.06	80.29
587.08	79.88	603.56	79.81	619.51	79.46	620.85	79.43	693.92	77.81
700.31	77.82	750.85	77.87	759.57	77.95	777.49	78.11	799.72	78.29
996.6	78.49	1078.38	78.57	1111.65	78.42	1139.72	77.64	1151.85	77.87
1158.21	77.93	1191.98	78.25	1195.12	78.5	1212.5	79.92	1223.08	80.71
1232.14	82.47	1251.76	85.3	1265.05	88.28	1265.95	88.51	1293.69	95.43
1299.46	96.69	1330.26	101.19	1339.88	102.24	1346.75	102.68		

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	619.51	.035	700.31	.05	996.6	.035	1158.21	.05
1265.95	.035								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
620.85	1212.5	159.78	172.75	206.99	.1	.3

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 15282.84

INPUT
Description:
Station Elevation Data num= 46

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	99.77	79.19	91.79	163.92	83.84	165.72	83.12	173.95	86.37
176.04	86.53	176.09	86.54	179.99	86.12	183.03	82.6	185.78	81.8
190.97	81.5	263.66	80.17	317.75	79.37	326.51	79.33	360.01	79.15
445.67	79.87	467.64	79.2	531.25	78.92	618.07	78.97	629.39	79.25
645.34	78.82	674.47	78.63	683.23	78.57	754.21	78.05	822.24	77.56
842.94	77.41	859.25	77.29	894.35	76.95	946.46	76.79	1046.88	76.48
1055.15	76.42	1109.14	77.46	1171.17	78.65	1180.15	78.79	1185.6	78.84
1189.7	78.88	1290.61	79.29	1381.99	83.75	1394.14	84.34	1398.84	84.96
1419.07	90.82	1419.69	90.98	1433.7	94.54	1448.51	97.68	1472.52	101.46
1478.85	102.36								

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	754.21	.035	842.94	.05	946.46	.035	1109.14	.05
1419.69	.035								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
683.23	1171.17	247.92	206.82	172.28	.1	.3

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 15076.02

INPUT
Description: Updated Manning's N Distribution
Station Elevation Data num= 57

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	90.8	1.69	90.63	13.58	87.59	13.79	87.42	14.49	87.6
15.22	88.14	15.91	88.28	41.76	78.13	41.94	78.1	42.19	78.01
42.28	77.99	55.3	77.02	115.81	78.15	126.67	78.13	155.44	78.25
199.32	77.85	223.18	78.41	278.75	78.69	331.77	78.96	347.59	79.04
353.33	78.98	471.93	78.78	517.94	78.76	530.82	78.75	650.81	78.12
742.79	77.53	766.68	76.98	791.33	76.73	803.9	76.67	828.76	76.53
832.3	76.51	870.05	76.38	877.4	76.34	921.58	76.01	922.42	76
1000.08	75.56	1086.41	74.9	1110.54	74.89	1130.87	74.89	1241.57	74.4
1242.24	74.4	1242.61	74.4	1247.69	74.45	1352.49	76.06	1368.28	76.29
1386.22	76.94	1444.46	79.49	1478.6	82.25	1493.34	83.8	1537.29	85.57
1574.24	86.1	1583.51	88.28	1588.7	88.99	1599.75	90.43	1620.49	93.87
1624.37	94.75	1657.52	102.33						

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	828.76	.035	1110.54	.05	1624.37	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
766.68	1386.22	240.22	232.69	186.85	.1	.3

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 14843.33

INPUT
Description:
Station Elevation Data num= 102

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	85.71	12.02	85.54	84.69	84.01	115.69	84.58	122.25	84.06
135.89	84.25	140.72	84.13	148.96	84.22	163.53	83.46	170.14	83.69
180.94	84.32	188.18	84.35	203.22	85.3	214.01	86.68	227.06	88.59
233.92	89.04	244.06	88.98	255.48	88.64	274.96	85.55	279.95	85.37
285.41	85.38	345.12	85.24	358.94	84.14	368.61	84.17	379.99	84.1
394.43	82.83	407.08	81.79	411.48	81.5	413.55	81.42	415.79	81.2
436.02	78.75	456.72	75.67	467.78	74.19	482.26	73	498.77	71.6
498.88	71.59	498.98	71.59	499.26	71.58	543.54	71.16	545.95	71.12
557.88	69.94	573.39	70.17	600.68	71.01	611.99	72.36	618.47	72.86
626.92	74.37	632.61	75.49	646.15	77.94	672.57	79.06	673.13	79.12
673.38	79.12	673.91	79.12	717.83	80.5	721.69	81.14	731.52	82.22
735.62	83.38	745.68	85.33	752.97	85.22	766.99	85.79	769.73	85.33
774.17	84.21	782.63	81.2	786.14	79.37	788.83	78.86	797.92	78.63
799.44	78.58	830.86	77.57	854.94	75.75	869.77	74.3	871.02	74.05
876.56	72.94	884.68	72.79	927.26	71.32	936.34	71.44	973.58	71.92
1678.11	83.03	1734.35	86.27	1741.16	86.8	1747.77	87.5	1791.04	94.49
1792.03	94.77	1814.62	100.63						

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	871.02	.035	1161.36	.05	1814.62	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
871.02	1508.61	230.23	202.58	217.82	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888		F	

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 14640.75

INPUT
Description:
Station Elevation Data num= 87

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	78.41	17.94	78.88	40.67	79.7	90.61	81.17	138.03	82.4

146.04	83.25	160	84.44	162.45	85.4	176.19	91.96	195.58	96.33
210.45	98.33	211.77	98.47	213.87	98.58	215.99	98.71	222.02	99.07
223.99	98.74	231.75	97.7	237.74	94.84	256.35	85.77	262.42	84.67
276.58	83.42	324.2	82.2	382.56	81.2	386.06	81.07	428.68	79.58
470.85	78.72	482.36	78.44	490.35	78.43	559.67	79.16	605.61	79.57
611.79	79.04	628.24	78.14	644.17	77.61	654.59	77.36	685	76.25
710.13	74.66	712.25	74.49	714.16	74	798.82	70.79	805.49	70.45
820.16	70.6	827.56	70.69	895.57	71.62	903.17	72.18	931.44	76.2
940.83	77.72	945.2	79.46	953.88	82.79	959.1	84.66	960.81	85.18
962.3	85.3	976.01	85.63	982.58	84.9	990.45	83.3	1009.76	78.74
1014.64	78.62	1028	78.56	1038.03	78.46	1050.69	78.32	1056.04	78.28
1061.36	77.78	1092.37	74.85	1112.5	74.06	1126.06	72.97	1130.35	72.62
1134.8	72.25	1135.37	72.2	1141.04	71.87	1189.06	72.15	1241.8	72.44
1266.91	72.58	1309.02	72.55	1408.2	72.46	1573.59	72.7	1619.99	73.21
1648.69	73.64	1672.47	74.07	1694.78	75.87	1711.39	77.4	1718.87	79.1
1728.33	83.61	1730.68	84.61	1735.89	88.04	1748.19	95.79	1757.16	99.5
1759.66	100.4	1768.94	102.99						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.05	1061.36	.035	1309.02	.05

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
1112.5 1672.47 142.45 166.43 154.49 .1 .3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 14474.32

INPUT
Description: CS Modified 2:1 Slope
Station Elevation Data num= 69

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	108.23	7.05	108.12	14.85	108.01	19.46	107.52	32.2	105.34
43.5	100.08	55.52	94.24	60.33	91.88	64.41	91.25	94	87.21
95.64	87.03	136.25	82.08	140.72	81.63	152.05	79.6	153.84	79.51
176.78	78.22	213.92	77.71	306.58	77.97	334.86	78.81	385.42	78.75
494.34	78.64	516.51	78.62	568.95	78.46	639.11	78.26	667.2	78.23
695.34	77.02	722.47	75.87	749.21	74.93	795.77	75.99	822.43	76.68
843.49	77.7	868.21	78.93	873.36	79.24	881.73	79.29	890.57	78.45
893.93	75.8	898.72	72.54	904.92	71.28	911.85	70.69	944.2	70.48
976.68	70.98	1001.51	71.13	1014.62	71.21	1035.38	71.3	1051.2	71.82
1084.53	76.22	1100.85	77.95	1106.06	78.15	1121.94	79.13	1122.26	79.15
1122.38	79.16	1152.01	79.26	1161.52	79.17	1192.95	76.51	1212.88	74.82
1217.7	74.42	1239.31	73.21	1263.85	71.95	1265.85	71.96	1288.45	71.95
1306.74	71.94	1446.22	71.84	1486.6	71.82	1517.38	71.8	1554.33	71.86
1588.08	71.93	1700.47	73.17	1711.72	73.34	1835.31	135.35		

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.02	385.42	.035	568.95	.05	1192.95	.035	1486.6	.05

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
1239.31 1700.47 199.28 178.47 167.43 .1 .3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 14295.85

INPUT
Description: Updated Manning's N Distribution, CS Modified 2:1 Slope
Station Elevation Data num= 66

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	114.43	9.24	113.91	14.57	113.39	23.2	111.82	25.07	111.38
39.73	104.24	46.74	99.88	54.3	97.23	60.26	95.57	70.78	92.65
96.37	88.99	118.4	87.41	132.59	85.93	152.52	85.29	171.21	85.2
182.49	84.43	192.33	83.73	199.7	83.4	260.19	79.39	288.49	78.81
327.06	78.42	334.41	78.38	360.28	78.49	521.98	79.07	548.04	79.04
767.17	78.75	779.9	78.72	879.98	78.5	882.5	78.5	886.03	78.49
890.19	78.4	1028.06	76.75	1031.78	76.64	1034.63	76.55	1039.64	76.43
1123.57	74.47	1153.45	74.06	1220.01	76.92	1230.33	76.95	1240.38	78.18
1254.54	78.73	1263.32	79.1	1275.86	78.62	1288.88	78.59	1307.3	78.72
1309.61	78.43	1323.37	76.46	1335.24	75.44	1353.82	73.39	1354.64	73.29
1379.68	73.45	1401.56	73.4	1440.37	72.72	1453.85	72.82	1469.98	72.75
1517.64	72.3	1618.82	71.34	1655.06	71	1738.96	70.82	1783.15	70.72
1793.46	70.81	1811.86	70.96	1833.82	71.13	1883	71.52	2008	134.02
2107.83	134.02								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.02	548.04	.035	779.9	.05	1517.64	.035	1833.82	.05

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
1469.98 1883 93.39 88.97 84.07 .1 .3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 14206.87

INPUT
Description: Updated Manning's N Distribution, CS Modified for Slope
Station Elevation Data num= 57

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	97.26	10.99	96.35	24.79	95.13	47.53	92.21	49.01	92.13
49.31	92.11	116.41	88.21	125.61	87.46	158.8	84.42	192.35	83.87
241.23	80.8	258.87	80.03	263.37	79.91	264.72	79.93	300.98	79.3
310.07	79.32	382.89	78.58	404.15	78.46	480.32	78.78	595.77	79.2
677.87	79.09	800.58	78.94	830.93	78.83	859.8	78.73	920.82	78.54
993.7	78.44	1057.97	77.67	1249.46	76.59	1255.01	76.46	1260.41	76.39
1265.26	76.29	1330.37	75.31	1336.95	75.49	1354.86	75.65	1357.26	75.91
1374.71	77.27	1394.77	78.32	1405.67	78.83	1437.21	78.7	1452.51	78.72
1478.81	76.15	1489.92	73.88	1514.82	73.71	1521.78	73.57	1545.64	73.1
1575.12	73.03	1661.87	72.2	1744.96	71.41	1865.23	70.26	1878.99	70.13
1904.13	70.42	1953.89	72.32	1968	72.12	1981.53	71.92	1987	71.87
2096	126.37	2186.67	126.37						

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.02	677.87	.035	830.93	.05	1661.87	.035	1968	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
1575.12	1987	100.64	98.26	92.36	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888			F

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 14108.61

INPUT
Description: Updated Manning's N Distribution, CS Modified for Slope
Station Elevation Data num= 49

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	94.25	6.24	93.65	10.28	93.31	11.98	93.09	85.53	89.28
127.3	86.83	186.6	81.95	189.42	81.69	192.16	81.64	196.74	81.35
251.96	79.52	266.27	79.14	300.67	79.54	321.81	79.17	355.6	79.25
404.74	78.75	440.89	78.54	572.84	79.1	636.92	79.33	746.5	79.2
839.37	78.88	879.42	78.74	927.02	78.59	1044.69	78.41	1059.49	78.25
1109.86	77.81	1356.83	75.43	1395.3	75.27	1418.29	75.26	1467.57	78.22
1477.69	78.67	1502.54	77.91	1516.45	76.46	1572.62	73.24	1583	73.02
1604.35	72.6	1767.6	72.19	1769.49	72.18	1844.35	71.46	1932.03	70.62
1962.32	70.97	1980.79	71.18	2041.72	71.86	2083.83	72.33	2087.39	72.34
2088.14	72.34	2093.25	72.24	2198.25	124.74	2268.58	124.74		

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.02	839.37	.05	1769.49	.035	2041.72	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
1604.35	2093.25	93.55	99.45	106.38	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888			F

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 14009.16

INPUT
Description: CS Modified with Blocked Obstructions for Approximate Pier Placement and Modified Slope
Station Elevation Data num= 49

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	93.29	7.72	92.32	62.52	90.8	132.12	86.6	149.89	85.68
158.74	85.16	173.07	83.98	232.69	79.87	255.75	79.13	265.77	78.81
297.43	78.03	335.32	78.89	357.02	79.14	362.56	79.04	422.01	79.18
446.54	78.93	498.12	78.63	690.12	79.44	698.83	79.48	713.17	79.46
875.56	78.9	923.79	78.73	954.2	78.64	1030.24	78.52	1117.03	77.56
1426.08	74.84	1472.13	74.39	1479.08	74.36	1483.21	74.36	1491.98	74.89
1555.9	77.71	1577.05	78.68	1579.07	78.75	1648.33	74.68	1673.87	72.27
1688.14	72.2	1705.24	72.13	1868.98	71.68	1893.1	71.62	1959.36	71.43
1971.74	71.4	2001.53	71.12	2024.5	71.39	2080.05	71.47	2168.6	71.6
2177.07	71.61	2241.75	71.72	2340	120.85	2366.38	120.85		

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val

Blocked Obstructions num= 1

Sta L	Sta R	Elev
2110.5	2121.5	127

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 13906.13

INPUT
Description: CS Modified with Blocked Obstructions for Approximate Pier Placement
Station Elevation Data num= 76

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	92.54	5.96	92.16	14.1	91.4	14.65	91.37	15.11	91.34
15.49	91.31	23.03	91.22	82.25	89.97	107.38	88.4	162.65	85
180.35	84.65	209.77	82.61	267.6	79.07	281.9	78.01	312.97	75.46
325.14	75.19	352.53	74.24	379.51	75.7	384.55	75.3	393.62	75.99
402	76.8	430.21	78.73	441.39	78.8	459.71	79.08	463.86	79.09
472.95	79.11	475.87	79.08	541.11	78.7	612.9	79.01	714.38	79.21
747.77	79.17	825.98	79.17	927.71	78.82	951.83	78.74	970.64	78.68
1008.39	78.62	1123.02	77.31	1160.28	76.88	1220.67	76.32	1416.22	74.52
1594.78	72.94	1626.09	74.6	1652.51	74.95	1670.3	74.33	1697.19	73.46

1712.24	72.03	1757.27	71.8	1845.23	71.43	1994.38	71	2001.9	70.98
2060.05	70.77	2065.38	70.82	2156.22	71.71	2187.44	71.73	2216.87	71.76
2281.67	71.79	2294.86	71.52	2308.13	71.24	2318.98	71.96	2335.46	71.67
2350.65	70.56	2359.01	70.89	2369.1	72.27	2371.4	72.66	2378.54	78.57
2378.75	78.74	2379.61	79.32	2387.68	84.68	2398.09	88.77	2398.61	88.95
2399.29	89.07	2401.06	89.44	2401.09	89.45	2423.44	96.8	2432.18	99.53
2441.34	101.86								

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.02	463.86	.02	927.71	.05	1123.02	.035	1220.67	.05
2001.9	.035	2294.86	.05						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
1712.24	2369.1	92.63	93.13	94.58	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

Blocked Obstructions num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
2015.5	2026.5	119	2215.5	2226.5	127

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 13813.01

INPUT
Description: CS Modified with Blocked Obstructions for Approximate Pier Placement

Station Elevation Data num= 79

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	90.43	46.07	88.91	114.69	85.85	118.94	85.75	122.66	85.6
159.5	84.03	195.94	79.72	201.81	79.01	209.78	78.25	245.97	76.05
266.61	73.93	285.45	73.75	326.82	71.64	333.67	71.75	375.69	72.47
445.49	72.53	550.13	72.09	620.9	71	656.67	71.04	711.19	71.03
718.16	70.94	731.07	71.06	739.91	71.67	743.89	72.44	745.13	72.67
750.49	74.78	765.8	77.26	766.52	77.35	768.87	76.86	784.64	74.93
816.22	76.55	817.91	76.62	831.36	78.54	857.99	78.51	971.85	78.7
977.08	78.7	998.84	78.73	1016.4	78.19	1037.65	78.21	1052.24	78.04
1223.56	76.05	1338.8	74.98	1478.15	73.72	1505.61	73.47	1578.36	72.98
1686.09	72.24	1720.96	72.19	1830.79	72.17	1836.11	72.17	1868.32	72.11
1999.95	70.82	2002.4	70.81	2003.94	70.75	2104.48	70.37	2128.22	70.29
2146.2	70.26	2155.3	70.3	2189.66	70.59	2312.43	71.63	2325.19	71.74
2342.82	72.01	2389.64	70.97	2410.55	70.56	2411.18	70.55	2411.33	70.56
2411.6	70.54	2430.18	70.28	2436.8	70.19	2462.58	71.71	2462.84	71.79
2463.83	72.47	2464.05	72.19	2469.44	75.54	2482.82	87.24	2485.38	89.34
2487.8	91.33	2498.73	97.95	2500.37	98.5	2505.34	99.05		

Manning's n Values num= 8

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	977.08	.05	1052.24	.035	1478.15	.02	1578.36	.05
2104.48	.035	2430.18	.05	2505.34	.07				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
1868.32	2464.05	96.66	91.12	77.43	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

Blocked Obstructions num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
1959.5	1970.5	111	2159.5	2170.5	119

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 13721.89

INPUT
Description: CS Modified with Blocked Obstructions for Approximate Pier Placement

Station Elevation Data num= 90

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	90.28	24.23	89.47	70.68	88.17	86.02	86.92	114.97	85.99
139.93	84.78	145.11	84.27	148.3	83.92	183.76	78.12	202.89	74.51
214.49	72.52	228.47	70.92	252.92	70.57	297.87	71.4	337.91	72.06
384.48	72.82	391.81	72.76	409.01	72.93	569.03	72.42	633.84	72.16
649.31	71.94	656.83	71.92	704.02	71.52	707.56	71.5	714.34	73.04
722.66	74.99	724.91	75.44	727.08	76.17	734.66	78.44	736.91	78.12
748.66	75.71	759.32	72.77	762.57	72.39	788.31	71.03	791.65	70.85
793.61	70.71	794.7	70.74	814.87	70.89	868.87	71.37	872.51	71.28
877.29	71.39	911.66	72.31	913.77	72.68	930.02	73.56	931.36	73.5
940.33	73.62	944.5	73.81	973.65	75.4	986.82	75.23	1023.97	74.38
1052.35	74.83	1192.68	74.83	1201.55	75	1234.43	75.25	1247.95	75.21
1644.56	72.51	1670.3	72.34	1764.51	72.2	1773.04	72.2	1888.95	72.18
1895.47	72.01	1915.14	71.61	1959.71	70.65	1974.64	71.04	1979.44	70.33
2093.85	70.04	2132.78	69.97	2227.8	69.82	2230.8	69.82	2258.7	69.96
2358.2	70.45	2379.47	70.65	2385.16	70.71	2394.71	70.87	2405.93	71.07
2433.02	71.17	2449.26	71.56	2457.25	71.74	2466.83	71.66	2494.92	71.44
2512.08	71.93	2514.62	72.56	2523.68	79.04	2538.85	92.04	2545.46	98.14
2554.03	105.93	2559.41	110.87	2564.42	112.19	2564.78	112.23	2569.62	111.96

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	1644.56	.02	1773.04	.05	2132.78	.035	2466.83	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
1915.14	2449.26	104.34	105.73	83.35	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

Blocked Obstructions num= 1

Sta L	Sta R	Elev
2023.5	2034.5	111

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 13616.16

INPUT
Description: CS Modified with Blocked Obstructions for Approximate Pier Placement
Station Elevation Data num= 95

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	95.01	15.77	94.44	34.73	94.26	63.86	92.57	92.64	90.27
100.55	89.27	153.81	82.69	179.27	78.86	190.9	75.98	195.5	75.49
211.74	72.15	233.92	70.7	273.77	70.47	322.28	71.21	358.12	71.82
379.11	71.93	408.3	71.7	512.29	72.71	644.61	72.29	691.05	72.28
701.3	72.3	718.18	71.43	735.63	71.52	739.28	71.58	744.9	71.94
754.05	76.6	758.51	78.58	759.54	78.86	761.42	78.81	773.81	78.48
780.8	76.21	785.34	74.89	796.4	71.76	799.94	71.43	809.31	71.73
836.65	71.9	892.27	72.77	930.42	71.77	951.08	71.17	960.83	72.14
962.75	72.77	965.32	73.68	974.83	77.41	983.99	78.89	985.37	79.01
987.44	78.45	1007.92	72.09	1018.18	71.38	1024.04	70.97	1031.04	71.25
1064.23	72.32	1093.85	72.87	1325.6	74.67	1415.22	74.44	1710.54	72.44
1802.82	72.3	1856.63	72.22	1867.61	72.21	1911.84	72.2	1932.71	71.68
1938.19	71.56	2035.15	69.85	2233.34	69.59	2308.39	69.49	2349.11	69.38
2379.02	69.33	2402.86	69.42	2406.17	69.43	2410.53	69.46	2484.49	69.46
2507.8	69.32	2508.7	69.32	2511.82	69.3	2555.84	68.35	2573.55	67.23
2583.14	66.29	2586.46	65.96	2590.24	65.67	2601.22	66.68	2611.07	67.65
2616.44	68.56	2619.87	69.14	2626.5	69.81	2632.67	71.05	2636.99	71.41
2642.67	75.18	2647.19	77.16	2651.48	79.87	2657.93	82.83	2670.46	89.09
2672.78	90.02	2675.05	90.48	2682.44	91.86	2688.41	92.83	2690.77	92.84

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	1802.82	.02	1856.63	.05	2233.34	.035	2583.14	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
2035.15	2626.5	106.9	107.52	109.59	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

Blocked Obstructions num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
1964.5	1975.5	104	2164.5	2175.5	111

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 13508.64

INPUT
Description: CS Modified with Blocked Obstructions for Approximate Pier Placement
Station Elevation Data num= 94

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	95.93	6.15	95.74	39.53	94.35	48.72	93.72	57.1	93.23
61.06	92.91	102.02	87.74	144.07	82.09	151.59	80.64	183.13	72.99
191.78	72.16	219.64	71.5	309.54	71.01	345.07	71.21	367.65	71.29
390.58	71.28	406.84	71.27	434.82	71.44	551.03	72.59	620.01	72.37
644.98	72.37	682.43	72.43	702.81	71.38	733.3	70.57	747.67	72.03
751.7	72.27	758.23	74.87	764.6	78.09	768.46	78.01	771.97	78.54
784.2	75	787.54	74.12	793.22	72.44	797.34	72.18	807.98	71.31
818.25	71.47	880.41	73.38	887.53	73.6	888.24	73.61	889.6	73.63
892.76	73.54	965.48	72.45	965.75	72.53	965.99	72.51	968.67	72.49
995.54	72.67	1003.56	72.1	1013.47	72.22	1042.52	72.17	1074.98	72.23
1109.24	72.28	1361.45	74.15	1526.67	73.69	1601.26	73.18	1695.99	72.55
1840.1	72.33	1855.93	72.31	1895.86	71.9	1902.27	71.84	1949.95	71.15
2050.43	69.31	2211.81	69.03	2286.18	68.84	2378.95	68.61	2470.11	67.92
2476.62	67.9	2495.28	67.89	2521.95	67.89	2565.39	67.57	2592	67.38
2595.65	67.28	2633.78	66.25	2635.65	66.21	2648.62	65.95	2690.12	65.11
2695.5	64.82	2698.98	64.98	2703.66	65.79	2704.06	65.89	2707.19	67.92
2709.83	68.61	2714.56	69.27	2721.53	77.11	2725.47	80.07	2727.32	81.44
2743.62	92.08	2745.38	93.66	2753.46	95.9	2753.91	96.02	2756.1	95.99
2762.06	96.4	2768.15	96.75	2772.69	97.26	2788.03	98.13		

Manning's n Values num= 5

2050.43	2714.56	89.44	101.07	116.92	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

Blocked Obstructions num= 1

Sta L	Sta R	Elev
2032.5	2043.5	104

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 13407.57

INPUT
Description: CS Modified with Blocked Obstructions for Approximate Pier Placement
Station Elevation Data num= 102

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	93.74	32.24	92.16	48.91	91.54	96.09	91.22	132.82	88.08
135.54	87.82	143	86.85	199.43	80.26	217.47	77.85	235.12	77.02
266.7	74.58	307.28	73.54	354.35	71.71	426.96	71.72	442.42	71.73
541.67	71.67	661.47	72.39	675.58	71.63	720.26	71.82	776.8	71.61
792.98	71.38	821.25	70.68	833.25	71.91	836.38	72.21	841.38	74.43

847.53	77.21	850.49	78.05	854.1	78.73	857.18	78.53	858.14	78.17
862.77	76.45	874.36	72.62	878.13	71.98	898.24	72.21	914.78	71.96
944.91	72.55	968.16	72.78	1002.2	71.62	1010.49	71.55	1016.34	71.44
1030.06	71.98	1031.16	72.26	1038.7	76.22	1042.51	77.97	1044.65	78.33
1053.74	78.17	1057.48	77.42	1062.96	74.1	1063.58	74.06	1068.61	71.92
1073.4	71.83	1080.35	71.72	1093.47	71.7	1207.79	71.94	1316.02	72.13
1500.94	73.6	1596.95	73.38	1721.05	73.11	1791.98	72.64	1859.49	72.53
1982.05	71.27	2012.08	70.96	2018.47	70.89	2123.39	69.35	2151.1	69.03
2167.88	68.62	2176.54	68.64	2183.51	68.72	2402.48	68.13	2462.91	67.97
2598.65	66.92	2654.31	66.62	2660.1	66.58	2664.53	66.6	2669.76	66.57
2774.87	65.92	2805.76	65.72	2810.59	65.69	2822.92	65.19	2834.38	64.73
2847.11	64.24	2852.95	64.63	2857.46	64.93	2861.13	65.32	2863.19	66.92
2865.03	67.51	2867.43	69	2868.52	69.86	2876.62	75	2892.51	84.04
2893.72	84.35	2895.52	84.79	2903.25	85.49	2909.12	86.18	2920.53	86.33
2925.33	86.71	2930.06	87.59	2978.88	90.84	2991.07	91.7	2993.13	92.04
2995.16	92.28	3003.11	93.01						

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	1982.05	.02	2012.08	.05	2402.48	.035	2822.92	.035
2852.95	.05								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
2151.1	2867.43	95.24	92.14	91.38	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

Blocked Obstructions num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
1997.5	2008.5	96	2197.5	2208.5	104

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 13315.43

INPUT
Description: CS Modified with Blocked Obstructions for Approximate Pier Placement, CS Modified 2:1 Slope
Station Elevation Data num= 89

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	92.37	48.24	90.74	104.79	86.53	134.15	85.14	150.09	84.65
168.88	82.74	205.62	78.17	255.87	76.49	292.04	74.79	340.93	73.77
386.48	71.99	419.8	71.99	603.33	72	638.41	72.21	691.28	69.13
750.71	69.17	791.18	69.15	827.43	70.12	836.9	70.4	846.96	71.82
850.53	72.27	863.22	78.21	864.14	78.71	872.17	78.93	872.59	78.94
872.72	78.9	891.98	72.54	901.98	69.38	912.59	68.66	921	67.6
981.83	70.09	984.79	70.26	983.32	70.26	985.84	70.28	987.07	70.39
1056.81	71.86	1066.85	71.97	1110.41	71.71	1110.78	71.71	1169.07	71.38
1284.66	71.63	1471.9	71.96	1587.84	72.9	1786.7	72.46	1835	72.59
1955	126.55	1985	126.55	2095.85	71.55	2107.2	71.35	2136.89	68.9
2182.4	67.51	2226.09	66.5	2303.2	66.75	2361.98	67.47	2484.16	67.2
2491.8	67.15	2570.4	66.58	2734.58	65.37	2759.22	65.24	2784.58	65.34
2887.37	65.73	2932.42	65.9	2934.69	65.89	2935.37	65.86	2936.1	65.86
2937.24	65.83	2940.25	65.8	2946.58	65.76	2978.7	65.35	2982.37	65.1
2984.8	65.77	2985.75	66.06	2985.88	66.6	2986.32	67.22	2990.16	69.62
2991.47	70.68	2993.36	72.26	2998.53	73.99	2999.61	74.31	3002.35	75.03
3036.03	79.84	3049.82	81.54	3061.08	82.33	3067.73	83.11	3078.3	85.15
3094.99	94.72	3103.97	99.78	3110.4	102.53	3114.75	104.55		

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	2095.85	.05	2491.8	.035	2990.16	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
2182.4	2986.32	395.33	410.1	440.35	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

Blocked Obstructions num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
2148.5	2159.5	96	0	1985	126.55

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 12905.33

INPUT
Description: CS Modified Sta 1800-2200
Station Elevation Data num= 105

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	93.53	8.94	92.81	12.86	92.58	21.37	92.42	75	88.52
119.37	85.3	151.36	82.61	159.86	82.35	181.68	80.01	207.47	78.46
280.15	75.79	315.78	74.33	410.87	72.29	417.03	72.21	435.69	72.41
608.09	72.57	637.12	72.56	651.24	69.94	659.02	69.32	662.84	68.46
663.99	68.45	683.25	66.39	721.77	66.53	742.22	66.68	763.86	66.92
782.63	67.15	836.9	69.71	847.94	70.06	849.5	70.22	853.01	70.49
872.91	72.29	883.79	74.72	885.7	75.28	887.66	75.3	893.09	75.49
898.77	74.5	905.28	73.17	907.69	72.26	911.2	69.82	915.49	67.44
923.04	65.18	955.74	64.57	979.48	63.54	1012.57	63.44	1030.68	63.99
1044.9	64.94	1053.6	64.86	1056.58	66.16	1060.81	67.68	1064.12	69.1
1066.55	70.49	1080.18	72.59	1090.29	72.57	1115.14	72.39	1273.23	71.38
1303.49	71.21	1356.83	71.31	1654.83	71.73	1677.09	71.89	1708.19	71.8
1796.13	72.07	1800	72.05	1920	132.05	2000	131.62	2080	131.19
2200	71.19	2200.37	71.13	2231.23	66.53	2249.65	65.34	2258.16	64.43
2273.46	64.7	2331.83	65.73	2333.6	65.73	2336.35	65.71	2337.46	65.72
2339.36	65.72	2356.36	65.72	2471.15	65.74	2716.21	65.8	2782.85	65.21
2915.49	65.84	2927.34	65.85	3009.56	65.93	3011.51	65.9	3038.99	65.39
3056.6	65.4	3099.89	65.82	3126.83	65.67	3127.2	65.67	3144.61	63.94
3169.67	62.49	3179.14	62.49	3215.34	62.47	3228.33	62.47	3242.92	63.84
3253.1	64.6	3255.64	65.06	3259.54	66.88	3266.26	72.71	3274.58	80.86

3276.1	82.12	3279.28	84.73	3283.12	85.74	3293.27	87.83	3294.87	88.3

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	2200	.05	2273.46	.035	2339.36	.05	2471.15	.035
3294.87	.05								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
2231.23	3259.54	1161.81	1209.87	1227.39	.1	.3

Blocked Obstructions num= 1

Sta L	Sta R	Elev
0	2000	131.62

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 11695.46

INPUT
Description: CS Modified Sta 1650-2050
Station Elevation Data num= 134

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	95.11	2.21	94.93	11.41	94.03	52.62	92.7	58.81	91.73
65.23	91.41	72.89	90.05	86.67	86.23	88.14	86.09	97.43	84.97
121.79	83.73	160.94	82.22	328.18	73.68	350.27	72.95	408.73	72.21
415.23	72.17	436.65	72.47	525.46	73.46	562.85	72.83	599.83	72.15
614.25	72.57	622.39	72.84	629.02	73.05	638.53	72.27	640.65	71.88
647.32	70.35	660.58	66.72	682.58	66.02	699.46	64.71	709.54	64.54
727.57	64.5	806.68	63.44	845.64	63.6	849.21	63.83	859.29	65.14
862.56	65.28	865.03	65.87	872.11	69.92	875.55	71.91	876.48	72.06
887.24	73.47	895.63	73.53	905.91	72.8	907.95	72.42	920.58	66.82
921.58	66.36	924.05	66.02	931.15	64.9	937.02	64.55	998.42	64.3
1047.95	63.93	1065.11	64.38	1070.37	65.21	1071.26	65.35	1082.68	70.47
1085.37	71.75	1089.35	72.42	1090.51	72.55	1093.23	72.55	1133.54	72.47
1157.77	72.53	1232.93	70.28	1443.76	68.69	1454.46	68.64	1467.99	68.67
1650	69.29	1770	129.29	1850	127.735	1930	126.18	2050	66.18
2091.23	65.66	2094.91	65.66	2129.83	65.66	2169.05	65.67	2173.4	65.82
2180.47	65.12	2190.07	64.96	2237.15	64.21	2255.6	64.35	2266.67	63.85
2274.22	63.53	2374.13	59.22	2374.24	59.22	2393.35	59.26	2444.07	59.27
2478.98	59.28	2566.64	59.3	2723.39	58.77	2760.87	58.64	2852.67	60.52
2864.18	60.43	2885	60.09	2902.24	60.48	2920.42	60.72	2925.76	61.47
2937.98	63.54	2946.64	64.77	2950.35	65.79	2957.34	65.48	2958.05	65.58
2961.9	63.54	2966.39	60.93	2967.8	60.23	2968.57	59.85	2973.41	58.75
2976.47	58.74	3168.63	59.02	3188.71	58.95	3203.49	58.98	3217.96	58.98
3229.93	58.98	3280.64	57.81	3282.03	57.71	3300.8	56.41	3331.69	54.08
3348.55	53.64	3360.83	53.78	3380.37	53.82	3388.07	53.92	3395.96	54.52
3421.59	56.41	3421.69	56.43	3435.66	58.75	3436.13	58.82	3445.06	60.33
3457.28	64.57	3460.12	65.78	3467.61	70.09	3468.42	70.58	3468.89	71.01
3469.2	71.21	3481.04	81.02	3487.44	84.61	3491.52	86.82		

Manning's n Values num= 9

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	2094.91	.02	2129.83	.05	2374.24	.035	2444.07	.05
2478.98	.035	2723.39	.05	2967.8	.035	3421.69	.05		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
2967.8	3445.06	914.27	997.45	1009.86	.1	.3

Blocked Obstructions num= 1

Sta L	Sta R	Elev
0	1850	127.735

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 10698.02

INPUT
Description: CS Modified Sta 1520-1920
Station Elevation Data num= 108

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	80.34	57.37	78.39	74.11	77.74	92.5	77.1	179.77	73.06
238.97	71.37	356.97	67.67	411.4	65.69	418.05	65.62	449.09	65.29
482.68	64.53	625.32	64.17	655.12	64.66	698.48	64.11	705.86	64.12
898.81	64.73	930.71	64.93	1098.97	65.16	1508.72	66.48	1520	66.42
1640	126.42	1720	124.635	1800	122.85	1920	62.85	1923.44	62.81
1927.88	62.76	2006.27	61.84	2163.88	60.05	2189.39	59.76	2232.57	59.75
2262.84	59.75	2370.22	59.31	2439.73	59.57	2452.6	58.9	2458.58	59.47
2713.43	57.34	2713.51	57.34	2751.57	56.15	2761.55	57.49	2820.29	56.76
2821.16	56.77	2821.36	56.76	2821.46	56.76	2822.06	56.73	2950.91	53.64
2988.21	52.69	2995.95	52.5	2997.88	52.45	3053.94	47.32	3082.65	46.23
3091.94	45.84	3115.03	45.13	3125.6	45.19	3131.48	45.22	3152.86	45.6
3185	48.25	3187.42	48.39	3191.44	48.63	3194.29	48.78	3194.5	48.79
3215.72	51.07	3229.66	52.46	3233.87	52.65	3243.96	52.44	3258.72	52.05
3266.03	52.52	3268.63	53.47	3273.17	55.75	3275.4	56.89	3283.07	60.66
3287.07	63.28	3289.07	64.63	3293.8	70.74	3295.07	72.23	3300.16	76.93
3301.52	77.95	3317.99	86.45	3328.07	92.21	3332.97	94.94	3350.99	102.48
3355.08	104.54	3357.74	104.9	3364.48	105.61	3373.08	105.69	3384.12	108.62
3401.84	110.76	3413.24	111.48	3434.72	114.28				

Manning's n Values num= 8

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	1923.44	.02	2163.88	.035	2232.57	.05	2644.74	.035
2713.43	.05	2988.21	.035	3194.29	.05				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
2820.29	3275.4	601.47	594.45	599.46	.1	.3

Blocked Obstructions num= 1

Sta L	Sta R	Elev

```
       0    1720 124.635

CROSS SECTION           RIVER: San Mateo Creek
REACH: Lower               RS: 10103.57

INPUT
Description: CS Modified Sta 1500-1900
Station Elevation Data     num=       83
     Sta    Elev      Sta    Elev      Sta    Elev      Sta    Elev      Sta    Elev
       0   67.34   130.33   65.81   195.26   65.09   221.36   64.83   248.87   64.13
  336.13    62.4   510.97   58.61   523.87   59.15   555.28   59.35   902.03    63.9
  947.08   64.18  1035.49   64.29  1427.38   62.94     1500   62.08     1620  122.08
    1700  120.68     1780  119.28     1900   59.28  1914.45   59.19  2093.27   58.16
 2121.07   58.27  2263.61   58.85  2275.77   58.53  2319.92   57.15  2324.87   56.99
 2334.86   57.08  2346.69   57.59  2380.02   58.42   2386.2   58.51   2393.6    58.6
 2417.19   58.65  2452.49   58.56  2457.43   58.54  2471.42   58.41  2488.91   57.27
 2527.02   56.51  2534.65   56.49  2538.38   56.56  2575.98   54.47  2587.15   53.99
 2592.03   53.76   2597.8   53.19  2618.19   52.63  2620.91   52.55  2632.34   52.33
 2654.67   51.29  2668.03   51.68   2694.8   52.62  2754.59   52.54  2808.44   52.52
 2838.38    52.2  2848.01   52.42   2875.4   52.48     2919    51.9     2960   51.14
 2966.18   51.23  3000.02   51.69  3010.18   51.92  3012.58   51.92  3018.26    51.9
  3026.7   52.62  3027.81   52.58  3029.55   53.28  3031.73   54.53  3033.14    56.4
 3035.24   58.56  3038.06   61.59  3040.77   64.63   3052.2   70.04  3054.13      71
 3058.65   72.16  3062.92   73.23  3081.15   78.33  3115.32   80.62  3140.42   82.29
 3142.37   82.42  3143.83   82.52  3145.71    82.6  3200.24   85.72  3277.48   89.45
 3281.55    89.6  3297.95   90.61  3314.17   91.66

Manning's n Values         num=        7
     Sta   n Val      Sta   n Val      Sta   n Val      Sta   n Val      Sta   n Val
       0    .035  2121.07     .05  2319.92     .02   2386.2     .05  2452.49     .02
 2618.19     .05  3115.32    .035

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
        2597.8 3029.55             615.7  627.48  572.22              .1       .3
Blocked Obstructions      num=        1
   Sta L   Sta R    Elev
       0    1700  120.68

CROSS SECTION           RIVER: San Mateo Creek
REACH: Lower               RS: 9476.099

INPUT
Description: CS Modified Sta 1670-2070
Station Elevation Data     num=       64
     Sta    Elev      Sta    Elev      Sta    Elev      Sta    Elev      Sta    Elev
       0   68.47    61.01   65.67    61.94   65.64    62.56   65.62   191.76   65.28
  280.56   64.56   503.79   60.62   569.49   59.38   581.88   59.13   596.07   59.13
  609.58   59.19   1350.6    59.4  1492.58   59.09     1670   59.03     1790  119.03
    1870  118.39     1950  117.75     2070   57.75  2179.62   57.61  2206.51   57.32
 2301.51   55.49  2371.26   54.15  2453.33   52.57     2458   52.51  2469.05   52.45
 2472.74   52.46  2483.67   52.57  2512.72   52.75  2715.36   53.39  2737.41   52.13
 2759.94   50.84   2763.9   50.85  2793.27   48.06  2806.09   46.73  2811.55   46.28
 2814.12   46.16  2816.12   46.07  2900.54   45.96  2946.77   45.95  2996.02   45.94
 3020.52   45.94  3029.82   46.99  3036.84   48.06   3056.8   50.29  3069.71   50.99
 3080.21   52.98   3081.9   53.29   3085.7   55.29  3104.93   65.39  3108.17   66.23
 3123.12   71.35  3127.23   71.79  3140.84   73.68  3157.57   74.58   3173.3    75.2
 3191.88   75.93  3263.73   79.05  3286.95   79.33  3327.83   80.76  3341.46   80.89
 3355.65   81.15  3377.36   83.57  3433.65   86.54  3487.14   86.18

Manning's n Values         num=        4
     Sta   n Val      Sta   n Val      Sta   n Val      Sta   n Val
       0    .035  2301.51     .02  2371.26     .05   3173.3    .035

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
        2793.27 3036.84            632.1  587.55  573.86              .1       .3
Blocked Obstructions      num=        1
   Sta L   Sta R    Elev
       0    1870  118.39

CROSS SECTION           RIVER: San Mateo Creek
REACH: Lower               RS: 8888.551

INPUT
Description: CS Modified Sta 1650-2050
Station Elevation Data     num=       64
     Sta    Elev      Sta    Elev      Sta    Elev      Sta    Elev      Sta    Elev
       0   80.35      .13   80.36    13.56   79.85    91.05   76.49   277.46    69.9
  359.03   66.43   407.56   65.16   534.91   62.09   578.82   60.58   608.84   60.26
  728.64   58.62  1086.65   56.94  1387.14    56.2  1640.07   55.84     1650   55.79
    1770  115.79     1850  114.445     1930   113.1     2050    53.1  2121.09   52.31
 2122.38    52.3  2169.63   52.39  2257.06    52.5  2287.36   52.52  2319.48   50.53
 2333.25   48.89  2357.53   46.81  2410.42   45.84  2442.82   45.86   2463.2   45.86
  2490.3   45.87  2581.97   45.73  2582.94   45.73  2682.65   45.56  2736.89      46
 2740.31   46.02  2852.96   46.94  2879.31   47.47  2985.08   50.07   2992.5   50.31
 3017.87   51.83  3031.05   52.58  3036.67    52.1  3038.71   51.96  3061.21   50.41
 3076.83   50.19  3168.61   52.51  3177.53   52.88  3186.39   54.03  3208.61   57.19
 3218.04   59.25  3233.68   64.84  3235.03   65.19  3272.77   74.95  3277.04   76.17
 3283.12   78.11  3290.21   79.03  3293.84   79.59  3297.84   80.31  3318.47   82.17
 3328.94   83.11  3385.03   85.12  3419.86   85.85  3421.11   85.92

Manning's n Values         num=        5
     Sta   n Val      Sta   n Val      Sta   n Val      Sta   n Val      Sta   n Val
       0    .035  2121.09     .05   2463.2    .035  2736.89     .05  3318.47    .035

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
        2357.53 2852.96            583.69  598.13  621.47              .1       .3
Blocked Obstructions      num=        1
   Sta L   Sta R    Elev
```

0	1850	114.45

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 8290.415

INPUT
Description: CS Modified Sta 1780-2180
Station Elevation Data num= 70

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	79.85	16.23	79.94	50.96	78.61	58.27	78.26	267.42	69.91
432.85	63.96	524.53	61.37	650.86	59.02	770.15	57.4	819.9	56.94
1162.11	54.1	1449.92	54.41	1662.02	54.01	1780	55.03	1900	115.03
1980	110.12	2060	105.21	2180	45.21	2190.09	45.04	2194.46	45.12
2227.79	45.74	2228.65	45.74	2230.72	45.77	2302.39	45.81	2500.84	45.93
2569.75	44.11	2626.16	42.43	2626.24	42.43	2658.69	42.32	2671.47	42.29
2672.93	42.32	2740.82	44	2770.06	44.76	2792.68	45.35	2809.63	45.63
2811.18	45.65	2816.82	45.75	2853.21	45.97	2905.56	46.07	2998.53	47.05
3063.33	47.23	3101.47	47.19	3172.75	50.53	3189.52	50.97	3218.09	51.57
3218.82	51.65	3219.13	51.72	3220.85	52.11	3225.81	52.88	3235.37	56.7
3238.75	58.13	3249.65	60.74	3261.17	64.7	3261.77	64.78	3266.83	65.64
3270.86	66.88	3288.17	72.13	3295.58	72.19	3300.09	73.2	3311.97	73.85
3319.71	74.16	3332.25	75.37	3345.66	76.26	3377.92	78.4	3402.5	79.29
3452.98	80.5	3473.27	81.31	3480.09	81.5	3487.84	81.88	3597.48	86.98

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	2194.46	.035	2302.39	.05	2626.16	.035	2770.06	.05
3345.66	.035								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
2180	2905.56	624.1	622.8	620.76	.1	.3

Blocked Obstructions num= 1

Sta L	Sta R	Elev
0	1980	110.12

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 7667.615

INPUT
Description: CS Modified Sta 1920-2320
Station Elevation Data num= 88

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	73.94	29.83	73.49	70.61	72.31	76.47	72.08	177.17	68.44
257.15	64.74	375.32	61.78	508.97	59.22	625.85	55.8	727.73	54.12
829	52.98	931.72	52.51	1078.07	51.83	1324.06	51.93	1416.77	51.91
1777.42	52.44	1830.59	53.41	1874.61	52.29	1919.49	52.33	1920	52.33
2040	112.33	2120	105.71	2200	99.09	2320	39.09	2337.92	39.33
2434.8	39.66	2626.47	39.42	2642.31	39.41	2652.92	39.39	2723.67	39.31
2749.1	39.28	2760.55	39.28	2773.19	39.57	2789.59	39.96	2794.72	40.32
2809.9	44.41	2812.64	44.92	2815.64	45.74	2817.86	46.01	2818.48	45.97
2841.34	39.28	2841.81	39.07	2842.23	38.98	2872.15	38.81	2907.81	38.44
2935.48	38.12	2951.52	38.44	2974.57	37.97	2988.73	38.57	3005.42	38.94
3033.83	38.79	3059.77	39.07	3083.4	40.38	3099.38	39.38	3122.38	39.82
3124.41	39.74	3125.32	39.76	3127.3	39.8	3131.3	39.8	3170.36	39.21
3180.14	38.83	3204.98	39.18	3225.45	39.12	3226.2	39.21	3228.44	39.42
3265.11	44.66	3270.22	45.7	3281.89	47.55	3284.32	48.63	3295.56	51.82
3299.55	52.71	3306.94	56.42	3307.44	56.54	3307.56	56.57	3308.65	56.97
3328.65	63.22	3335.81	64.6	3342.12	65.89	3347.61	66.81	3360.37	69.05
3380.5	72.57	3388.42	73.07	3403.38	73.92	3412.24	74.76	3454.54	77.16
3487.97	77.95	3529.46	79.67	3537.23	80.04				

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	2320	.05	2652.92	.035	2723.67	.05	3360.37	.02

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
2320	3005.42	556.83	550.63	551.5	.1	.3

Blocked Obstructions num= 1

Sta L	Sta R	Elev
0	2110	105.58

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 7116.984

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	72.96	117.54	71.06	288.52	63.65	337.8	62.28	450	59.02
535.24	56.66	661.84	52.95	791.61	52.24	962.44	51.42	1250.11	49.88
1607.77	48.32	1833.42	47.4	2081.58	48.29	2321.68	48.59	2340	48.67
2460	108.67	2540	101.33	2620	93.99	2740	33.99	2788.9	34.67
2810.72	34.58	2828.79	34.5	2835.31	34.61	2852.52	35.21	2867.31	35.64
2898.33	36.53	2957.86	37.77	2959.46	37.8	3015.31	38.57	3019.63	38.63
3085.13	39.31	3195.17	39.47	3453.83	37.66	3485.15	38.02	3525.61	36.97
3530.18	36.84	3544.46	37.01	3552.2	37.52	3573.96	38.12	3581.72	39.88
3586.91	43.03	3590.77	44.9	3597.22	46.35	3607.98	47.7	3621.87	48.65
3625.51	48.9	3649.4	51.09	3662.71	53.03	3670.82	55.79	3679.78	59.08
3692.34	60.59	3722.18	64.8	3745.5	65.93	3759.57	66.65	3763.49	66.71
3772.78	67.07								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.035	2867.31	.05	3621.87	.02

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
2740	3573.96	569.88	563.21	532.8	.1	.3

Blocked Obstructions num= 1

Sta L	Sta R	Elev
0	2530	101.285

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 6553.777

INPUT
Description: CS Modified Sta 2920-3320
Station Elevation Data num= 55

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	74.74	2.14	74.75	71.35	71.83	245.13	68.96	477.05	58.84
674.44	52.54	788.4	50.77	924.42	48.76	950.91	48.27	1364.63	47.14
1459.47	47.19	1536.34	46.96	1986.82	45.12	2284.68	45.81	2580.32	45.84
2705.18	45.5	2780.9	45.57	2898.39	45.74	2920	45.77	3040	105.77
3120	99.35	3200	92.93	3320	32.93	3375.66	32.93	3397.73	32.94
3421.43	32.94	3525.69	32.87	3562.15	32.84	3618.36	32.62	3702.27	32.28
3702.89	32.28	3754.12	32.22	3790.01	32.21	3843.61	33.65	3893.13	35.16
3936.47	36.23	3958.66	37.28	3976.05	38.1	3981.88	39.71	3984.69	40.21
3988.93	41.96	3996.9	46.49	4015.5	47.51	4037.36	48.71	4046.22	49.32
4054.55	49.56	4064.65	49.89	4126.52	51.65	4134.54	51.66	4206.32	52.02
4251.39	52.86	4267.36	54.31	4312.4	56.73	4372.53	59.52	4412.63	61.01

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	3397.73	.035	3618.36	.05	4015.5	.02

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
3320	3893.13	469.22	407.1	351.14	.1	.3

Blocked Obstructions num= 1

Sta L	Sta R	Elev
0	3120	99.35

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 6146.684

INPUT
Description: Updated Manning's N Distribution, CS Modified Sta 3130-3530
Station Elevation Data num= 87

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	67.37	73.94	66.21	281.44	57.36	460.67	51.79	738.33	47.62
855.23	45.95	861.94	45.96	868.72	46.34	870.48	46.57	874.41	47.48
877.58	47.8	1199.64	43.91	1346.56	44.45	1370.86	44.24	1861.14	42.72
2188.85	43.37	2366.94	44.17	2690.87	44.97	2791.78	45.17	3014.8	44
3126.98	43.15	3130	43.14	3250	103.14	3330	100.535	3410	97.93
3530	37.93	3543.15	37.83	3556.05	37.64	3582.52	38.33	3598.62	37.92
3619.82	37.63	3647.76	34.53	3675.46	34.13	3697.23	33.81	3737.97	33.37
3763.67	32.92	3774.27	32.73	3822.48	32.67	3935.19	32.53	3971.58	32.48
4054.03	32.69	4068.32	32.4	4093.99	31.89	4104.15	31.6	4116.51	32.69
4120.1	33.01	4123.97	33.1	4129.79	35.14	4132.13	35.87	4138.29	39.7
4144.43	43.03	4146.87	45.14	4148.3	45.76	4151.89	46.4	4166.22	45.73
4180.9	45.16	4194.78	45.7	4208.68	46.3	4216.59	46.99	4260.17	46.68
4294.45	46.79	4329.78	48.38	4379.38	48.63	4549.26	47.05	4587.08	47.84
4621.53	48.99	4653.62	51.46	4687.91	52.76	4704.58	52.97	4713.51	53.08
4745.95	53.64	4767.84	55.71	4780.44	57.46	4785.49	58.45	4789.67	59.19
4799.79	63.62	4801.91	64.59	4806.18	65.99	4822.81	71.26	4842.1	78.88
4843.16	79.37	4853.9	85.67	4862.42	89.5	4873.75	93.65	4887.25	97.07
4894.23	98.15	4900.61	98.79						

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	3675.46	.05	3822.48	.035	4116.51	.02	4704.58	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
3647.76	4129.79	280.12	247.83	242.98	.1	.3

Blocked Obstructions num= 1

Sta L	Sta R	Elev
0	3330	100.535

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 5898.852

INPUT
Description: CS Modified Sta 2090-2470
Station Elevation Data num= 69

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	54.42	396.05	39.79	449.33	39.53	867.45	38.96	942.47	39.42
989.29	39.63	1658.74	42.41	1811.89	43.06	1875.95	43.27	1936.43	43.22
2100	42.5	2220	102.5	2300	100.215	2380	97.93	2500	36.17
2552.4	35.84	2599.38	35.77	2601.8	35.77	2623.6	36.48	2693.25	38.42
2708.23	39.35	2721.65	39.19	2770.51	39.18	2797.98	37.64	2825.42	35.79
2833.18	35.27	2850.05	34	2860.92	33.08	2878.16	32.82	2881.96	32.76
2902.98	32.59	2999.9	33.11	3010.01	33.14	3053.25	33.3	3054.55	33.36
3060.75	33.64	3081.03	33.05	3111.07	32.4	3111.88	32.64	3115.25	33.33
3115.74	34	3117.54	35.18	3121.34	38.21	3123.17	38.79	3124.81	39.53
3149.5	42.03	3167.05	44.51	3193.07	45.12	3215.98	46.56	3231.87	46.9
3239.81	46.81	3275.55	46.42	3380.58	45.16	3414.31	45.06	3455.06	45.29
3491.3	46.01	3541.73	46.23	3605.7	48.37	3616.53	48.72	3618.08	48.77
3623.65	49.17	3648.73	51.18	3665.08	52.51	3683.68	57.4	3689.53	58.85
3701.64	60.59	3718.68	62.87	3744.57	66.56	3767.22	69.82		

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	2599.38	.05	2825.42	.035	3239.81	.02	3616.53	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
2850.05	3115.74	604.78	585.72	573.19	.1	.3

Blocked Obstructions num= 1

Sta L	Sta R	Elev

```
       0    2300  100.22

CROSS SECTION          RIVER: San Mateo Creek
REACH: Lower              RS: 5313.135

INPUT
Description: CS Modified Sta 1970-2350
Station Elevation Data    num=      66
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0    54.8   235.9   35.44  377.06   35.34  407.89   35.07  474.34   32.93
  484.38   32.81  517.48   34.18  558.19   36.22  572.64   36.28 1081.71   38.43
 1730.88   40.34 1838.88   41.44 1922.89   40.19 1944.98   39.87 1946.14   39.81
 1947.51   39.76    1970   39.08    2090   99.08    2160  95.655    2230   92.23
    2350   32.23 2378.28   32.12 2384.91   32.11 2528.49   32.05 2733.34   32.68
 2768.74   32.82 2797.22    32.8 2907.86   31.84 2955.55   31.32 2982.22   31.03
 2991.16   31.06 3069.24   31.32 3080.18   31.24 3122.41    30.9 3130.16   30.85
 3133.53   31.01 3136.32   31.35 3145.48   32.39 3153.92   37.51 3154.56    37.9
 3155.56   38.35 3158.71   39.74 3159.79   39.91 3163.25   40.32 3164.99   40.37
 3171.31   40.51 3173.89   40.79 3228.93   41.25 3234.23   41.29 3236.17   41.32
 3319.53   45.76 3324.98   45.83  3355.5   45.72 3365.71   45.15 3382.83   43.86
 3391.49   43.98 3431.96   45.92 3448.73    46.4 3454.08   46.98 3475.98   49.36
 3509.76    52.7 3520.54   57.38  3526.3    59.6 3542.39   64.53 3548.64   66.63
 3560.91   71.06

Manning's n Values        num=       5
     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val
       0    .035 1922.89     .02    1970     .05 2955.55    .035 3454.08     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
       2797.22 3145.48            604.02  623.42   637.2              .1       .3
Blocked Obstructions     num=       1
   Sta L   Sta R    Elev
       0    2160  95.655

CROSS SECTION          RIVER: San Mateo Creek
REACH: Lower              RS: 4689.719

INPUT
Description: CS Modified Sta 1950-2330
Station Elevation Data    num=      58
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0   50.59    5.54    50.1   16.15    49.6   23.42   49.07   197.5   32.89
  240.38    32.9  387.06   32.88  467.24   32.94  633.12   33.02 1195.92    36.5
 1491.91   38.33  1533.6   38.56 1611.23   38.32  1676.8   38.37 1720.88   37.97
 1733.94   38.62 1755.25    38.9 1772.27   37.68 1778.83   37.11 1801.66   34.35
 1820.46   33.84 1852.87   32.96 1912.02   32.49 1913.47   32.47    1950   32.02
    2070   92.02    2140   90.56    2210    89.1    2330    29.1 2359.57    28.7
 2386.54   28.48 2534.69    27.3 2585.14    27.2 2636.08   26.73 2782.14   25.37
 2815.27   26.01 2872.84   23.84 3012.04   23.21 3020.96   23.24 3075.22   24.09
 3158.31   25.38    3191   26.39 3194.81   26.51  3211.9   27.08 3239.93      28
 3259.34   29.49 3272.86   31.14  3283.9   32.16 3287.07   32.58 3293.44   33.43
 3304.17    36.6 3315.74   39.95 3337.62   42.38 3377.29   44.79 3406.49   47.33
 3412.31   47.71 3416.72   48.32 3416.91   48.34

Manning's n Values        num=       5
     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val
       0    .035 1195.92     .02 1913.47     .05 3075.22    .035  3211.9     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
       2585.14  3211.9            557.08  599.98  624.49              .1       .3
Blocked Obstructions     num=       1
   Sta L   Sta R    Elev
       0    2140   90.56

CROSS SECTION          RIVER: San Mateo Creek
REACH: Lower              RS: 4089.740

INPUT
Description: CS Modified Sta 1870-2250
Station Elevation Data    num=      62
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0   43.73  120.02   32.57  131.17   32.57  253.76   31.11  357.24   32.72
     427   32.77  899.22   32.98  954.04   33.32  993.06   33.55 1222.54    34.9
```

3102.66	26.27	3106.67	26.2	3116.51	26.34	3145.31	27.09	3172.38	27.65
3180.44	27.82	3183.26	27.7	3186.33	27.58	3202.22	26.94	3203.62	27.23
3205.09	28.53	3208.91	30.7	3212.53	35.02	3212.79	35.32	3219.19	37.95
3219.44	38.02	3219.93	38.04	3226.98	38.68	3236.81	38.22	3248.61	39.25
3257.08	39.88	3269.27	41.94	3289.72	45.01	3346.69	49.12	3362.24	50.24
3384.82	51.78	3392.9	52.57	3399.42	53.43	3407.75	54.71	3416.41	56.08
3477.19	65.71	3486.14	68.15						

```
Manning's n Values        num=       7
     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val
       0    .035 1743.07     .02 1777.93     .05 3102.66    .035 3172.38     .05
 3346.69     .07 3416.41     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
          2250 3145.31            589.66  603.63  611.39              .1       .3
Blocked Obstructions     num=       1
   Sta L   Sta R    Elev
       0    2060  89.195

CROSS SECTION          RIVER: San Mateo Creek
REACH: Lower              RS: 3486.110
```

INPUT
Description: CS Modified Sta 1950-2330
Station Elevation Data num= 66

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	46.29	164.35	29.36	170.65	29.14	191.87	28.38	194.63	28.28
197.81	27.46	214.3	26.61	218.17	25.64	221.29	25.46	236.53	24.81
427.84	25.58	485.93	26.09	545.78	26.08	561.55	26.23	566.9	26.28
642.16	27.68	660.34	27.89	777.29	31.38	781.75	31.52	782.34	31.54
782.75	31.57	783.12	31.57	914.19	32.95	938	32.41	961.74	32.7
1060.96	32.15	1484.48	33.24	1802.93	34.08	1912.47	34.47	1950	34.04
2070	94.04	2140	88.785	2210	83.53	2330	23.53	2330.08	23.53
2435.73	20.75	2455.24	20.59	2503.12	19.86	2521.29	19.73	2523.59	19.71
2690.84	17.56	2853.72	14.86	2859.84	14.93	2870.57	15.13	3028.74	16.36
3069.91	16.52	3112.95	16.69	3124.02	16.88	3135.84	17.01	3137.38	17.04
3165.78	17.62	3171.12	17.92	3179.97	18.42	3213.55	20.32	3218.35	20.85
3244.42	23.69	3284.83	28.14	3300.66	29.84	3305.02	30.69	3314.02	32.6
3324.12	38.65	3348.28	55.29	3359.46	64.31	3363.44	66.09	3370.03	68.46
3373.53	69.23								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.035	3069.91	.035	3171.12	.07

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
2435.73	3218.35	577.29	602.58	615.08	.1	.3

Blocked Obstructions num= 1

Sta L	Sta R	Elev
0	2140	88.785

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 2883.526

INPUT
Description: CS Modified Sta 1940-2320
Station Elevation Data num= 53

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	43.87	138.59	25.27	144.34	25.32	155.04	25.36	280.43	25.37
674.52	26.23	703.51	26.26	745.97	27.28	773.14	27.93	1090.82	30.95
1473.75	31.96	1666.35	32.14	1940	30.54	2060	90.54	2130	86.975
2200	83.41	2320	23.41	2397.39	21.6	2470.49	19.84	2556.9	17.85
2588.28	17.51	2637.19	15.79	2730.4	14.12	2756.38	14.59	2761.02	14.65
2778.21	14.83	2858.77	15.67	2870.81	16.19	2891.7	17.09	2895.51	17.12
2905.94	17.23	2934.43	19.59	2957.04	19.85	2959.64	19.84	2961.43	20.49
2966.51	21.04	2966.67	21.06	2995.29	26.1	3002.44	25.94	3011.47	26.86
3014.13	27.24	3015.87	27.92	3022.73	34.3	3027.64	39.08	3036	48.34
3044.12	55.97	3056.9	67.69	3058.44	68.95	3066.94	75.22	3074.67	80.81
3080.16	85.53	3086.85	91.92	3086.9	91.96				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.035	2778.21	.035	2870.81	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
2470.49	2957.04	193.46	203.76	211.14	.1	.3

Blocked Obstructions num= 1

Sta L	Sta R	Elev
0	2130	86.975

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 2679.762

INPUT
Description:
Station Elevation Data num= 65

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	45.67	152.32	25.49	152.41	25.46	152.57	25.37	152.72	25.31
152.79	25.3	152.89	25.27	153.02	25.22	153.12	25.22	153.24	25.16
153.33	25.11	153.43	25.08	153.53	25.05	153.63	25.03	153.67	25.03
154.23	25.06	155.91	25.03	157.89	25.03	685	26.22	729.8	26.27
1169.08	30.4	1188.39	30.44	1207.6	30.5	1402.35	30.69	1687.97	30.94
1883.46	29.77	2002.09	28.51	2131.34	26.39	2171.25	26.45	2174.8	26.43
2255.35	26.14	2261.8	26.09	2291.45	25.82	2306.04	24.96	2320.77	23.7
2334.58	21.2	2348.29	19.69	2368.87	20.19	2402.21	21.36	2439.75	20.12
2446.69	19.89	2497.77	19.68	2543.21	19.57	2661.08	14.9	2684.03	14.19
2696.76	14.24	2707.56	14.28	2708.82	14.29	2746.46	14.85	2766.76	16.57
2783.75	17.87	2807.02	19.65	2809.85	19.63	2824.64	19.51	2846.41	20.28
2856.24	21.35	2856.84	21.42	2861.82	23.3	2864.07	23.87	2868.1	30.22
2872.97	37.3	2876.16	41.47	2889.55	57.34	2890.45	58.31	2899.74	68.73

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	2174.8	.07	2261.8	.05	2696.76	.035	2783.75	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
2402.21	2856.24	387.64	396.16	397.97	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Permanent
888			T
888			F

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 2283.606

INPUT
Description: CS Modified with Blocked Obstructions for Approximate Pier Placement
Station Elevation Data num= 86

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	50.74	42.78	45.14	46.09	43.64	52.72	39.85	58.82	37.31
61.61	36.95	65.89	35.72	71.12	33.52	75.43	33.36	80.7	30.98
84.08	29.01	88.42	27.45	92.78	26.21	97.15	25.21	98.62	25.11
122.61	26.69	198.23	25.43	293.95	25.53	627.39	26.31	659.77	26.35
868.5	26.56	1089.31	28.67	1293.99	29.12	1313	29.19	1603.67	29.45
1749.84	29.39	1784.45	29.15	1932.01	27.38	2047.8	26.16	2065.96	26.39
2097.45	26.35	2101.37	26.02	2108.61	25.28	2124.15	21.46	2130.46	21.08
2136.12	21.06	2142.2	21.81	2157.02	25.66	2167.33	26.38	2167.53	26.39
2175.98	27.04	2189.51	26.68	2204.26	25.94	2286.03	26.1	2286.09	26.1
2287.27	26.1	2361.89	20.7	2375.17	19.79	2463.42	18.67	2533.64	19.71
2553.3	19.74	2601.28	19.8	2630.31	19.88	2668.83	19.99	2683.93	19.35
2699.63	18.69	2701.74	18.64	2742.9	17.75	2749.25	17.45	2750.91	17.37
2754.51	17.37	2764.19	17.89	2775.18	18.47	2801.95	19.93	2812.08	21.62
2823.26	23.74	2831.99	26.57	2838.6	31.04	2844.01	34.82	2847.37	36.09
2849.48	36.44	2857.12	35.86	2868.74	37.27	2873.98	37.97	2878.95	39.58
2884.38	42.66	2886.96	44.69	2888.97	46.04	2890.89	47.23	2911.85	58.02
2919.17	62.34	2940.49	73.07	2952.28	78.22	2954.21	79.14	2954.89	79.33
2968.95	82.03								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	2167.33	.07	2286.09	.05	2553.3	.035	2701.74	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
2375.17	2801.95	218.79	208.19	198.85	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Permanent
888		T	
888		F	

Blocked Obstructions num= 3

Sta L	Sta R	Elev	Sta L	Sta R	Elev	Sta L	Sta R	Elev
2152.5	2163.5	82	2222.5	2233.5	82	2292.5	2303.5	82

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 2075.420

INPUT
Description: CS Modified with Blocked Obstructions for Approximate Pier Placement
Station Elevation Data num= 87

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	56.14	14.77	54.31	19	52.24	27.57	46.86	35.56	43.25
39.25	42.77	44.96	41.01	52.02	37.81	57.89	37.63	65.16	34.08
69.88	31.11	75.99	28.75	82.17	26.85	88.44	25.31	90.58	25.16
126.36	27.69	254.47	25.75	460.21	26.05	596.07	26.4	637.79	26.45
957.52	26.78	1023.17	26.78	1089.97	26.83	1353.33	27.4	1459.51	27.35
1581.22	27.4	1936.42	26.32	1943.98	26.24	1949.29	26.07	1956.6	25.84
2078.61	22.19	2098.24	21.45	2109.81	20.82	2118.13	20.67	2130.12	20.28
2141.05	19.69	2151.46	20.58	2183.71	21.18	2203.83	22.33	2208.77	22.61
2216.07	23.3	2222.31	24.59	2247.77	25.87	2255.23	26.38	2281.94	25.74
2320.81	25.31	2324.59	25.1	2414.84	20.13	2419.95	19.76	2435.57	18.62
2445.33	18.15	2495.95	15.99	2535.91	14.32	2558.42	13.37	2601.04	13.16
2662.71	13.1	2663.22	13.1	2686.86	14.05	2687.18	14.06	2714.03	16
2741.84	18	2763.44	19.28	2774.96	19.63	2789.04	20.05	2827.31	21.15
2832.73	21.64	2838.78	22.73	2852.04	24.01	2853.37	24.68	2855.4	25.2
2863.67	27.8	2871.29	31.67	2889.08	41.1	2904.28	43.42	2905.7	43.98
2910.35	44.37	2918.94	46.39	2921.14	47.14	2934.71	54.07	2935.48	54.48
2936.41	55.21	2955.33	68.92	2957.51	70.01	2964.63	74.6	2978.74	78.46
2987.73	78.95	3018.94	79.77						

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	2203.83	.07	2324.59	.05	2535.91	.035	2686.86	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
2495.95	2714.03	167.27	168.07	167.81	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Permanent
888		T	
888		F	

Blocked Obstructions num= 3

INPUT
Description: CS Modified with Blocked Obstructions for Approximate Pier Placement
Station Elevation Data num= 66

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	44.14	8.14	40.06	15.75	35.14	25.65	31.24	35.72	28.07
45.97	25.5	49.47	25.25	108.86	29.55	333.9	26.31	503.43	26.59
568.57	26.47	620	26.24	715.16	25.82	922.32	25.68	1102.29	25.73
1684.23	23.31	1876.22	23.1	1960.34	20.75	2123.72	19.23	2153.15	18.62
2187.86	17.51	2202.67	17.03	2221.09	17.59	2232.69	18.93	2232.87	18.94
2233.62	19.26	2239.75	21.26	2249.93	25.47	2259.31	26.83	2291.49	25.66
2309.73	25.25	2319.57	24.93	2333.71	23.84	2344.88	22.98	2381.9	19.92
2423.76	16.33	2453.52	14.85	2474.37	13.94	2508.74	13.18	2555.4	12.14
2619.59	10.65	2632.17	10.36	2668.37	12.74	2677.94	13.33	2685.8	13.81
2707.32	10.96	2709.78	10.6	2710.95	10.66	2736.96	13.36	2742.11	14.13
2743.31	14.78	2762.87	17.25	2773.99	19.15	2782.14	20.53	2790.38	20.96
2812.63	23.5	2833.42	26.13	2840.74	28.23	2858.94	33.06	2864.5	36.86
2881.91	46.17	2889.82	50.73	2902.76	58.27	2910.76	63.13	2911.45	63.3
2917.14	65.31								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	2187.86	.07	2333.71	.05	2508.74	.035	2742.11	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
2453.52	2743.31	205	206.77	220.21	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Permanent
888		T	
888		F	

Blocked Obstructions num= 3

Sta L	Sta R	Elev	Sta L	Sta R	Elev	Sta L	Sta R	Elev
2181.5	2192.5	82	2281.5	2292.5	82	2381.5	2392.5	82

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 1700.584

INPUT
Description: Updated Manning's N Distribution, CS Modified with Blocked Obstructions for Approximate Pier Placement

Station Elevation Data num= 88

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	51.57	5.89	48.65	17.96	40.9	33.64	34.78	49.57	29.8
65.75	25.78	71.26	25.38	164.51	32.07	424.44	28.26	435.81	28.64
456.68	28.36	480.09	27.56	521.88	26.72	628.46	26.53	695.8	26.23
832.49	25.62	924.21	24.72	975.25	24.61	1001.28	24.66	1097.17	23.95
1904.23	20.27	1954.8	20.01	2008.9	19.38	2032.35	19.16	2250.8	17.41
2263.36	17.56	2267.25	17.61	2270.07	17.66	2281.28	17.89	2295.91	18.31
2307.04	18.63	2315.53	19.61	2326.96	22.62	2336.55	25.3	2353.74	26.81
2356.82	27.13	2363.23	26.93	2383.7	26.36	2405.78	21.32	2412.11	20.56
2413.65	20.66	2416.62	20.86	2429.98	24.04	2430.84	24.04	2440.61	23.56
2440.74	23.54	2440.82	23.53	2462.16	19.51	2473.05	16.02	2478.88	13.19
2496.22	13.42	2530.96	13.57	2549.15	13.63	2633.31	13.54	2641.5	13.54
2646.06	13.41	2655.02	13.17	2674.52	12.63	2678.56	12.5	2708	11.55
2725.66	10.98	2731.49	10.79	2737.91	10.54	2744.96	10.91	2757.58	12.14
2759.22	12.74	2761.01	13.31	2765.65	15.01	2773.4	18.28	2775.26	19.73
2783.33	22.93	2784.63	23.27	2792.92	25.03	2795.85	25.7	2796.54	25.7
2798.66	25.83	2835.35	27.58	2844.32	29.5	2864.09	33.52	2877.06	40.47
2894.05	49.55	2894.66	49.8	2908.66	57.76	2909.94	58.43	2916.25	60.82
2928.34	65.53	2934.9	66.29	2943.48	67.12				

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	2295.91	.07	2413.65	.05	2678.56	.035	2708	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
2473.05	2765.65	191.48	175.29	163.76	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Permanent
888		T	
888		F	

Blocked Obstructions num= 3

Sta L	Sta R	Elev	Sta L	Sta R	Elev	Sta L	Sta R	Elev
2257.5	2268.5	82	2387.5	2398.5	82	2487.5	2498.5	82

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 1525.293

INPUT
Description: CS Modified with Blocked Obstructions for Approximate Pier Placement

Station Elevation Data num= 78

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	51.07	5.07	47.72	26.85	39	49.08	31.89	71.8	26.11
79.57	25.54	194.28	33.97	213.43	35.33	257	34.67	319.43	36.65
432.1	35.1	465.96	33.93	560.72	30.37	651.59	27.46	661.61	27.13
719.9	25.24	898.8	23.32	1140.23	22.67	1274.91	22.87	1794.68	18.94
1828.89	18.72	1940.3	18.45	2055.67	18.11	2245.94	18.88	2286.04	19.11
2300.32	19.03	2342.84	18.78	2371.7	19.47	2373.54	19.69	2375.71	19.36
2382.38	18.32	2388.08	16.96	2399.37	17.01	2416.19	17.48	2436.79	19.12
2441.57	20.55	2456.96	26.12	2474.44	28.13	2475.92	28.33	2485.12	27.98
2488.94	27.69	2495.78	26.09	2510.48	19.33	2510.88	19.12	2511.05	19.12
2530.93	19.8	2536.26	19.82	2557.09	19.91	2567.51	20.6	2576.45	20.27
2613.85	15.31	2628.35	13.34	2636.67	12.85	2652.73	12.23	2717.45	9.03
2725	8.84	2752.8	8.14	2792.83	9.26	2799.13	9.44	2803.06	9.59
2805.02	9.98	2822.59	11.82	2827.86	13.22	2833.37	15.07	2837.72	18.7
2846.22	23.39	2849.21	25.06	2861.99	28.36	2867.24	29.72	2868.81	30.21
2886.11	39.95	2886.67	40.17	2899.72	44.58	2902.16	45.24	2920	52.33
2934.84	58.15	2940.66	60.74	2949.13	63.81				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.035	2300.32	.07	2536.26	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
2613.85	2833.37	330.77	218.57	153.37	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Permanent
888		T	
888		F	

Blocked Obstructions num= 3

Sta L	Sta R	Elev	Sta L	Sta R	Elev	Sta L	Sta R	Elev
2343.5	2354.5	82	2493.5	2504.5	82	2593.5	2604.5	82

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 1306.721

INPUT

Description:
Station Elevation Data num= 90

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	50.27	7.39	50.71	13.86	51.26	25.56	52.19	28.23	52.38
32.56	52.69	37.15	52.7	55.11	52.64	66.57	52.55	84.24	52.96
85.62	52.94	86.9	52.9	88.44	52.94	120.44	52.73	125.16	52.69
134.36	52.8	135.53	52.82	152.02	52.1	171.05	53.23	178.87	53.3
242.82	52.98	248.31	52.92	271.23	53.28	275.12	53.21	277.91	53.21
336.46	53.28	338.36	53.3	339.29	53.35	341.53	53.35	365.78	53.08
389.33	52.59	396.79	52.51	407.25	52.6	411.86	52.3	415.45	51.1
422.62	46.99	434.58	39.78	439.64	37.68	457.1	30.09	483.3	20.4
483.48	20.34	483.5	20.33	483.6	20.3	507.69	14.45	528.46	13.2
530.21	13.11	558.45	11.61	561.4	11.47	611.24	10.54	621.64	10.3
641.47	9.84	679.09	10.12	699.71	10.62	718.91	11.08	735.19	11.03
748.6	11.41	756.57	11.69	768.08	12.29	787.67	14.67	795.7	17.97
802.54	20.15	816.15	25.4	817.26	25.75	818.08	26.14	818.77	26.26
840.21	32.25	847.14	32.63	849.85	33.19	854.99	36.28	867.48	44.01
874.58	47.69	878.1	49.51	890.65	55.08	895.99	58.26	897.3	58.74
899.18	59.58	908.75	63.85	911.62	64.34	919.2	64.45	925.85	64.35
927.15	64.29	934.51	64.5	940.09	64.07	944.42	64.19	958.07	65
1000	65.57	1005.44	65.51	1007.75	65.54	1014.93	65.6	1033.54	66.55

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.02	134.36	.05	899.18	.02

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
507.69	787.67	221.39	253.51	221.56	.3	.5

BRIDGE RIVER: San Mateo Creek
REACH: Lower RS: 1300

INPUT
Description: I-5 Bridge
Distance from Upstream XS = 20
Deck/Roadway Width = 162
Weir Coefficient = 2.6
Upstream Deck/Roadway Coordinates
num= 6

Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord
0	50.03	0	401.9	58.07	0	401.9	58.07	52.49
907.9	68.19	62.61	907.9	68.19	0	1200	74.03	0

Upstream Bridge Cross Section Data
Station Elevation Data num= 90

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	50.27	7.39	50.71	13.86	51.26	25.56	52.19	28.23	52.38
32.56	52.69	37.15	52.7	55.11	52.64	66.57	52.55	84.24	52.96
85.62	52.94	86.9	52.9	88.44	52.94	120.44	52.73	125.16	52.69
134.36	52.8	135.53	52.82	152.02	52.1	171.05	53.23	178.87	53.3
242.82	52.98	248.31	52.92	271.23	53.28	275.12	53.21	277.91	53.21
336.46	53.28	338.36	53.3	339.29	53.35	341.53	53.35	365.78	53.08
389.33	52.59	396.79	52.51	407.25	52.6	411.86	52.3	415.45	51.1
422.62	46.99	434.58	39.78	439.64	37.68	457.1	30.09	483.3	20.4
483.48	20.34	483.5	20.33	483.6	20.3	507.69	14.45	528.46	13.2
530.21	13.11	558.45	11.61	561.4	11.47	611.24	10.54	621.64	10.3
641.47	9.84	679.09	10.12	699.71	10.62	718.91	11.08	735.19	11.03
748.6	11.41	756.57	11.69	768.08	12.29	787.67	14.67	795.7	17.97
802.54	20.15	816.15	25.4	817.26	25.75	818.08	26.14	818.77	26.26
840.21	32.25	847.14	32.63	849.85	33.19	854.99	36.28	867.48	44.01
874.58	47.69	878.1	49.51	890.65	55.08	895.99	58.26	897.3	58.74
899.18	59.58	908.75	63.85	911.62	64.34	919.2	64.45	925.85	64.35
927.15	64.29	934.51	64.5	940.09	64.07	944.42	64.19	958.07	65
1000	65.57	1005.44	65.51	1007.75	65.54	1014.93	65.6	1033.54	66.55

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.02	134.36	.05	899.18	.02

Bank Sta: Left	Right	Coeff Contr.	Expan.
507.69	787.67	.3	.5

Downstream Deck/Roadwav Coordinates

Downstream Bridge Cross Section Data
Station Elevation Data num= 79

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	48.99	.6	48.97	35.35	49.91	61.75	53.81	61.78	53.81
61.81	53.82	83.28	54.31	91.24	54.54	98.22	54.53	109	54.19
114.66	54.06	138.42	54.21	143.5	54.25	175.83	54.37	183.22	54.15
200.82	54.33	209.98	53.9	220.67	54.17	226.57	53.67	229.54	53.24
232.27	52.57	234.56	51.54	237.5	50.31	251.74	41.4	271.79	32
286.55	24.61	302.37	15.01	306.27	14.37	311.05	13.38	315.99	12.63
320.82	12.88	343.05	13.99	347.74	14.27	351.53	14.31	381.31	14.6
391.04	14.4	429.91	13.32	443.95	12.85	481.63	11.63	504.45	12.84
504.82	12.85	541.43	13.82	570.22	15	602	16.29	602.23	16.31
603.01	16.42	630.2	20.63	634.39	22.22	653.73	27.04	654.8	27.32
656.2	27.75	679.92	35.43	682.86	35.51	690.33	39.43	697.91	43.37
713.85	53.87	721.88	58.53	724.16	59.87	729.07	61.76	733.98	63.4
744.31	63.95	750.69	64.23	752.82	64.22	753.93	64.41	765.94	66.02
768.65	66.34	774.72	66.48	780.96	66.85	792.91	66.81	804.58	66.96
814.86	66.99	828.41	67.2	846.92	66.85	867.3	66.49	896.4	66.97
900.58	67.04	914.56	67.11	934.65	66.8	943.58	67.55		

```
Manning's n Values          num=       2
     Sta   n Val     Sta   n Val
       0     .05   896.4     .02

Bank Sta: Left   Right    Coeff Contr.   Expan.
        302.37  570.22             .3       .5

Upstream Embankment side slope              =       0 horiz. to 1.0 vertical
Downstream Embankment side slope            =       0 horiz. to 1.0 vertical
Maximum allowable submergence for weir flow =     .95
Elevation at which weir flow begins         =      60
Energy head used in spillway design         =
Spillway height used in design              =
Weir crest shape                            = Broad Crested

Number of Piers =  4

Pier Data
Pier Station     Upstream=   501.9    Downstream=     330
Upstream     num=       2
    Width   Elev    Width   Elev
   12.25       0   12.25     168
Downstream     num=       2
    Width   Elev    Width   Elev
   12.25       0   12.25     168

Pier Data
Pier Station     Upstream=   603.9    Downstream=     432
Upstream     num=       2
    Width   Elev    Width   Elev
   12.25       0   12.25     168
Downstream     num=       2
    Width   Elev    Width   Elev
   12.25       0   12.25     168

Pier Data
Pier Station     Upstream=   705.9    Downstream=     534
Upstream     num=       2
    Width   Elev    Width   Elev
   12.25       0   12.25     168
Downstream     num=       2
    Width   Elev    Width   Elev
   12.25       0   12.25     168

Pier Data
Pier Station     Upstream=   807.9    Downstream=     636
Upstream     num=       2
    Width   Elev    Width   Elev
   12.25       0   12.25     168
Downstream     num=       2
    Width   Elev    Width   Elev
   12.25       0   12.25     168

Number of Bridge Coefficient Sets =  1

Low Flow Methods and Data
       Energy
Selected Low Flow Methods = Energy

High Flow Method
       Energy Only

Additional Bridge Parameters
       Add Friction component to Momentum
       Do not add Weight component to Momentum
       Class B flow critical depth computations use critical depth
           inside the bridge at the upstream end
       Criteria to check for pressure flow = Upstream energy grade line

BRIDGE OUTPUT    Profile #Q100
Opening : Single BR

  E.G. US. (ft)                31.55    Element                 Inside BR US  Inside BR DS
  W.S. US. (ft)                30.58    E.G. Elev (ft)               31.40         30.61
  Q Total (cfs)             47312.00    W.S. Elev (ft)               30.08         28.84
  Q Bridge (cfs)            47312.00    Crit W.S. (ft)               21.64         23.55
  Q Weir (cfs)                          Max Chl Dpth (ft)            20.24         17.21
  Weir Sta Lft (ft)                     Vel Total (ft/s)              8.99         10.61
  Weir Sta Rgt (ft)                     Flow Area (sq ft)          5264.58       4460.43
  Weir Submerg                          Froude # Chl                 0.38          0.49
  Weir Max Depth (ft)                   Specif Force (cu ft)       60717.41      48081.00
  Min El Weir Flow (ft)         60.00   Hydr Depth (ft)              16.13         13.42
  Min El Prs (ft)               62.57   W.P. Total (ft)             452.03        443.07
  Delta EG (ft)                  1.39   Conv. Total (cfs)         856363.8      637343.9
  Delta WS (ft)                  1.86   Top Width (ft)              326.34        332.47
  BR Open Area (sq ft)       15758.87   Frctn Loss (ft)              0.65          0.28
  BR Open Vel (ft/s)            10.61   C & E Loss (ft)              0.14          0.17
  Coef of Q                             Shear Total (lb/sq ft)       2.22          3.46
  Br Sel Method           Energy only   Power Total (lb/ft s)       19.94         36.74


CROSS SECTION          RIVER: San Mateo Creek
REACH: Lower             RS: 1053.212

INPUT
Description:
Station Elevation Data    num=      79
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
```

0	48.99	.6	48.97	35.35	49.91	61.75	53.81	61.78	53.81
61.81	53.82	83.28	54.31	91.24	54.54	98.22	54.53	109	54.19
114.66	54.06	138.42	54.21	143.5	54.25	175.83	54.37	183.22	54.15
200.82	54.33	209.98	53.9	220.67	54.17	226.57	53.67	229.54	53.24
232.27	52.57	234.56	51.54	237.5	50.31	251.74	41.4	271.79	32
286.55	24.61	302.37	15.01	306.27	14.37	311.05	13.38	315.99	12.63
320.82	12.88	343.05	13.99	347.74	14.27	351.53	14.31	381.31	14.6
391.04	14.4	429.91	13.32	443.95	12.85	481.63	11.63	504.45	12.84
504.82	12.85	541.43	13.82	570.22	15	602	16.29	602.23	16.31
603.01	16.42	630.2	20.63	634.39	22.22	653.73	27.04	654.8	27.32
656.2	27.75	679.92	35.43	682.86	35.51	690.33	39.43	697.91	43.37
713.85	53.87	721.88	58.53	724.16	59.87	729.07	61.76	733.98	63.4
744.31	63.95	750.69	64.23	752.82	64.22	753.93	64.41	765.94	66.02
768.65	66.34	774.72	66.48	780.96	66.85	792.91	66.81	804.58	66.96
814.86	66.99	828.41	67.2	846.92	66.85	867.3	66.49	896.4	66.97
900.58	67.04	914.56	67.11	934.65	66.8	943.58	67.55		

Manning's n Values num= 2

Sta	n Val	Sta	n Val
0	.05	896.4	.02

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
302.37	570.22	331.16	386.26	449.77	.3	.5

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 977.176

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 57

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	32.89	.37	32.89	19.41	33.13	84.16	34.51	88.96	34.54
90.58	34.51	97.36	34.36	99.09	34.31	102.02	34.03	119.08	32.09
123.45	30.02	131.06	28.22	136.27	26.19	152.7	22.08	158.91	19.86
170.94	15.17	173.08	14.25	178.58	13.28	178.89	13.22	180.93	12.68
219.95	13.45	229.16	13.55	232.38	13.74	237.43	13.79	262.37	13.5
270.48	13.33	306.25	12.6	358.06	11.49	362.22	11.6	363.09	11.64
379.14	12.37	428.4	14.61	447.41	17.86	466.86	18.2	486.76	19.28
491.92	19.62	502.84	24.68	505.09	25.48	507.65	26.42	510.83	27.44
521.28	30.25	532.71	31.62	536.89	32.69	546.1	37.23	548.97	38.63
552.13	39.52	561.19	40.26	590.09	42.36	595.7	43.23	609.69	45.52
624.82	45.97	630.04	46.06	641.6	48.42	647.07	48.5	667.36	50.14
686.06	50.58	686.84	50.61						

Manning's n Values num= 1

Sta	n Val
0	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
178.58	379.14	50.27	50.41	43.68	.3	.5

BRIDGE RIVER: San Mateo Creek
REACH: Lower RS: 970

INPUT
Description: Old PCH Bridge
Distance from Upstream XS = 7
Deck/Roadway Width = 32.81
Weir Coefficient = 2.6
Upstream Deck/Roadway Coordinates
num= 6

Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord
0	30.81	0	100	32.81	0	100	32.81	27.23
536.35	39.37	33.79	536.35	39.37	0	600	40.64	0

Upstream Bridge Cross Section Data
Station Elevation Data num= 57

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	32.89	.37	32.89	19.41	33.13	84.16	34.51	88.96	34.54
90.58	34.51	97.36	34.36	99.09	34.31	102.02	34.03	119.08	32.09
123.45	30.02	131.06	28.22	136.27	26.19	152.7	22.08	158.91	19.86
170.94	15.17	173.08	14.25	178.58	13.28	178.89	13.22	180.93	12.68
219.95	13.45	229.16	13.55	232.38	13.74	237.43	13.79	262.37	13.5
552.13	39.52	561.19	40.26	590.09	42.36	595.7	43.23	609.69	45.52
624.82	45.97	630.04	46.06	641.6	48.42	647.07	48.5	667.36	50.14
686.06	50.58	686.84	50.61						

Manning's n Values num= 1

Sta	n Val
0	.05

Bank Sta: Left	Right	Coeff Contr.	Expan.
178.58	379.14	.3	.5

Downstream Deck/Roadway Coordinates
num= 6

Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord
0	30.81	0	100	32.81	0	100	32.81	27.23
536.35	39.37	33.79	536.35	39.37	0	600	40.64	0

Downstream Bridge Cross Section Data
Station Elevation Data num= 56

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	29.25	4.51	29.43	20.29	29.64	22.58	29.67	54.24	31.33

70	31.77	72.17	31.8	76.46	32.44	79.54	33	88.17	33.38
96.39	31.6	101.24	31.3	126.59	20.07	136.33	15.74	144.27	14.64
152.53	14.4	157.07	14.26	170.89	12.52	184.84	12.47	196.68	12.42
215.24	12.34	238.1	12.55	241.16	12.55	282.15	11.76	321.28	10.98
324.1	10.92	344.58	11.46	391.53	12.69	404.33	13.19	405.31	13.23
416.29	13.73	427.47	15.65	449.87	19.11	456.43	20.52	465.42	24.49
475.77	26.6	489.07	28.61	504.05	31.95	513.05	35.57	514.14	36.01
520.05	37.56	525.37	38.44	530.68	39.04	539.86	38.93	555.66	40.79
589.31	43.25	598.2	43.9	605.71	44.17	615.17	44.71	626.9	45.92
634.09	46.07	651.03	49.07	659.84	49.21	681.48	50.21	685.93	50.48
693.31	50.92								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.05	513.05	.02	589.31	.05

Bank Sta: Left	Right	Coeff Contr.	Expan.
152.53	344.58	.3	.5

Upstream Embankment side slope = 0 horiz. to 1.0 vertical
Downstream Embankment side slope = 0 horiz. to 1.0 vertical
Maximum allowable submergence for weir flow = .95
Elevation at which weir flow begins = 110
Energy head used in spillway design =
Spillway height used in design =
Weir crest shape = Broad Crested

Number of Piers = 4

Pier Data
Pier Station Upstream= 162.34 Downstream= 162.34
Upstream num= 2

Width	Elev	Width	Elev
12.25	0	12.25	229

Downstream num= 2

Width	Elev	Width	Elev
12.25	0	12.25	229

Pier Data
Pier Station Upstream= 264.34 Downstream= 264.34
Upstream num= 2

Width	Elev	Width	Elev
12.25	0	12.25	229

Downstream num= 2

Width	Elev	Width	Elev
12.25	0	12.25	229

Pier Data
Pier Station Upstream= 366.34 Downstream= 366.34
Upstream num= 2

Width	Elev	Width	Elev
12.25	0	12.25	229

Downstream num= 2

Width	Elev	Width	Elev
12.25	0	12.25	229

Pier Data
Pier Station Upstream= 468.34 Downstream= 468.34
Upstream num= 2

Width	Elev	Width	Elev
12.25	0	12.25	229

Downstream num= 2

Width	Elev	Width	Elev
12.25	0	12.25	229

Number of Bridge Coefficient Sets = 1

Low Flow Methods and Data
Energy
Selected Low Flow Methods = Energy

High Flow Method
Energy Only

Additional Bridge Parameters
Add Friction component to Momentum
Do not add Weight component to Momentum
Class B flow critical depth computations use critical depth inside the bridge at the upstream end
Criteria to check for pressure flow = Upstream energy grade line

BRIDGE OUTPUT Profile #Q100
Opening : Single BR

E.G. US. (ft)	28.42	Element	Inside BR US	Inside BR DS
W.S. US. (ft)	26.35	E.G. Elev (ft)	28.04	27.23
Q Total (cfs)	47312.00	W.S. Elev (ft)	23.42	22.66
Q Bridge (cfs)	47312.00	Crit W.S. (ft)	23.42	22.66
Q Weir (cfs)		Max Chl Dpth (ft)	11.93	11.74
Weir Sta Lft (ft)		Vel Total (ft/s)	17.10	16.92
Weir Sta Rgt (ft)		Flow Area (sq ft)	2766.83	2795.87
Weir Submerg		Froude # Chl	0.96	0.98
Weir Max Depth (ft)		Specif Force (cu ft)	38978.34	39010.05
Min El Weir Flow (ft)	110.00	Hydr Depth (ft)	9.11	9.20
Min El Prs (ft)	33.79	W.P. Total (ft)	369.18	366.99
Delta EG (ft)	1.17	Conv. Total (cfs)	328947.7	326026.6
Delta WS (ft)	6.63	Top Width (ft)	303.81	303.77
BR Open Area (sq ft)	5156.27	Frctn Loss (ft)		

BR Open Vel (ft/s)	17.10	C & E Loss (ft)		
Coef of Q		Shear Total (lb/sq ft)	9.68	10.02
Br Sel Method	Momentum	Power Total (lb/ft s)	165.51	169.49

Warning: Pier drag coefficient of 2.0 assumed for Class B flow.
Warning: During the class B momentum calculations, the supercritical downstream energy was higher than one of the upstream energies. This is not physically possible. The supercritical answer was backed out from an upstream energy.
Note: The momentum method has computed a class B profile.
Note: The energy method has computed a class B profile.

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 926.767

INPUT
Description:
Station Elevation Data num= 56

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	29.25	4.51	29.43	20.29	29.64	22.58	29.67	54.24	31.33
70	31.77	72.17	31.8	76.46	32.44	79.54	33	88.17	33.38
96.39	31.6	101.24	31.3	126.59	20.07	136.33	15.74	144.27	14.64
152.53	14.4	157.07	14.26	170.89	12.52	184.84	12.47	196.68	12.42
215.24	12.34	238.1	12.55	241.16	12.55	282.15	11.76	321.28	10.98
324.1	10.92	344.58	11.46	391.53	12.69	404.33	13.19	405.31	13.23
416.29	13.73	427.47	15.65	449.87	19.11	456.43	20.52	465.42	24.49
475.77	26.6	489.07	28.61	504.05	31.95	513.05	35.57	514.14	36.01
520.05	37.56	525.37	38.44	530.68	39.04	539.86	38.93	555.66	40.79
589.31	43.25	598.2	43.9	605.71	44.17	615.17	44.71	626.9	45.92
634.09	46.07	651.03	49.07	659.84	49.21	681.48	50.21	685.93	50.48
693.31	50.92								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.05	513.05	.02	589.31	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
152.53	344.58	197.32	259.81	349.97	.3	.5

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 666.956

INPUT
Description: Updated Manning's N Distribution
Station Elevation Data num= 49

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	33.02	1.35	33.04	8.65	33.12	30.8	31.1	42.56	29.97
50	29.25	62.16	27.01	63.65	26.67	64.93	26.17	74.65	23.12
84.37	19.74	86.38	19.52	89.01	19.85	133.79	22.24	134.15	22.27
159.53	21.92	165.53	21.66	180.4	20.09	228.59	13.27	231.95	12.14
235.4	11.04	236.33	10.72	241.52	9.02	247.9	6.93	253.65	6.12
254.2	6.04	271.29	6.36	297.87	5.87	351.04	6.33	385.58	6.79
398.35	6.96	412.59	7.47	413.83	7.53	447.08	9.01	477.96	10.39
512.64	12.73	551.71	13.35	614.27	14.49	638.54	14.72	680.93	17.25
686.32	17.57	714.97	18.74	737.8	19.67	746.93	20.04	752.92	20.65
773.29	23.85	806.8	28.99	839.21	34.23	851.16	36.59		

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.02	42.56	.05	680.93	.02	714.97	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
241.52	447.08	187.18	184.69	178.09	.1	.3

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 482.270

INPUT
Description: Updated Manning's N Distribution
Station Elevation Data num= 48

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	36.42	9.65	33.24	15.01	32.16	32.78	30.31	49.46	28.57
55.27	27.77	81.73	26.6	87.4	26.19	88.06	26.15	107.47	23.41
631.1	8.1	707.57	12.27	723.73	13.01	786.61	13.09	807.94	13.12
893.68	13.28	909.24	13.8	961.41	13.84	977.55	13.86	994.19	14.92
1006.45	15.7	1042.54	19.54	1046.98	20.08	1063.09	24.32	1079.91	30.34
1088.51	33.07	1092.19	34.36	1092.51	34.49				

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	32.78	.02	87.4	.05	786.61	.035	961.41	.02
994.19	.05								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
381.86	631.1	215.53	198.22	189.24	.1	.3

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 284.051

INPUT
Description: Updated Manning's N Distribution
Station Elevation Data num= 49

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	29.29	14.99	25.99	15.5	26.02	18.96	25.77	25.76	25.36

90.16	21.53	153.47	17.75	180.86	16.81	196.92	16.19	210.26	15.71
254.28	15.45	262.8	15.33	273.55	15.03	375.82	12.63	386.67	12.49
398.3	11.44	540.33	7.72	557.56	7.12	573.23	6.8	587.64	6.79
607.67	6.73	618.25	6.7	740	6.37	740.69	6.38	742.97	6.44
743.19	6.45	813.41	7.82	818	8.11	820.46	8.22	827.66	8.04
874.75	9.08	880.64	9.17	905.24	10.67	932.78	12.86	946.65	12.46
982.37	12.36	997.9	11.46	1031.24	13.14	1043.3	13.06	1125.93	12.49
1170.38	12.94	1172.1	12.95	1197.86	13.09	1219.04	13.2	1227.3	12.98
1232.68	13.82	1245.69	18.25	1269.03	25.93	1288.02	30.34		

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	25.76	.02	90.16	.05	1043.3	.035	1172.1	.02
1197.86	.05								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
540.33	813.41	216.28	198.71	198.96	.1	.3

CROSS SECTION RIVER: San Mateo Creek
REACH: Lower RS: 85.341

INPUT
Description: Updated Manning's N Distribution
Station Elevation Data num= 41

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	29.1	7.21	26.82	11.67	26.16	31.09	24.98	46	24.19
64.71	23.2	107.34	21.1	119.79	20.49	201.37	15.73	256.42	13.63
328.02	12.88	354.26	12.74	357.36	12.66	373.28	12.5	678.15	7.34
761.15	7.26	870.99	6.93	976.8	6.61	1046.13	6.4	1046.94	6.4
1047.19	6.39	1047.33	6.39	1047.81	6.38	1049.08	6.38	1143.89	5.54
1192.74	5.15	1277.42	5.45	1351.66	6.37	1351.75	6.37	1351.78	6.37
1373.79	7.14	1410.76	8.43	1426.05	8.97	1426.1	8.97	1426.95	9.08
1466.22	14.03	1468.42	14.73	1474.52	16.25	1506.75	24.56	1523.54	27.51
1533.44	29.48								

Manning's n Values num= 5

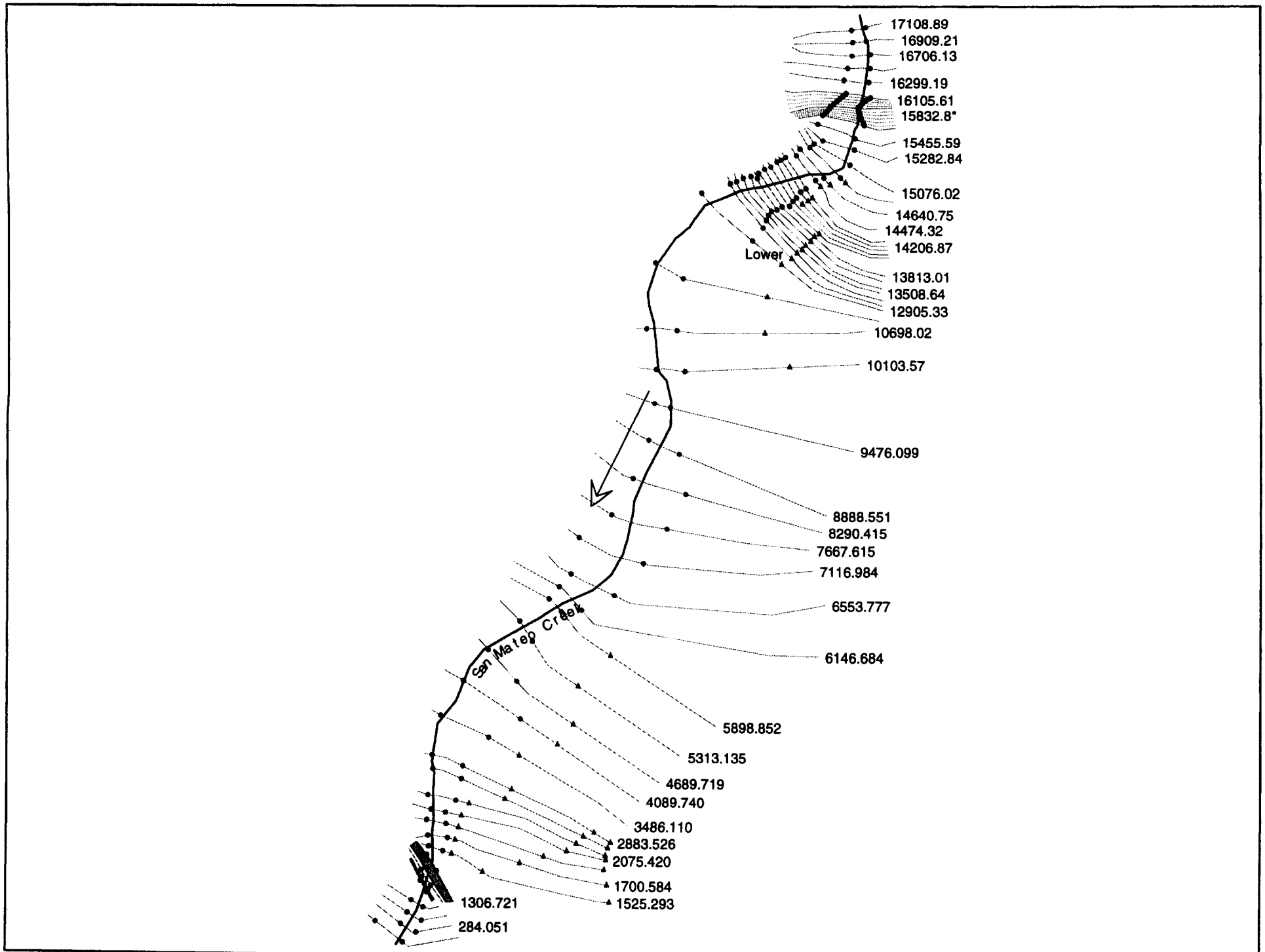
Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	46	.02	107.34	.05	1410.76	.02	1426.1	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
870.99	1373.79	68.18	85.34	37.96	.1	.3

Profile Output Table - Standard Table 1

Reach	River Sta	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
		(cfs)	(ft)	(ft)	(ft)	(ft)	(ft/ft)	(ft/s)	(sq ft)	(ft)	
Lower	17108.89	47312.00	90.54	100.44	99.24	101.87	0.004364	11.49	5334.23	906.01	0.67
Lower	16909.21	47312.00	88.57	98.08	98.08	100.44	0.010712	14.80	4264.70	834.51	0.89
Lower	16706.13	47312.00	83.98	96.56	94.62	98.39	0.005141	11.88	4966.45	750.62	0.62
Lower	16505.64	47312.00	84.57	95.57		97.31	0.005563	11.39	5033.86	816.50	0.62
Lower	16299.19	47312.00	84.80	94.14	93.15	96.00	0.006984	11.74	4729.33	789.33	0.70
Lower	16105.61	47312.00	84.43	91.85	91.85	94.26	0.011426	13.77	4271.07	888.68	0.91
Lower	15910.69	47312.00	78.37	87.15	87.96	90.68	0.016029	15.91	3474.29	830.83	1.11
Lower	15677.08	47312.00	78.29	86.50		87.69	0.004887	9.06	5645.99	889.11	0.58
Lower	15455.59	47312.00	77.64	84.53		86.22	0.008750	10.97	4743.72	891.07	0.78
Lower	15282.84	47312.00	76.42	83.39		84.73	0.007430	10.56	5574.02	1193.69	0.76
Lower	15076.02	47312.00	74.40	83.06		83.63	0.002515	6.80	8467.15	1457.06	0.44
Lower	14843.33	47312.00	71.32	82.36	78.38	83.09	0.001964	7.12	7207.68	1213.72	0.41
Lower	14640.75	47312.00	71.87	81.38	78.65	82.52	0.003626	8.79	5608.86	1401.52	0.52
Lower	14474.32	47312.00	71.80	81.55	79.16	81.96	0.001319	5.97	9801.69	1586.94	0.34
Lower	14295.85	47312.00	70.72	80.95	78.19	81.64	0.001895	7.81	8336.15	1665.20	0.44
Lower	14206.87	47312.00	70.13	80.14	79.64	81.36	0.003548	9.99	6591.75	1747.13	0.60
Lower	14108.61	47312.00	70.62	79.07	78.09	80.84	0.006526	11.42	5259.94	1512.88	0.75
Lower	14009.16	47312.00	71.12	77.78	77.78	79.98	0.010885	12.46	4433.03	1107.72	0.89
Lower	13906.13	47312.00	70.56	77.03	77.31	78.75	0.010753	11.20	4867.77	1319.17	0.83
Lower	13813.01	47312.00	70.19	76.03	76.05	77.82	0.011981	11.51	4526.59	1764.82	0.91
Lower	13721.89	47312.00	69.82	75.45	75.25	76.20	0.005142	7.91	7023.19	2285.13	0.62
Lower	13616.16	47312.00	65.67	75.05	74.67	75.70	0.003903	7.54	7795.16	2359.55	0.55
Lower	13508.64	47312.00	64.82	74.78	74.03	75.33	0.002674	6.81	8778.40	2505.72	0.47
Lower	13407.57	47312.00	64.24	72.88	72.53	74.74	0.009911	11.25	4508.71	2111.00	0.84
Lower	13315.43	47312.00	65.10	72.71	71.06	73.95	0.004630	9.02	5387.45	890.21	0.63

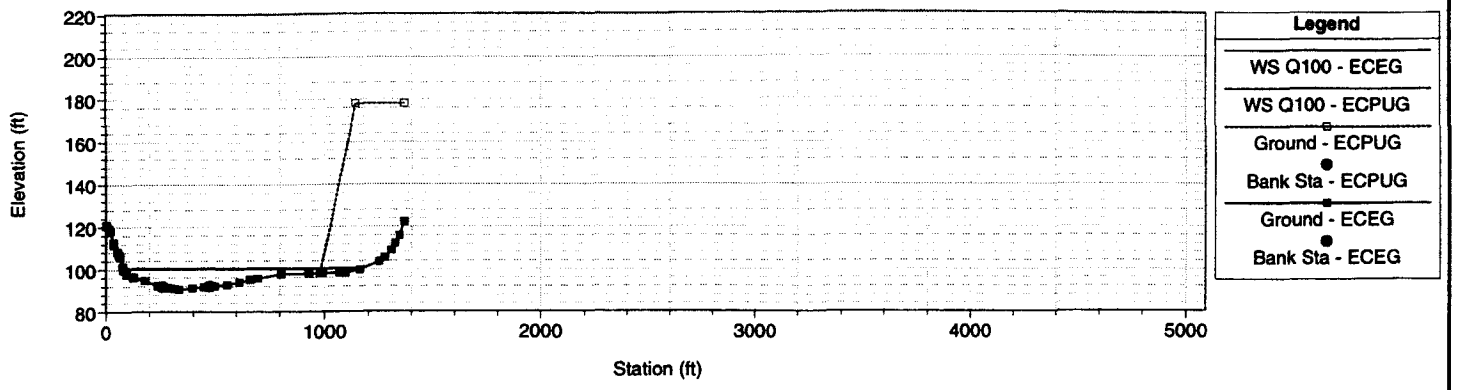
Lower	12905.33	47312.00	62.47	69.91	69.34	71.47	0.008030	10.01	4753.14	1054.52
0.82										
Lower	11695.46	47312.00	53.64	64.50		65.41	0.003276	8.65	6494.63	1222.77
0.58										
Lower	10698.02	47312.00	45.13	62.50	58.14	63.33	0.001467	7.79	7320.95	1175.62
0.40										
Lower	10103.57	47312.00	51.14	60.96		61.97	0.003922	8.41	5877.41	1140.82
0.50										
Lower	9476.099	47312.00	45.94	56.82	56.18	58.64	0.007260	12.28	4835.54	856.11
0.66										
Lower	8888.551	47312.00	45.56	54.57		55.62	0.003288	8.92	6519.65	1143.17
0.54										
Lower	8290.415	47312.00	42.29	49.85	49.85	51.98	0.013452	12.11	4217.87	987.60
0.97										
Lower	7667.615	47312.00	37.97	47.42	43.74	48.04	0.002730	6.45	7534.63	977.74
0.40										
Lower	7116.984	47312.00	33.99	45.88		46.59	0.002509	6.79	7018.70	878.91
0.42										
Lower	6553.777	47312.00	32.21	45.11		45.69	0.001036	6.22	7975.25	698.85
0.31										
Lower	6146.684	47312.00	31.60	44.31		45.16	0.001432	7.61	6447.83	628.66
0.40										
Lower	5898.852	47312.00	32.40	42.09	41.42	44.39	0.005436	13.63	4265.35	661.41
0.80										
Lower	5313.135	47312.00	30.85	36.93	36.93	39.35	0.015030	14.12	3963.67	812.38
1.08										
Lower	4689.719	47312.00	23.21	34.59	30.49	35.15	0.001894	6.34	8137.21	978.37
0.36										
Lower	4089.740	47312.00	25.52	32.23		33.23	0.006193	8.05	5908.40	972.75
0.57										
Lower	3486.110	47312.00	14.86	32.42		32.62	0.000213	3.69	13554.93	1000.92
0.17										
Lower	2883.526	47312.00	14.12	32.02		32.42	0.000438	5.27	9626.40	717.51
0.24										
Lower	2679.762	47312.00	14.19	32.04	24.64	32.27	0.000555	4.56	14174.63	2766.47
0.21										
Lower	2283.606	47312.00	17.37	31.81	26.33	32.04	0.000639	4.64	13789.81	2727.84
0.23										
Lower	2075.420	47312.00	13.10	31.76	24.34	31.93	0.000292	4.56	16992.56	2769.62
0.19										
Lower	1907.350	47312.00	10.36	31.77	21.55	31.88	0.000152	3.47	19739.86	2796.75
0.14										
Lower	1700.584	47312.00	10.54	31.74	22.55	31.84	0.000179	2.74	18031.77	2751.44
0.11										
Lower	1525.293	47312.00	8.14	31.56	22.17	31.79	0.000358	4.28	12750.15	2420.41
0.16										
Lower	1306.721	47312.00	9.84	30.58	20.96	31.55	0.001444	8.11	6198.21	378.29
0.33										
Lower	1300	Bridge								
Lower	1053.212	47312.00	11.63	28.73		30.16	0.002981	9.97	5062.38	380.90
0.45										
Lower	977.176	47312.00	11.49	26.35	22.86	28.42	0.005338	12.34	4211.74	371.57
0.59										
Lower	970	Bridge								
Lower	926.767	47312.00	10.92	19.72	21.83	27.23	0.040559	23.12	2186.42	325.33
1.48										
Lower	666.956	47312.00	5.87	17.86	17.86	21.23	0.011808	16.06	3512.30	497.16
0.85										
Lower	482.270	47312.00	5.05	17.07	16.09	18.81	0.006661	11.80	4830.24	809.03
0.63										
Lower	284.051	47312.00	6.37	14.89	14.89	17.00	0.012526	13.40	4424.28	956.24
0.83										
Lower	85.341	47312.00	5.15	11.12	11.43	13.57	0.023746	13.50	3905.62	988.58
1.06										



1 in Horiz. = 2300 ft 1 in Vert. = 1900 ft

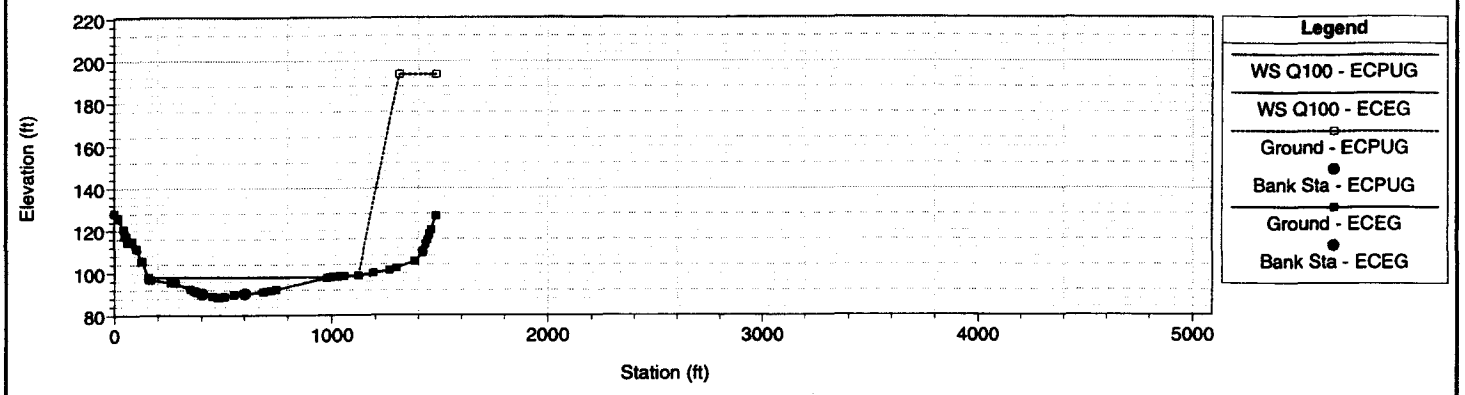
Project Model - Model F1

RS = 17108.89 FEC-AFV Alternative - San Mateo Creek Crossing



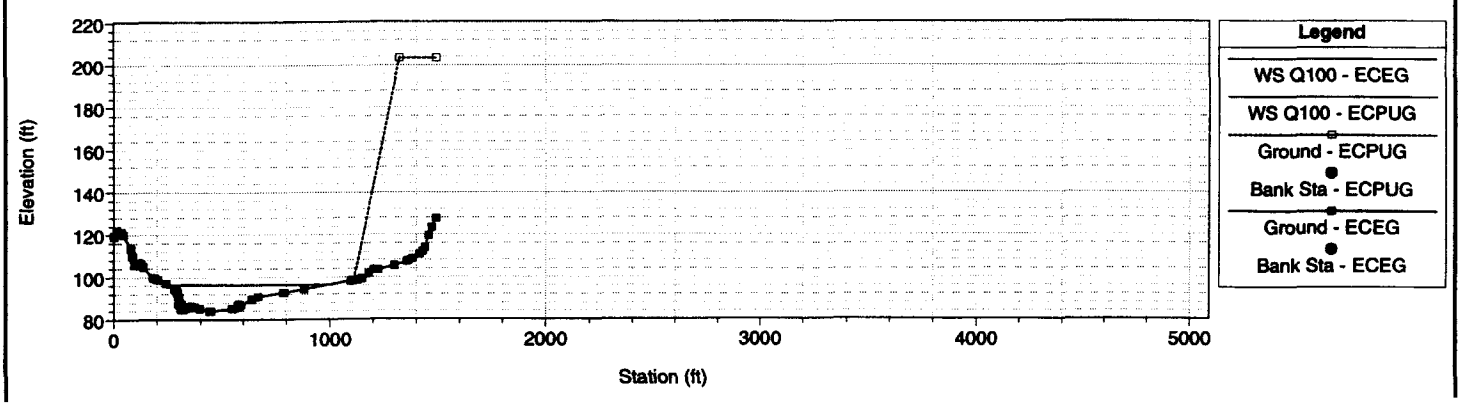
Project Model - Model F1

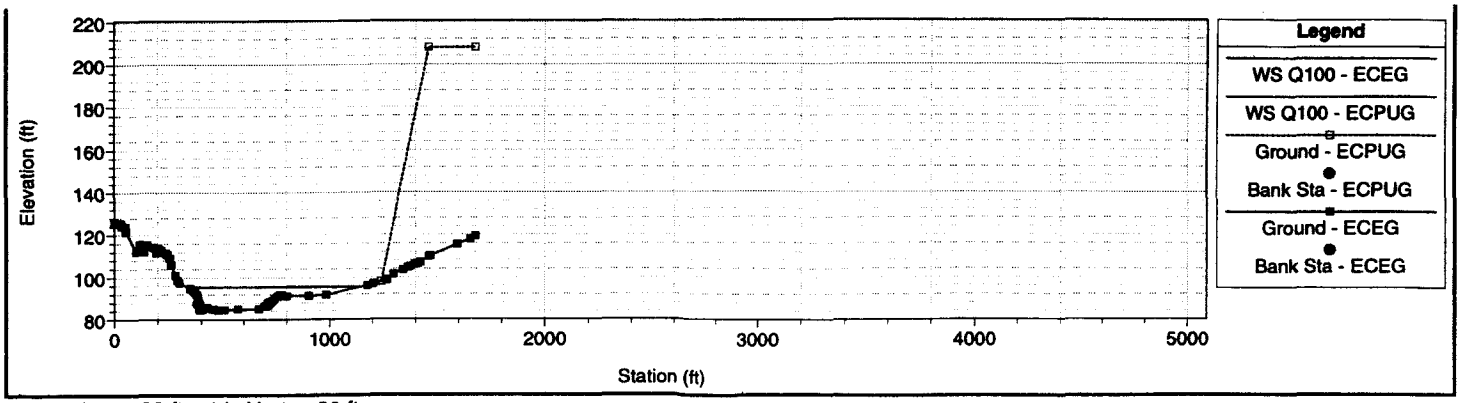
RS = 16909.21 FEC-AFV Alternative - San Mateo Creek Crossing



Project Model - Model F1

RS = 16706.13 FEC-AFV Alternative - San Mateo Creek Crossing

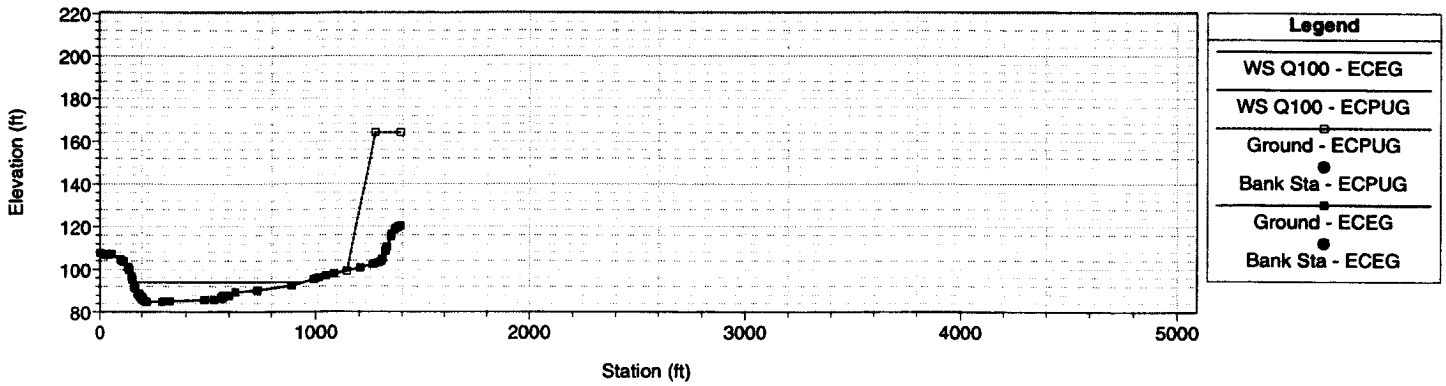




1 in Horiz. = 900 ft 1 in Vert. = 90 ft

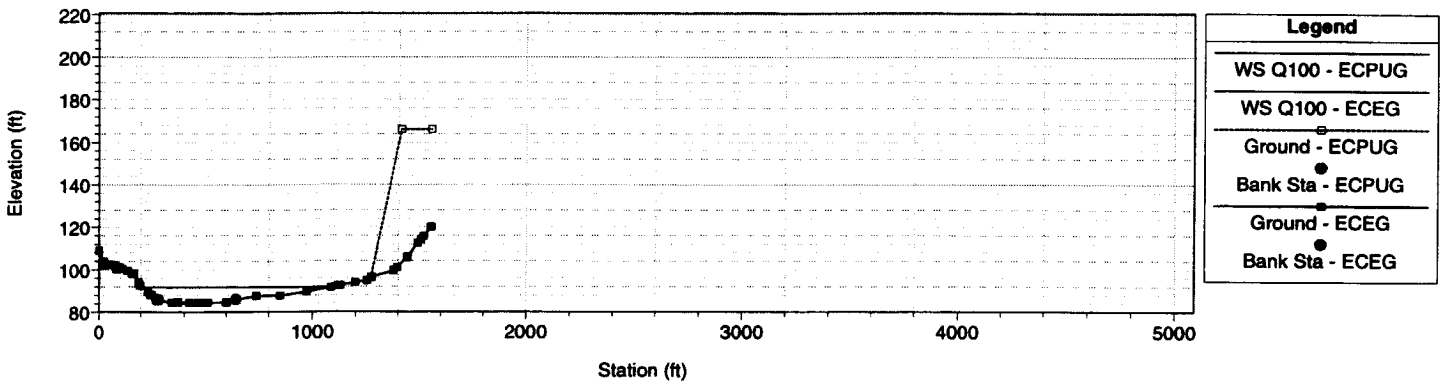
Project Model - Model F1

RS = 16299.19 FEC-AFV Alternative - San Mateo Creek Crossing



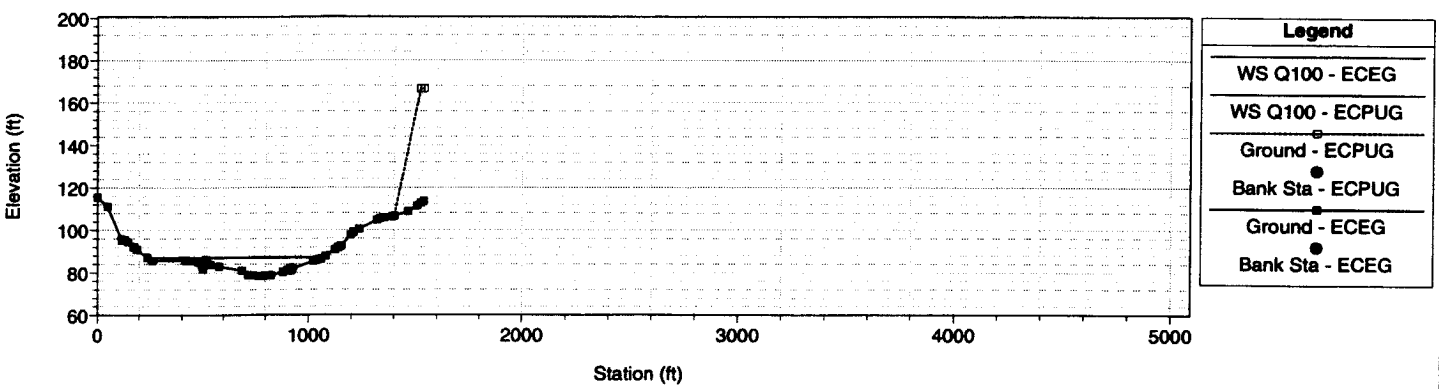
Project Model - Model F1

RS = 16105.61 FEC-AFV Alternative - San Mateo Creek Crossing



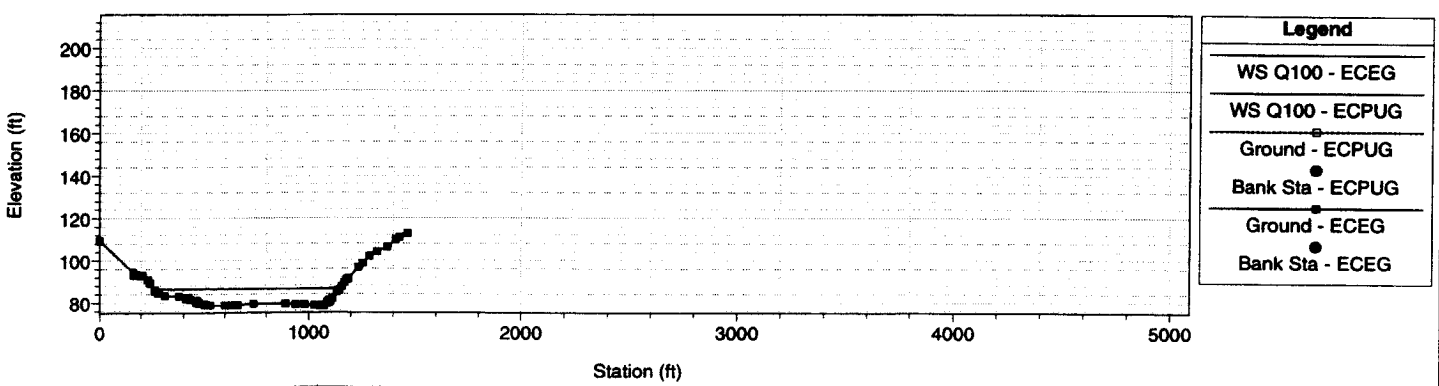
Project Model - Model F1

RS = 15910.69 FEC-AFV Alternative - San Mateo Creek Crossing



Project Model - Model F1

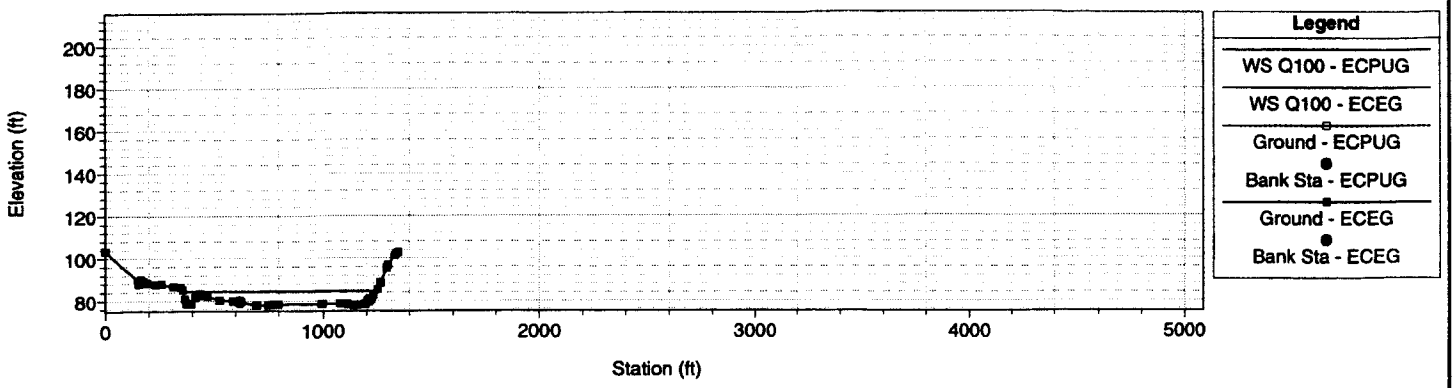
RS = 15677.08 FEC-AFV Alternative - San Mateo Creek Crossing



1 in Horiz. = 900 ft 1 in Vert. = 90 ft

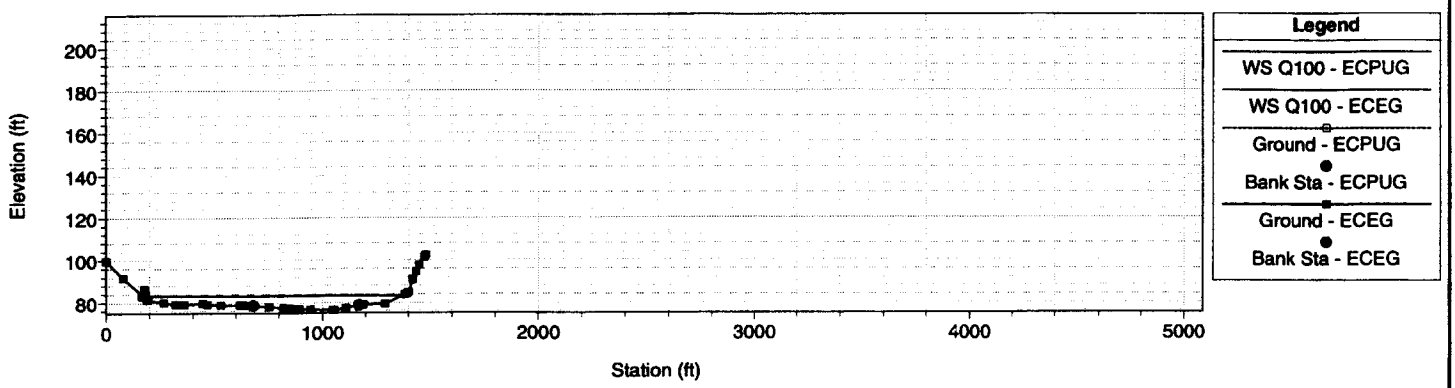
Project Model - Model F1

RS = 15455.59 FEC-AFV Alternative - San Mateo Creek Crossing



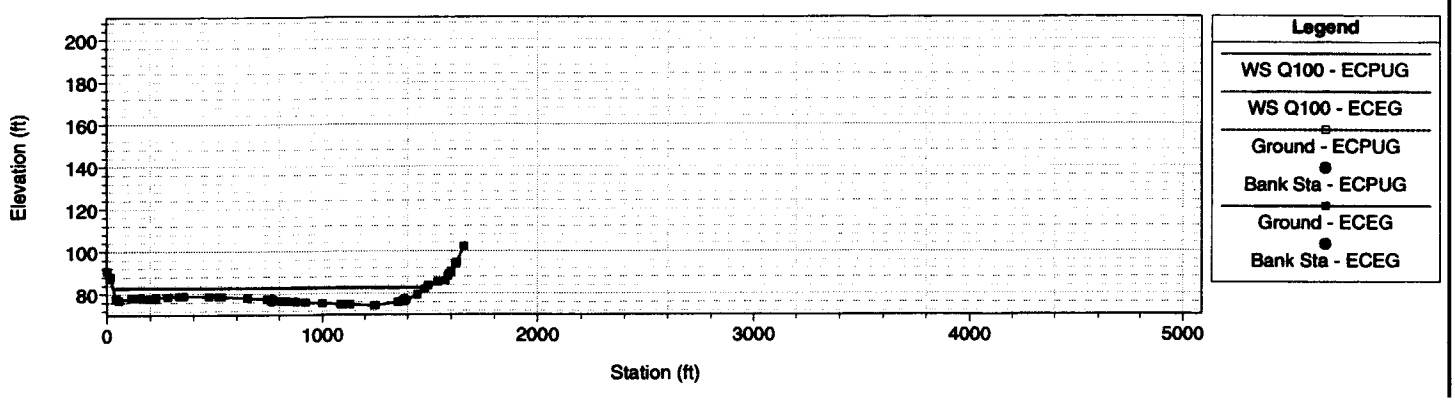
Project Model - Model F1

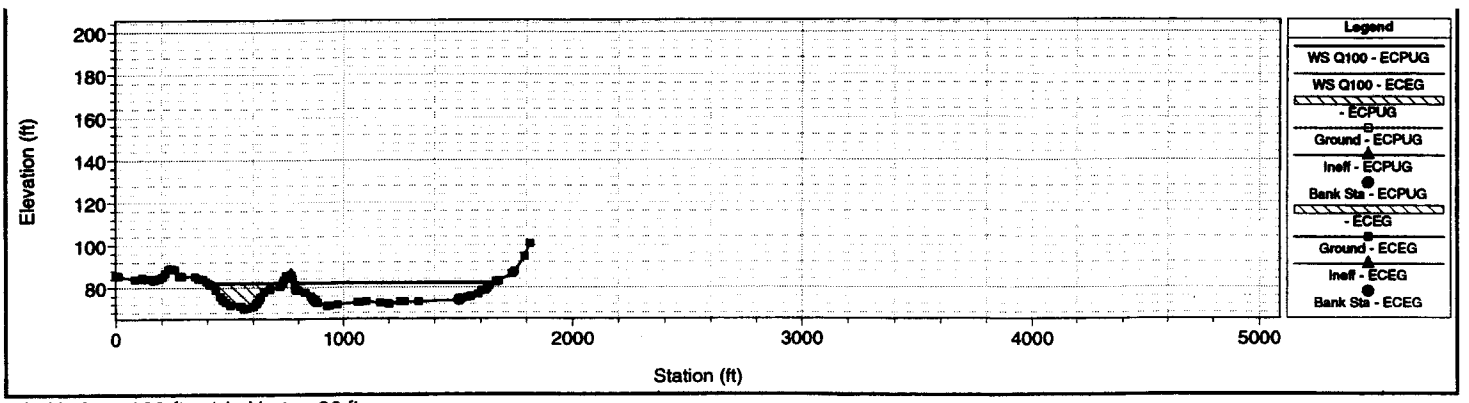
RS = 15282.84 FEC-AFV Alternative - San Mateo Creek Crossing



Project Model - Model F1

RS = 15076.02 FEC-AFV Alternative - San Mateo Creek Crossing

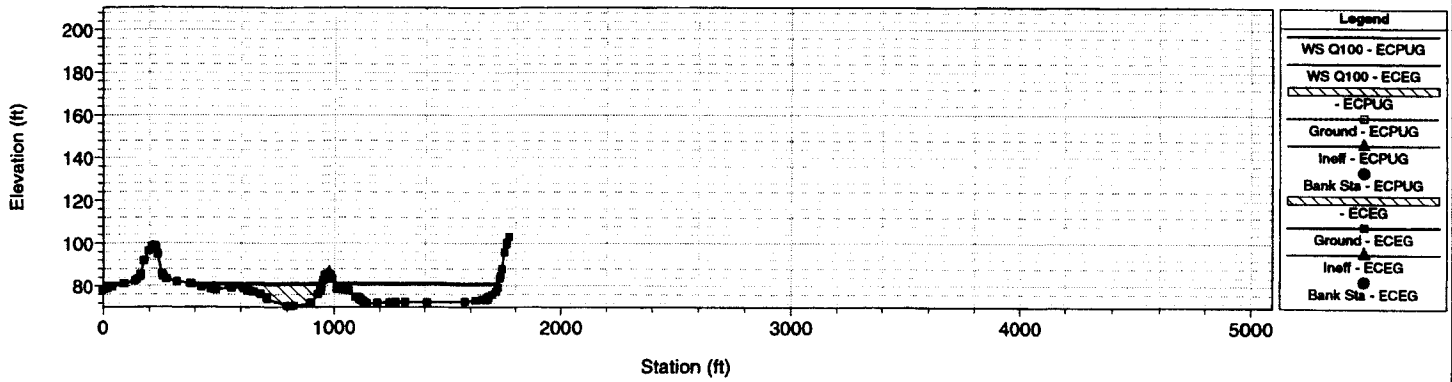




1 in Horiz. = 900 ft 1 in Vert. = 90 ft

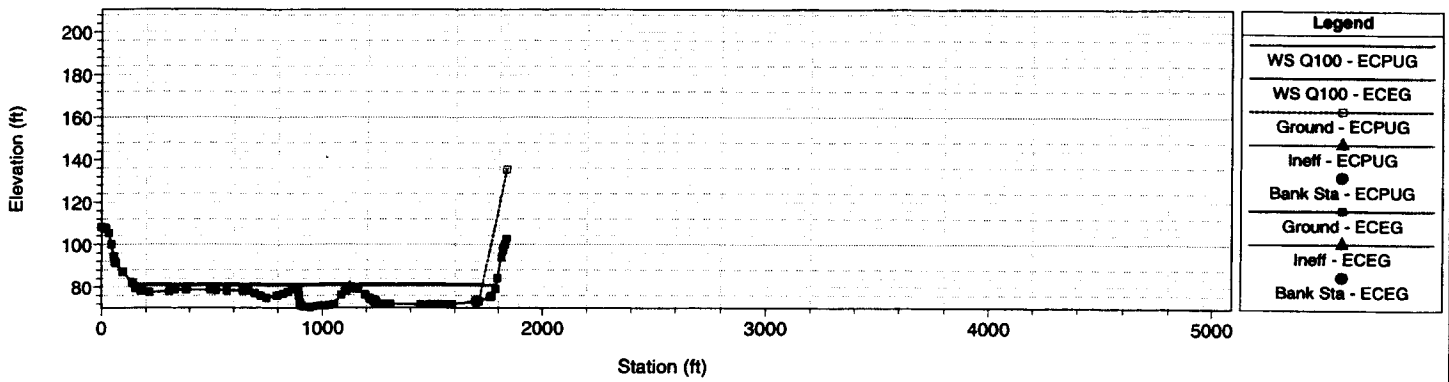
Project Model - Model F1

RS = 14640.75 FEC-AFV Alternative - San Mateo Creek Crossing



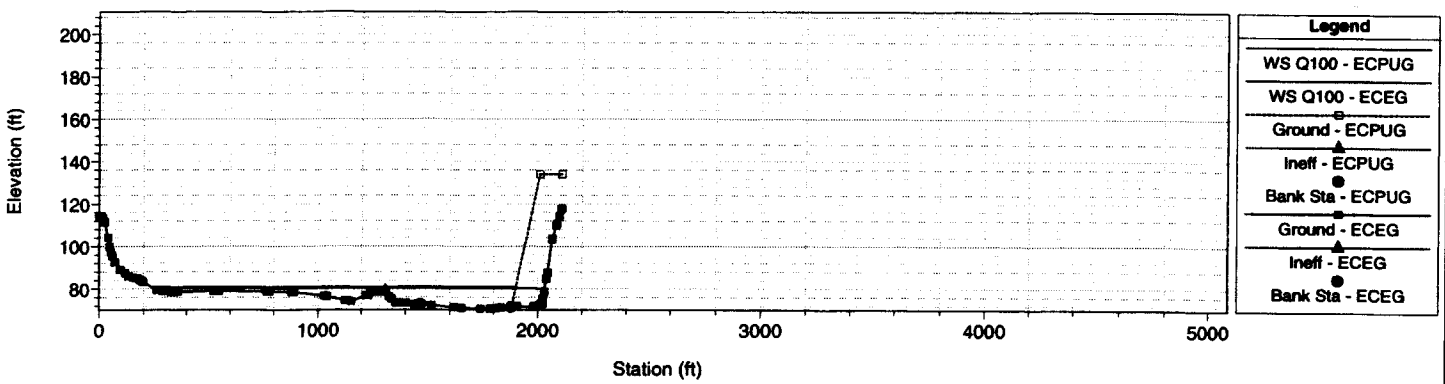
Project Model - Model F1

RS = 14474.32 FEC-AFV Alternative - San Mateo Creek Crossing



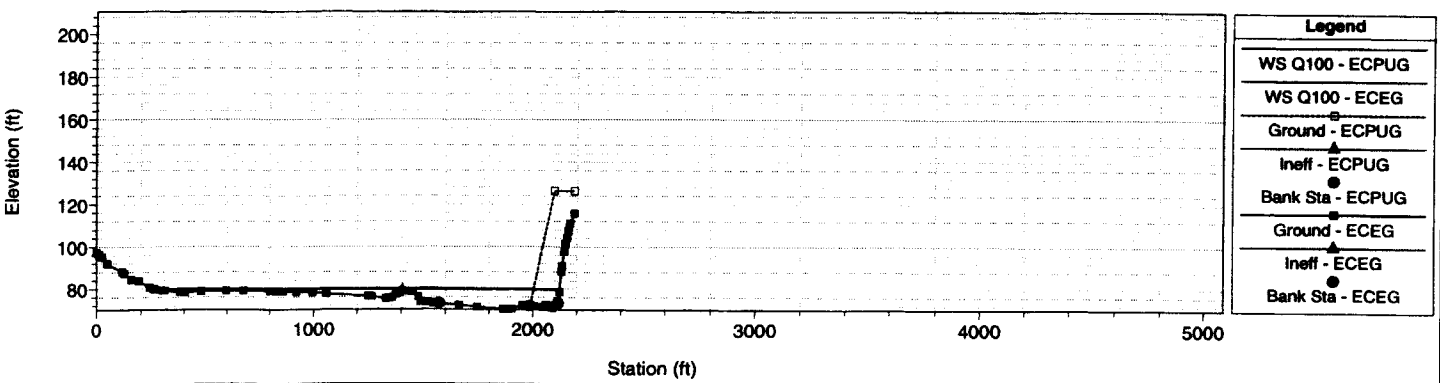
Project Model - Model F1

RS = 14295.85 FEC-AFV Alternative - San Mateo Creek Crossing



Project Model - Model F1

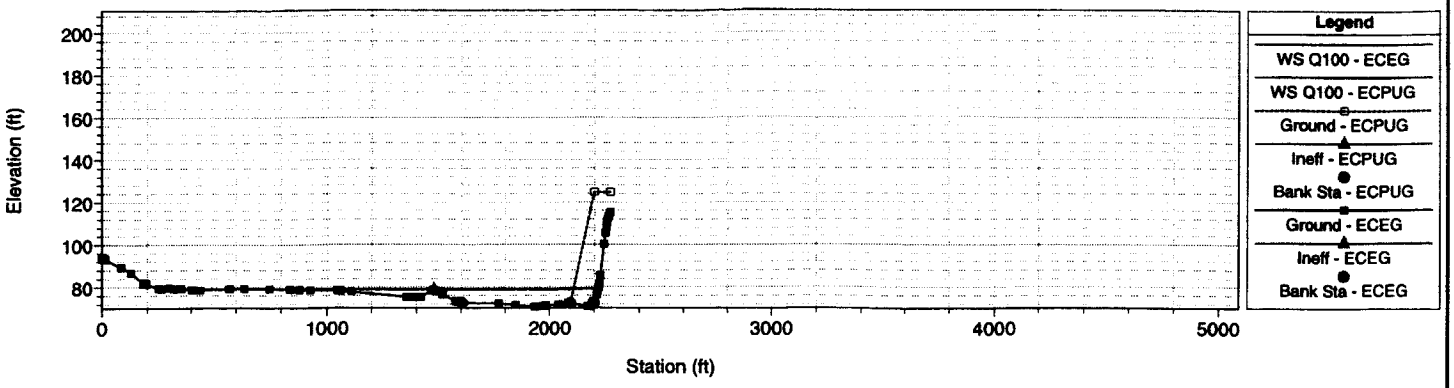
RS = 14206.87 FEC-AFV Alternative - San Mateo Creek Crossing



1 in Horiz. = 900 ft 1 in Vert. = 90 ft

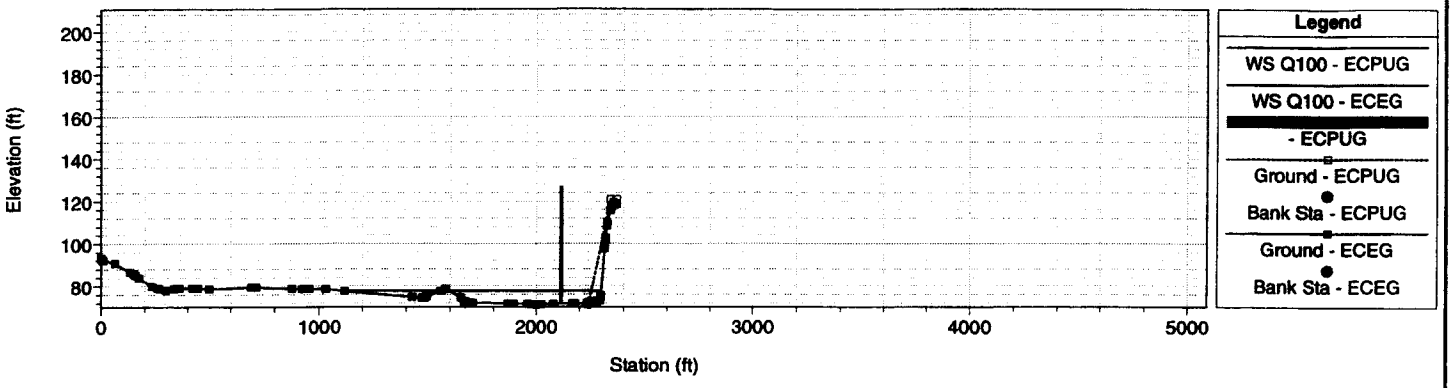
Project Model - Model F1

RS = 14108.61 FEC-AFV Alternative - San Mateo Creek Crossing



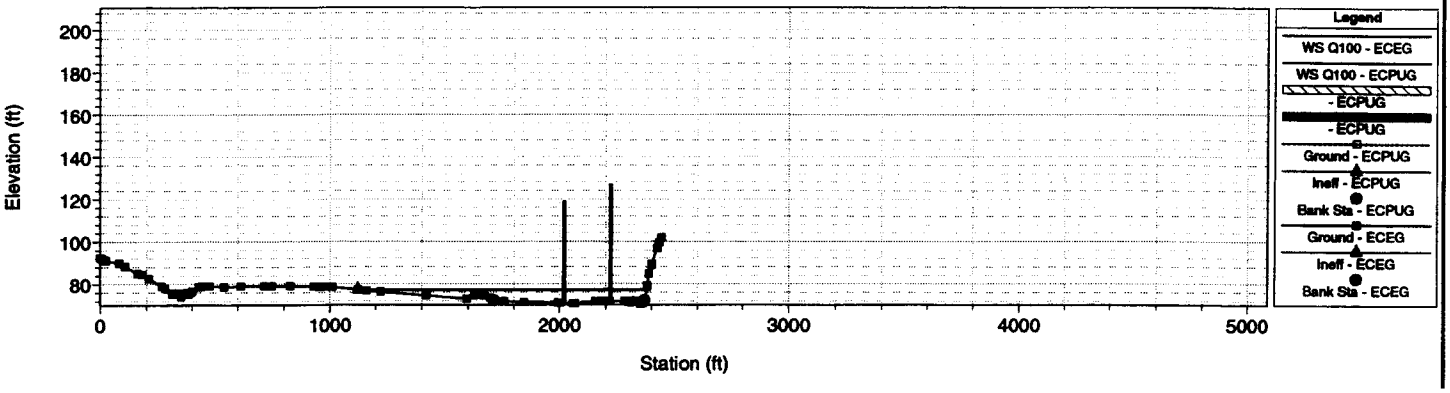
Project Model - Model F1

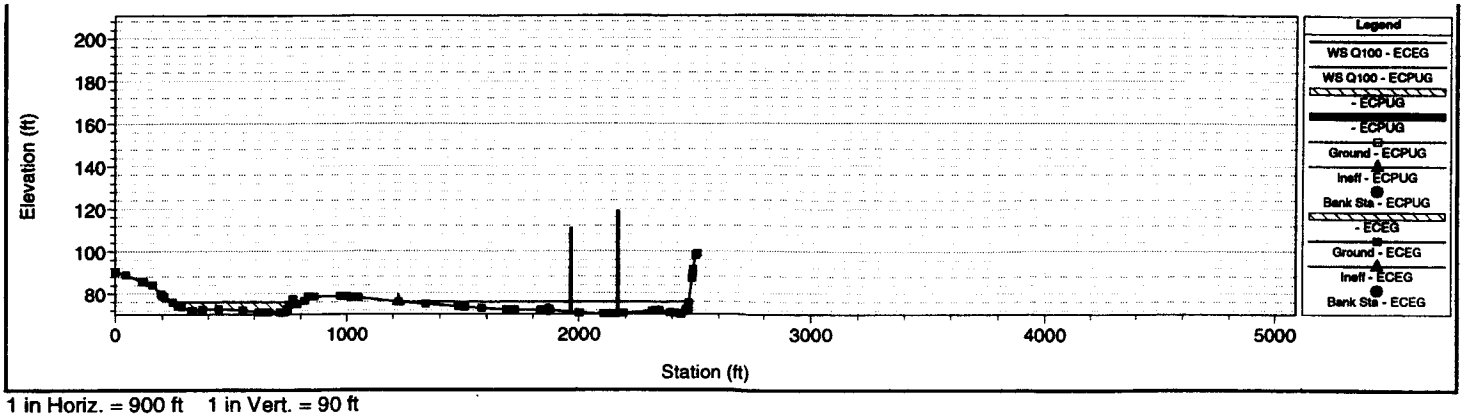
RS = 14009.16 FEC-AFV Alternative - San Mateo Creek Crossing



Project Model - Model F1

RS = 13906.13 FEC-AFV Alternative - San Mateo Creek Crossing

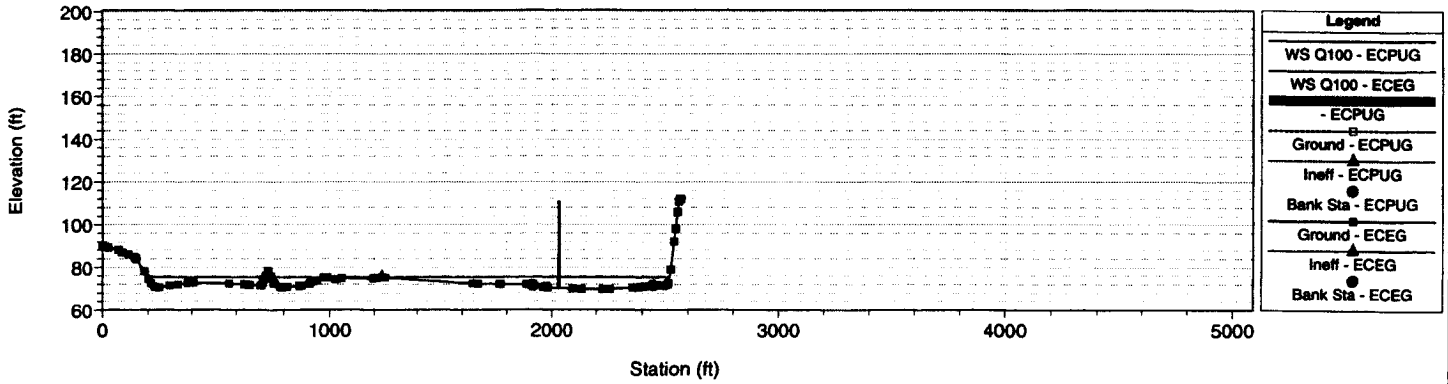




1 in Horiz. = 900 ft 1 in Vert. = 90 ft

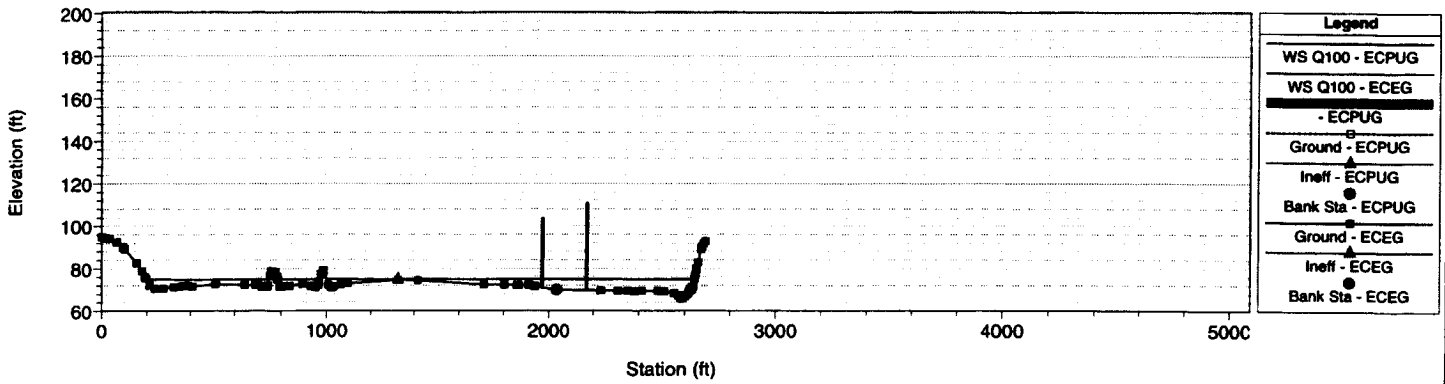
Project Model - Model F1

RS = 13721.89 FEC-AFV Alternative - San Mateo Creek Crossing



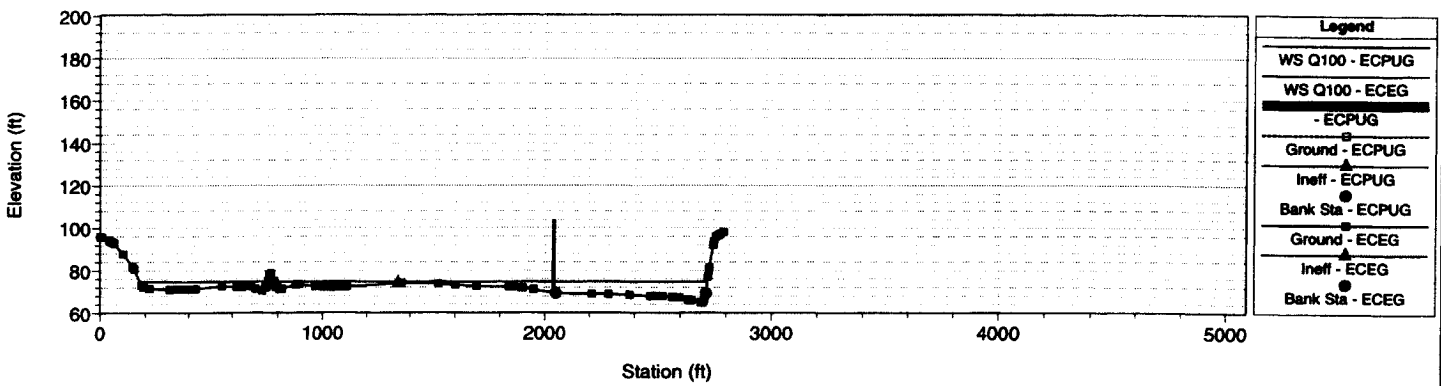
Project Model - Model F1

RS = 13616.16 FEC-AFV Alternative - San Mateo Creek Crossing



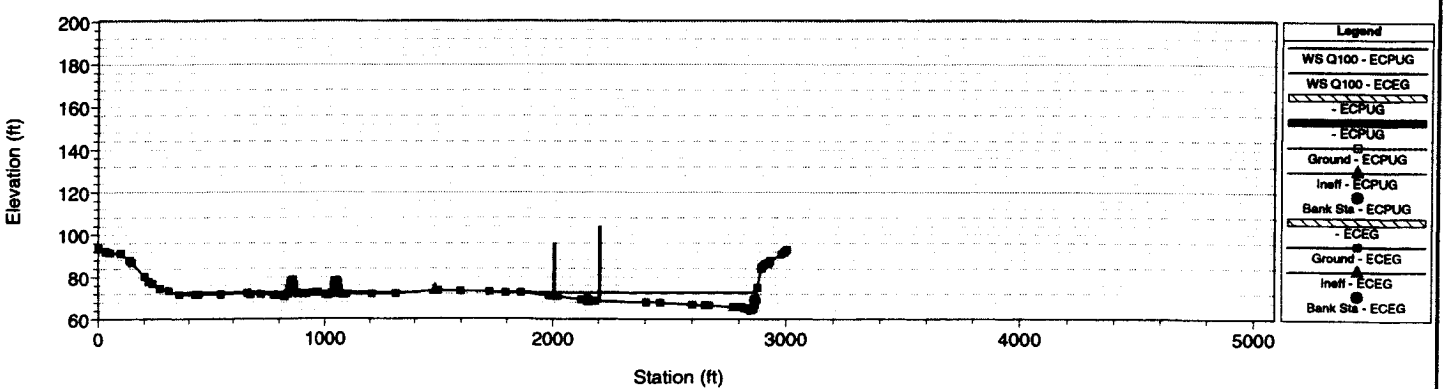
Project Model - Model F1

RS = 13508.64 FEC-AFV Alternative - San Mateo Creek Crossing



Project Model - Model F1

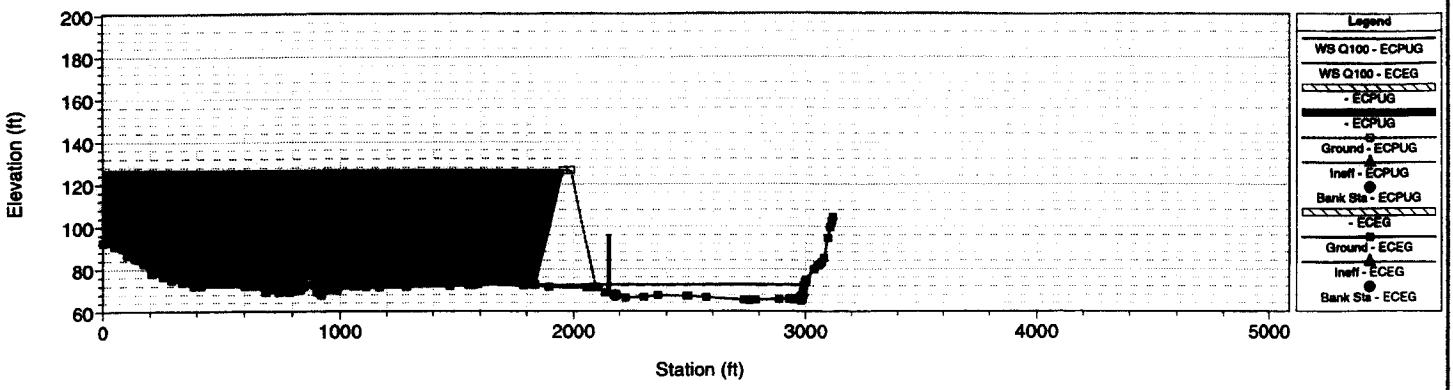
RS = 13407.57 FEC-AFV Alternative - San Mateo Creek Crossing



1 in Horiz. = 900 ft 1 in Vert. = 90 ft

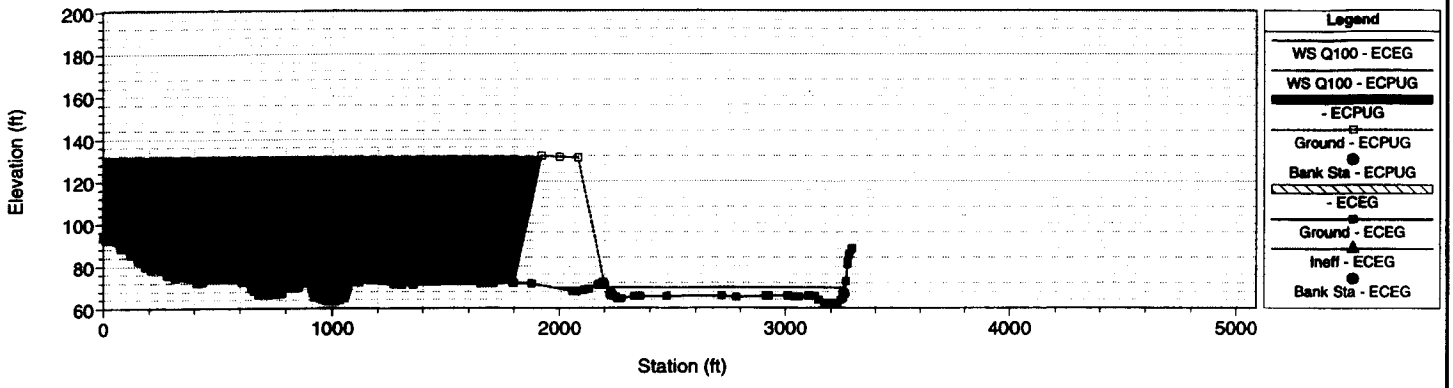
Project Model - Model F1

RS = 13315.43 FEC-AFV Alternative - San Mateo Creek Crossing



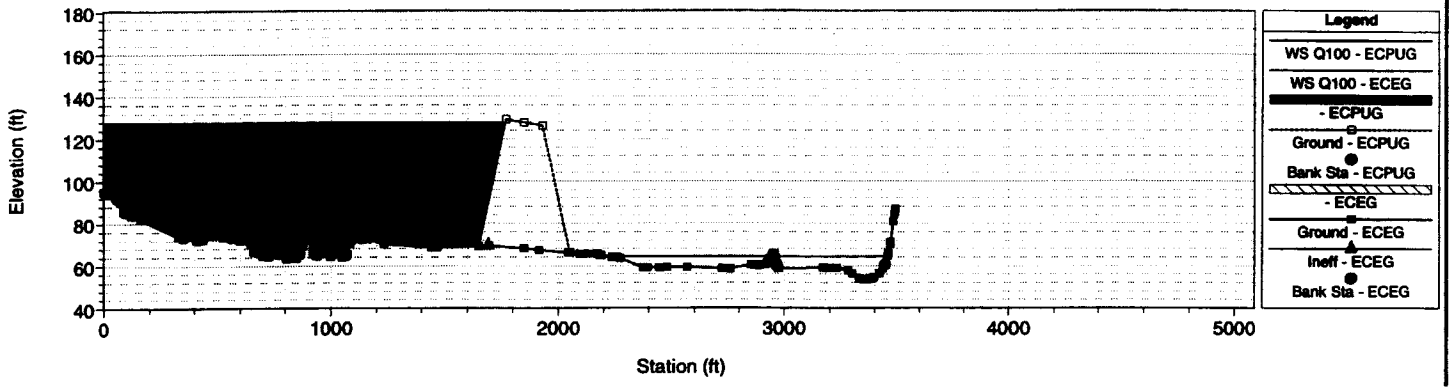
Project Model - Model F1

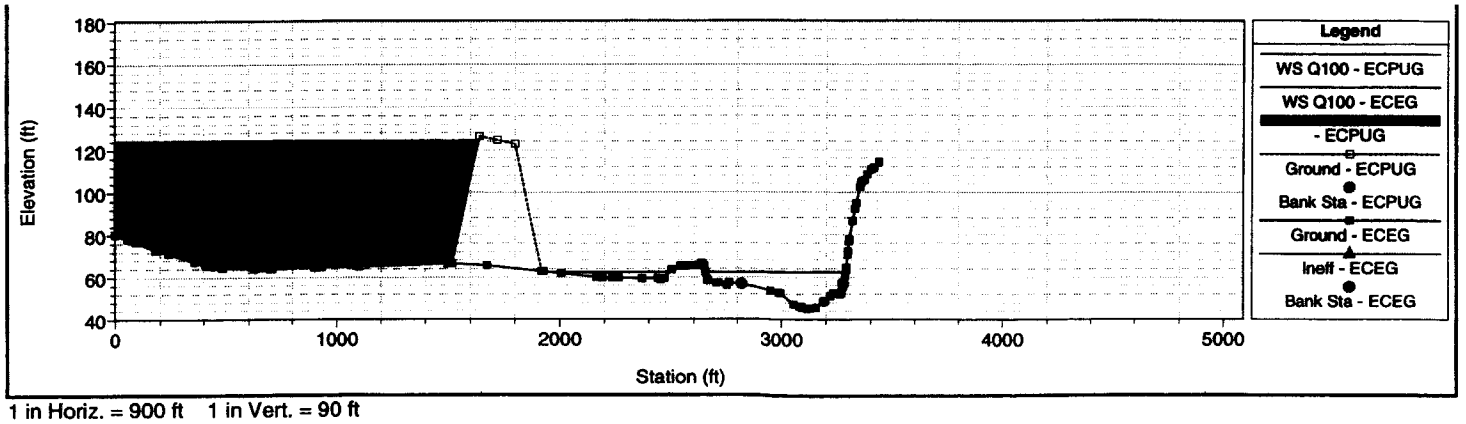
RS = 12905.33 FEC-AFV Alternative - San Mateo Creek Crossing



Project Model - Model F1

RS = 11695.46 FEC-AFV Alternative - San Mateo Creek Crossing

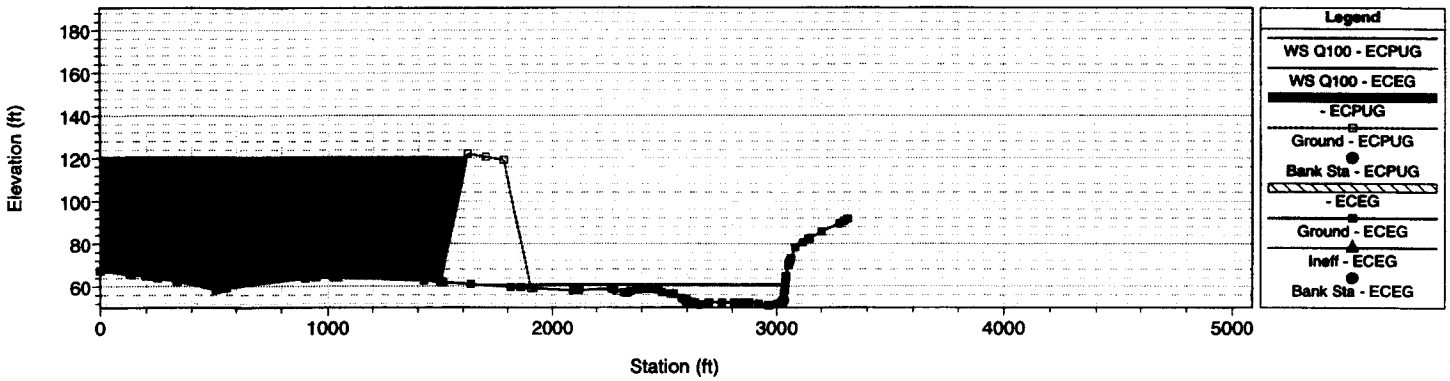




1 in Horiz. = 900 ft 1 in Vert. = 90 ft

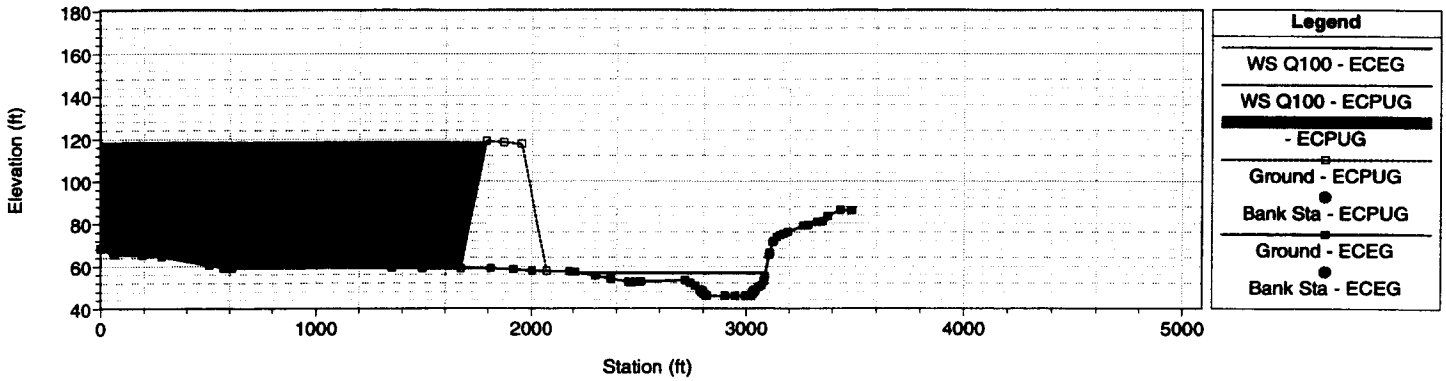
Project Model - Model F1

RS = 10103.57 FEC-AFV Alternative - San Mateo Creek Crossing



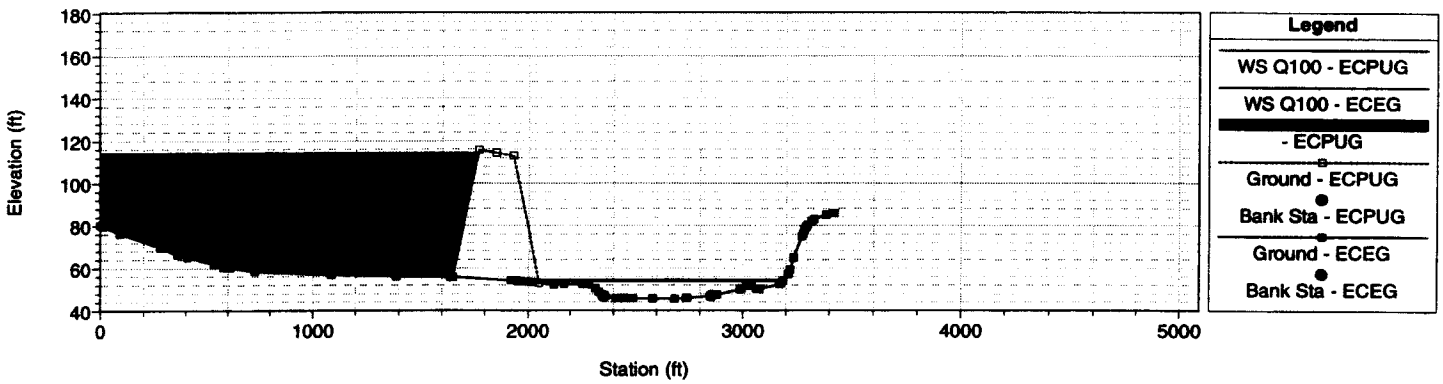
Project Model - Model F1

RS = 9476.099 FEC-AFV Alternative - San Mateo Creek Crossing



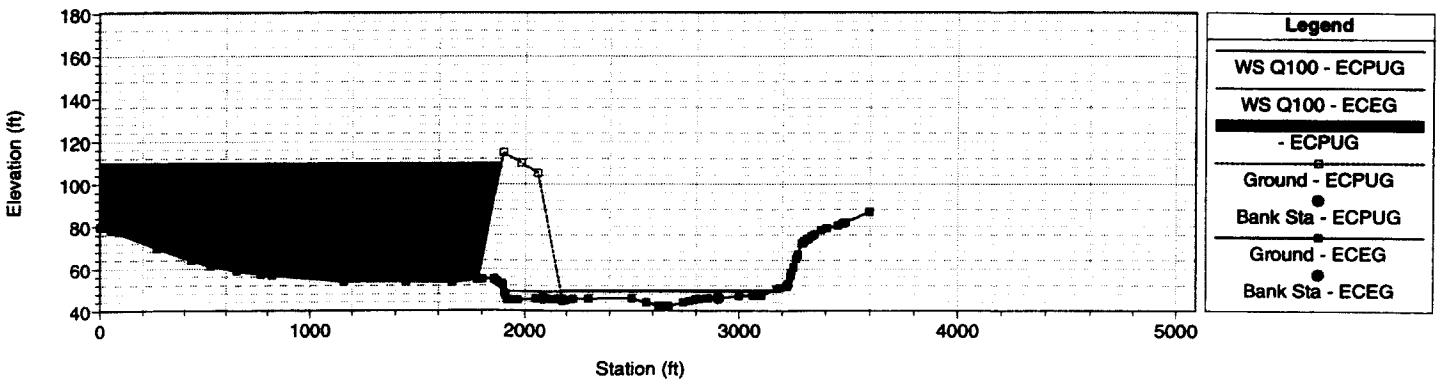
Project Model - Model F1

RS = 8888.551 FEC-AFV Alternative - San Mateo Creek Crossing



Project Model - Model F1

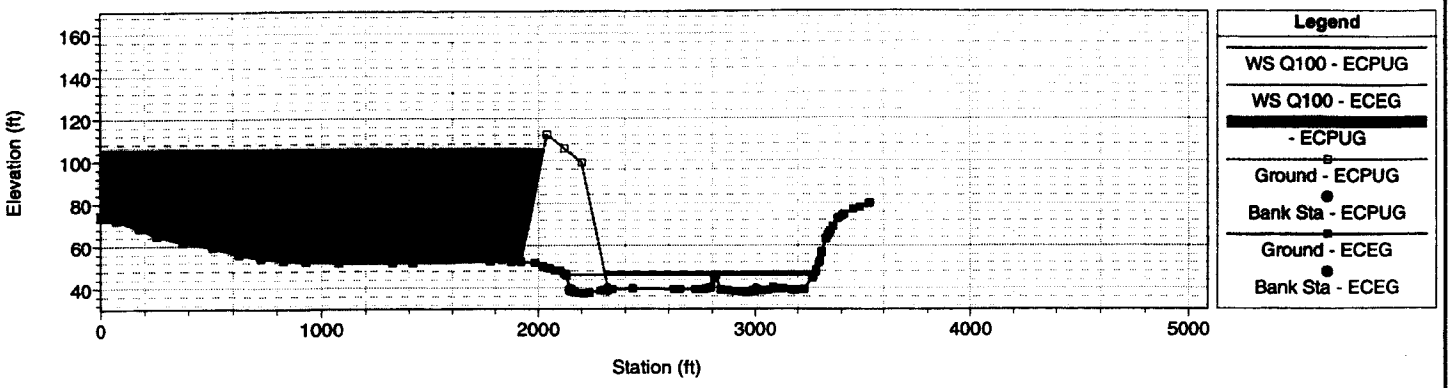
RS = 8290.415 FEC-AFV Alternative - San Mateo Creek Crossing



1 in Horiz. = 900 ft 1 in Vert. = 90 ft

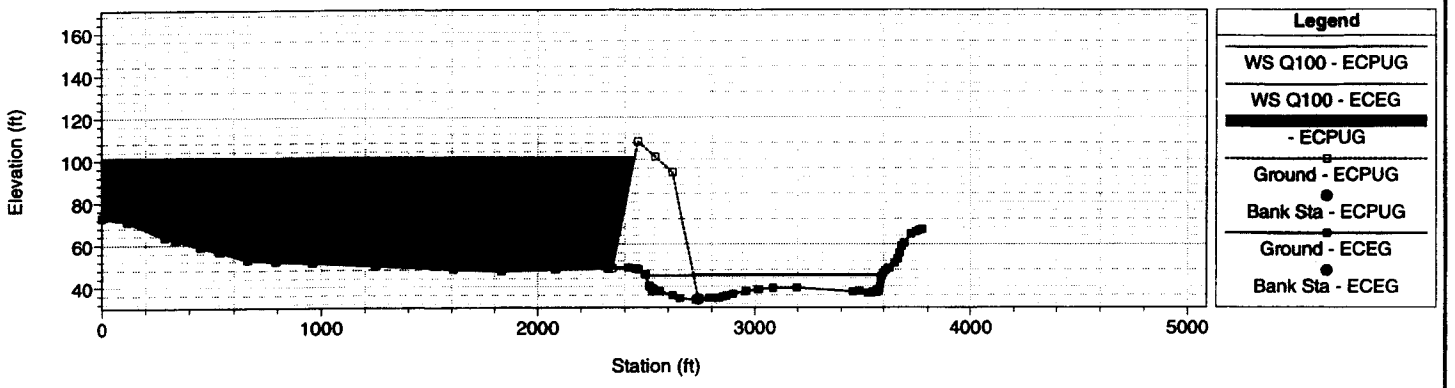
Project Model - Model F1

RS = 7667.615 FEC-AFV Alternative - San Mateo Creek Crossing



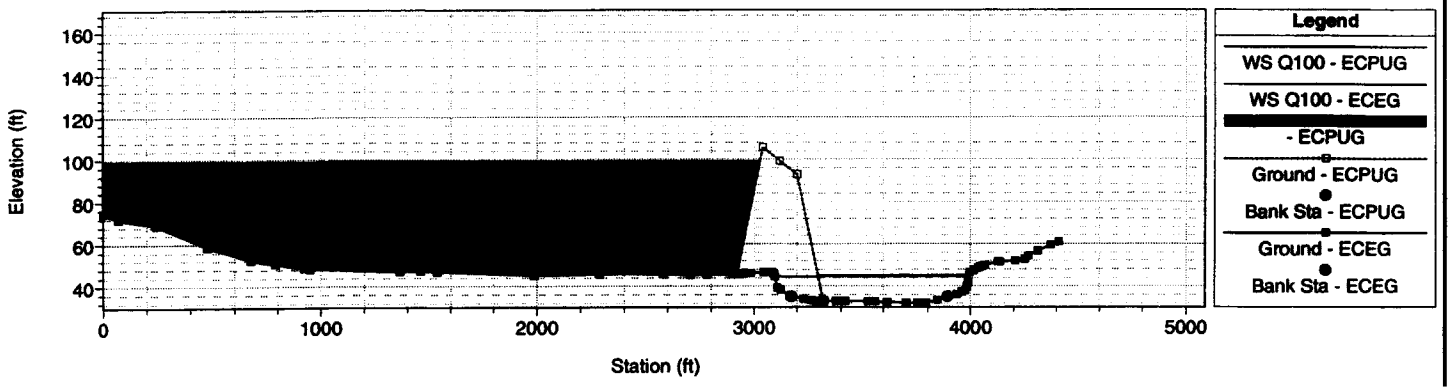
Project Model - Model F1

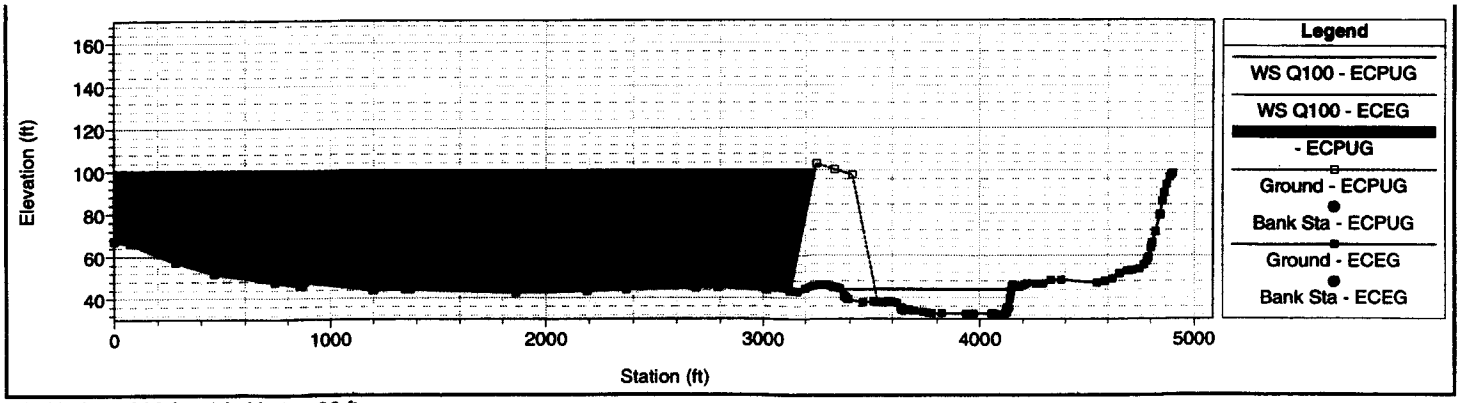
RS = 7116.984 FEC-AFV Alternative - San Mateo Creek Crossing



Project Model - Model F1

RS = 6553.777 FEC-AFV Alternative - San Mateo Creek Crossing

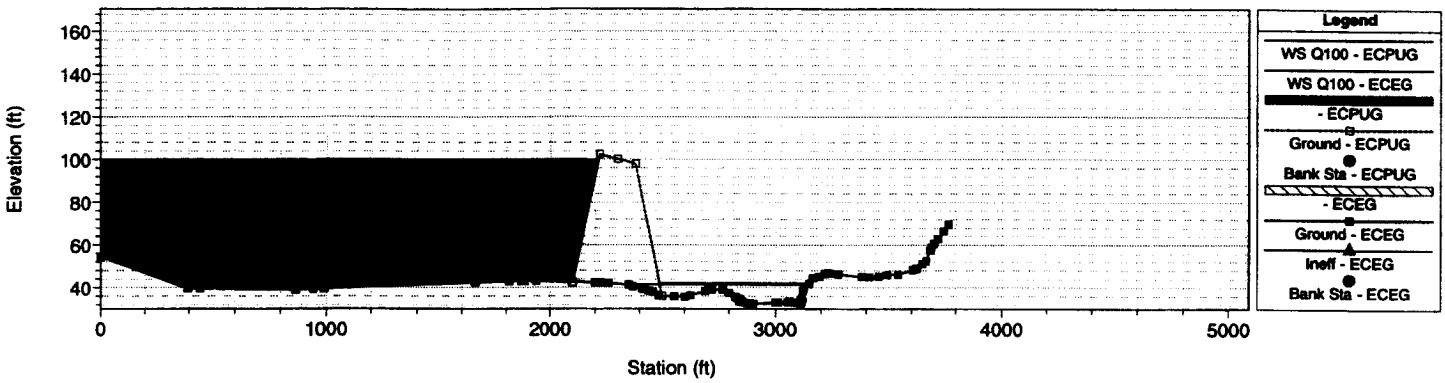




1 in Horiz. = 900 ft 1 in Vert. = 90 ft

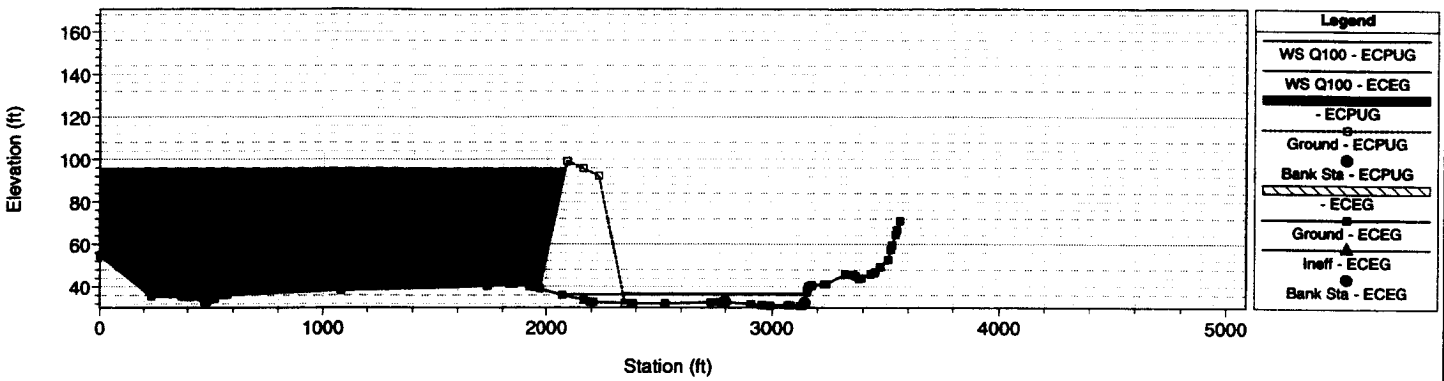
Project Model - Model F1

RS = 5898.852 FEC-AFV Alternative - San Mateo Creek Crossing



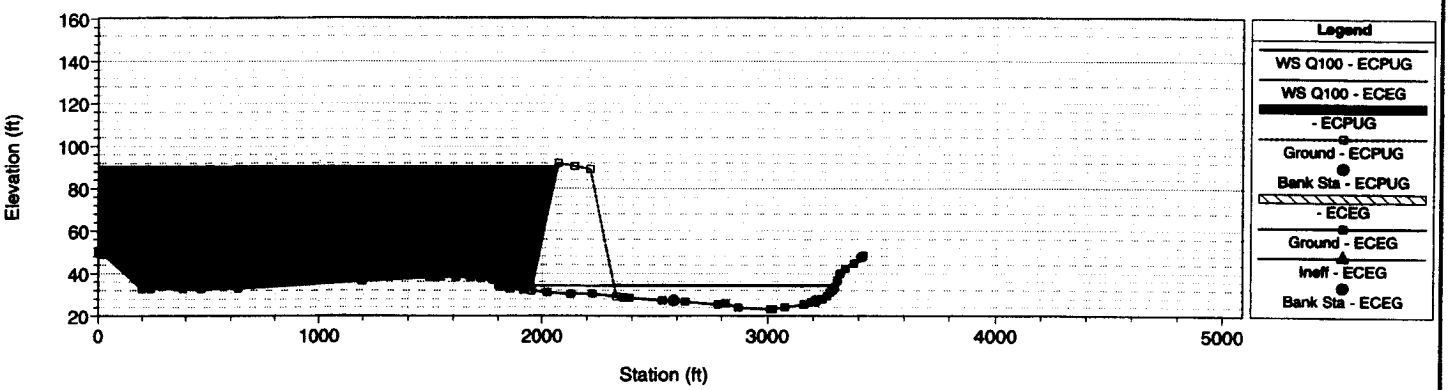
Project Model - Model F1

RS = 5313.135 FEC-AFV Alternative - San Mateo Creek Crossing



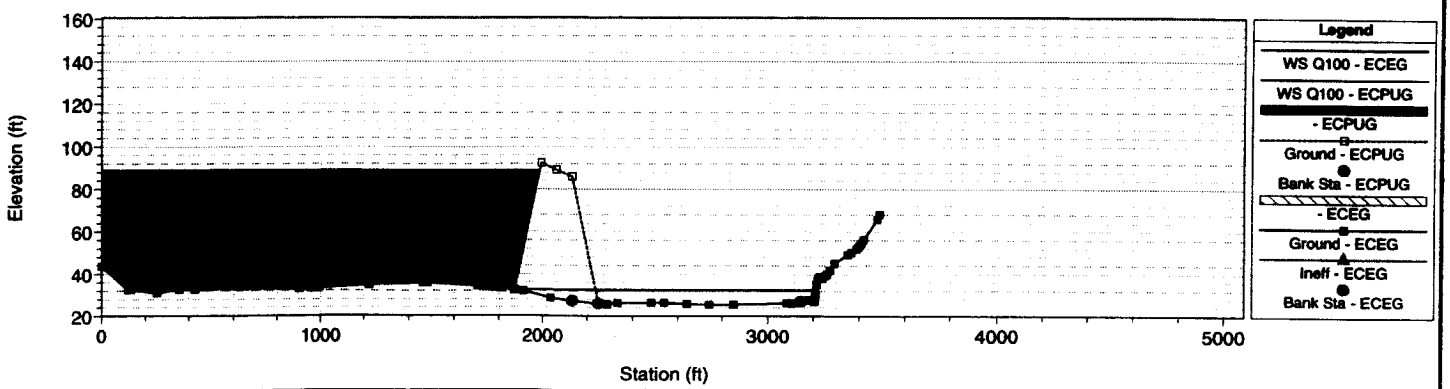
Project Model - Model F1

RS = 4689.719 FEC-AFV Alternative - San Mateo Creek Crossing



Project Model - Model F1

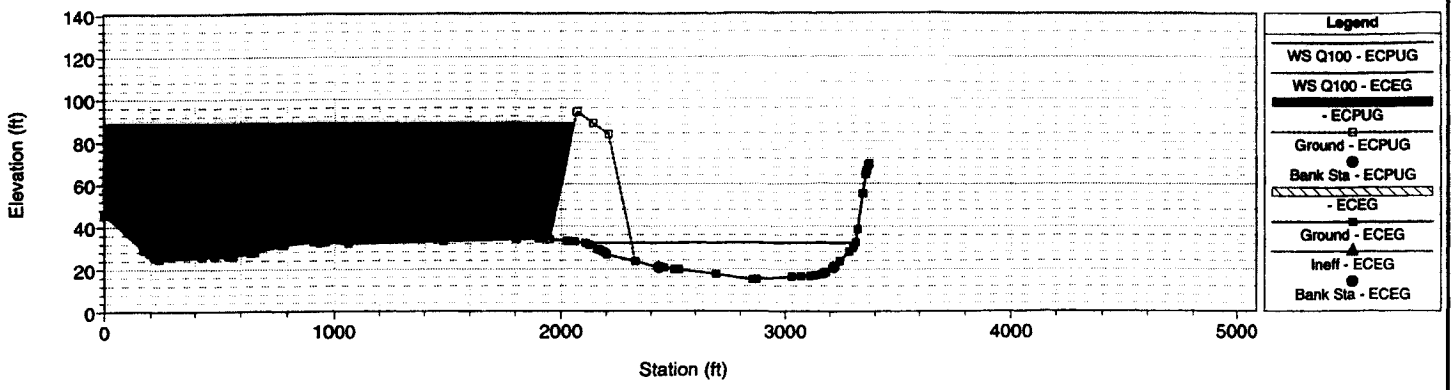
RS = 4089.740 FEC-AFV Alternative - San Mateo Creek Crossing



1 in Horiz. = 900 ft 1 in Vert. = 90 ft

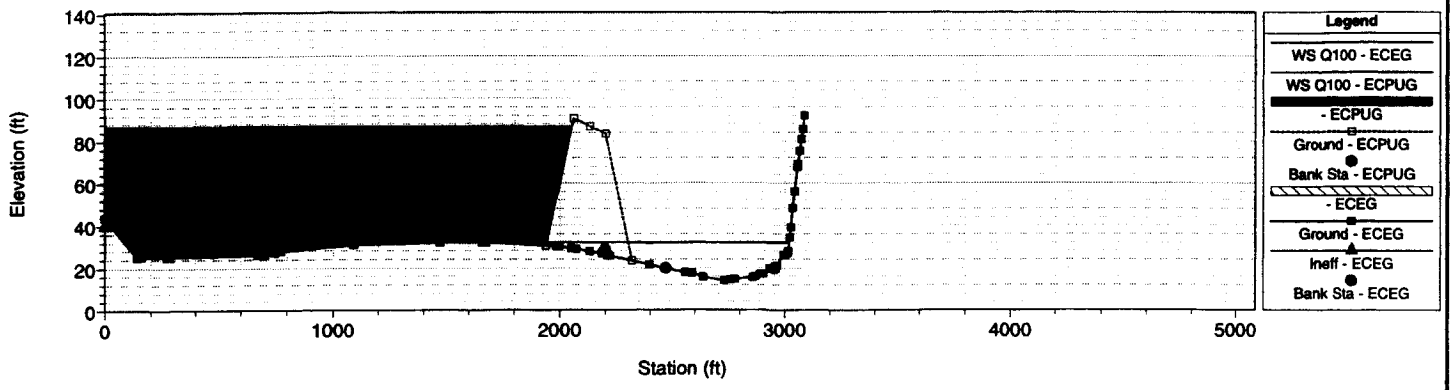
Project Model - Model F1

RS = 3486.110 FEC-AFV Alternative - San Mateo Creek Crossing



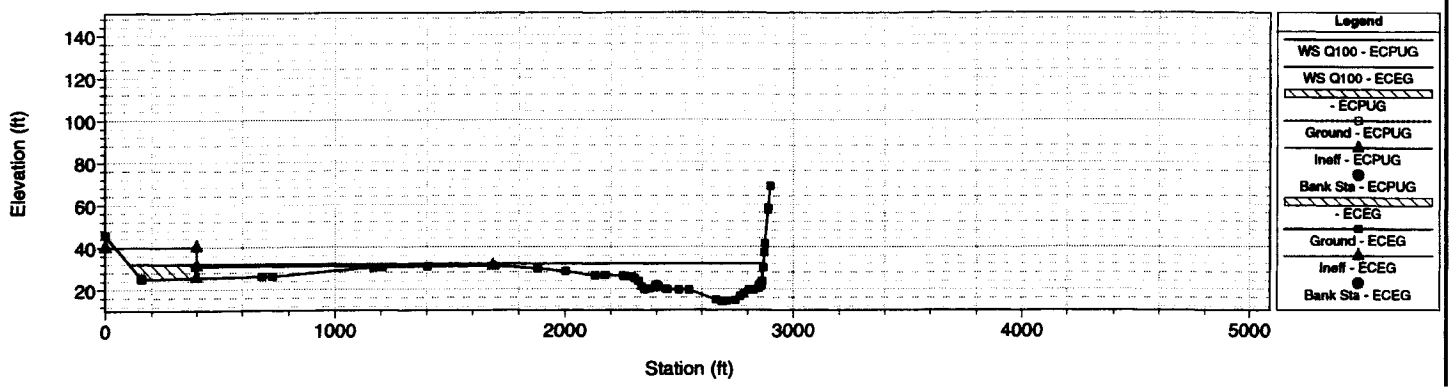
Project Model - Model F1

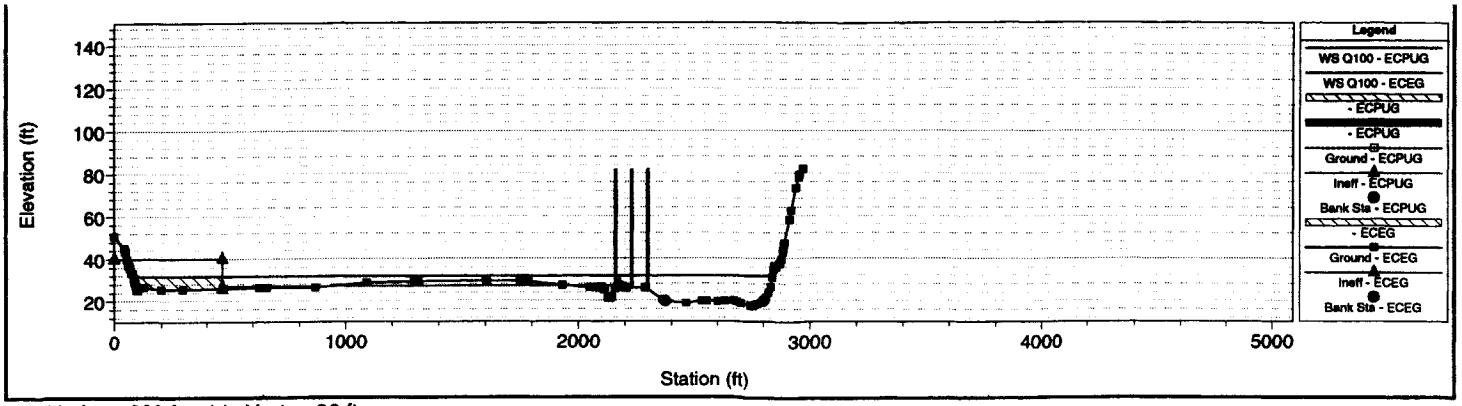
RS = 2883.526 FEC-AFV Alternative - San Mateo Creek Crossing



Project Model - Model F1

RS = 2679.762 FEC-AFV Alternative - San Mateo Creek Crossing

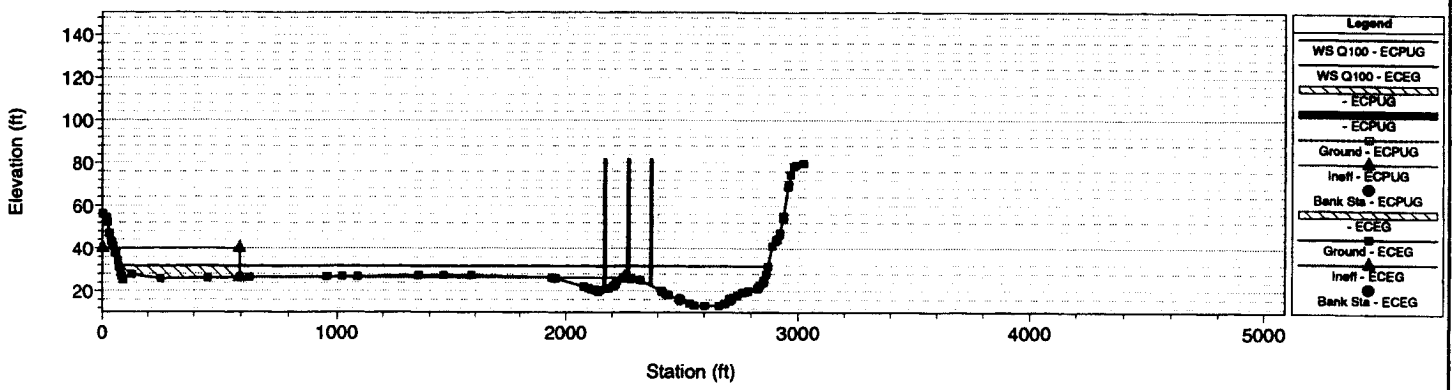




1 in Horiz. = 900 ft 1 in Vert. = 90 ft

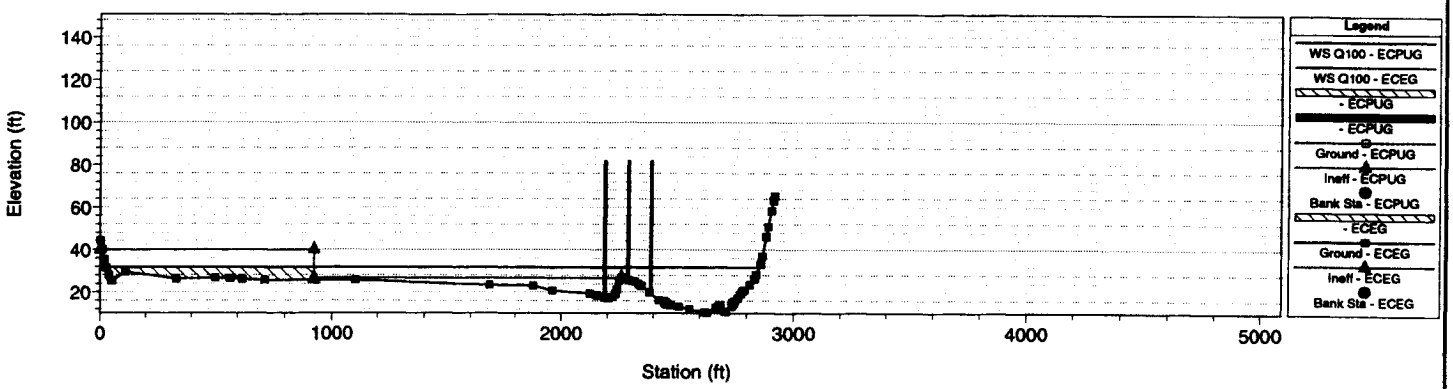
Project Model - Model F1

RS = 2075.420 FEC-AFV Alternative - San Mateo Creek Crossing



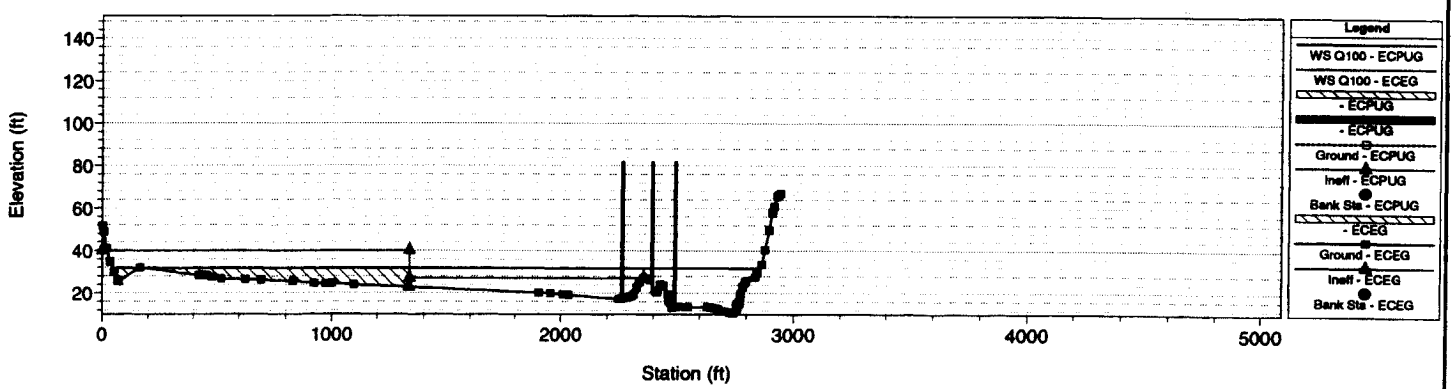
Project Model - Model F1

RS = 1907.350 FEC-AFV Alternative - San Mateo Creek Crossing



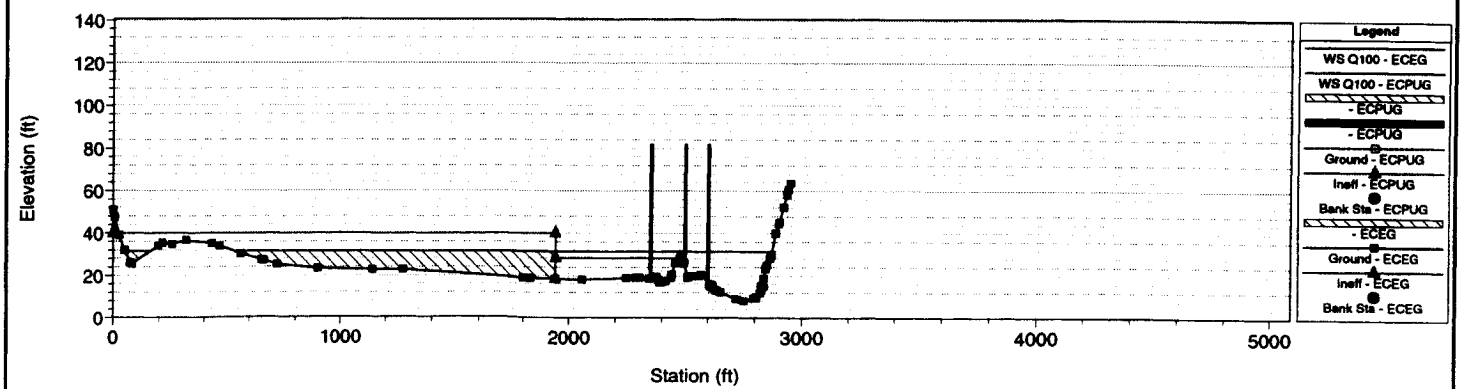
Project Model - Model F1

RS = 1700.584 FEC-AFV Alternative - San Mateo Creek Crossing



Project Model - Model F1

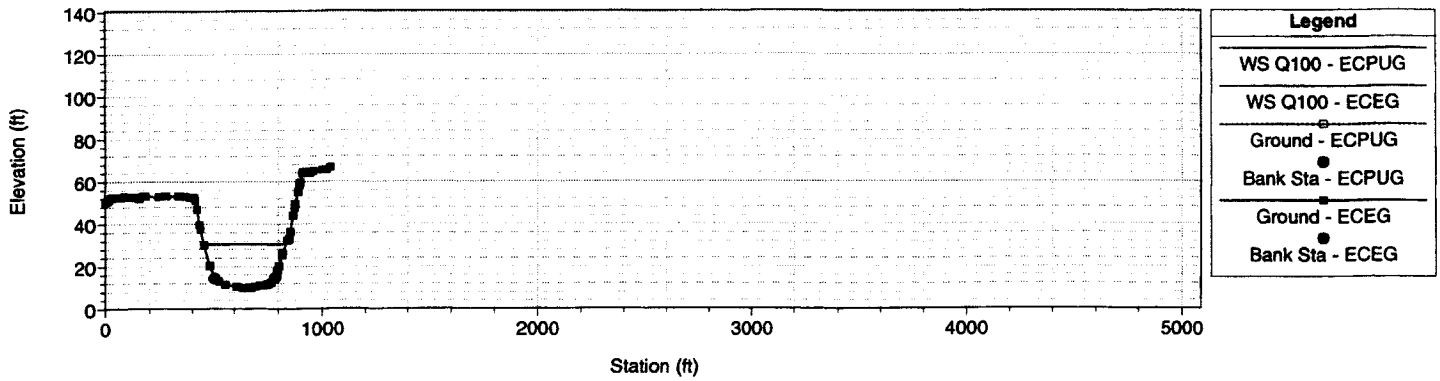
RS = 1525.293 FEC-AFV Alternative - San Mateo Creek Crossing



1 in Horiz. = 900 ft 1 in Vert. = 90 ft

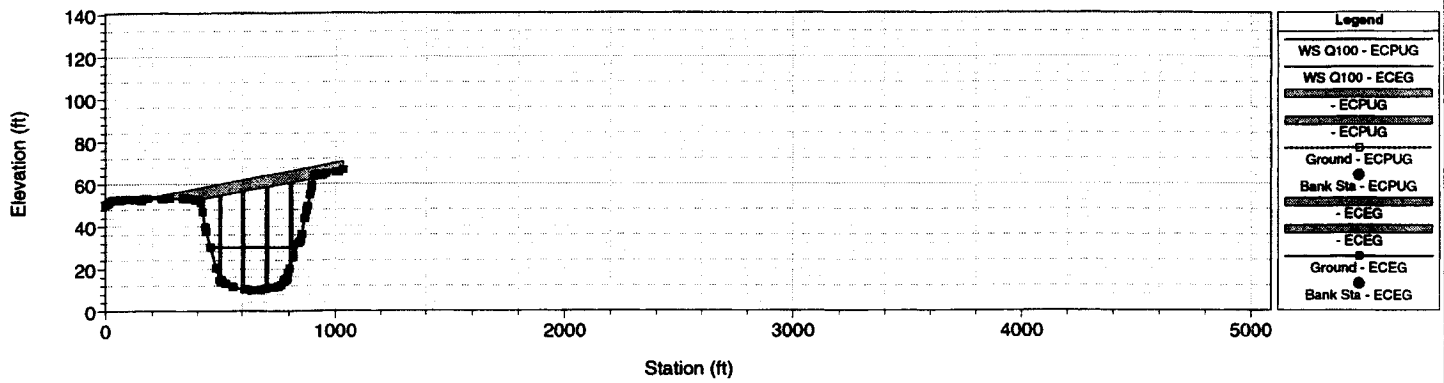
Project Model - Model F1

RS = 1306.721 FEC-AFV Alternative - San Mateo Creek Crossing



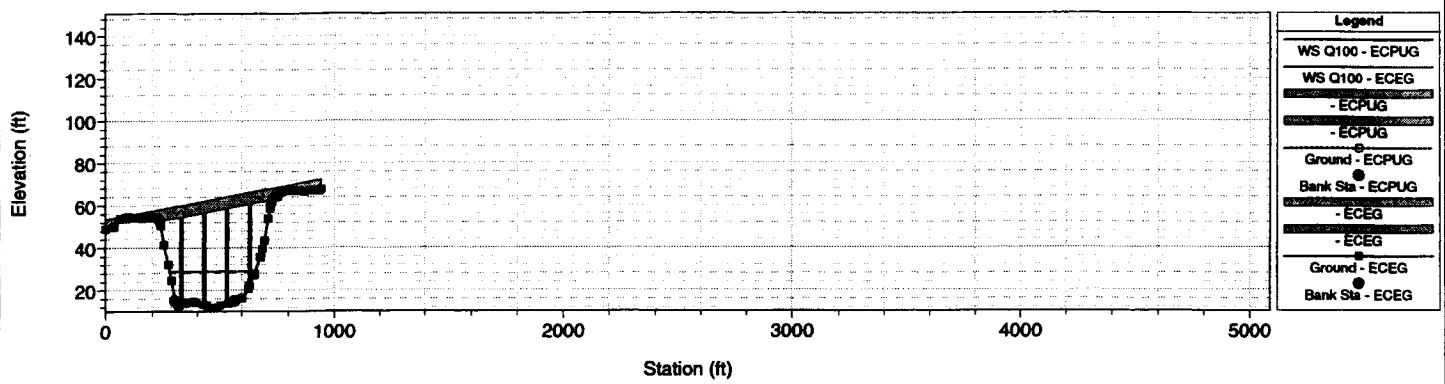
Project Model - Model F1

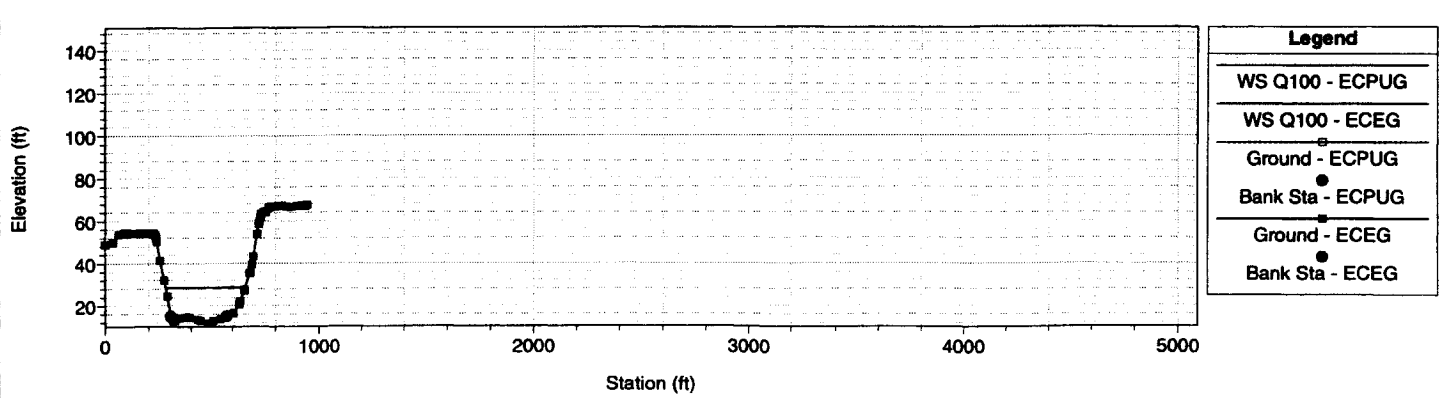
RS = 1300 FEC-AFV Alternative - San Mateo Creek Crossing



Project Model - Model F1

RS = 1300 FEC-AFV Alternative - San Mateo Creek Crossing

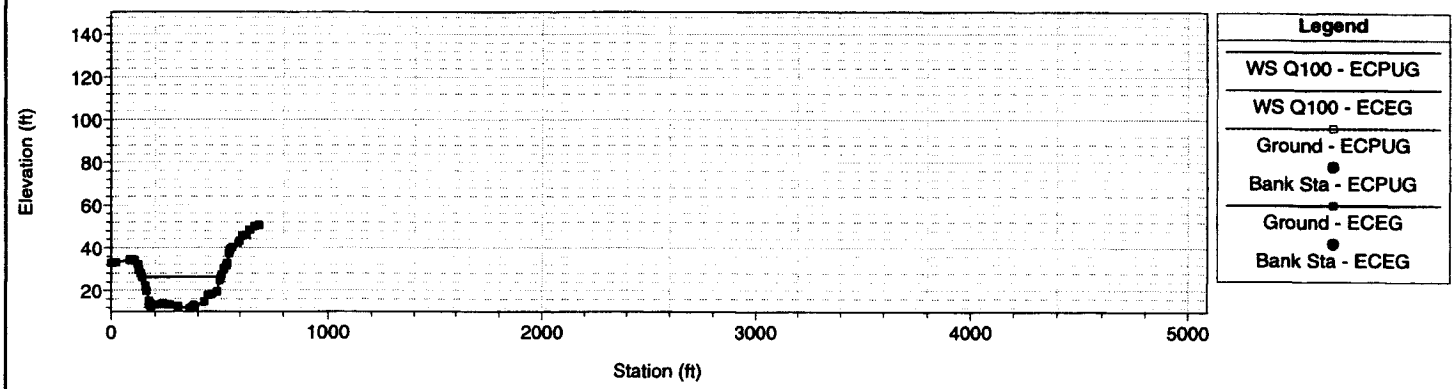




1 in Horiz. = 900 ft 1 in Vert. = 90 ft

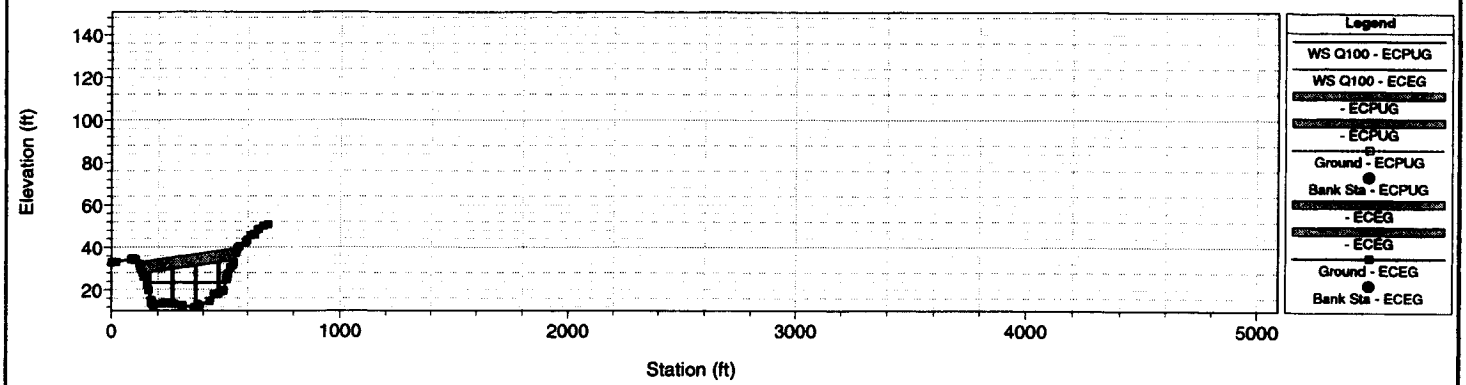
Project Model - Model F1

RS = 977.176 FEC-AFV Alternative - San Mateo Creek Crossing



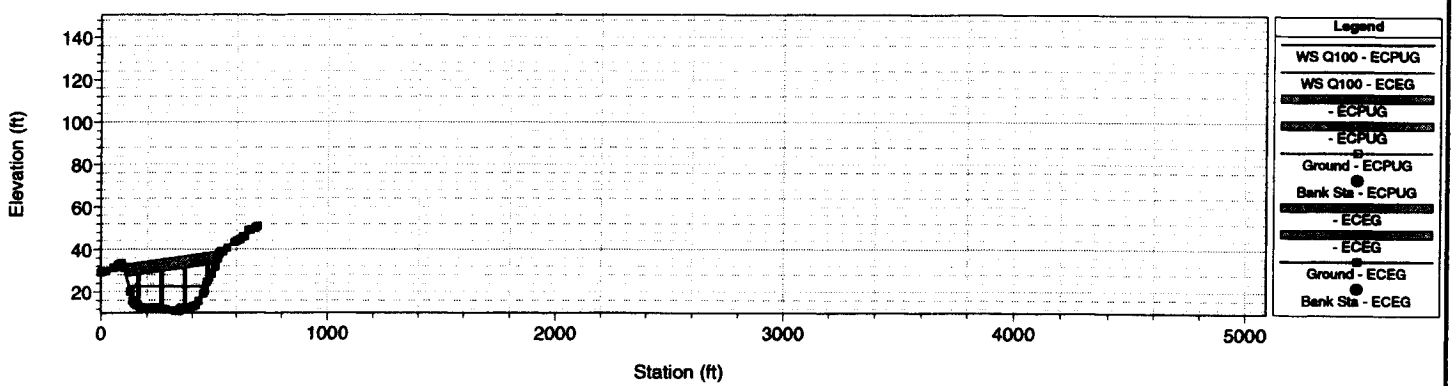
Project Model - Model F1

RS = 970 FEC-AFV Alternative - San Mateo Creek Crossing



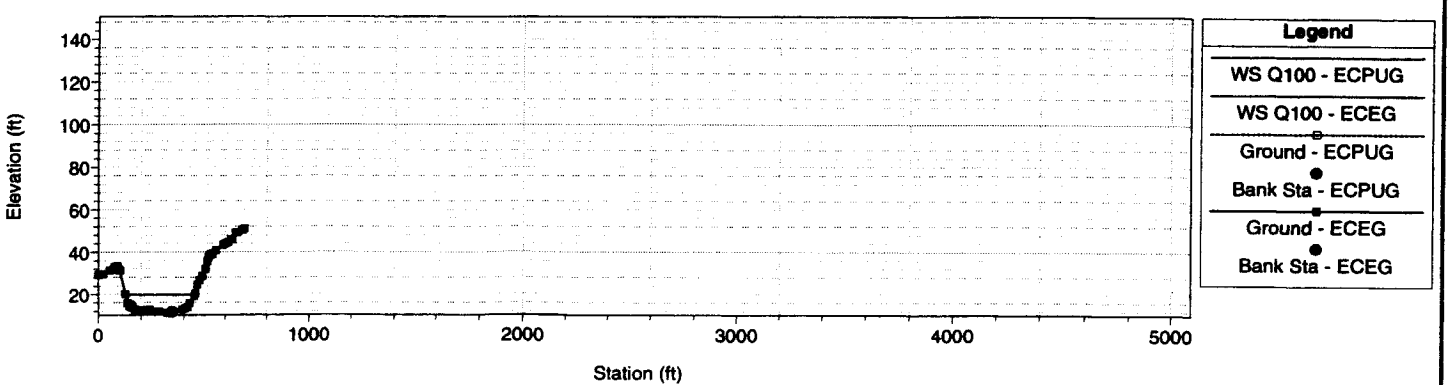
Project Model - Model F1

RS = 970 FEC-AFV Alternative - San Mateo Creek Crossing



Project Model - Model F1

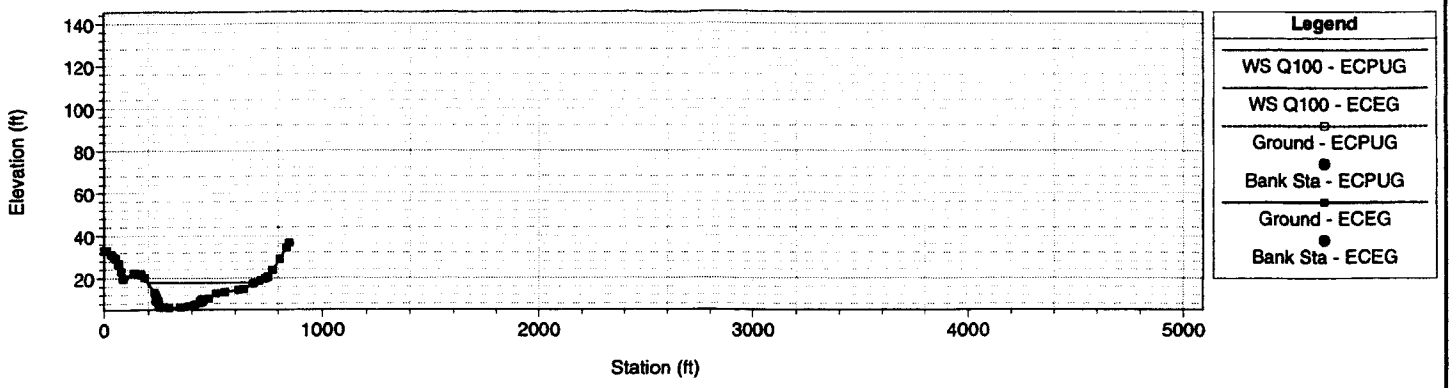
RS = 926.767 FEC-AFV Alternative - San Mateo Creek Crossing



1 in Horiz. = 900 ft 1 in Vert. = 90 ft

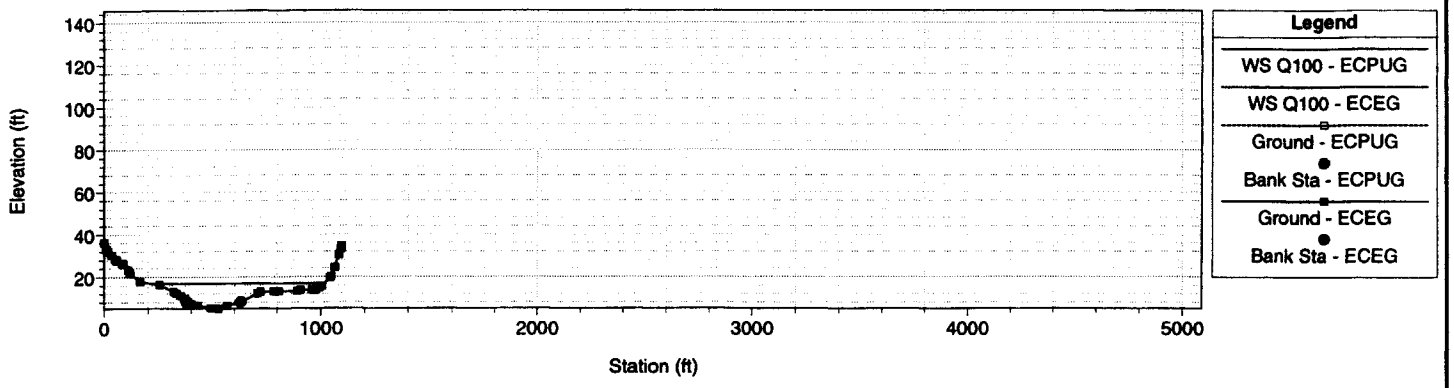
Project Model - Model F1

RS = 666.956 FEC-AFV Alternative - San Mateo Creek Crossing



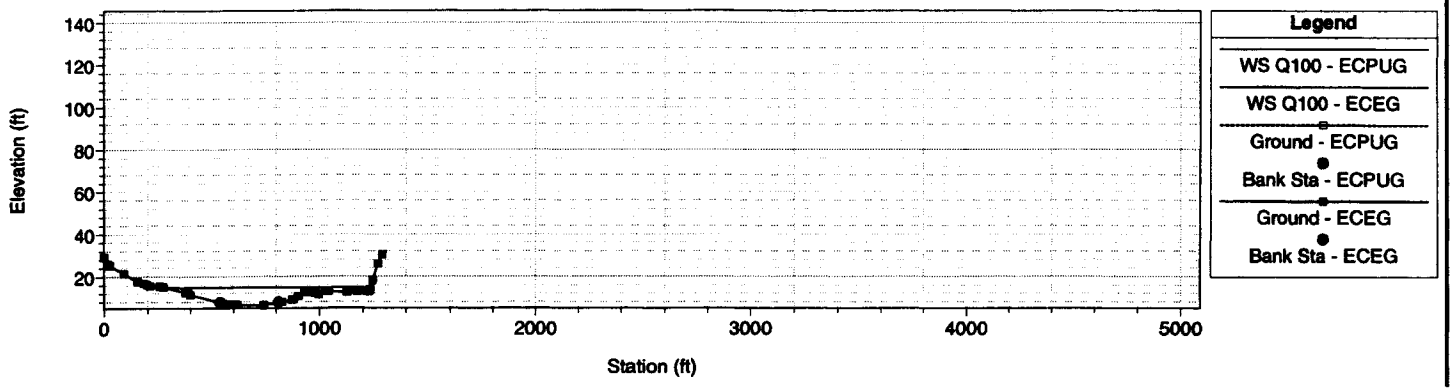
Project Model - Model F1

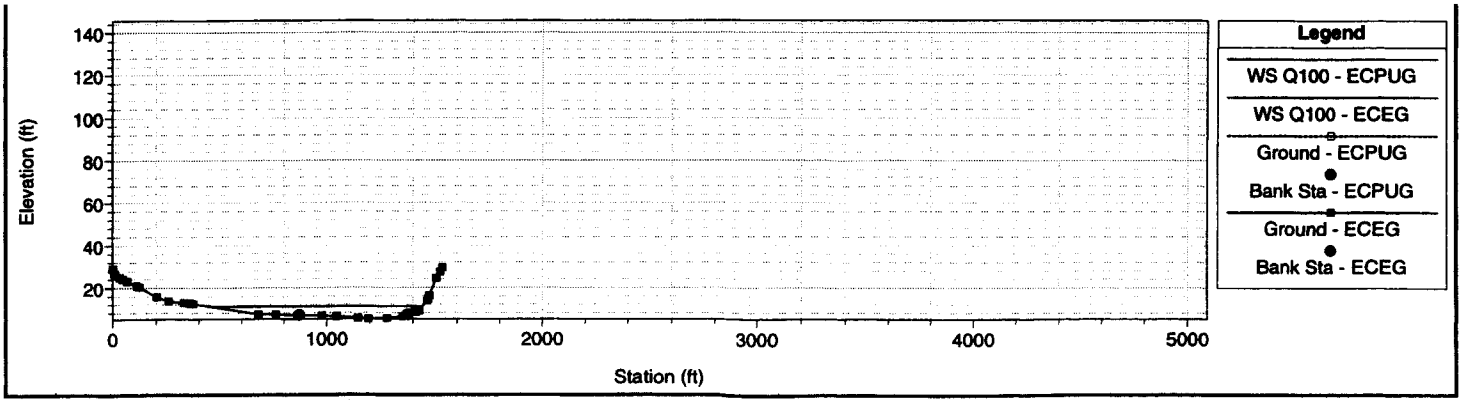
RS = 482.270 FEC-AFV Alternative - San Mateo Creek Crossing



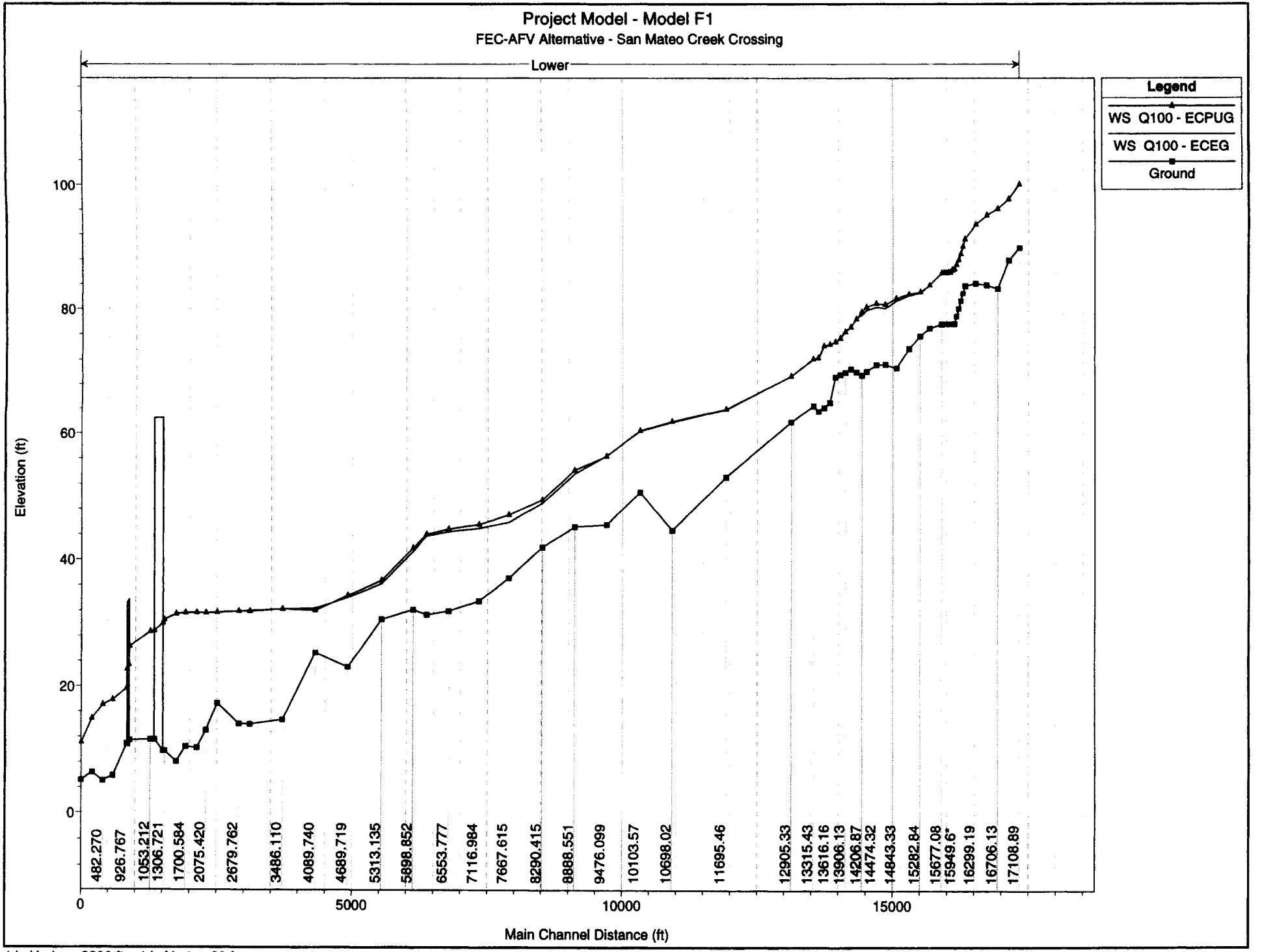
Project Model - Model F1

RS = 284.051 FEC-AFV Alternative - San Mateo Creek Crossing





1 in Horiz. = 900 ft 1 in Vert. = 90 ft



1 in Horiz. = 2300 ft 1 in Vert. = 20 ft

APPENDIX I
HYDRAULIC MODEL INPUT & RESULTS
CC ALTERNATIVE AT CAÑADA CHIQUITA
(MODEL "D1")

Appendix I. **Hydraulic Model Input & Results**

CC Alternative at Canada Chiquita (Model D1)

- Model Report
- Project geometry, plan view
- Cross Sections for 100-yr existing geometry and water surface elevations
- Geometry and water surface elevation profile

HEC-RAS Version 3.0.1 Mar 2001
U.S. Army Corp of Engineers
Hydrologic Engineering Center
609 Second Street, Suite D
Davis, California 95616-4687
(916) 756-1104

```
X     X  XXXXXX    XXXX        XXXX       XX      XXXX
X     X  X        X    X      X   X     X  X    X
X     X  X        X           X   X    X    X   X
XXXXXXX  XXXX     X       XXX XXXX     XXXXXX    XXXX
X     X  X        X            X  X    X    X        X
X     X  X        X    X       X   X   X    X        X
X     X  XXXXXX    XXXX        X    X  X    X   XXXXX
```

PROJECT DATA
Project Title: Project Model - D1
Project File : PMD1.prj
Run Date and Time: 11/14/02 8:42:04 AM

Project in English units

Project Description:
CC Alternative - Canada Chiquita Crossing

PLAN DATA

Plan Title: Existing Flow/Existing Geometry
Plan File : p:\2PDA0104\Hydr\LHS\Modeling\Model D\HecRas D\PMD1.p01

Geometry Title: Existing Conditions
Geometry File : p:\2PDA0104\Hydr\LHS\Modeling\Model D\HecRas D\PMD1.g01

Flow Title : Existing Conditions
Flow File : p:\2PDA0104\Hydr\LHS\Modeling\Model D\HecRas D\PMD1.f01

Plan Summary Information:
Number of: Cross Sections = 91 Mulitple Openings = 0
Culverts = 0 Inline Weirs = 0
Bridges = 0

Computational Information
Water surface calculation tolerance = 0.01
Critical depth calculaton tolerance = 0.01
Maximum number of interations = 20
Maximum difference tolerance = 0.3
Flow tolerance factor = 0.001

Computation Options
Critical depth computed only where necessary
Conveyance Calculation Method: At breaks in n values only
Friction Slope Method: Average Conveyance
Computational Flow Regime: Mixed Flow

FLOW DATA

Flow Title: Existing Conditions
Flow File : p:\2PDA0104\Hydr\LHS\Modeling\Model D\HecRas D\PMD1.f01

Flow Data (cfs)

River	Reach	RS	Q2	Q5	Q10	Q25	Q50	Q100	Q100HC
Canada Chiquita Tributary		19573.14	1	13	46	157	349	549	1906

Boundary Conditions

River	Reach	Profile	Upstream	Downstream
Canada Chiquita Tributary		Q2	Normal S = .02	Normal S = .01
Canada Chiquita Tributary		Q5	Normal S = .02	Normal S = .01
Canada Chiquita Tributary		Q10	Normal S = .02	Normal S = .01
Canada Chiquita Tributary		Q25	Normal S = .02	Normal S = .01
Canada Chiquita Tributary		Q50	Normal S = .02	Normal S = .01
Canada Chiquita Tributary		Q100	Normal S = .02	Normal S = .01
Canada Chiquita Tributary		Q100HC	Normal S = .02	Normal S = .01

GEOMETRY DATA

Geometry Title: Existing Conditions
Geometry File : p:\2PDA0104\Hydr\LHS\Modeling\Model D\HecRas D\PMD1.g01

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 19573.14

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 38

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	597.44	7.14	596.9	88.15	593.46	182.03	589.19	199.41	588.22
223.75	587.06	232.37	586.66	290.12	584.26	296.54	583.99	323.39	581.37
327.17	581.11	328.8	580.81	345.03	578.23	350.24	577.37	351.51	577.02
371.77	571.46	373.82	571.27	383.32	570.5	386.92	570.21	391.82	570.5
396.07	570.76	398.32	571.02	401.69	572.24	416.65	576.48	436.75	579.23
438.56	579.48	438.97	579.55	442.87	579.69	456.78	580.32	460.26	580.65
465.88	580.73	514.13	581.63	525.39	581.86	581.75	583	625.44	585.12
717.03	591.51	782.92	596.96	788.36	597.38				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.035	290.12	.05	436.75	.02

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
383.32	391.82	173.2	193.55	207.7	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 19379.59

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 45

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	597.49	58.73	592.81	64.48	592.36	70.81	592.13	112.17	590.5
164.51	588.18	222.34	583.91	263.54	582.41	272.64	582.08	334.19	578.01
362.55	576.81	365.99	576.46	375.28	575.77	391.57	574.55	402.66	573.14
424.81	571.54	425.81	571.38	432.73	568.45	440.62	565.01	442.56	564.68
447.19	564.08	451.15	564.65	452.43	564.97	457.78	567.34	466.72	571.34
475.89	571	484.32	571.15	490.06	571.26	510.82	572.87	517.43	573.19
538.21	574.41	552.24	575.04	613.59	575.7	622.85	575.9	634.41	576.09
638.62	576.28	700	578.65	736.65	580.06	768.33	583.9	803.86	586.51
836.76	589.35	851.59	591.03	892.81	595.58	906.79	596.83	908.67	597.02

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	375.28	.05	490.06	.035	613.59	.02	700	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
440.62	452.43	205.33	208.34	211.93	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 19171.25

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 34

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	590.61	74.19	585.67	108.12	583.79	193.08	578.25	220.61	576.65
308.92	572.38	359.95	568.74	362.32	568.57	370	568.02	396.73	566.1
414.9	564.52	451.7	564.2	463.45	564.1	467.09	564.06	473.33	564.13
475.69	564.2	483.09	564.39	535.99	565.8	556.1	566.22	591.65	566.37
611.05	566.42	635	566.58	665	566.78	694.31	566.97	719.74	567.24
790.28	569.63	800.7	570.05	826.98	571.34	837.01	572.05	848.5	573.09
886.49	576.76	898.34	579.01	922.76	586.14	936.22	589.95		

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	370	.05	475.69	.035	635	.02	665	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
451.7	475.69	199.42	193.57	200.42	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 18977.68

INPUT

166.92	578.29	320.84	566.61	330.82	565.93	368.96	564.18	386.56	563.35
397.01	562.86	425.45	561.52	447.73	560.81	490.58	560.42	536.81	560.16
554.07	560.4	601.78	561.08	605.96	561.14	636.74	561.57	638.78	561.58
640.87	561.58	645.8	561.64	682.12	562.19	693	562.36	723	562.83
777.52	563.67	822.94	564.7	866.3	566.59	950.46	571.38	953.5	571.6
956.4	571.91	985.84	576.15	993.39	577.35	995.34	577.97	1025.41	586.83
1044.76	591.75								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	397.01	.05	605.96	.035	693	.02	723	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
490.58	554.07	206	208.92	213.39	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 18768.76

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 37

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	584.1	32.96	578.95	114.26	572.28	124.59	571.58	221.81	567.32
259.99	565.82	267.86	565.56	281.41	564.72	288.45	564.36	346.25	561.47
361.03	560.67	389.57	559.48	396.67	558.89	400.43	558.87	434.98	558
446.1	557.72	478.9	556.9	578.27	556.73	587.46	556.87	614.51	557.29
625.36	557.53	639.91	557.84	699.66	560.75	705.96	561.06	735	562.55
807.99	566.3	942.47	571.29	949.02	571.45	955.9	571.81	1002.92	575.7
1027.5	576.87	1059.91	577.84	1092.18	580.42	1110.87	581.91	1118.72	582.38
1137.59	583.17	1153.8	584.06						

Manning's n Values num= 9

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	288.45	.07	361.03	.035	434.98	.05	625.36	.035
705.96	.02	735	.035	1027.5	.05	1118.72	.035		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
478.9	587.46	184.4	196.85	213.81	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 18571.92

INPUT
Description:
Station Elevation Data num= 49

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	583.93	51.16	580.26	96.12	576.98	173.55	571.65	194.68	569.99
210.11	568.97	230.51	566.5	248.11	564.62	281.67	561.12	310.92	558.37
313.78	558.13	324.97	557.85	328.49	557.76	349.8	557.23	368.78	555.39
392.23	554.88	404.37	553.88	431.79	551.32	435.05	551.2	438.37	551.08
442.73	551.08	446.26	551.1	448.93	551.2	469.27	551.99	473.96	552.17
501.14	553.23	556.51	556.58	575.87	557.42	591.03	558.12	619.48	559.35
737.78	565.72	811.67	569.49	933.72	575.97	952.74	576.65	961.75	577.41
1005.28	578.01	1024.27	578.16	1027.89	578.72	1035.1	579.22	1052.58	579.84
1070.92	580.21	1082.01	580.68	1095.1	581.66	1105.01	582.42	1117.95	583.41
1130.98	583.78	1163.24	583.53	1170.48	583.76	1173.16	584.05		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.035	328.49	.05	469.27	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
435.05	448.93	201.59	197.65	200.08	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 18374.27

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 41

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	577.3	67.98	573.46	98.88	570.73	122	567.99	155.68	564.8
159.07	564.45	245.44	559.47	246.79	559.39	281.49	556.93	334.23	552.01
344.53	551.36	344.93	551.34	353.5	551.16	354.62	550.98	385.5	545.39
391.41	544.68	399.19	545.05	401	545.39	405.87	546.4	407.63	546.37
409.13	546.56	437.23	550.14	451.45	549.87	470.92	551.18	524.86	552.23
540.48	553.11	595.65	556.55	619.34	557.63	627	557.96	645.18	558.74
657	559.06	737.66	561.28	750.25	561.68	808.99	563.41	829.08	564.65
914.04	566.81	923.89	567.36	929.23	567.82	948.92	570.13	957.03	571.09
978.79	579.99								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	344.93	.05	409.13	.035	627	.02	657	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
385.5	401	212.8	211.83	197.16	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 18162.44

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 40

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	571.07	87.8	564.42	96.47	563.76	117.67	561.93	157.06	558.91
158.24	558.83	177.95	557.63	206.8	555.92	237.54	554.13	264.36	551.5
297.12	548.83	298.14	548.68	299.04	548.54	308.72	547.07	332.07	545.6
342.49	544.58	352.05	544.14	364.07	543.94	371.54	543.82	376.62	543.74
382.41	543.94	400.46	544.57	465.2	547.29	498.91	548.82	506.1	549.16
544.4	550.7	590	551.76	604.26	552.09	620	552.62	655.76	553.82
714.69	554.98	722.94	555.14	790.61	558.72	817.55	560.55	819.94	560.77
860.01	564.46	871.37	567.19	879.88	568.28	899.72	571.07	906.2	571.18

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	299.04	.05	371.54	.035	590	.02	620	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
364.07	382.41	191.5	197.15	201.3	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 17965.27

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 38

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	564.65	1.91	564.54	100.89	558.18	107.6	557.61	112.7	557.4

184.27	552.92	242.17	549.38	281.51	545.9	285.39	545.55	285.65	545.51
291.87	544.57	311.27	540.06	324.23	538.89	330.02	538.13	331.55	537.92
353.54	538.1	356.03	538.13	388.14	538.4	388.56	538.4	389.29	538.41
441.04	540.82	488.25	543.18	489.96	543.22	514.74	543.82	587	545.02
606.75	545.35	617	545.5	624.11	545.61	651.68	546.09	702.03	546.76
716.69	547.27	716.72	547.27	733.45	547.92	760.18	550.87	771.14	552.26
787.86	556.82	820.72	564.11	827.97	564.47				

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	281.51	.05	356.03	.035	587	.02	617	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
330.02	356.03	255.9	236.64	227.46	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 17728.60

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 45

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	557.67	25.29	552.15	42.55	549.68	43.02	549.64	78.23	546.23
87	545.96	93.52	545.79	137.21	543.97	161.51	543.16	167.65	543
217.65	541.25	229.12	540.71	243.69	539.82	266.23	538.84	270.36	538.67
271.83	538.61	284.01	538.12	291.61	535.89	306.68	532.15	311.57	531.42
315.91	531.97	326.06	533.25	332.08	533.59	341.72	534.14	359.53	533.97
395.34	536.27	410.97	537.15	416.53	537.18	435.18	537.06	468.35	536.83
489.11	536.96	536.32	538.47	564.99	539.38	609.28	540.25	613.58	540.46
617.18	540.7	622.21	541.5	656.66	545	664.5	546.45	702.06	552.26
705.21	552.69	712.78	554.27	725.88	557.14	731.35	557.9	734.68	558.17

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	271.83	.05	315.91	.035	536.32	.02	564.99	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
306.68	315.91	30.39	38.49	40.58	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 17690.1*

INPUT
Description:
Station Elevation Data num= 91

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	556.27	.11	556.25	24.66	551.19	41.48	548.75	41.94	548.71
70.13	545.7	73.61	545.37	76.27	545.11	78.2	545.03	84.82	544.75
91.18	544.49	98.24	544.12	101.11	543.97	103.98	543.82	133.77	542.69
135.37	542.64	151.77	541.93	157.46	541.79	163.45	541.67	179.26	541.24
211.12	540.17	212.2	540.12	223.38	539.54	224.96	539.44	237.58	538.78
246.53	538.44	257	537.92	259.12	537.82	259.56	537.79	263.58	537.6
265.02	537.53	272.64	537.16	275.5	536.91	276.89	536.77	284.3	534.49
288.92	533.24	289	533.22	289.23	533.16	298.99	530.72	303.22	530.05
305.65	530.3	308.82	530.57	314.18	531.27	317.96	531.96	319.19	532.2
325.3	533.1	325.34	533.1	325.5	533.11	335.18	533.63	338.25	533.63
340.19	533.6	345.14	533.47	351.11	533.3	353.37	533.25	354.02	533.27
354.07	533.27	364.04	533.57	364.84	533.6	366.22	533.68	389.94	535.02
405.9	535.83	411.58	535.89	416.37	535.9	430.63	535.79	464.5	535.53
485.71	535.58	496.19	535.82	533.92	536.68	536.47	536.74	540.49	536.84
563.2	537.41	564.26	537.43	576.7	537.67	608.43	538.44	612.82	538.65
616.5	538.87	621.64	539.56	628.16	540.13	656.82	543.15	661.32	543.92
664.82	544.51	679	546.54	693.44	549	703.18	550.62	706.4	551.11
714.13	552.73	717.92	553.55	724.77	555.01	727.51	555.64	733.1	556.57
736.5	556.98								

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	257	.038	265.02	.05	298.99	.035	308.82	.035
345.14	.035	496.19	.032	533.92	.02	536.47	.023	563.2	.035
736.5	.035								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.

INPUT
Description:
Station Elevation Data num= 91

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	554.87	.11	554.85	24.02	550.22	40.42	547.83	40.86	547.78
68.33	544.57	71.72	544.24	74.31	543.99	76.19	543.9	82.64	543.53
88.83	543.2	95.72	542.76	98.51	542.58	101.31	542.39	130.33	541.41
131.89	541.37	147.86	540.51	153.41	540.41	159.25	540.34	174.65	540.06
205.69	539.05	206.74	538.99	217.64	538.37	219.18	538.27	231.48	537.74
240.19	537.46	250.39	536.89	252.46	536.77	252.89	536.75	256.81	536.52
258.2	536.44	265.64	536.02	268.42	535.65	269.77	535.43	276.99	533.09
281.49	531.77	281.57	531.75	281.8	531.69	291.31	529.29	294.87	528.68
297.85	528.94	301.74	529.16	307.2	529.9	311.07	530.82	312.32	531.16
318.56	532.6	318.6	532.61	318.76	532.62	328.65	533.12	331.78	533.15
333.76	533.11	338.81	532.89	344.91	532.62	347.21	532.52	347.88	532.52
347.92	532.52	358.1	532.5	358.92	532.5	360.33	532.58	384.54	533.78
400.84	534.51	406.64	534.6	411.52	534.65	426.08	534.52	460.66	534.23
482.3	534.21	493.01	534.35	531.52	534.89	534.12	534.92	538.22	535
561.41	535.45	562.49	535.46	575.19	535.7	607.58	536.63	612.06	536.83
615.82	537.04	621.06	537.61	627.72	538.12	656.97	541.3	661.57	542.02

665.15	542.56	679.62	544.49	694.36	547.22	704.31	548.99	707.59	549.54
715.48	551.19	719.35	552.02	726.34	553.47	729.14	554.14	734.84	555.24
738.31	555.79								

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	250.39	.041	258.2	.05	291.31	.035	301.74	.035
338.81	.035	493.01	.029	531.52	.02	534.12	.026	561.41	.035
738.31	.035								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
291.31	301.74	30.39	38.49	40.58	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 17613.1*

INPUT
Description:
Station Elevation Data num= 91

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	553.48	.11	553.45	23.39	549.26	39.35	546.9	39.79	546.85
66.53	543.43	69.82	543.11	72.35	542.88	74.18	542.76	80.46	542.32
86.49	541.9	93.19	541.39	95.91	541.19	98.64	540.96	126.89	540.13
128.41	540.09	143.96	539.09	149.37	539.04	155.05	539.01	170.05	538.87
200.26	537.92	201.29	537.87	211.89	537.2	213.4	537.1	225.37	536.7
233.85	536.49	243.78	535.86	245.8	535.73	246.21	535.7	250.03	535.45
251.39	535.36	258.63	534.88	261.33	534.39	262.66	534.08	269.69	531.7
274.06	530.3	274.14	530.28	274.36	530.22	283.62	527.86	286.53	527.32
290.05	527.59	294.65	527.76	300.23	528.54	304.17	529.68	305.45	530.11
311.82	532.11	311.85	532.12	312.02	532.13	322.11	532.61	325.31	532.68
327.33	532.62	332.48	532.31	338.7	531.93	341.05	531.8	341.73	531.78
341.78	531.77	352.16	531.43	353	531.41	354.44	531.47	379.15	532.53
395.77	533.19	401.69	533.31	406.67	533.39	421.53	533.26	456.81	532.93
478.9	532.83	489.82	532.89	529.12	533.09	531.78	533.11	535.96	533.17
559.62	533.48	560.72	533.49	573.68	533.74	606.73	534.82	611.31	535.02
615.13	535.21	620.49	535.67	627.28	536.1	657.13	539.46	661.82	540.13
665.47	540.62	680.24	542.43	695.28	545.44	705.43	547.35	708.78	547.96
716.83	549.65	720.78	550.49	727.92	551.93	730.77	552.63	736.59	553.9
740.13	554.6								

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	243.78	.044	251.39	.05	283.62	.035	294.65	.035
332.48	.035	489.82	.026	529.12	.02	531.78	.029	559.62	.035
740.13	.035								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
283.62	294.65	30.39	38.49	40.58	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 17574.6*

INPUT
Description:
Station Elevation Data num= 91

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	552.08	.1	552.06	22.75	548.29	38.28	545.97	38.71	545.92
64.72	542.3	67.93	541.98	70.39	541.76	72.17	541.63	78.28	541.1
84.14	540.6	90.67	540.03	93.31	539.79	95.96	539.54	123.46	538.85
124.93	538.82	140.06	537.66	145.32	537.67	150.84	537.68	165.44	537.68
194.84	536.8	195.83	536.74	206.15	536.03	207.61	535.93	219.26	535.66
227.52	535.51	237.18	534.82	239.14	534.68	239.54	534.65	243.26	534.37
244.58	534.27	251.62	533.75	254.25	533.12	255.54	532.74	262.38	530.3
266.64	528.82	266.71	528.8	266.92	528.75	275.94	526.43	278.18	525.95
282.25	526.23	287.57	526.35	293.25	527.17	297.28	528.54	298.58	529.07
305.07	531.62	305.11	531.62	305.28	531.64	315.57	532.09	318.83	532.2
320.89	532.12	326.15	531.73	332.5	531.25	334.9	531.07	335.59	531.03
335.63	531.03	346.23	530.36	347.08	530.31	348.55	530.37	373.75	531.28
390.71	531.87	396.74	532.02	401.83	532.14	416.98	531.99	452.97	531.62
475.49	531.45	486.64	531.42	526.72	531.3	529.43	531.29	533.69	531.33
557.83	531.51	558.95	531.52	572.17	531.77	605.88	533.01	610.55	533.21
614.45	533.38	619.91	533.73	626.84	534.09	657.29	537.61	662.07	538.23
665.8	538.68	680.86	540.38	696.2	543.66	706.55	545.72	709.97	546.39
718.18	548.1	722.21	548.95	729.49	550.38	732.4	551.13	738.33	552.57
741.94	553.41								

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	237.18	.047	244.58	.05	275.94	.035	287.57	.035
326.15	.035	486.64	.023	526.72	.02	529.43	.032	557.83	.035
741.94	.035								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
275.94	287.57	30.39	38.49	40.58	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 17536.17

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 51

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	550.68	.1	550.66	62.92	541.16	66.04	540.85	70.16	540.49
88.14	538.66	90.71	538.4	93.29	538.11	121.45	537.54	136.16	536.24
160.83	536.49	189.41	535.68	201.83	534.76	221.18	534.53	230.57	533.79
232.48	533.64	244.61	532.61	247.17	531.86	259.21	527.35	259.28	527.33
259.49	527.28	268.25	525	269.83	524.58	274.45	524.87	280.48	524.95
286.28	525.81	290.38	527.4	298.33	531.13	298.54	531.15	312.36	531.72

314.46	531.63	319.82	531.15	326.29	530.56	329.44	530.29	329.49	530.28
340.29	529.29	341.16	529.22	342.66	529.27	396.98	530.89	483.45	529.95
527.08	529.48	531.43	529.5	557.18	529.55	570.66	529.8	626.4	532.07
662.32	536.34	681.48	538.32	697.12	541.88	723.64	547.42	731.06	548.84
743.76	552.22								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	230.57	.05	319.82	.035	483.45	.02	527.08	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
268.25	280.48	41.35	43.56	43.85	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 17492.6*

INPUT
Description:
Station Elevation Data num= 99

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	549.58	.09	549.56	3.19	549.09	16.91	546.96	46.17	542.63
57.43	540.96	60.28	540.67	64.04	540.32	80.45	538.59	82.79	538.35
85.15	538.08	101.88	537.52	110.85	537.18	112.67	537	124.28	536.01
138.92	536.02	146.79	536.03	149.9	535.93	164.78	535.45	172.88	535.19
175.57	535	184.21	534.3	185.87	534.25	189.87	534.13	191.1	534.1
197.68	533.68	201.87	533.39	210.44	532.28	212.19	532.05	213.74	531.84
214.52	531.76	223.26	530.47	225.6	529.7	229	528.34	229.11	528.29
229.24	528.23	229.39	528.18	236.59	525.55	236.65	525.54	236.84	525.49
237.29	525.37	244.84	523.58	247.26	523.15	251.64	523.42	257.36	523.53
263.13	524.53	265.04	525.23	267.21	525.98	270.37	527.28	275.12	529.56
275.33	529.6	276.87	529.81	289.09	531.22	290.39	531.28	291.18	531.28
296.51	531.05	299.39	530.92	302.95	530.76	303.16	530.76	306.09	530.64
306.14	530.63	306.68	530.61	307.22	530.57	309.87	530.38	316.88	529.87
317.75	529.81	319.24	529.86	352.65	530.68	357.91	530.81	362.15	530.86
373.3	531.08	383.15	530.96	399.06	530.81	459.36	530.11	464.37	530.05
501.45	529.7	502.78	529.69	507.11	529.68	532.74	529.62	546.15	529.76
585.86	530.9	586.29	530.91	601.62	531.54	611.39	532.55	611.45	532.55
620.85	533.51	622.19	533.64	624.96	533.96	637.37	535.25	652.15	536.61
656.44	537	659.12	537.5	672.01	540.43	673.16	540.67	689.76	543.96
694.81	544.95	698.4	545.75	705.78	547.3	718.42	550.72		

Manning's n Values num= 12

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	149.9	.038	210.44	.05	244.84	.035	257.36	.035
296.51	.035	303.16	.035	459.36	.023	502.78	.035	586.29	.032
611.45	.023	718.42	.035						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
244.84	257.36	41.35	43.56	43.85	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 17449.0*

INPUT
Description:
Station Elevation Data num= 99

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	548.48	.08	548.47	2.89	548.03	15.29	546.04	41.76	542.24
51.94	540.76	54.51	540.49	57.91	540.15	72.75	538.53	74.87	538.3
77	538.05	92.14	537.29	100.25	536.82	101.89	536.64	112.39	535.78
125.64	535.63	132.75	535.56	135.57	535.46	149.03	534.96	156.34	534.7
158.78	534.54	166.6	533.83	168.1	533.76	171.71	533.58	172.83	533.52
178.77	532.78	182.57	532.24	190.32	530.77	191.9	530.47	193.3	530.19
194	530.09	201.91	528.33	204.02	527.54	207.1	526.21	207.2	526.16
207.32	526.1	207.45	526.05	213.96	523.76	214.02	523.74	214.19	523.7
214.6	523.59	221.42	522.16	224.69	521.72	228.83	521.97	234.24	522.12
239.98	523.26	241.88	523.91	244.05	524.57	247.19	525.68	251.92	527.99
252.13	528.05	253.65	528.4	265.81	530.72	267.11	530.9	267.89	530.92
273.2	530.95	276.07	530.96	279.61	530.97	279.82	530.97	282.73	530.99
282.78	530.98	283.32	530.99	283.86	530.97	286.5	530.83	293.48	530.45
294.34	530.41	295.82	530.44	329.08	531.1	334.31	531.18	338.52	531.16
349.62	531.27	359.43	531.13	375.25	531.01	435.27	530.27	440.26	530.21
477.15	529.91	478.48	529.89	482.79	529.87	508.29	529.69	521.64	529.72

Manning's n Values num= 12

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	135.57	.041	190.32	.05	221.42	.035	234.24	.035
273.2	.035	279.82	.035	435.27	.026	478.48	.035	561.59	.029
586.63	.026	693.08	.035						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
221.42	234.24	41.35	43.56	43.85	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 17405.4*

INPUT
Description:
Station Elevation Data num= 99

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	547.39	.07	547.37	2.58	546.97	13.67	545.12	37.34	541.85
46.44	540.57	48.75	540.31	51.79	539.98	65.06	538.46	66.96	538.25
68.86	538.02	82.4	537.07	89.65	536.46	91.12	536.28	100.51	535.54
112.35	535.24	118.72	535.1	121.23	534.99	133.27	534.47	139.81	534.21

141.99	534.07	148.98	533.37	150.32	533.28	153.56	533.02	154.55	532.95
159.87	531.88	163.26	531.1	170.19	529.26	171.6	528.88	172.86	528.54
173.49	528.43	180.56	526.19	182.45	525.38	185.2	524.08	185.29	524.03
185.4	523.97	185.51	523.93	191.34	521.96	191.39	521.95	191.54	521.91
191.9	521.8	198.01	520.74	202.11	520.3	206.02	520.52	211.12	520.7
216.84	521.98	218.72	522.59	220.88	523.15	224.01	524.07	228.71	526.43
228.92	526.5	230.44	526.99	242.54	530.22	243.83	530.52	244.61	530.57
249.89	530.84	252.74	530.99	256.27	531.17	256.48	531.18	259.38	531.34
259.43	531.34	259.96	531.36	260.5	531.36	263.13	531.27	270.07	531.03
270.93	531	272.41	531.03	305.5	531.51	310.71	531.56	314.9	531.46
325.95	531.46	335.7	531.31	351.45	531.21	411.17	530.44	416.14	530.37
452.86	530.12	454.18	530.1	458.47	530.05	483.85	529.75	497.13	529.68
536.46	529.84	536.88	529.86	552.07	530.47	561.75	531.17	561.81	531.17
571.12	531.79	572.44	531.86	575.19	532.17	587.48	533.08	602.11	534.08
606.36	534.35	609.02	534.65	621.78	537.52	622.92	537.77	639.36	540.66
644.36	541.5	647.91	542.41	655.23	544.22	667.75	547.71		

Manning's n Values num= 12

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	121.23	.044	170.19	.05	198.01	.035	211.12	.035
249.89	.035	256.48	.035	411.17	.029	454.18	.035	536.88	.026
561.81	.029	667.75	.035						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
198.01	211.12	41.35	43.56	43.85	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 17361.9*

INPUT
Description:
Station Elevation Data num= 99

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	546.29	.07	546.28	2.28	545.91	12.06	544.21	32.93	541.46
40.95	540.37	42.98	540.12	45.66	539.81	57.37	538.4	59.04	538.2
60.72	537.99	72.65	536.84	79.05	536.1	80.34	535.92	88.62	535.31
99.07	534.86	104.68	534.64	106.9	534.53	117.51	533.99	123.28	533.73
125.2	533.61	131.36	532.9	132.54	532.79	135.4	532.47	136.28	532.37
140.96	530.98	143.96	529.96	150.07	527.74	151.31	527.29	152.42	526.89
152.97	526.76	159.21	524.05	160.87	523.22	163.3	521.95	163.38	521.9
163.47	521.84	163.58	521.8	168.71	520.16	168.76	520.15	168.89	520.11
169.21	520.02	174.59	519.32	179.54	518.87	183.21	519.08	188	519.29
193.69	520.7	195.57	521.26	197.71	521.73	200.82	522.47	205.51	524.86
205.71	524.95	207.22	525.59	219.27	529.72	220.55	530.13	221.33	530.22
226.59	530.74	229.42	531.03	232.93	531.38	233.14	531.4	236.02	531.69
236.07	531.69	236.61	531.74	237.14	531.76	239.75	531.72	246.66	531.61
247.52	531.6	248.99	531.61	281.92	531.93	287.1	531.93	291.27	531.76
302.27	531.66	311.98	531.48	327.65	531.41	387.08	530.6	392.03	530.53
428.56	530.33	429.88	530.31	434.14	530.24	459.4	529.82	472.62	529.65
511.76	529.31	512.18	529.33	527.3	529.94	536.92	530.48	536.98	530.48
546.25	530.94	547.57	530.98	550.3	531.28	562.53	532	577.09	532.81
581.32	533.02	583.96	533.22	596.66	536.06	597.8	536.31	614.16	539.01
619.13	539.78	622.67	540.74	629.95	542.68	642.41	546.2		

Manning's n Values num= 12

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	106.9	.047	150.07	.05	174.59	.035	188	.035
226.59	.035	233.14	.035	387.08	.032	429.88	.035	512.18	.023
536.98	.032	642.41	.035						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
174.59	188	41.35	43.56	43.85	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 17318.38

INPUT
Description:
Station Elevation Data num= 53

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	545.19	1.97	544.85	10.44	543.29	28.51	541.07	62.91	536.62
69.57	535.56	85.78	534.47	92.56	534.06	101.75	533.5	108.41	533.15
114.77	532.3	117.24	531.91	118	531.8	122.06	530.08	131.98	525.24
132.46	525.1	141.4	519.82	141.47	519.77	141.55	519.71	141.64	519.68
146.52	518.24	151.18	517.9	156.97	517.44	164.88	517.87	172.41	519.94
177.64	520.86	184.01	524.18	197.27	529.75	206.1	531.06	209.8	531.61
213.25	532.12	213.78	532.15	216.38	532.16	258.34	532.34	263.5	532.31
267.65	532.06	288.25	531.66	303.85	531.61	367.91	530.69	404.27	530.54
487.06	528.78	487.48	528.8	512.1	529.79	512.16	529.79	521.38	530.08
522.69	530.09	525.41	530.38	552.07	531.55	558.91	531.79	572.68	534.86
588.96	537.36	593.91	538.06	617.07	544.7				

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	92.56	.05	209.8	.035	487.48	.02	512.16	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
151.18	164.88	43.79	38.93	31.94	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 17279.4*

INPUT
Description:
Station Elevation Data num= 100

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	544.94	2.37	544.66	12.5	543.43	12.58	543.41	34.36	540.75
43.83	539.56	47.19	539.23	51.53	538.85	75.81	536.66	82.12	535.98

83.84	535.7	87.48	535.27	93.64	534.97	103.37	534.73	108.03	534.63
111.54	534.39	122.62	533.65	122.87	533.64	123.13	533.62	123.64	533.59
130.64	533.17	134.52	532.77	138.31	532.31	141.29	531.91	142.2	531.79
144.42	531.17	145.99	530.64	147.09	530.2	159.05	524.98	159.63	524.79
162.92	523.17	170.4	519.23	170.49	519.18	170.58	519.12	170.69	519.08
176.57	516.94	177.62	516.69	178.02	516.6	182.19	515.91	184.48	515.81
190.49	515.52	195.92	515.89	201.93	518.17	202.06	518.22	203.24	518.71
203.32	518.74	208.47	520.48	214.73	524.08	215.19	524.31	216.74	524.89
220.84	526.21	226.13	527.89	227.77	528.38	227.82	528.39	228.54	528.47
236.45	529.37	240.09	529.78	243.48	530.17	244.01	530.2	246.56	530.24
248.31	530.27	279.31	531.09	284.89	531.21	287.83	531.18	292.9	531.1
296.98	530.87	308.5	530.57	317.24	530.39	325.53	530.31	332.58	530.24
354.59	529.87	368.12	529.58	394.22	529.26	395.58	529.24	431.34	529.14
455.96	528.78	500.98	527.86	512.75	527.75	513.17	527.76	533.86	528.43
537.38	528.55	537.44	528.55	546.5	528.79	547.79	528.8	550.47	529.01
554.72	529.16	564.06	529.47	566.79	529.58	569.03	529.69	572.95	529.89
576.68	530.1	583.41	530.42	590.43	531.66	595.62	532.66	596.95	532.94
610.83	535.2	612.96	535.78	614.05	536.06	617.83	536.97	640.61	544.64

Manning's n Values num= 12

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	111.54	.045	123.13	.04	182.19	.035	195.92	.035
227.82	.035	240.09	.035	513.17	.025	533.86	.03	537.44	.03
564.06	.025	640.61	.035						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
182.19	195.92	43.79	38.93	31.94	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 17240.5*

INPUT
Description:
Station Elevation Data num= 100

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	544.69	2.78	544.48	14.62	543.55	14.72	543.53	40.2	540.44
51.29	539.07	55.22	538.76	60.3	538.48	88.72	536.7	96.09	536.18
98.11	535.84	102.37	535.19	109.57	534.92	120.97	534.98	126.41	535.02
130.53	534.73	143.49	533.8	143.78	533.78	144.08	533.77	144.69	533.73
152.88	533.19	157.42	532.81	161.85	532.32	165.33	531.91	166.4	531.79
169	531.32	170.83	530.81	172.13	530.31	186.12	524.72	186.79	524.48
190.65	522.85	199.4	518.64	199.5	518.58	199.61	518.53	199.74	518.47
206.62	515.64	207.85	515.2	208.32	515.06	213.19	513.92	216.19	513.84
224.02	513.6	226.95	513.91	232.86	516.8	233	516.84	234.16	517.49
234.23	517.53	239.29	520.11	245.45	523.97	245.9	524.24	247.42	524.73
251.45	525.63	256.65	526.74	258.27	527.01	258.32	527.01	259.02	527.07
266.81	527.68	270.38	527.96	273.72	528.22	274.23	528.24	276.74	528.31
278.47	528.36	308.94	529.88	314.42	530.1	317.31	530.03	322.3	529.88
326.31	529.69	337.64	529.3	346.23	529.12	354.38	528.98	361.31	528.88
382.95	528.46	396.25	528.06	421.91	527.8	423.25	527.8	458.4	527.73
482.61	527.55	526.87	526.68	538.45	526.72	538.85	526.73	559.19	527.22
562.66	527.31	562.71	527.31	571.63	527.5	572.89	527.51	575.52	527.64
579.7	527.74	588.89	527.96	591.57	528.04	593.78	528.16	597.63	528.4
601.3	528.64	607.91	529.06	614.82	529.94	619.91	530.76	621.23	531.02
634.87	533.38	636.97	534.2	638.04	534.61	641.75	535.87	664.14	544.58

Manning's n Values num= 12

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	130.53	.04	144.08	.045	213.19	.035	226.95	.035
258.32	.035	270.38	.035	538.85	.03	559.19	.025	562.71	.025
588.89	.03	664.14	.035						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
213.19	226.95	43.79	38.93	31.94	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 17201.59

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 52

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	544.44	16.75	543.67	58.75	538.58	62.25	538.20	69.97	538.1
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
276.61	524.17	278.11	524.58	282.07	525.05	287.18	525.58	288.82	525.64
289.51	525.67	308.62	526.46	338.57	528.67	343.96	528.99	366.78	528.04
383.23	527.66	411.31	527.04	424.38	526.55	449.6	526.35	509.26	526.32
552.76	525.5	584.53	526.01	604.69	526.33	613.72	526.45	616.35	526.51
618.52	526.64	622.31	526.91	639.2	528.22	644.21	528.86	658.91	531.55
662.02	533.16	687.68	544.52						

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	165.04	.05	288.82	.035	584.53	.02	613.72	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
244.2	257.99	39.2	35.9	29.16	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 17165.6*

INPUT
Description:
Station Elevation Data num= 95

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev

0	542.42	12.61	541.67	15.89	541.54	54.73	537.93	55.72	537.84
59.98	537.58	65.5	537.37	68.62	537.23	78.43	536.8	104.39	535.42
111.2	534.42	119.03	534.08	134.6	534.01	137.32	533.91	138.05	533.84
140.1	533.6	145.14	533.03	148.14	532.69	156.19	531.81	156.52	531.78
157.17	531.71	166.86	530.69	171	530.21	174.26	529.75	178.88	529.05
180.94	528.67	183.58	528.19	185.58	527.65	185.86	527.55	201.39	522.01
205.4	520.4	207.1	519.8	209.13	518.99	216.6	516.07	225.79	512.97
226.3	512.83	226.83	512.71	231.59	511.57	234.43	511.48	241.86	511.23
243.64	511.56	249.08	514.01	249.2	514.04	250.27	514.61	251.03	514.99
253.09	516.07	257.05	518.08	261.07	520.67	261.72	520.9	262.17	521.06
262.48	521.16	266.18	522.02	268.22	522.46	270.97	523.07	272.5	523.33
273.15	523.44	280.97	524.81	287.82	525.58	291.04	526.04	292.09	526.22
302.87	526.86	319.07	527.85	324.12	528.1	326.65	528.05	330.7	528
333.46	527.9	345.48	527.41	346.61	527.38	360.88	527.01	387.17	526.35
399.41	525.91	423.02	525.56	427.44	525.52	431.67	525.52	449.36	525.54
478.87	525.73	519.59	525.47	535.52	525.76	549.33	526.02	556.68	526.15
568.2	526.44	570.28	526.49	576.66	526.71	579.12	526.81	581.15	526.95
584.7	527.22	591.61	527.78	600.51	528.5	605.2	529.05	618.96	531.21
619.99	531.62	621.87	532.43	624.53	533.45	644.02	542.01	645.89	542.77

Manning's n Values num= 12

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	145.14	.04	156.52	.05	231.59	.035	243.64	.035
268.22	.035	272.5	.035	535.52	.03	549.33	.02	570.28	.025
576.66	.035	645.89	.035						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
231.59	243.64	39.2	35.9	29.16	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 17129.7*

INPUT
Description:
Station Elevation Data num= 95

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	540.4	11.93	539.51	15.02	539.41	51.75	537.16	52.68	537.09
56.72	536.87	61.94	536.64	64.89	536.51	74.16	536.08	98.7	534.47
105.15	533.72	112.55	533.28	127.27	532.69	129.85	532.42	130.54	532.32
132.47	532.02	137.23	531.27	140.08	530.83	147.68	529.7	148	529.65
148.61	529.56	157.78	528.22	161.69	527.56	164.77	527	169.14	526.11
171.09	525.58	173.59	524.91	175.47	524.32	175.74	524.22	190.43	519.24
194.21	517.59	195.83	517.07	197.75	516.4	204.8	514.08	213.49	512.23
213.98	512.14	214.48	512.06	218.98	511.2	220.97	511.09	226.18	510.77
229.29	511.2	234.36	512.6	234.47	512.62	235.47	512.93	236.17	513.15
238.09	513.81	241.78	514.93	245.53	517.17	246.13	517.44	246.55	517.62
246.84	517.74	250.29	518.98	252.2	519.65	254.75	520.55	256.18	521.02
256.78	521.22	264.08	523.61	270.45	524.83	273.45	525.62	274.43	525.89
284.48	526.33	299.58	527.02	304.28	527.21	306.64	527.22	310.41	527.31
312.99	527.23	324.19	526.79	325.23	526.75	338.54	526.37	363.03	525.67
374.43	525.27	396.43	524.77	400.56	524.68	404.5	524.7	420.98	524.74
448.47	525.14	486.42	525.44	501.26	525.75	514.13	526.02	520.98	526.16
531.71	526.56	533.65	526.63	539.59	526.98	541.89	527.12	543.78	527.26
547.08	527.53	553.52	528.07	561.82	528.78	566.19	529.24	579.01	530.87
579.97	531.11	581.72	531.71	584.2	532.48	602.36	540.38	604.11	541.01

Manning's n Values num= 12

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	137.23	.045	148	.05	218.98	.035	229.29	.035
252.2	.035	256.18	.035	501.26	.025	514.13	.02	533.65	.03
539.59	.035	604.11	.035						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
218.98	229.29	39.2	35.9	29.16	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 17093.89

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 48

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	538.38	11.24	537.35	48.77	536.39	61.15	535.78	69.89	535.35
119.94	531.37	123.02	530.8	124.84	530.43	129.33	529.5	132.01	528.96
148.69	525.75	155.28	524.25	159.4	523.17	161.24	522.49	165.62	520.9
179.46	516.48	183.03	514.79	186.36	513.82	193.01	512.1	202.13	511.42
206.37	510.84	210.5	510.32	214.94	510.83	221.32	511.31	223.1	511.54
226.52	511.78	230.55	513.98	230.94	514.19	236.17	516.84	247.18	522.41
253.09	524.09	256.78	525.56	266.09	525.8	286.63	526.39	290.12	526.61
292.51	526.56	303.86	526.12	373.67	523.85	377.32	523.88	392.6	523.94
467	525.74	485.28	526.18	497.02	526.76	515.44	528.36	539.95	530.61
543.87	531.51	560.7	538.75	562.32	539.26				

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	129.33	.05	236.17	.035	467	.02	497.02	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
206.37	214.94	19.71	34.73	41.99	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 17059.1*

INPUT
Description:
Station Elevation Data num= 94

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	538.62	4.65	538	11.26	537.4	11.98	537.34	33.15	536.67

51.99	536.03	65.19	535.36	67.1	535.26	67.46	535.24	74.51	534.84
92.15	533.47	95.66	533.25	114.92	532.04	127.87	531.22	131.15	530.77
132.97	530.5	133.09	530.48	134.77	530.22	137.88	529.65	140.73	529.14
147.75	527.94	158.52	526.09	160.45	525.7	160.9	525.62	165.54	524.72
166.3	524.55	168.93	523.85	169.93	523.52	171.9	522.72	176.56	520.83
186.91	516.97	191.32	515.35	195.13	513.53	198.68	512.3	200.58	511.68
205.76	510.37	207.29	510.19	207.99	510.11	208.64	510.07	215.49	509.53
220.01	508.98	223.92	508.52	225.4	508.7	227.83	508.97	234.08	509.48
235.82	509.69	239.17	509.95	240.97	510.75	242.08	511.24	242.22	511.3
242.39	511.38	243.12	511.75	243.5	511.94	248.62	514.4	257.32	518.58
259.41	519.59	265.19	521.39	268.81	522.84	276.12	523.68	276.61	523.7
277.93	523.78	279.93	523.89	295.54	525.56	298.05	525.66	301.46	525.9
303.81	525.91	304.17	525.9	312.61	525.85	314.92	525.83	316.1	525.83
320.42	525.87	325.9	525.73	358.05	524.91	370.24	524.56	383.3	524.23
386.87	524.26	397.49	524.29	401.84	524.37	407.64	524.56	416.39	524.85
439.65	525.49	465.59	526.21	474.71	526.44	475.9	526.47	492.62	527.07
504.12	527.7	521.51	529.16	522.16	529.23	539.59	531.03	546.17	531.71
550.01	532.51	566.49	538.48	566.74	538.55	568.08	538.91		

Manning's n Values num= 12

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	137.88	.046	160.9	.039	220.01	.035	227.83	.035
248.62	.035	304.17	.035	407.64	.031	439.65	.024	474.71	.024
504.12	.035	568.08	.035						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
220.01	227.83	19.71	34.73	41.99	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 17024.4*

INPUT
Description:
Station Elevation Data num= 94

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	538.87	4.93	538.03	11.95	537.38	12.73	537.33	35.2	536.51
55.22	535.67	69.23	534.94	71.26	534.84	71.65	534.81	79.13	534.34
97.87	532.9	101.59	532.72	122.04	531.75	135.79	531.08	139.28	530.75
141.21	530.55	141.34	530.53	143.12	530.33	146.42	529.8	149.46	529.32
156.91	528.18	168.34	526.42	170.4	526.07	170.87	526	175.8	525.18
176.6	525.04	179.41	524.28	180.47	523.86	182.55	522.94	187.51	520.76
198.5	516.14	203.18	514.21	207.22	512.28	210.99	510.78	213.01	510
218.52	508.65	220.14	508.38	220.88	508.28	221.57	508.25	228.84	507.65
233.65	507.12	237.35	506.71	238.62	506.89	240.71	507.11	246.83	507.65
248.54	507.84	251.82	508.12	253.59	508.71	254.67	509.07	254.81	509.12
254.98	509.18	255.68	509.52	256.06	509.69	261.07	511.97	269.59	515.83
271.63	516.76	277.3	518.7	280.84	520.12	288	521.6	288.48	521.64
289.77	521.76	291.73	521.93	307.01	524.8	309.46	524.94	312.81	525.18
315.1	525.25	315.45	525.26	323.72	525.49	325.98	525.55	327.13	525.58
331.37	525.79	336.74	525.71	368.21	525.13	380.14	524.84	392.93	524.62
396.43	524.64	406.83	524.66	411.08	524.79	416.76	525.03	425.33	525.39
448.1	526.11	473.5	526.9	482.43	527.14	483.59	527.17	499.96	527.96
511.22	528.65	528.24	530.02	528.88	530.09	545.94	532.06	552.38	532.8
556.14	533.51	572.28	538.21	572.53	538.27	573.83	538.55		

Manning's n Values num= 12

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	146.42	.043	170.87	.043	233.65	.035	240.71	.035
261.07	.035	315.45	.035	416.76	.027	448.1	.027	482.43	.027
511.22	.035	573.83	.035						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
233.65	240.71	19.71	34.73	41.99	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 16989.7*

INPUT
Description:
Station Elevation Data num= 94

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	539.11	5.22	538.05	12.65	537.37	13.47	537.32	37.26	536.34
58.44	535.31	73.27	534.52	75.42	534.41	75.83	534.38	83.75	533.83

210.08	515.3	215.04	513.08	219.32	511.02	223.31	509.25	225.45	508.32
231.27	506.92	232.99	506.58	233.78	506.45	234.51	506.42	242.2	505.76
247.28	505.26	250.77	504.91	251.84	505.07	253.6	505.26	259.59	505.82
261.26	506	264.47	506.29	266.2	506.67	267.26	506.91	267.39	506.93
267.56	506.99	268.25	507.29	268.62	507.45	273.53	509.53	281.86	513.07
283.86	513.94	289.4	516	292.87	517.4	299.87	519.53	300.34	519.58
301.6	519.73	303.52	519.96	318.48	524.05	320.88	524.21	324.15	524.47
326.4	524.6	326.74	524.61	334.83	525.12	337.05	525.26	338.17	525.33
342.31	525.72	347.57	525.69	378.37	525.36	390.05	525.11	402.56	525.01
405.98	525.01	416.16	525.02	420.32	525.22	425.88	525.51	434.26	525.94
456.55	526.72	481.4	527.59	490.14	527.84	491.28	527.87	507.3	528.84
518.31	529.59	534.98	530.88	535.6	530.96	552.3	533.1	558.6	533.9
562.28	534.51	578.07	537.95	578.31	537.99	579.59	538.2		

Manning's n Values num= 12

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	154.97	.039	180.85	.046	247.28	.035	253.6	.035
273.53	.035	326.74	.035	425.88	.024	456.55	.031	490.14	.031
518.31	.035	579.59	.035						

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.

247.28	253.6		19.71	34.73	41.99		.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 16954.99

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 51

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	539.36	5.51	538.07	13.35	537.35	39.31	536.17	79.58	533.98
80.01	533.95	109.29	531.77	113.45	531.67	136.29	531.16	157.7	530.64
159.83	530.55	175.23	528.67	190.29	526.81	190.82	526.75	197.22	526.01
200.35	525.15	221.67	514.47	237.88	506.64	245.84	504.77	246.67	504.62
247.44	504.6	260.92	503.4	264.19	503.11	265.06	503.26	266.49	503.4
278.81	504.63	279.85	504.74	279.98	504.75	280.14	504.79	294.13	510.32
311.75	517.45	312.21	517.52	315.32	518	329.95	523.29	338.03	523.97
345.94	524.76	349.21	525.08	353.26	525.65	358.4	525.67	388.53	525.58
399.95	525.39	425.49	525.39	435	525.98	443.2	526.49	465	527.34
489.31	528.28	498.97	528.57	541.71	531.74	558.65	534.13	584.1	537.71
585.35	537.85								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	190.82	.05	338.03	.035	435	.02	465	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
260.92	266.49	35.53	33.59	30.02	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 16921.4*

INPUT
Description:
Station Elevation Data num= 86

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	536.77	5.01	535.83	6.9	535.68	12.04	535.27	12.14	535.26
15.67	535.07	27.31	534.73	35.75	534.4	72.38	532.76	72.77	532.74
93.43	531.51	99.4	531.16	103.18	531.07	109.57	530.94	123.95	530.51
130.65	530.3	143.42	529.49	143.83	529.45	145.36	529.35	153.63	528.31
156.38	527.9	159.37	527.36	162.27	526.82	173.06	524.84	173.55	524.75
179.37	523.71	182.21	522.87	190.03	519.27	190.63	518.97	192.29	518.16
201.6	513.61	216.35	506.6	223.59	504.47	224.34	504.28	225.04	504.18
232.72	502.75	237.3	501.92	240.83	501.51	241.9	501.46	243.04	501.67
244.9	501.96	250.22	502.65	256.73	504.17	257.73	504.4	257.86	504.43
258.01	504.48	267.49	508.63	271.46	510.39	279.31	513.93	282.83	515.54
288.39	517.67	288.61	517.72	288.83	517.75	290.75	518.06	291.82	518.17
305.87	521.74	313.64	522.21	316.31	522.41	321.24	522.71	324.38	522.9
325.63	523.02	328.27	523.25	329.52	523.25	333.21	523.44	346.04	524.06
352.33	524.18	355.83	524.31	362.16	524.55	368.59	524.74	373.13	524.75
377.51	524.82	383.46	524.89	397.68	525.18	406.81	525.75	414.69	526.25
435.64	527.23	444.13	527.63	454.51	528.1	459	528.31	468.28	528.67
475.63	529.19	509.35	531.24	525.62	532.99	535.76	534.07	550.08	535.66
551.28	535.77								

Manning's n Values num= 12

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	162.27	.04	173.55	.05	237.3	.035	244.9	.035
313.64	.035	325.63	.035	406.81	.025	435.64	.035	444.13	.03
475.63	.025	551.28	.035						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
237.3	244.9	35.53	33.59	30.02	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 16887.8*

INPUT
Description:
Station Elevation Data num= 86

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	534.18	4.51	533.6	6.22	533.47	10.84	533.17	10.93	533.17
14.11	532.96	24.59	532.86	32.19	532.64	65.17	531.54	65.52	531.53
84.13	530.76	89.5	530.54	92.91	530.47	98.67	530.36	111.61	529.86
117.64	529.63	129.15	528.33	129.52	528.29	130.89	528.15	138.34	527.17
140.82	526.74	143.5	526.05	146.12	525.37	155.84	522.86	156.27	522.75
161.51	521.41	164.08	520.59	171.11	517.69	171.65	517.42	173.15	516.73
181.54	512.75	194.81	506.56	201.33	504.17	202.01	503.94	202.64	503.76
209.55	501.64	213.68	500.44	218.23	499.85	219.62	499.8	221.01	500.09
223.3	500.52	228.41	501.34	234.66	503.7	235.62	504.07	235.74	504.11
235.89	504.17	244.97	508.58	248.78	510.47	256.31	514.24	259.69	515.97
265.02	517.89	265.23	517.95	265.45	517.98	267.29	518.28	268.31	518.35
281.8	520.19	289.24	520.46	291.81	520.56	296.54	520.66	299.55	520.72
300.75	520.77	303.28	520.86	304.48	520.84	308.02	521.22	320.33	522.5
326.36	522.74	329.72	523.03	335.79	523.53	341.96	524	346.32	524.11
350.51	524.24	356.23	524.4	369.86	524.96	378.63	525.52	386.18	526.01
406.28	527.12	414.43	527.57	424.38	528.1	428.69	528.33	437.59	528.78
444.64	529.25	476.99	530.74	492.6	531.84	502.32	532.52	516.06	533.61
517.21	533.69								

Manning's n Values num= 12

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	146.12	.045	156.27	.05	213.68	.035	223.3	.035
289.24	.035	300.75	.035	378.63	.03	406.28	.035	414.43	.025
444.64	.03	517.21	.035						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
213.68	223.3	35.53	33.59	30.02	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 16854.23

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 40

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	531.59	5.53	531.27	9.64	531.08	12.55	530.86	21.87	531
74.83	530.01	87.76	529.79	104.64	528.95	115.2	527.12	123.05	526.04
125.25	525.57	129.97	523.92	152.2	516.12	152.68	515.87	154.01	515.29
186.39	500.54	190.06	498.96	195.63	498.18	197.33	498.15	201.71	499.08
206.6	500.04	222.46	508.52	233.32	514.54	236.55	516.4	241.86	518.18
243.83	518.51	267.31	518.72	275.87	518.52	279.44	518.43	294.62	520.93
300.39	521.31	303.61	521.74	315.33	523.27	323.52	523.67	328.99	523.9
384.72	527.52	394.25	528.1	413.65	529.3	468.88	530.98	483.14	531.61

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	129.97	.05	275.87	.035	384.72	.02	413.65	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
190.06	201.71	26.03	33.06	32.05	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 16821.1*

INPUT
Description:
Station Elevation Data num= 90

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	531.59	2.18	531.47	5.84	531.28	10.17	531.08	13.24	530.88
23.08	530.81	26.07	530.73	40.6	530.64	48.59	530.34	65.26	529.51
76.53	528.49	77.41	528.43	78.46	528.39	78.97	528.37	87.51	528.16
92.61	528.03	95.62	527.9	104.26	527.55	110.42	527.09	112.54	526.76
121.57	525.32	124.53	524.91	129.85	523.99	130.08	523.94	132.17	523.47
132.88	523.25	137.15	521.53	138.23	521.1	140.01	520.5	147.6	517.81
154.1	515.5	157.6	514.19	160.61	513.01	160.7	512.97	161.12	512.78
162.52	512.21	175.43	506.83	181.61	504.1	189.02	500.87	190.94	500.05
191.75	499.7	193.61	499.04	196.69	497.94	200.57	496.63	205.64	495.87
207.19	495.77	211.04	496.71	213.87	497.39	216.17	497.97	216.21	497.99
219.04	499.85	232.81	508.12	232.88	508.17	240.21	512.68	243.48	514.66
244.2	515.1	244.85	515.49	247.59	516.82	250.61	517.83	253.17	518.35
255.23	518.55	279.87	518.47	284.49	518.35	288.85	518.28	289.07	518.27
292.6	518.21	299.57	518.91	308.53	519.85	312.01	519.99	314.58	520.23
317.96	520.68	323.94	521.48	324.45	521.54	324.69	521.57	330.26	522.42
338.85	523.28	342.95	523.67	344.59	523.74	381.92	525.9	382.99	525.95
383.79	526	387.1	526.21	403.07	527.24	413.07	527.86	433.42	529.13
441.02	529.46	462.06	530.35	488.07	531.07	491.38	531.18	506.34	531.81

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	130.08	.047	137.15	.057	200.57	.04	211.04	.04
288.85	.04	289.07	.05	324.45	.045	403.07	.025	433.42	.035
506.34	.035								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
200.57	211.04	26.03	33.06	32.05	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 16788.1*

INPUT
Description:
Station Elevation Data num= 90

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	531.58	2.3	531.48	6.14	531.29	10.71	531.08	13.94	530.91
24.29	530.63	27.43	530.51	42.72	530.59	51.13	530.13	68.68	528.76
80.54	526.93	81.46	526.81	82.57	526.75	83.1	526.74	92.1	526.45
97.46	526.28	100.63	526.14	109.72	525.87	116.21	525.22	118.43	524.92
127.94	523.51	131.06	523.08	136.65	521.93	136.9	521.88	139.1	521.37
139.84	521.17	144.34	519.15	145.47	518.64	147.35	518.02	155.33	515.17
162.17	512.72	165.85	511.26	169.03	509.9	169.12	509.86	169.56	509.68
171.04	509.13	184.62	503.95	191.13	501.16	198.92	497.89	200.94	497.08
266.64	518.59	292.43	518.21	297.26	518.09	301.83	518.03	302.07	518.03
305.76	517.98	313.05	518.3	322.43	518.77	326.08	518.84	328.77	519.15
332.31	519.63	338.57	520.47	339.11	520.54	339.35	520.57	345.19	521.57
354.18	522.89	358.48	523.51	360.19	523.59	399.28	525.59	400.39	525.63
401.23	525.67	404.7	525.89	421.42	526.96	431.89	527.62	453.2	528.97
461.15	529.39	483.18	530.56	510.41	531.25	513.87	531.37	529.54	532

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	136.9	.058	144.34	.063	211.07	.045	220.36	.045
301.83	.045	302.07	.05	339.11	.04	421.42	.03	453.2	.035
529.54	.035								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
211.07	220.36	26.03	33.06	32.05	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 16755.06

INPUT
Description:

Station Elevation Data num= 55

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	531.58	2.41	531.48	28.8	530.29	44.85	530.54	53.68	529.92
72.1	528.01	84.55	525.37	85.52	525.2	86.68	525.12	96.68	524.74
105.64	524.39	115.18	524.18	124.33	523.08	137.58	521.26	143.71	519.82
146.8	519.09	152.71	516.18	154.68	515.55	163.06	512.53	170.24	509.94
174.11	508.33	177.54	506.75	193.81	501.06	200.64	498.21	208.82	494.91
210.94	494.1	211.84	493.76	213.9	493.37	221.58	491.98	226.91	491.01
229.69	491.98	232.79	492.95	235.35	493.86	238.45	496.55	253.59	507.38
261.6	513.19	265.18	515.68	266.68	516.69	272.98	518.75	310.04	517.83
315.06	517.79	326.54	517.69	340.15	517.68	353.2	519.46	353.76	519.53
354.02	519.57	374	523.35	416.63	525.28	417.8	525.3	418.67	525.34
422.3	525.57	481.28	529.33	504.3	530.78	532.75	531.43	552.74	532.2

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	143.71	.07	315.06	.05	353.76	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
221.58	229.69	81.79	94.22	118.47	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 16660.84

INPUT
Description:
Station Elevation Data num= 35

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	530.87	13.39	525.86	14.33	525.75	20.79	524.36	31.85	522.05
32.48	521.79	34.42	521.26	38.39	520	47.07	517.23	59.65	513.4
73.81	508.72	84.93	505.38	97.43	499.22	112.13	492.45	121.64	491.87
128.97	490.71	134.49	491.93	138.59	492.8	143.51	493.67	145.04	494.55
151.53	497.53	163.52	503.69	172.88	509.08	188.22	518.28	196.56	520.36
201.55	521.22	217.37	524.28	217.77	524.36	223.53	524.88	284.77	526.03
323.32	527.41	355.61	528.73	360.75	528.85	416.36	530.07	462.49	531.59

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.07	217.37	.035	360.75	.02

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
121.64	134.49	27.79	30.33	35.06	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 16630.5*

INPUT
Description:
Station Elevation Data num= 68

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	529.44	5.04	527.59	12.65	524.87	13.54	524.71	16.98	523.86
19.64	523.22	26.01	521.72	29.53	521.07	30.09	520.97	30.69	520.78
32.52	520.36	36.27	519.41	43.55	517.53	44.47	517.3	48.79	516.23
56.33	514.37	56.35	514.37	69.73	510.76	72.29	510.12	75.75	509.19
80.24	507.95	85.69	505.7	85.88	505.61	86.47	505.33	88.61	504.11
92.05	502.09	105.49	494.49	105.94	494.22	112.95	492.1	114.92	491.99
123.69	490.89	125.12	491.14	130.47	492.02	132.87	492.67	134.33	493.08
138.96	494.25	139.28	494.42	140.4	495.03	146.51	497.84	157.79	503.48
166.6	508.27	171.69	511.12	181.04	516.33	182.02	516.64	183.83	517.16
188.89	518.51	192.77	519.34	193.58	519.52	200.89	521.23	201.38	521.3
204.08	521.7	208.47	522.35	208.85	522.4	208.88	522.41	214.27	522.83
219.26	522.98	222.87	523.14	247.05	523.76	257.81	524.07	266.25	524.33
271.9	524.56	308.18	526.42	312.29	526.64	338.57	527.63	343.41	527.75
378.79	528.6	395.74	528.88	439.16	529.91				

Manning's n Values num= 8

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.07	114.92	.035	130.47	.035	201.38	.035	208.47	.035
343.41	.025	439.16	.02	439.16	.02				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
114.92	130.47	27.79	30.33	35.06	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 16600.1*

INPUT
Description:
Station Elevation Data num= 68

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	528	4.74	526.3	11.91	523.87	12.75	523.67	15.98	522.76
18.49	522.09	24.49	520.48	27.81	519.96	28.33	519.89	28.89	519.76
30.62	519.47	34.15	518.81	41.01	517.53	41.87	517.36	45.93	516.63
53.03	515.34	53.06	515.33	65.65	512.79	68.07	512.34	71.32	511.58
75.55	510.52	80.68	508.87	80.86	508.79	81.42	508.53	83.43	507.22
86.66	504.96	99.32	496.3	99.74	496	106.34	492.21	108.2	492.12
118.41	491.08	120.1	491.32	126.45	492.12	128.7	492.87	130.07	493.35
134.41	494.83	134.71	494.98	135.76	495.51	141.48	498.16	152.06	503.28
160.32	507.46	165.09	509.93	173.85	514.39	174.78	514.73	176.47	515.29
181.21	516.67	184.85	517.62	185.61	517.82	192.47	519.73	192.93	519.77
195.46	520.02	199.57	520.41	199.92	520.45	199.96	520.45	205	520.79
209.69	520.98	213.07	521.23	235.73	521.99	245.83	522.38	253.74	522.75
259.03	523.08	293.04	525.42	296.9	525.7	321.53	526.53	326.06	526.65
359.24	527.53	375.13	527.68	415.82	528.24				

Manning's n Values num= 8

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.07	108.2	.035	126.45	.035	192.93	.035	199.57	.035

326.06	.03	415.82	.02	415.82	.02

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
108.2 126.45 27.79 30.33 35.06 .1 .3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 16569.86

INPUT
Description:
Station Elevation Data num= 38

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	526.57	4.45	525.02	14.99	521.66	22.97	519.25	26.08	518.86
38.46	517.52	43.08	517.02	49.74	516.3	63.84	514.55	66.89	513.96
75.67	512.03	75.84	511.97	76.36	511.73	78.25	510.32	93.15	498.12
99.74	492.31	101.48	492.24	113.13	491.26	115.09	491.5	122.43	492.21
124.53	493.07	130.14	495.53	158.49	508.73	167.53	512.83	169.11	513.43
176.93	515.89	184.04	518.24	184.47	518.25	186.83	518.34	191.03	518.49
200.11	518.98	203.27	519.32	224.42	520.22	233.84	520.7	241.22	521.17
281.5	524.75	339.68	526.46	392.49	526.56				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.07	184.47	.035	392.49	.02

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
101.48 122.43 128.19 134.15 143.33 .1 .3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 16435.71

INPUT
Description:
Station Elevation Data num= 32

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	517.51	4.53	516.01	20.1	510.23	42.85	500.51	46.2	498.96
62.26	491.53	66.37	489.49	73.17	486.68	78.49	485.79	86.25	484.24
89.34	483.61	93.08	484.21	99.84	485.25	101.54	485.64	122.99	498.71
125.14	499.96	135.71	507.8	138.19	509.42	139.56	509.94	144.76	511.91
162.02	512.06	164.56	512.09	165.51	512.1	199.93	512.56	216.49	512.8
236.25	514.27	244.05	514.96	253.4	515.76	307.96	518.47	311.45	518.56
313.45	518.7	316.46	518.91						

Manning's n Values num= 2

Sta	n Val	Sta	n Val
0	.07	164.56	.035

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
86.25 93.08 189.51 172.38 134.54 .1 .3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 16263.33

INPUT
Description:
Station Elevation Data num= 35

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	513.41	42.53	499.71	42.69	499.67	43.36	499.35	45.78	498.19
58.36	492.2	60.89	491.19	65.87	489.18	84.61	481.63	92.53	479.39
93.76	479.13	94.08	479.05	94.27	479.04	105.06	479.31	106.89	480.18
118.79	489.02	122.81	491.4	128.36	495.61	129.72	496.31	135.75	499.07
144.95	503.5	147.36	504.16	151.63	504.71	155.38	505.04	159.58	505.41
160.39	505.43	178.12	505.97	195.91	506.18	222.98	507.39	230.19	507.83
269.42	510.3	278.67	510.76	281.05	510.82	327.46	511.97	334.15	512.14

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.07	160.39	.035	327.46	.07

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
92.53 105.06 250.64 242.08 191.84 .1 .3

CROSS SECTION RIVER: Canada Chiquita

Station Elevation Data num= 36

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	505.54	4.2	504.99	7.78	504.49	32.88	501.74	45.1	500.52
47.48	500.28	53.84	499.03	56.24	498.26	60.15	496.16	63.29	494.11
65.88	492.51	74.93	486.81	76.18	485.94	96.13	476.63	98.84	475.44
100.19	475.18	107.57	472.58	112.09	472.01	115.06	471.63	117.73	471.82
118.47	472	121.17	472.71	150.01	492.31	152.42	494.01	153.68	494.81
155.75	495.81	164.12	499.24	168.19	499.71	170.6	499.96	175.65	500.49
180.39	500.96	180.55	500.98	191.39	501.94	206.5	502.39	231.93	503.77
257.7	505.17								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.07	180.39	.035	231.93	.07

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
112.09 118.47 34.64 42.89 52.21 .1 .3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 15978.3*

INPUT
Description:
Station Elevation Data num= 79

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	505.87	3.99	505.19	7.38	504.59	21.36	502.47	26.31	501.72
28.19	501.42	29.8	501.15	31.21	500.9	42.81	498.92	45.07	498.53
47.65	497.88	51.1	496.97	51.44	496.85	53.38	496.16	56.41	494.52
57.09	494.16	60.07	492.26	62.53	490.77	71.12	485.47	72.31	484.67
79.59	481.18	85.02	478.57	89.28	476.53	90.49	475.93	91.24	475.58
92.06	475.21	93.81	474.4	95.1	474.08	101.18	471.73	102.1	471.42
106.39	470.79	109.15	470.39	110.39	470.46	112.84	470.6	113	470.63
113.86	470.83	116.97	471.77	117.88	472.1	121.61	474.27	127.74	477.93
129.04	478.75	130.69	479.69	131.45	480.07	135.02	481.71	140.12	483.9
141.76	484.57	144.02	485.48	146.76	486.61	149.94	487.76	157.33	490.4
160.85	491.68	164.44	493.04	166.31	493.68	169.4	494.48	176.83	496.11
181.87	497.2	182.79	497.25	186.99	497.5	187.93	497.54	191.52	497.69
199.04	498	206.1	498.27	206.34	498.28	221.27	498.77	222.49	498.82
227.23	498.88	234.25	499.08	238.02	499.19	239.59	499.25	245	499.49
252.34	499.9	267.94	500.79	281.63	501.26	282.89	501.31	282.99	501.32
288.39	501.61	293.3	501.96	312.87	503.41	321.28	503.97		

Manning's n Values num= 8

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.07	106.39	.032	113.86	.032	206.1	.032	234.25	.02
252.34	.023	282.89	.063	321.28	.063				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
106.39	113.86	34.64	42.89	52.21	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 15935.4*

INPUT
Description:
Station Elevation Data num= 79

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	506.2	3.77	505.39	6.99	504.69	20.21	502.06	24.9	501.14
26.68	500.76	28.2	500.4	29.54	500.06	40.51	497.32	42.65	496.79
45.1	496.02	48.36	494.92	48.69	494.78	50.52	494.05	53.39	492.5
54.03	492.15	56.85	490.41	59.18	489.03	67.31	484.13	68.43	483.4
75.32	480	80.47	477.46	84.5	475.46	85.64	474.87	86.35	474.52
87.13	474.16	88.79	473.36	90	472.98	95.76	470.54	96.63	470.26
100.69	469.56	103.24	469.14	104.82	469.22	107.95	469.39	108.15	469.41
109.25	469.66	113.38	470.98	114.59	471.48	119.54	474.13	127.7	478.65
129.42	479.71	131.61	480.84	132.63	481.23	137.37	482.9	144.14	484.96
146.32	485.53	149.33	486.32	152.96	487.35	157.19	488.18	167.01	490.1
171.68	491.06	176.45	492.07	178.95	492.55	183.04	493.15	192.92	494.37
199.61	495.16	200.85	495.19	206.42	495.35	207.67	495.37	212.44	495.41
222.44	495.51	231.82	495.58	232.14	495.58	251.97	495.67	253.59	495.71
259.89	495.72	269.22	495.99	274.22	496.12	276.31	496.22	283.5	496.58
293.26	497.15	313.98	498.35	332.18	498.8	333.84	498.86	333.97	498.86
341.15	499.25	347.68	499.77	373.69	501.96	384.85	502.77		

Manning's n Values num= 8

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.07	100.69	.029	109.25	.029	231.82	.029	269.22	.02
293.26	.026	333.84	.056	384.85	.056				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
100.69	109.25	34.64	42.89	52.21	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 15892.5*

INPUT
Description:
Station Elevation Data num= 79

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	506.52	3.56	505.59	6.59	504.79	19.07	501.65	23.49	500.56
25.17	500.1	26.6	499.65	27.86	499.22	38.22	495.72	40.24	495.04
42.55	494.16	45.63	492.86	45.93	492.71	47.66	491.95	50.36	490.48
50.97	490.15	53.63	488.56	55.83	487.28	63.5	482.78	64.56	482.13
71.06	478.81	75.91	476.34	79.72	474.39	80.8	473.81	81.46	473.47
82.19	473.11	83.76	472.32	84.91	471.88	90.34	469.35	91.16	469.1
94.99	468.34	97.33	467.9	99.26	467.98	103.05	468.17	103.3	468.2
104.64	468.48	109.79	470.2	111.31	470.87	117.48	473.98	127.65	479.37
129.8	480.66	132.53	481.98	133.8	482.39	139.72	484.08	148.16	486.01
150.89	486.49	154.64	487.16	159.17	488.08	164.45	488.6	176.69	489.79
182.52	490.43	188.47	491.1	191.58	491.42	196.69	491.82	209.01	492.63
217.36	493.11	218.9	493.13	225.86	493.21	227.41	493.2	233.36	493.14
245.83	493.02	257.53	492.89	257.93	492.89	282.67	492.57	284.69	492.59
292.54	492.57	304.19	492.89	310.43	493.06	313.04	493.19	322	493.68
334.17	494.4	360.03	495.91	382.72	496.34	384.8	496.4	384.96	496.4
393.92	496.89	402.06	497.58	434.5	500.51	448.43	501.57		

Manning's n Values num= 8

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.07	94.99	.026	104.64	.026	257.53	.026	304.19	.02
334.17	.029	384.8	.049	448.43	.049				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
94.99	104.64	34.64	42.89	52.21	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 15849.6*

INPUT
Description:

Station Elevation Data num= 79

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	506.85	3.35	505.79	6.2	504.89	17.92	501.24	22.08	499.98
23.66	499.43	25.01	498.9	26.19	498.38	35.93	494.12	37.82	493.29
39.99	492.29	42.89	490.8	43.18	490.65	44.8	489.85	47.34	488.46
47.92	488.15	50.42	486.71	52.48	485.54	59.69	481.44	60.68	480.86
66.79	477.63	71.36	475.23	74.93	473.33	75.95	472.74	76.58	472.42
77.26	472.07	78.74	471.28	79.81	470.77	84.92	468.16	85.69	467.94
89.29	467.11	91.42	466.65	93.69	466.75	98.16	466.96	98.46	466.98
100.03	467.31	106.2	469.42	108.02	470.25	115.41	473.84	127.61	480.09
130.18	481.62	133.46	483.12	134.98	483.56	142.06	485.27	152.18	487.06
155.45	487.46	159.94	488	165.37	488.81	171.7	489.02	186.37	489.49
193.36	489.8	200.49	490.13	204.21	490.29	210.34	490.49	225.1	490.88
235.11	491.07	236.95	491.07	245.29	491.07	247.15	491.03	254.28	490.87
269.22	490.52	283.25	490.2	283.72	490.19	313.37	489.48	315.8	489.47
325.2	489.41	339.15	489.8	346.63	489.99	349.76	490.16	360.51	490.78
375.09	491.64	406.07	493.48	433.27	493.87	435.75	493.94	435.95	493.95
446.68	494.53	456.44	495.39	495.32	499.06	512	500.37		

Manning's n Values num= 8

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.07	89.29	.023	100.03	.023	283.25	.023	339.15	.02
375.09	.032	435.75	.042	512	.042				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
89.29	100.03	34.64	42.89	52.21	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 15806.78

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 48

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	507.18	16.78	500.83	20.67	499.4	22.15	498.77	23.41	498.15
37.44	490.43	40.42	488.58	44.32	486.44	62.53	476.45	66.8	474.11
70.15	472.26	71.1	471.68	72.33	471.02	79.5	466.97	83.59	465.89
85.51	465.41	88.12	465.51	93.61	465.76	95.42	466.14	102.61	468.64
113.35	473.7	127.56	480.81	130.56	482.57	134.38	484.26	136.15	484.72
144.41	486.45	156.2	488.11	160.01	488.42	165.25	488.84	171.58	489.54
178.95	489.44	196.05	489.18	241.19	489.14	255	489.01	264.72	488.93
344.07	486.38	357.86	486.26	374.12	486.7	382.84	486.93	386.48	487.13
416	488.89	452.11	491.04	483.81	491.41	486.94	491.49	499.45	492.17
510.82	493.2	556.13	497.61	575.58	499.17				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.07	374.12	.02	416	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
83.59	95.42	38.8	38.16	36.64	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 15768.6*

INPUT
Description:
Station Elevation Data num= 88

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	504.92	10.33	501.42	17.61	499	21.69	497.68	23.24	497.11
24.57	496.56	30.21	493.95	31.72	493.23	32.72	492.73	39.29	489.68
42.42	488.06	43.99	487.34	46.51	486.05	46.73	485.94	49.5	484.53
57.88	480.25	60.29	479.02	64.78	476.72	65.62	476.28	70.1	473.97
73.61	472.14	74.61	471.57	75.9	470.92	83.43	466.93	87.72	465.65
88.68	465.55	92.16	465.19	94.31	465.29	98.82	465.52	100.31	465.84
103.31	466.77	107.38	468.09	114.48	471.12	115.16	471.41	115.94	471.76
117.94	472.67	131.58	479.18	131.92	479.34	134.87	480.96	138.63	482.57
140.37	483.06	141.24	483.28	148.49	484.74	152.55	485.34	152.58	485.35
157.27	486.02	160.08	486.37	161.21	486.46	163.83	486.65	168.31	486.97
168.98	487.02	175.21	487.62	182.46	487.59	199.27	487.5	201.44	487.51
243.66	487.53	245.83	487.52	257.24	487.5	266.8	487.49	275.93	487.31
288.14	486.98	338.21	485.29	341.22	485.19	344.84	485.08	358.4	484.93

Manning's n Values num= 10

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.07	87.72	.026	100.31	.026	338.21	.05	374.39	.026
410.31	.054	415.57	.042	438.24	.06	494.01	.023	572.5	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
87.72	100.31	38.8	38.16	36.64	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 15730.4*

INPUT
Description:
Station Elevation Data num= 88

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	502.66	10.82	499.38	18.44	497.18	22.71	495.97	24.34	495.45
25.72	494.97	31.63	492.7	33.21	492.06	34.26	491.59	41.14	488.94
44.41	487.55	46.06	486.91	48.7	485.67	48.93	485.56	51.83	484.18
60.6	480.01	63.13	478.8	67.82	476.54	68.71	476.11	73.4	473.82
77.08	472.02	78.12	471.47	79.47	470.82	87.35	466.9	91.85	465.4

93.36	465.31	98.81	464.97	100.49	465.06	104.04	465.29	105.2	465.54
108.16	466.34	112.16	467.55	119.13	470.19	119.81	470.44	120.56	470.77
122.54	471.64	135.95	477.73	136.28	477.88	139.18	479.35	142.87	480.89
144.58	481.41	145.45	481.64	152.57	483.04	156.56	483.65	156.59	483.66
161.2	484.33	163.97	484.64	165.08	484.72	167.65	484.88	172.06	485.16
172.72	485.2	178.84	485.71	185.96	485.75	202.49	485.82	204.62	485.85
246.14	485.92	248.27	485.91	259.49	485.99	268.89	486.05	277.85	485.99
289.86	485.74	339.09	483.99	342.05	483.88	345.6	483.78	358.93	483.59
365.28	483.65	374.65	483.81	380.11	483.91	383.08	483.98	386.6	484.14
409.97	485.23	411.79	485.32	415.14	485.47	426.47	485.99	437.43	486.65
450.06	487.41	477.36	488.24	480.7	488.39	483.73	488.55	485.5	488.67
492.25	489.05	495.82	489.25	506.82	490.11	507.11	490.13	518.45	491.29
550.62	494.63	558.15	495.34	569.43	496.2				

Manning's n Values num= 10

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.07	91.85	.032	105.2	.032	339.09	.05	374.65	.032
409.97	.058	415.14	.049	437.43	.05	492.25	.026	569.43	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
91.85	105.2	38.8	38.16	36.64	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 15692.2*

INPUT
Description:
Station Elevation Data num= 88

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	500.41	11.31	497.34	19.27	495.35	23.73	494.25	25.43	493.79
26.88	493.37	33.06	491.46	34.7	490.88	35.8	490.45	42.99	488.19
46.41	487.03	48.13	486.49	50.89	485.28	51.13	485.18	54.16	483.83
63.32	479.77	65.97	478.58	70.87	476.37	71.79	475.94	76.7	473.68
80.54	471.89	81.63	471.36	83.05	470.72	91.28	466.86	95.97	465.16
98.03	465.07	105.46	464.74	106.68	464.84	109.25	465.05	110.1	465.24
113	465.9	116.93	467	123.78	469.27	124.45	469.48	125.19	469.79
127.13	470.6	140.31	476.27	140.64	476.41	143.49	477.74	147.12	479.2
148.8	479.75	149.65	480.01	156.65	481.33	160.57	481.96	160.6	481.97
165.13	482.64	167.85	482.9	168.94	482.98	171.47	483.11	175.8	483.35
176.45	483.38	182.46	483.79	189.47	483.9	205.72	484.14	207.81	484.19
248.61	484.31	250.71	484.31	261.73	484.47	270.97	484.62	279.78	484.66
291.58	484.49	339.96	482.68	342.88	482.57	346.37	482.48	359.47	482.26
365.7	482.25	374.92	482.37	380.28	482.43	383.21	482.51	386.67	482.64
409.63	483.57	411.42	483.64	414.72	483.77	425.84	484.19	436.62	484.84
449.03	485.59	475.86	486.67	479.15	486.88	482.12	487.08	483.86	487.22
490.5	487.59	494.01	487.79	504.82	488.56	505.1	488.59	516.25	489.74
547.87	493.15	555.26	493.89	566.35	494.72				

Manning's n Values num= 10

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.07	95.97	.038	110.1	.038	339.96	.05	374.92	.038
409.63	.062	414.72	.056	436.62	.04	490.5	.029	566.35	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
95.97	110.1	38.8	38.16	36.64	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 15654.1*

INPUT
Description:
Station Elevation Data num= 88

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	498.15	11.79	495.31	20.09	493.52	24.75	492.53	26.53	492.14
28.03	491.78	34.48	490.21	36.2	489.71	37.34	489.3	44.84	487.44
48.4	486.52	50.2	486.07	53.07	484.9	53.33	484.79	56.49	483.49
66.05	479.52	68.8	478.37	73.92	476.19	74.88	475.77	80	473.53
84.01	471.77	85.14	471.26	86.62	470.62	95.2	466.83	100.1	464.91
102.71	464.83	112.11	464.52	112.87	464.61	114.46	464.81	114.99	464.94
117.84	465.47	121.7	466.45	128.44	468.34	129.09	468.52	129.82	468.81
131.73	469.57	144.68	474.82	144.99	474.94	147.8	476.12	151.36	477.52
153.01	478.1	153.85	478.38	160.73	479.63	164.58	480.27	164.61	480.28
169.06	480.96	171.73	481.16	172.81	481.23	175.29	481.34	179.55	481.53
180.18	481.56	186.09	481.87	192.97	482.05	208.94	482.46	210.99	482.52
251.08	482.7	253.14	482.7	263.98	482.96	273.05	483.18	281.71	483.34
293.31	483.24	340.84	481.38	343.7	481.26	347.13	481.18	360.01	480.93
366.13	480.86	375.19	480.92	380.46	480.96	383.33	481.04	386.73	481.15
409.29	481.9	411.05	481.96	414.29	482.06	425.22	482.39	435.81	483.04
448	483.78	474.37	485.11	477.6	485.36	480.52	485.61	482.23	485.76
488.75	486.13	492.2	486.33	502.81	487.02	503.1	487.04	514.05	488.2
545.12	491.66	552.38	492.44	563.28	493.23				

Manning's n Values num= 10

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.07	100.1	.044	114.99	.044	340.84	.05	375.19	.044
409.29	.066	414.29	.063	435.81	.03	488.75	.032	563.28	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
100.1	114.99	38.8	38.16	36.64	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 15615.97

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 45

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	495.89	12.28	493.27	35.9	488.97	37.69	488.54	38.88	488.16

52.27	485.65	55.53	484.41	58.82	483.14	68.77	479.28	71.64	478.15
76.97	476.02	104.23	464.67	107.38	464.59	118.76	464.3	119.88	464.64
122.68	465.04	133.09	467.42	133.73	467.56	134.45	467.83	149.04	473.36
158.05	476.75	168.59	478.58	168.62	478.59	172.99	479.27	176.67	479.49
183.29	479.72	214.18	480.86	255.58	481.1	283.64	482.02	295.03	481.99
341.72	480.07	344.53	479.95	366.56	479.46	380.63	479.49	408.95	480.23
410.68	480.28	424.6	480.59	435	481.23	472.87	483.54	480.59	484.3
487	484.67	501.09	485.49	511.85	486.66	549.5	490.99	560.2	491.75

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.07	341.72	.05	408.95	.07	435	.02	487	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
104.23	119.88	41.54	42.47	43.32	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 15573.5*

INPUT
Description:
Station Elevation Data num= 87

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	494.11	9.75	491.86	13.84	490.94	22.3	489.22	33.66	487.27
40.47	486.18	42.49	485.77	43.01	485.64	43.83	485.45	45.86	485.17
54.44	484.02	58.93	483.41	62.6	482.41	66.31	481.38	68.82	480.67
73.25	479.41	74.54	479.04	77.53	478.19	80.76	477.25	86.38	475.6
86.77	475.48	87.97	475.09	88.66	474.85	93.08	473.04	110.21	466.07
117.5	463.41	120.28	463.29	125.17	463.08	130.3	462.85	130.7	462.88
133.33	463.1	134.57	463.4	137.36	463.84	137.87	463.96	141.79	464.86
147.73	466.49	148.37	466.66	149.09	466.94	154.2	468.95	156.48	469.85
163.62	472.68	165.63	473.47	166.17	473.68	168.49	474.51	171.32	475.48
172.6	475.87	183.1	477.39	183.13	477.39	187.49	477.96	191.15	478.15
197.75	478.36	203.27	478.55	217.8	479.02	228.52	479.37	228.63	479.37
241.41	479.49	269.77	479.68	288.24	480.21	297.73	480.36	306.59	480.25
309.07	480.22	321.39	479.69	346.86	478.8	355.59	478.52	358.39	478.43
370.09	478.23	380.34	478.05	386.55	478.07	394.36	478.1	422.57	478.77
424.3	478.81	438.17	479.1	439.92	479.19	448.53	479.64	468.25	480.65
486.26	481.71	493.95	482.39	496.01	482.51	500.33	482.74	514.37	483.49
517.57	483.79	525.09	484.63	545.91	487.04	546.91	487.15	547.5	487.25
562.6	489.59	573.26	490.87						

Manning's n Values num= 14

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.07	73.25	.066	117.5	.054	134.57	.054	154.2	.07
306.59	.066	355.59	.05	370.09	.054	422.57	.07	439.92	.06
448.53	.02	468.25	.023	500.33	.035	573.26	.035		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
117.5	134.57	41.54	42.47	43.32	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 15531.0*

INPUT
Description:
Station Elevation Data num= 87

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	492.34	10.85	489.68	15.41	488.61	24.82	486.53	37.46	484.46
45.04	483.39	47.29	483	47.87	482.88	48.78	482.74	51.04	482.53
60.59	481.65	65.58	481.17	69.67	480.4	73.8	479.61	76.6	479.07
81.52	478.07	82.96	477.77	86.28	477.09	89.88	476.35	96.14	475.03
96.57	474.93	97.91	474.61	98.67	474.37	103.6	472.4	122.66	464.77
130.77	462.16	133.17	462	137.4	461.72	141.84	461.4	142.53	461.43
147.11	461.65	149.26	462.15	152.04	462.65	152.55	462.76	156.45	463.67
162.38	465.55	163.01	465.75	163.73	466.04	168.82	468.13	171.09	469.06
178.21	471.99	180.21	472.82	180.75	473.04	183.05	473.82	185.87	474.7
187.15	475	197.61	476.19	197.64	476.2	201.98	476.64	205.63	476.81
212.21	477.01	217.71	477.18	232.18	477.57	242.87	477.88	242.97	477.88
255.7	478.04	283.96	478.27	302.36	478.71	311.81	478.7	320.64	478.51
323.12	478.45	335.38	477.89	360.77	477.18	369.46	476.97	372.25	476.91
383.91	476.77	394.12	476.64	400.31	476.66	408.09	476.71	436.2	477.3
437.91	477.34	451.73	477.6	453.48	477.68	462.05	478.04	481.7	478.87

Manning's n Values num= 14

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.07	81.52	.062	130.77	.058	149.26	.058	168.82	.07
320.64	.062	369.46	.05	383.91	.058	436.2	.07	453.48	.05
462.05	.02	481.7	.026	513.67	.035	586.33	.035		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
130.77	149.26	41.54	42.47	43.32	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 15488.5*

INPUT
Description:
Station Elevation Data num= 87

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	490.56	11.95	487.5	16.97	486.28	27.34	483.85	41.27	481.66
49.61	480.59	52.09	480.24	52.72	480.13	53.73	480.03	56.22	479.88
66.74	479.28	72.24	478.93	76.74	478.4	81.29	477.85	84.37	477.47
89.79	476.73	91.38	476.5	95.04	476	99.01	475.45	105.9	474.47
106.37	474.39	107.85	474.13	108.68	473.89	114.11	471.76	135.11	463.48

144.05	460.9	146.07	460.7	149.63	460.35	153.37	459.95	154.36	459.98
160.89	460.21	163.96	460.91	166.72	461.45	167.23	461.56	171.12	462.47
177.02	464.62	177.65	464.85	178.36	465.15	183.44	467.31	185.7	468.27
192.79	471.31	194.79	472.16	195.32	472.39	197.62	473.13	200.43	473.91
201.7	474.12	212.13	475	212.16	475	216.48	475.33	220.12	475.47
226.66	475.65	232.15	475.81	246.56	476.13	257.21	476.38	257.31	476.38
270	476.6	298.15	476.85	316.49	477.21	325.9	477.04	334.69	476.76
337.16	476.68	349.38	476.1	374.67	475.55	383.34	475.43	386.11	475.38
397.72	475.3	407.9	475.23	414.07	475.25	421.81	475.32	449.82	475.84
451.53	475.87	465.3	476.11	467.04	476.16	475.58	476.45	495.15	477.09
513.03	478.05	520.67	478.58	522.71	478.68	527	478.87	540.94	479.5
544.11	479.7	551.58	480.56	572.24	483	573.24	483.1	573.82	483.25
588.81	486.8	599.39	489.12						

Manning's n Values num= 14

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.07	89.79	.058	144.05	.062	163.96	.062	183.44	.07
334.69	.058	383.34	.05	397.72	.062	449.82	.07	467.04	.04
475.58	.02	495.15	.029	527	.035	599.39	.035		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
144.05	163.96	41.54	42.47	43.32	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 15446.0*

INPUT
Description:
Station Elevation Data num= 87

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	488.79	13.05	485.32	18.53	483.95	29.86	481.16	45.07	478.85
54.19	477.8	56.89	477.47	57.58	477.37	58.68	477.32	61.4	477.23
72.89	476.91	78.89	476.69	83.81	476.39	88.78	476.08	92.15	475.87
98.07	475.38	99.8	475.24	103.8	474.91	108.13	474.55	115.65	473.91
116.17	473.85	117.78	473.65	118.7	473.42	124.63	471.11	147.56	462.18
157.32	459.65	158.96	459.41	161.87	458.99	164.91	458.5	166.19	458.53
174.67	458.76	178.65	459.66	181.41	460.25	181.91	460.37	185.78	461.28
191.66	463.69	192.29	463.94	193	464.25	198.06	466.48	200.31	467.48
207.38	470.63	209.36	471.51	209.9	471.75	212.18	472.45	214.98	473.13
216.25	473.25	226.64	473.8	226.67	473.8	230.97	474.02	234.6	474.13
241.12	474.29	246.58	474.43	260.95	474.68	271.55	474.89	271.66	474.89
284.29	475.15	312.34	475.43	330.61	475.71	339.99	475.38	348.75	475.02
351.21	474.91	363.38	474.3	388.58	473.93	397.21	473.88	399.98	473.86
411.54	473.84	421.68	473.83	427.82	473.85	435.54	473.93	463.44	474.38
465.15	474.4	478.86	474.61	480.6	474.65	489.11	474.85	508.61	475.3
526.42	476.22	534.02	476.67	536.06	476.77	540.34	476.94	554.22	477.5
557.38	477.66	564.82	478.53	585.4	480.97	586.4	481.08	586.98	481.26
601.91	485.41	612.46	488.25						

Manning's n Values num= 14

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.07	98.07	.054	157.32	.066	178.65	.066	198.06	.07
348.75	.054	397.21	.05	411.54	.066	463.44	.07	480.6	.03
489.11	.02	508.61	.032	540.34	.035	612.46	.035		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
157.32	178.65	41.54	42.47	43.32	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 15403.63

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 47

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	487.01	14.15	483.14	32.38	478.48	48.87	476.05	62.44	474.62
66.58	474.58	79.04	474.54	99.92	474.27	106.34	474.04	108.22	473.97
125.41	473.35	127.72	473.17	128.71	472.94	135.14	470.47	160.01	460.89
170.59	458.39	174.1	457.62	176.45	457.05	178.02	457.08	188.45	457.32
193.34	458.42	196.59	459.17	200.45	460.08	212.68	465.66	214.92	466.69
223.94	470.86	224.47	471.11	226.75	471.76	229.54	472.34	261.02	473.06
275.33	473.24	286	473.4	298.59	473.71	344.73	474.21	362.8	473.27
377.38	472.51	402.48	472.3	425.36	472.38	441.58	472.44	494.16	473.14
522.06	473.52	549.41	474.86	570.65	475.61	598.57	478.95	599.56	479.05
600.14	479.26	625.52	487.37						

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.07	106.34	.05	212.68	.07	362.8	.05	425.36	.07
494.16	.02	522.06	.035						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
170.59	193.34	40.37	38.8	35.49	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 15364.8*

INPUT
Description:
Station Elevation Data num= 90

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	486.86	.87	486.59	9.95	483.98	15.13	482.51	31.48	478.07
34.62	477.25	38.53	476.55	49.89	474.6	52.25	474.27	56.51	473.8
65.65	472.8	66.76	472.71	71.18	472.66	84.5	472.56	89.38	472.49
97.5	472.3	104.86	472.14	106.83	472.1	113.69	471.85	115.7	471.78
125.57	471.41	132.04	471.09	133.71	471	134.08	470.98	136.55	470.78
137.61	470.57	144.48	468.44	146.88	467.69	165.35	462.18	171.07	460.47
182.38	458.35	185.8	457.71	188.09	457.24	189.53	457.26	199.11	457.45

200.12	457.65	203.6	458.38	206.88	459.04	210.79	459.83	213.29	460.78
218.75	462.82	223.16	464.64	225.42	465.58	231.34	468.05	232.55	468.53
234.54	469.33	234.69	469.38	235.08	469.54	237.39	470.12	237.92	470.22
240.21	470.65	254.14	471.23	254.5	471.24	259.95	471.42	272.04	471.65
286.51	471.81	289.46	471.85	297.3	471.98	310.04	472.28	311.19	472.29
319.78	472.35	356.7	472.6	371.19	471.98	371.38	471.97	371.66	471.96
374.97	471.83	389.72	471.25	414.01	471.13	415.1	471.12	426.33	471.2
430.8	471.22	438.24	471.27	454.64	471.38	474.86	471.67	485.8	471.83
507.81	472.27	520.97	472.54	523.2	472.59	534.87	472.9	536.03	472.93
542.98	473.33	563.69	474.71	577.1	475.46	581.76	475.69	584.73	475.85
585.17	475.87	613.4	479.33	614.4	479.44	614.99	479.62	640.66	486.83

Manning's n Values num= 16

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.07	113.69	.054	133.71	.066	182.38	.07	203.6	.07
223.16	.07	237.92	.07	319.78	.066	371.19	.054	374.97	.054
438.24	.07	474.86	.06	507.81	.02	520.97	.023	536.03	.035
640.66	.035								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
182.38	203.6	40.37	38.8	35.49	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 15326.0*

INPUT
Description:
Station Elevation Data num= 90

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	486.71	.92	486.39	10.59	483.5	16.11	481.87	33.51	476.91
36.86	476.02	41.02	475.15	53.11	472.82	55.63	472.48	60.16	471.97
69.9	470.87	71.07	470.79	75.78	470.73	89.97	470.59	95.15	470.51
103.81	470.21	111.64	469.99	113.73	469.94	121.04	469.66	123.18	469.58
133.68	469.19	140.58	468.76	142.35	468.64	142.75	468.62	145.38	468.39
146.5	468.21	153.82	466.41	156.38	465.77	176.04	461.41	182.13	460.05
194.17	458.31	197.5	457.8	199.73	457.42	201.04	457.44	209.77	457.59
210.69	457.74	213.86	458.33	217.18	458.9	221.13	459.59	223.65	460.35
229.18	461.96	233.63	463.61	235.92	464.47	241.91	466.71	243.13	467.12
245.15	467.79	245.29	467.84	245.69	467.97	248.02	468.47	248.56	468.56
250.87	468.95	264.96	469.81	265.32	469.83	270.84	470.06	283.06	470.25
297.7	470.39	300.68	470.42	308.61	470.55	321.48	470.84	322.65	470.86
331.34	470.89	368.66	471	383.31	470.5	383.51	470.49	383.79	470.48
387.14	470.39	402.05	469.98	426.62	469.94	427.72	469.94	439.08	470.06
443.6	470.08	451.11	470.16	467.7	470.32	488.14	470.63	499.21	470.8
521.47	471.4	534.77	471.76	537.02	471.83	548.82	472.29	550	472.34
557.02	472.8	577.96	474.57	591.53	475.6	596.23	475.89	599.24	476.1
599.68	476.14	628.23	479.71	629.25	479.83	629.84	479.99	655.79	486.28

Manning's n Values num= 16

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.07	121.04	.058	142.35	.062	194.17	.07	213.86	.07
233.63	.07	248.56	.07	331.34	.062	383.31	.058	387.14	.058
451.11	.07	488.14	.05	521.47	.02	534.77	.026	550	.035
655.79	.035								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
194.17	213.86	40.37	38.8	35.49	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 15287.2*

INPUT
Description:
Station Elevation Data num= 90

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	486.57	.98	486.18	11.23	483.02	17.08	481.24	35.55	475.75
39.09	474.79	43.51	473.75	56.34	471.04	59	470.7	63.81	470.14
74.14	468.94	75.39	468.88	80.39	468.81	95.43	468.61	100.93	468.52
110.11	468.12	118.42	467.84	120.64	467.77	128.39	467.47	130.66	467.39
141.8	466.96	149.12	466.42	151	466.28	151.42	466.25	154.21	466.01
155.4	465.84	163.16	464.37	165.88	463.86	186.73	460.64	193.19	459.63
205.97	458.27	209.2	457.89	211.37	457.61	212.55	457.62	220.42	457.72
221.25	457.82	224.11	458.29	227.47	458.77	231.46	459.34	234.02	459.82
342.89	469.43	380.63	469.39	395.44	469.02	395.64	469.01	395.92	469.01
399.31	468.95	414.39	468.72	439.23	468.76	440.34	468.77	451.82	468.92
456.39	468.95	463.99	469.05	480.76	469.26	501.43	469.59	512.61	469.78
535.12	470.53	548.57	470.98	550.85	471.07	562.78	471.68	563.96	471.75
571.07	472.27	592.24	474.42	605.96	475.74	610.71	476.09	613.76	476.36
614.2	476.4	643.07	480.1	644.09	480.22	644.69	480.35	670.93	485.74

Manning's n Values num= 16

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.07	128.39	.062	151	.058	205.97	.07	224.11	.07
244.11	.07	259.2	.07	342.89	.058	395.44	.062	399.31	.062
463.99	.07	501.43	.04	535.12	.02	548.57	.029	563.96	.035
670.93	.035								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
205.97	224.11	40.37	38.8	35.49	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 15248.4*

INPUT

Description:
Station Elevation Data num= 90

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	486.42	1.03	485.98	11.88	482.53	18.06	480.61	37.58	474.59
41.33	473.56	46	472.36	59.56	469.27	62.38	468.91	67.47	468.31
78.39	467.01	79.7	466.97	84.99	466.88	100.89	466.64	106.71	466.54
116.42	466.04	125.2	465.68	127.55	465.6	135.74	465.28	138.14	465.19
149.92	464.74	157.65	464.09	159.64	463.92	160.09	463.88	163.03	463.62
164.3	463.47	172.51	462.34	175.37	461.94	197.42	459.87	204.25	459.21
217.76	458.23	220.9	457.98	223.01	457.79	224.07	457.8	231.08	457.86
231.82	457.91	234.37	458.24	237.77	458.63	241.8	459.09	244.38	459.5
250.03	460.25	254.59	461.56	256.93	462.24	263.04	464.02	264.29	464.29
266.35	464.72	266.5	464.75	266.91	464.83	269.29	465.18	269.84	465.25
272.21	465.57	286.61	466.97	286.97	466.99	292.61	467.33	305.11	467.44
320.06	467.53	323.11	467.55	331.22	467.71	344.37	467.98	345.57	468
354.45	467.96	392.6	467.79	407.57	467.54	407.77	467.53	408.06	467.53
411.48	467.52	426.72	467.46	451.83	467.57	452.95	467.59	464.57	467.78
469.19	467.81	476.87	467.93	493.82	468.2	514.71	468.56	526.02	468.75
548.77	469.66	562.37	470.2	564.67	470.31	576.73	471.07	577.93	471.16
585.11	471.74	606.52	474.27	620.38	475.87	625.19	476.29	628.27	476.61
628.72	476.67	657.9	480.48	658.93	480.61	659.54	480.72	686.06	485.19

Manning's n Values num= 16

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.07	135.74	.066	159.64	.054	217.76	.07	234.37	.07
254.59	.07	269.84	.07	354.45	.054	407.57	.066	411.48	.066
476.87	.07	514.71	.03	548.77	.02	562.37	.032	577.93	.035
686.06	.035								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
217.76	234.37	40.37	38.8	35.49	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 15209.62

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 48

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	486.27	1.09	485.78	12.52	482.05	39.62	473.43	48.49	470.96
62.79	467.49	71.12	466.48	82.63	465.08	112.49	464.55	122.72	463.95
131.98	463.53	158.04	462.51	166.19	461.76	168.29	461.56	184.87	460.03
208.11	459.1	229.55	458.19	234.65	457.98	242.39	457.99	244.63	458.2
254.75	459.07	260.46	459.39	273.61	462.67	274.87	462.87	277.11	463.21
280.48	463.6	297.43	465.55	297.8	465.57	303.5	465.97	334.33	466.12
357.03	466.57	366	466.5	419.7	466.06	419.9	466.05	420.19	466.05
464.44	466.39	477.31	466.64	481.98	466.68	528	467.52	539.43	467.73
576.17	469.42	578.5	469.55	590.69	470.46	599.16	471.21	634.81	476.01
639.67	476.49	642.78	476.87	701.2	484.65				

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.07	168.29	.05	280.48	.07	366	.05	419.7	.07
528	.02	576.17	.035						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
229.55	244.63	45.96	42.17	39.13	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 15167.4*

INPUT
Description:
Station Elevation Data num= 89

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	484.77	1.14	484.31	13.08	480.67	21.09	478.28	41.4	472.11
49.45	469.9	50.67	469.59	61.74	467.03	65.61	466.17	74.31	465.04
77.91	464.58	86.34	463.68	90.29	463.57	111.36	463.17	117.54	463.04
128.23	462.47	137.9	462.05	148.37	461.64	165.13	461.07	173.65	460.43
175.84	460.26	192.53	459.01	192.77	458.99	193.17	458.96	193.59	458.94
209.64	458.32	217.45	458.03	218.65	457.98	239.85	457.13	248.92	456.8
253.05	456.85	256.84	456.92	259.13	457.13	269.16	457.91	274.24	458.19
274.82	458.24	281.16	459.81	286.62	461.02	287.86	461.32	289.11	461.54
291.33	461.9	294.67	462.36	296.79	462.65	297.52	462.72	299.09	462.86
302.26	463.16	311.47	464.07	311.83	464.09	317.48	464.45	330.45	464.58
332.75	464.58	335.28	464.59	337.06	464.58	341.08	464.61	348.04	464.65
353.6	464.75	370.54	465.05	370.97	465.05	379.43	465.01	428.01	464.77
432.66	464.75	432.86	464.74	433.14	464.74	444.51	464.83	477	465.01
489.76	465.19	492.17	465.21	494.39	465.23	540	466.05	542.51	466.1
551.33	466.28	563.15	466.79	574.22	467.31	587.27	467.91	587.74	467.94
590.05	468.06	601.8	468.89	602.14	468.92	610.53	469.67	623.78	471.34
636.03	472.88	645.87	474.14	650.68	474.63	653.77	474.99	661.53	475.99
685.39	479.5	695.51	481.13	708.56	483.28	711.67	483.83		

Manning's n Values num= 18

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.07	175.84	.054	218.65	.066	239.85	.07	259.13	.07
294.67	.07	297.52	.07	370.97	.066	379.43	.05	428.01	.047
432.66	.063	492.17	.032	540	.02	542.51	.03	574.22	.063
587.74	.035	685.39	.038	711.67	.038				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
239.85	259.13	45.96	42.17	39.13	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 15125.2*

INPUT

Description:
Station Elevation Data num= 89

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	483.27	1.19	482.85	13.64	479.29	21.99	476.95	43.18	470.78
51.57	468.52	52.84	468.22	64.39	465.68	68.43	464.86	77.5	463.61
81.25	463.09	90.05	462.27	94.17	462.12	116.14	461.69	122.59	461.52
133.74	460.98	143.83	460.56	154.74	460.15	172.23	459.63	181.11	459.11
183.4	458.97	200.8	457.94	201.05	457.91	201.46	457.88	201.91	457.86
218.65	457.25	226.79	456.95	228.04	456.9	250.15	456.07	263.19	455.62
267.41	455.71	271.29	455.85	273.64	456.06	283.58	456.76	288.61	457.02
289.19	457.1	295.47	458.63	300.88	459.68	302.11	459.98	303.34	460.2
305.54	460.6	308.85	461.12	310.95	461.45	311.68	461.5	313.24	461.61
316.38	461.83	325.5	462.59	325.87	462.61	331.47	462.92	344.32	463.13
346.6	463.11	349.1	463.11	350.87	463.1	354.85	463.14	361.75	463.18
367.26	463.27	384.05	463.53	384.48	463.53	392.86	463.52	441	463.45
445.61	463.44	445.81	463.44	446.1	463.44	457.37	463.53	489.56	463.62
502.21	463.75	504.6	463.76	506.79	463.78	552	464.58	554.49	464.62
563.23	464.83	574.95	465.3	585.91	465.82	598.85	466.43	599.32	466.45
601.61	466.58	613.25	467.35	613.58	467.38	621.9	468.12	635.03	469.67
647.18	471.08	656.92	472.28	661.7	472.76	664.75	473.12	672.45	474.06
696.1	477.88	706.13	479.78	719.06	482.34	722.14	483.01		

Manning's n Values num= 18

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.07	183.4	.058	228.04	.062	250.15	.07	273.64	.07
308.85	.07	311.68	.07	384.48	.062	392.86	.05	441	.044
445.61	.056	504.6	.029	552	.02	554.49	.04	585.91	.056
599.32	.035	696.1	.041	722.14	.041				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
250.15	273.64	45.96	42.17	39.13	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 15083.0*

INPUT
Description:
Station Elevation Data num= 89

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	481.76	1.24	481.38	14.21	477.92	22.9	475.62	44.95	469.46
53.69	467.14	55.02	466.85	67.05	464.33	71.24	463.54	80.7	462.17
84.6	461.61	93.76	460.87	98.04	460.68	120.92	460.21	127.64	460.01
139.24	459.5	149.75	459.08	161.11	458.66	179.32	458.19	188.57	457.78
190.95	457.67	209.07	456.87	209.33	456.84	209.76	456.81	210.22	456.78
227.65	456.17	236.13	455.88	237.43	455.83	260.46	455	277.47	454.44
281.78	454.57	285.75	454.78	288.14	454.98	297.99	455.6	302.98	455.85
303.55	455.95	309.77	457.46	315.14	458.35	316.35	458.63	317.58	458.87
319.76	459.29	323.04	459.88	325.12	460.25	325.85	460.29	327.38	460.36
330.5	460.51	339.54	461.11	339.9	461.13	345.45	461.4	358.18	461.68
360.44	461.65	362.93	461.64	364.68	461.62	368.62	461.66	375.46	461.71
380.93	461.78	397.56	462.01	397.99	462.01	406.29	462.03	454	462.12
458.57	462.13	458.77	462.13	459.05	462.13	470.22	462.23	502.13	462.24
514.65	462.3	517.03	462.3	519.2	462.33	564	463.11	566.46	463.15
575.13	463.38	586.74	463.81	597.61	464.33	610.43	464.95	610.89	464.97
613.16	465.09	624.7	465.81	625.03	465.83	633.27	466.58	646.28	468
658.32	469.28	667.98	470.41	672.71	470.9	675.74	471.24	683.37	472.13
706.8	476.27	716.74	478.43	729.55	481.39	732.61	482.2		

Manning's n Values num= 18

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.07	190.95	.062	237.43	.058	260.46	.07	288.14	.07
323.04	.07	325.85	.07	397.99	.058	406.29	.05	454	.041
458.57	.049	517.03	.026	564	.02	566.46	.05	597.61	.049
610.89	.035	706.8	.044	732.61	.044				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
260.46	288.14	45.96	42.17	39.13	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 15040.9*

INPUT
Description:

87.94	460.12	97.46	459.46	101.92	459.23	125.71	458.73	132.68	458.5
144.75	458.01	155.67	457.6	167.49	457.16	186.41	456.75	196.02	456.45
198.5	456.38	217.34	455.79	217.61	455.76	218.06	455.73	218.54	455.7
236.66	455.1	245.47	454.8	246.82	454.75	270.76	453.94	291.74	453.26
296.14	453.44	300.2	453.71	302.65	453.91	312.41	454.45	317.35	454.69
317.92	454.8	324.08	456.28	329.4	457.01	330.6	457.28	331.82	457.54
333.98	457.99	337.23	458.64	339.29	459.06	340.01	459.07	341.53	459.11
344.62	459.18	353.58	459.64	353.94	459.65	359.44	459.88	372.05	460.22
374.29	460.18	376.75	460.17	378.49	460.14	382.4	460.19	389.18	460.24
394.59	460.3	411.07	460.49	411.49	460.49	419.73	460.54	467	460.8
471.53	460.82	471.72	460.82	472	460.82	483.07	460.92	514.69	460.85
527.1	460.86	529.45	460.85	531.61	460.88	576	461.64	578.44	461.68
587.03	461.93	598.54	462.32	609.3	462.85	622.01	463.46	622.47	463.49
624.72	463.61	636.15	464.26	636.48	464.29	644.65	465.03	657.54	466.33
669.47	467.48	679.04	468.55	683.72	469.04	686.72	469.36	694.28	470.21
717.51	474.65	727.36	477.08	740.05	480.44	743.08	481.38		

Manning's n Values num= 18

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.07	198.5	.066	246.82	.054	270.76	.07	302.65	.07
337.23	.07	340.01	.07	411.49	.054	419.73	.05	467	.038

471.53	.042	529.45	.023	576	.02	578.44	.06	609.3	.042
622.47	.035	717.51	.047	743.08	.047				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
270.76	302.65	45.96	42.17	39.13	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 14998.75

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 46

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	478.76	24.71	472.96	57.94	464.38	72.35	461.62	91.29	458.64
105.8	457.79	130.49	457.25	173.86	455.67	225.61	454.72	225.89	454.69
226.85	454.62	245.66	454.02	256.21	453.68	281.06	452.88	306.01	452.08
310.51	452.3	317.15	452.84	331.72	453.52	338.39	455.11	343.66	455.67
353.46	457.86	354.17	457.86	355.68	457.86	358.74	457.86	385.92	458.77
388.14	458.72	390.58	458.7	392.3	458.66	396.17	458.71	408.25	458.82
425	458.97	480	459.47	495.92	459.62	541.88	459.4	590.42	460.21
610.33	460.83	621	461.36	633.59	461.98	647.6	462.72	668.79	464.66
680.61	465.68	705.2	468.28	728.21	473.03	737.97	475.73	750.55	479.49
753.55	480.56								

Manning's n Values num= 9

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.07	256.21	.05	354.17	.07	425	.05	480	.035
541.88	.02	590.42	.07	621	.035	728.21	.05		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
281.06	317.15	37.31	38.69	39.79	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 14960.0*

INPUT
Description:
Station Elevation Data num= 77

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	478.83	4.16	478.04	25.87	473.24	41.37	469.53	43.72	468.96
44.39	468.8	45.22	468.6	59.37	465.05	60.65	464.73	75.74	461.71
84.22	460.24	95.57	458.44	102.61	457.86	110.76	457.31	128.89	456.59
131.17	456.51	134.59	456.44	136.6	456.4	171.68	455.33	182	455.02
236.18	454.17	236.47	454.14	237.47	454.09	253.7	453.66	257.17	453.57
268.21	453.28	271.29	453.2	294.22	452.6	326.55	451.93	330.35	452.12
335.95	452.57	345.66	453.07	350.16	453.26	356.66	454.55	361.79	455.01
371.34	456.79	372.03	456.79	373.5	456.79	376.49	456.8	392.23	457.28
402.97	457.6	405.13	457.57	407.51	457.56	409.19	457.53	412.96	457.58
424.73	457.7	432.12	457.78	441.05	457.86	465.85	458.09	486.85	458.29
494.64	458.35	494.95	458.35	510.15	458.61	535.77	458.73	553.31	458.82
554.93	458.82	569.3	459.14	602.23	459.86	603.36	459.9	621.63	460.59
632.02	461.14	644.29	461.79	648.82	462.05	657.94	462.6	669.88	463.71
678.59	464.51	689.19	465.45	690.11	465.54	713.43	468.31	714.07	468.38
722.12	470.02	731.18	472.12	736.49	473.29	741.78	474.75	746	475.88
758.25	479.39	761.18	480.37						

Manning's n Values num= 18

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.063	59.37	.042	268.21	.054	271.29	.066	294.22	.07
335.96	.07	372.03	.07	392.23	.07	441.05	.054	494.64	.042
535.77	.06	554.93	.02	569.3	.03	602.23	.07	632.02	.042
669.88	.063	736.49	.047	761.18	.047				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
294.22	335.96	37.31	38.69	39.79	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 14921.3*

INPUT
Description:
Station Elevation Data num= 77

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	478.9	4.34	478.26	27.02	473.52	43.22	469.92	45.68	469.37
46.38	469.21	47.24	469.01	62.03	465.4	63.37	465.07	79.13	461.8
87.99	460.13	99.84	458.25	107.2	457.48	115.71	456.83	134.66	455.77
137.04	455.67	140.61	455.58	142.71	455.55	179.36	454.63	190.15	454.37
246.74	453.62	247.05	453.6	248.1	453.55	265.05	453.2	268.67	453.12
280.21	452.88	283.43	452.82	307.39	452.32	347.09	451.78	350.2	451.94
354.77	452.3	364.22	452.84	368.6	452.99	374.93	453.98	379.93	454.35
389.22	455.71	389.9	455.72	391.33	455.73	394.23	455.74	409.56	456.15
420.02	456.43	422.13	456.42	424.44	456.42	426.07	456.4	429.74	456.45
441.2	456.58	448.4	456.66	457.1	456.75	481.24	456.98	501.69	457.19
509.28	457.23	509.58	457.24	524.38	457.59	549.33	457.97	566.4	458.22
567.99	458.25	581.98	458.63	614.04	459.51	615.14	459.55	632.93	460.35
643.05	460.93	654.99	461.61	659.4	461.87	668.29	462.48	679.91	463.57
688.39	464.37	698.72	465.3	699.6	465.41	722.32	468.4	722.93	468.48
730.77	470.06	739.6	472.33	744.76	473.54	749.92	474.98	754.02	476.04
765.96	479.3	768.81	480.18						

Manning's n Values num= 18

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.056	62.03	.049	280.21	.058	283.43	.062	307.39	.07
354.77	.07	389.9	.07	409.56	.07	457.1	.058	509.28	.049
549.33	.05	567.99	.02	581.98	.04	614.04	.07	643.05	.049
679.91	.056	744.76	.044	768.81	.044				

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.

307.39	354.77	37.31	38.69	39.79	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 14882.6*

INPUT
Description:
Station Elevation Data num= 77

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	478.98	4.53	478.47	28.18	473.79	45.07	470.31	47.64	469.78
48.37	469.63	49.26	469.42	64.69	465.75	66.08	465.42	82.52	461.89
91.75	460.02	104.12	458.05	111.79	457.1	120.67	456.35	140.43	454.94
142.91	454.82	146.64	454.73	148.83	454.7	187.04	453.92	198.29	453.73
257.31	453.07	257.63	453.05	258.72	453.02	276.4	452.74	280.18	452.68
292.21	452.48	295.56	452.43	320.55	452.03	367.64	451.62	370.04	451.76
373.59	452.04	382.78	452.61	387.04	452.73	393.19	453.42	398.06	453.69
407.1	454.64	407.76	454.65	409.15	454.66	411.98	454.68	426.9	455.03
437.07	455.26	439.12	455.26	441.37	455.27	442.96	455.27	446.53	455.32
457.68	455.46	464.68	455.55	473.14	455.64	496.64	455.88	516.53	456.08
523.92	456.12	524.21	456.12	538.61	456.58	562.89	457.21	579.5	457.63
581.04	457.67	594.65	458.12	625.85	459.16	626.92	459.2	644.23	460.11
654.07	460.71	665.7	461.42	669.98	461.69	678.63	462.36	689.94	463.44
698.19	464.22	708.24	465.16	709.1	465.27	731.2	468.49	731.8	468.59
739.43	470.1	748.02	472.54	753.04	473.8	758.05	475.2	762.05	476.19
773.66	479.2	776.43	479.99						

Manning's n Values num= 18

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.049	64.69	.056	292.21	.062	295.56	.058	320.55	.07
373.59	.07	407.76	.07	426.9	.07	473.14	.062	523.92	.056
562.89	.04	581.04	.02	594.65	.05	625.85	.07	654.07	.056
689.94	.049	753.04	.041	776.43	.041				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
320.55	373.59	37.31	38.69	39.79	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 14843.9*

INPUT
Description:
Station Elevation Data num= 77

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	479.05	4.71	478.69	29.34	474.07	46.92	470.71	49.59	470.19
50.35	470.04	51.29	469.83	67.34	466.1	68.79	465.76	85.9	461.98
95.52	459.91	108.39	457.86	116.38	456.72	125.62	455.88	146.19	454.12
148.78	453.97	152.66	453.87	154.94	453.84	194.72	453.22	206.43	453.08
267.88	452.51	268.21	452.51	269.35	452.48	287.75	452.27	291.68	452.23
304.21	452.08	307.7	452.05	333.72	451.75	388.18	451.47	389.88	451.57
392.4	451.77	401.33	452.37	405.47	452.47	411.46	452.85	416.19	453.02
424.99	453.57	425.62	453.57	426.98	453.59	429.72	453.62	444.23	453.9
454.12	454.1	456.11	454.11	458.3	454.13	459.84	454.14	463.32	454.19
474.16	454.35	480.97	454.44	489.19	454.53	512.03	454.77	531.38	454.98
538.55	455	538.84	455	552.84	455.56	576.44	456.44	592.59	457.04
594.09	457.09	607.33	457.61	637.65	458.8	638.7	458.85	655.52	459.88
665.1	460.5	676.4	461.23	680.57	461.51	688.97	462.25	699.97	463.3
707.99	464.08	717.76	465.01	718.6	465.14	740.09	468.59	740.67	468.69
748.08	470.14	756.43	472.76	761.32	474.05	766.19	475.42	770.08	476.35
781.37	479.11	784.06	479.8						

Manning's n Values num= 18

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.042	67.34	.063	304.21	.066	307.7	.054	333.72	.07
392.4	.07	425.62	.07	444.23	.07	489.19	.066	538.55	.063
576.44	.03	594.09	.02	607.33	.06	637.65	.07	665.1	.063
699.97	.042	761.32	.038	784.06	.038				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
333.72	392.4	37.31	38.69	39.79	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 14805.31

0	479.12	4.9	478.9	48.77	471.1	51.55	470.6	52.34	470.45
53.31	470.24	70	466.45	99.29	459.8	120.97	456.34	151.96	453.3
154.65	453.12	158.68	453.02	202.4	452.52	299.1	451.81	319.84	451.66
346.88	451.47	408.72	451.32	411.21	451.5	419.89	452.14	461.56	452.78
497.25	453.33	527.43	453.66	546.22	453.87	553.47	453.88	590	455.68
605.69	456.45	620	457.1	650.48	458.5	691.15	461.33	710	463.17
727.28	464.86	748.97	468.68	756.74	470.18	764.85	472.97	774.33	475.64
791.69	479.61								

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	70	.07	319.84	.05	461.56	.07	590	.02
620	.07	710	.035						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
346.88	411.21	180.57	191.92	202.74	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 14613.39

INPUT

Description: Manual Modification of Manning's N Values
Station Elevation Data num= 33

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	472.43	1.54	472.25	28.08	467.15	52.07	461.61	54.74	460.86
57.13	460.63	76.77	458.44	93.62	457.31	148.68	454.99	166.38	454.24
202.42	453.03	255.67	451.91	284.69	450.69	371.69	446.88	374.17	446.77
460.48	445.75	472.54	445.63	473.22	445.6	474.01	445.63	538.18	445.7
553.51	447.05	560.02	447.73	561.67	447.91	588.9	450.77	634.08	453.89
635.03	453.97	636.01	454.05	691.99	458.74	735.35	462.43	809.14	471.3
813.71	471.86	825	472.94	825.98	473.03				

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	148.68	.07	371.69	.05	561.67	.07	636.01	.02
691.99	.07								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
460.48	538.18	248.85	263.21	265.63	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 14350.19

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 42

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	461.27	.48	461.24	13.34	460.88	50.95	459.74	82.27	458.42
87.03	458.22	100.06	457.82	124.38	456.83	239.15	451.25	301.31	447.38
331.68	446.39	345	446.12	364.6	445.72	396.25	445.33	432.31	443.77
477.37	442.07	512.06	441.41	519.39	441	536.55	440.1	541.69	439.83
573.32	439.18	588.26	438.17	590.89	438.02	603.13	438.03	618.38	438.16
653.88	438.42	662.86	438.84	700	441.86	711.14	442.76	740.73	445.17
745.47	445.4	752.08	445.86	753.38	445.94	770	446.97	804.39	449.11
855.35	453.27	865.79	454.23	871.74	455.74	875.89	456.77	894.18	459.45
903.42	460.93	914.06	463.85						

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	345	.07	536.55	.05	700	.07	740.73	.02
770	.07								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
588.26	618.38	167.04	215.49	263.48	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 14134.69

INPUT
Description:
Station Elevation Data num= 44

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	458.15	11.22	457.79	48.94	455.46	86.54	454.33	215.95	448.55
235.07	447.6	242.01	447.16	258.41	446.61	369.16	442.25	394.28	441.34
444.02	439.01	481.23	437.11	503.67	435.97	527.5	434.83	550.54	433.83
575.56	433.03	579.7	432.89	587.1	432.62	588.14	432.58	622.02	432.15
631.19	431.37	636.07	430.85	640.35	431.36	641.89	431.67	663.77	432.67
668.73	432.71	669.33	432.73	705.64	433.46	721.85	435.91	722.81	436.06
723.23	436.12	731.47	437.28	733.66	437.59	745.13	439.33	749.9	439.47
769.97	440.13	812.76	441.54	861.76	444.72	888.52	446.23	896.07	447
905.7	448.17	943.29	454.26	944.55	454.46	962.47	459.43		

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	481.23	.07	587.1	.05	721.85	.035	731.47	.02
769.97	.035								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
631.19	640.35	211.9	211.38	182.19	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 13923.31

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 45

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	452.86	5.91	452.52	14.66	452.72	15.79	452.59	18.03	452.24
33.97	449.23	47.38	448.73	72.31	446.79	79.67	446.36	87.75	445.1
100.01	442.09	140.01	438.3	153.03	437.04	155.83	436.74	160.75	436.58
193.62	435.13	213.75	433.71	258.23	430.33	266.97	429.92	267.76	429.88
310.55	427.88	321.32	427.31	331.52	426.7	361.06	426.93	379.7	426.46
392.42	426.15	404.56	426.46	433.23	427.21	439.34	427.58	445.81	428.53
451.7	429.32	455.43	429.72	475.87	431.91	520	435.47	544.76	437.46
563.3	438.74	568.81	439.23	573.29	439.64	636.01	443.56	653.4	444.65
679.15	446.36	761.63	451.59	764.56	451.88	768.76	452.14	785.22	452.98

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	266.97	.05	445.81	.035	520	.02	563.3	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
379.7	404.56	205.76	222.1	221.08	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 13701.21

INPUT
Description:

Station Elevation Data num= 47

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	447.06	32.82	440.35	36.32	439.45	59.71	433.92	78.38	431.66
92.25	430.14	118.33	428.59	121.94	428.44	220.27	423.9	257.89	422.2
270.32	422.14	271.59	422.13	274.56	422.12	275.48	422.1	306.7	421.46
392.09	419.9	415.84	419.47	423.7	419.92	432.04	420.46	457.69	423.88
468.32	425.51	469.07	425.63	473	425.86	473.48	425.89	490.7	426.82
503.19	427.51	520.14	428.24	525.14	428.47	531.77	428.78	551.22	430.47
581.3	432.96	585.11	433.12	592.35	433.65	612.36	434.47	677.24	436.98
690.14	436.66	720.19	437.49	732.81	437.36	735.61	437.41	746.85	437.11
763.63	438.97	780.84	439.05	813.29	440.47	820.46	440.31	830.54	441.93
857.37	445.65	860.88	446.58						

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	275.48	.05	473.48	.035	490.7	.02	525.14	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
392.09	423.7	181.07	201.31	209.28	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 13499.90

INPUT
Description:
Station Elevation Data num= 55

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	453.23	1.02	453.08	5.03	452.08	12.54	449.02	31	440.96
34.59	439.4	39.77	438.01	50.08	435.06	71.95	428.79	76.19	428.1
119.82	424.45	156.9	421.13	174.28	420.25	218.35	418.69	235.61	418.06
247.44	417.92	272.45	417.81	273.21	417.81	334.56	417.41	345.46	417.11
353.29	416.88	360.59	417.11	372.03	417.47	390.64	418.69	391.91	418.77
406.72	418.61	414.68	418.37	446.8	417.39	452.21	417.4	504.05	418.74
532.9	419.6	573.37	421.18	589.11	421.49	634.67	423.66	697.38	425.23
698.4	425.25	701.21	425.29	706.58	425.3	786.95	426.75	801.31	427.49
816.59	428.27	848.05	431.17	870.44	433.39	883.45	435.43	900.7	438.2
923.02	439.73	947.05	441.19	959.34	443.3	971.59	445.15	973.59	445.45
984.72	448.82	985.93	449.19	986.75	449.52	993.99	451.44	1001.64	453.41

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	50.08	.035	360.59	.02	390.64	.035	801.31	.07
971.59	.035								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
345.46	360.59	225.01	194.61	167.65	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 13305.30

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 39

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	446.03	31.18	441.58	35.96	441.04	43.6	440.21	96.8	434.5
118.64	431.92	147.44	428.89	185.64	426.42	196.58	425.55	228.22	423.19
274.33	419.93	299.18	417.73	315.87	416.4	329.6	415.77	345.98	415.02
346.82	414.98	360	414.66	377.48	414.23	433.98	413.84	498.54	413.4
528.56	413.18	537.3	413.4	568.02	414.21	604.98	415.17	611.33	415.23
663.51	415.77	690	416.36	806.67	418.98	819.86	419.76	853.94	421.31
873.11	423.18	904.32	426.28	928.13	428.39	987.45	433.88	999.17	434.89
1029.18	438.14	1049.45	440.64	1079.26	444.06	1098.68	446.61		

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	329.6	.02	360	.035	433.98	.05	690	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
498.54	537.3	213.21	210.92	203.16	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 13094.38

0	438.74	8.22	436.43	18.12	433.25	32.25	429.09	67.65	424.1
76.43	422.96	93.59	420.71	100.93	420.15	126.45	418.42	167.93	415.6
202.79	414.14	270.74	413.73	299.75	413.55	306.45	413.51	334.44	413.38
372.32	412.62	423.59	410.88	439.96	410.45	444.8	410.32	477.32	409.47
495.04	408.64	503.13	407.65	510.72	406.86	525.8	407.65	551.38	408.98
558.38	409.42	559.03	409.42	560.68	409.43	585.97	409.72	587.01	409.73
646.7	410.78	700	412.47	726.86	413.32	749.02	414.35	750.79	414.43
802.12	416.39	835.25	419.19	856.85	420.98	865.59	421.92	894	427.67
924.28	432.39	954.22	436.84	965.91	439.34	966.95	439.59		

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	270.74	.02	299.75	.035	444.8	.05	700	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
503.13	525.8	230.52	253.19	269.72	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 12841.19

INPUT

Description:
Station Elevation Data num= 36

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	432.49	13.02	429.79	29.62	426.73	62.79	423.64	72.09	422.8
82.99	422.3	125.14	419.64	143.22	418.37	162.57	417.21	206.29	415.17
265.78	413.61	314.84	413.33	342.91	412.96	359.64	412.73	379.65	412.46
436.86	410.27	507.21	408.25	566.14	407.39	594.91	406.38	607.21	405.98
610.56	405.87	621.7	405.5	630.18	405.22	661.15	405.53	671.05	405.69
691.6	407.86	703.34	408.58	705.9	408.96	710.92	409.7	716.42	410.51
723.18	411.53	764.5	418.58	828.35	432.32	830.88	432.86	831.36	432.97
836.38	433.71								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	342.91	.02	359.64	.035	610.56	.05	710.92	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
621.7	661.15	35.42	38.59	40.78	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 12802.5*

INPUT
Description:
Station Elevation Data num= 66

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	431.46	5.84	430.4	12.79	429.12	29.09	426.44	61.66	423.61
70.8	422.84	81.5	422.34	106.93	420.79	122.9	419.9	126.81	419.66
128.45	419.56	140.65	418.75	159.66	417.65	202.59	415.66	261.02	413.95
274.8	413.79	286.64	413.66	292.95	413.58	298.07	413.54	309.2	413.43
336.76	412.98	353.19	412.7	354.71	412.68	370.67	412.41	372.85	412.38
394.84	411.55	429.03	410.26	460.08	409.35	498.12	408.17	500.01	408.14
509.97	407.99	528.79	407.71	555.99	406.95	557.5	406.88	560.03	406.77
564.06	406.58	582.78	405.71	584.25	405.64	587.93	405.48	592.79	405.26
596.33	405.15	599.62	405.05	610.56	404.7	618.99	404.38	645.65	404.74
655.45	405.06	667.17	406.32	672.57	407.06	675.78	407.43	684.42	408.1
687.4	408.34	689.93	408.72	694.9	409.47	697.62	409.87	700.34	410.27
707.03	411.27	709.67	411.71	728.08	414.77	738.2	416.52	747.91	418.16
777.44	424.26	781.66	425.17	811.08	431.46	813.59	432	814.06	432.1
819.03	432.88								

Manning's n Values num= 12

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	336.76	.022	353.19	.035	370.67	.032	394.84	.022
564.06	.038	599.62	.05	610.56	.035	645.65	.035	684.42	.035
694.9	.035	819.03	.035						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
610.56	645.65	35.42	38.59	40.78	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 12764.0*

INPUT
Description:
Station Elevation Data num= 66

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	430.44	5.74	429.53	12.55	428.45	28.56	426.16	60.54	423.59
69.51	422.89	80.02	422.39	104.97	420.9	120.65	420.16	124.5	419.96
126.11	419.88	138.09	419.13	156.74	418.09	198.9	416.14	256.25	414.3
269.79	414.05	281.41	413.85	287.6	413.74	292.63	413.69	303.56	413.53
330.62	413	346.75	412.68	348.24	412.65	363.91	412.34	366.04	412.3
387.63	411.5	421.2	410.26	451.68	409.33	489.03	408.09	490.89	408.05
500.66	407.9	519.14	407.62	545.85	406.51	547.32	406.43	549.81	406.29
553.76	406.05	572.15	404.99	573.59	404.9	577.21	404.7	581.97	404.43
585.45	404.33	588.68	404.23	599.42	403.91	607.8	403.53	630.15	403.94
639.84	404.42	651.44	405.7	656.78	406.61	659.96	407	668.51	407.81
671.45	408.09	673.96	408.48	678.87	409.23	681.57	409.64	684.25	410.03
690.87	411.01	693.49	411.43	711.7	414.38	721.71	416.13	731.32	417.73
760.53	423.51	764.71	424.42	793.82	430.61	796.29	431.13	796.76	431.24
801.68	432.05								

Manning's n Values num= 12

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	330.62	.025	346.75	.035	363.91	.03	387.63	.025
553.76	.04	588.68	.05	599.42	.035	630.15	.035	668.51	.035
678.87	.035	801.68	.035						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
599.42	630.15	35.42	38.59	40.78	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 12725.4*

INPUT
Description:
Station Elevation Data num= 66

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	429.41	5.63	428.67	12.32	427.78	28.03	425.87	59.41	423.56
68.21	422.93	78.53	422.43	103.02	421.02	118.41	420.42	122.18	420.26
123.76	420.19	135.52	419.5	153.83	418.53	195.2	416.63	251.49	414.64
264.77	414.31	276.18	414.05	282.26	413.89	287.19	413.83	297.91	413.63
324.47	413.02	340.3	412.65	341.77	412.62	357.14	412.26	359.24	412.22
380.43	411.45	413.37	410.25	443.29	409.32	479.94	408.02	481.76	407.97
491.36	407.81	509.49	407.54	535.7	406.07	537.15	405.98	539.59	405.81
543.47	405.53	561.51	404.27	562.93	404.17	566.48	403.92	571.15	403.59
574.56	403.5	577.73	403.41	588.28	403.11	596.61	402.69	614.66	403.15
624.24	403.79	635.72	405.09	641	406.15	644.14	406.58	652.6	407.52

655.51	407.85	657.99	408.24	662.85	409	665.51	409.41	668.17	409.79
674.72	410.75	677.31	411.15	695.32	413.99	705.22	415.74	714.73	417.31
743.62	422.77	747.76	423.67	776.55	429.75	779	430.27	779.46	430.37
784.33	431.22								

Manning's n Values num= 12

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	324.47	.027	340.3	.035	357.14	.027	380.43	.027
543.47	.043	577.73	.05	588.28	.035	614.66	.035	652.6	.035
662.85	.035	784.33	.035						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
588.28	614.66	35.42	38.59	40.78	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 12686.8*

INPUT
Description:
Station Elevation Data num= 66

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	428.38	5.52	427.81	12.09	427.11	27.5	425.58	58.29	423.54
66.92	422.98	77.04	422.48	101.07	421.14	116.17	420.68	119.87	420.55
121.42	420.51	132.95	419.88	150.92	418.97	191.5	417.11	246.73	414.98
259.76	414.58	270.95	414.25	276.91	414.05	281.75	413.98	292.27	413.73
318.33	413.04	333.86	412.63	335.3	412.59	350.38	412.19	352.43	412.13
373.22	411.39	405.54	410.25	434.89	409.31	470.85	407.94	472.64	407.88
482.05	407.72	499.84	407.45	525.56	405.64	526.98	405.53	529.37	405.33
533.18	405.01	550.88	403.54	552.26	403.43	555.75	403.14	560.33	402.76
563.68	402.67	566.79	402.59	577.13	402.32	585.42	401.85	599.16	402.36
608.64	403.16	619.99	404.47	625.21	405.7	628.32	406.15	636.69	407.23
639.56	407.6	642.01	408	646.82	408.76	649.46	409.18	652.09	409.56
658.56	410.48	661.13	410.87	678.94	413.59	688.74	415.35	698.13	416.89
726.71	422.02	730.8	422.92	759.28	428.9	761.71	429.4	762.17	429.5
766.97	430.4								

Manning's n Values num= 12

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	318.33	.03	333.86	.035	350.38	.025	373.22	.03
533.18	.045	566.79	.05	577.13	.035	599.16	.035	636.69	.035
646.82	.035	766.97	.035						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
577.13	599.16	35.42	38.59	40.78	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 12648.2*

INPUT
Description:
Station Elevation Data num= 66

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	427.36	5.42	426.95	11.85	426.44	26.97	425.29	57.16	423.51
65.63	423.02	75.55	422.52	99.12	421.26	113.93	420.94	117.55	420.85
119.07	420.82	130.39	420.26	148	419.41	187.81	417.6	241.96	415.33
254.74	414.84	265.72	414.44	271.57	414.2	276.31	414.12	286.63	413.83
312.18	413.06	327.41	412.6	328.82	412.56	343.61	412.11	345.63	412.05
366.02	411.34	397.71	410.24	426.5	409.29	461.76	407.86	463.51	407.8
472.75	407.64	490.19	407.37	515.41	405.2	516.8	405.07	519.15	404.85
522.88	404.48	540.24	402.82	541.6	402.69	545.02	402.36	549.52	401.92
552.8	401.85	555.85	401.77	565.99	401.52	574.23	401	583.66	401.56
593.03	402.52	604.26	403.85	609.43	405.24	612.5	405.72	620.77	406.94
623.62	407.36	626.04	407.75	630.8	408.53	633.4	408.95	636.01	409.32
642.41	410.22	644.94	410.59	662.56	413.2	672.25	414.96	681.54	416.47
709.81	421.28	713.85	422.17	742.02	428.04	744.41	428.54	744.87	428.63
749.62	429.57								

Manning's n Values num= 12

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	312.18	.033	327.41	.035	343.61	.022	366.02	.033
522.88	.048	555.85	.05	565.99	.035	583.66	.035	620.77	.035
630.8	.035	749.62	.035						

REACH: Tributary RS: 12609.63

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 35

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	426.33	5.31	426.09	97.17	421.38	115.24	421.15	116.73	421.14
249.73	415.1	260.49	414.64	266.22	414.36	270.87	414.27	322.35	412.53
336.85	412.04	358.81	411.29	418.1	409.28	454.39	407.71	463.44	407.55
480.54	407.28	506.63	404.62	508.93	404.37	512.59	403.96	529.61	402.1
534.29	401.58	538.7	401.09	554.85	400.73	563.04	400.16	568.16	400.77
588.53	403.23	593.64	404.79	604.86	406.65	617.35	408.72	628.76	410.31
646.18	412.81	655.76	414.57	692.9	420.53	696.9	421.42	732.27	428.74

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	336.85	.02	358.81	.035	512.59	.05	604.86	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
554.85	568.16	229.17	224.4	218.97	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 12385.23

INPUT
Description:
Station Elevation Data num= 46

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	426.55	6.14	426.14	24.54	424.77	35.08	424.37	190.45	418.6
212.78	418.29	217.87	418.23	305.84	414.55	312.8	414.26	322.29	414.06
347.94	413.31	425.47	411.23	438.75	410.87	444.38	410.65	446.34	410.58
478.42	409.3	478.5	409.3	482.2	409	486.44	408.66	502.17	406.14
505.1	405.24	518.98	400.47	525.33	399.98	532.88	399.6	541.54	400.42
568.43	403.23	584.31	404.83	586.2	405.02	609.99	407.42	614.85	407.31
623.46	407.13	665.12	406.52	694.8	407.93	709.89	408.72	728.61	409.68
782.79	412.48	801.16	413.31	809.32	413.7	847.72	415.55	864.17	416.71
894.98	419.17	907.85	420.14	914.39	421.2	938.48	425.66	945.25	427.13
945.48	427.17								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	425.47	.02	444.38	.035	482.2	.05	586.2	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
518.98	541.54	236.57	210.99	163.32	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 12174.23

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 41

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	427.14	20.05	423.62	28.1	422.03	44.72	420.17	56.49	419.15
63.94	418.91	121.34	417.14	122.1	417.11	122.89	417.09	223.6	413.09
295.81	410.97	361.35	409.25	365.68	409.15	454.51	407.14	499.9	406.5
502.92	406.54	522.64	406.81	523.16	406.82	529.19	406.56	557.14	404.12
557.87	404.07	581.81	401.63	583.35	401.48	585.76	401.21	589.62	400.78
615.45	400.1	632.18	399.85	639.67	400.17	699.48	400.68	710.01	401.45
711.03	401.53	720.74	401.68	736.23	402.62	815.5	407.16	823.86	407.6
891.83	414.07	900.94	415.76	944.96	422.38	959.17	423.93	975.83	426.18
986.12	426.89								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	502.92	.02	522.64	.035	581.81	.05	711.03	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
615.45	639.67	203.31	210.72	211.6	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 11963.52

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 41

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	426.51	43.59	420.37	81.43	415.99	97.98	414.05	104.9	413.56
116.92	412.94	179.47	409.41	229.5	407.34	306.78	406.12	331.74	405.76
447.9	404.58	496.06	404.34	505.01	404.12	573.81	402.08	597.23	401.38
642.67	400.04	657.61	399.34	684.33	397.6	728.5	394.8	737.76	394.61
742.44	394.52	759.94	394.18	772.34	393.94	775.36	393.88	777.59	394.17
798.77	397.8	805.68	399.07	807.47	399.4	841.37	401.44	886.84	405.21
896.77	406.02	947.21	407.98	1007.02	411.8	1021.91	413.03	1065.11	416.25
1069.52	416.66	1072.04	416.89	1076.13	417.16	1113.83	420.73	1168.03	425.09
1171.05	425.43								

Manning's n Values num= 5

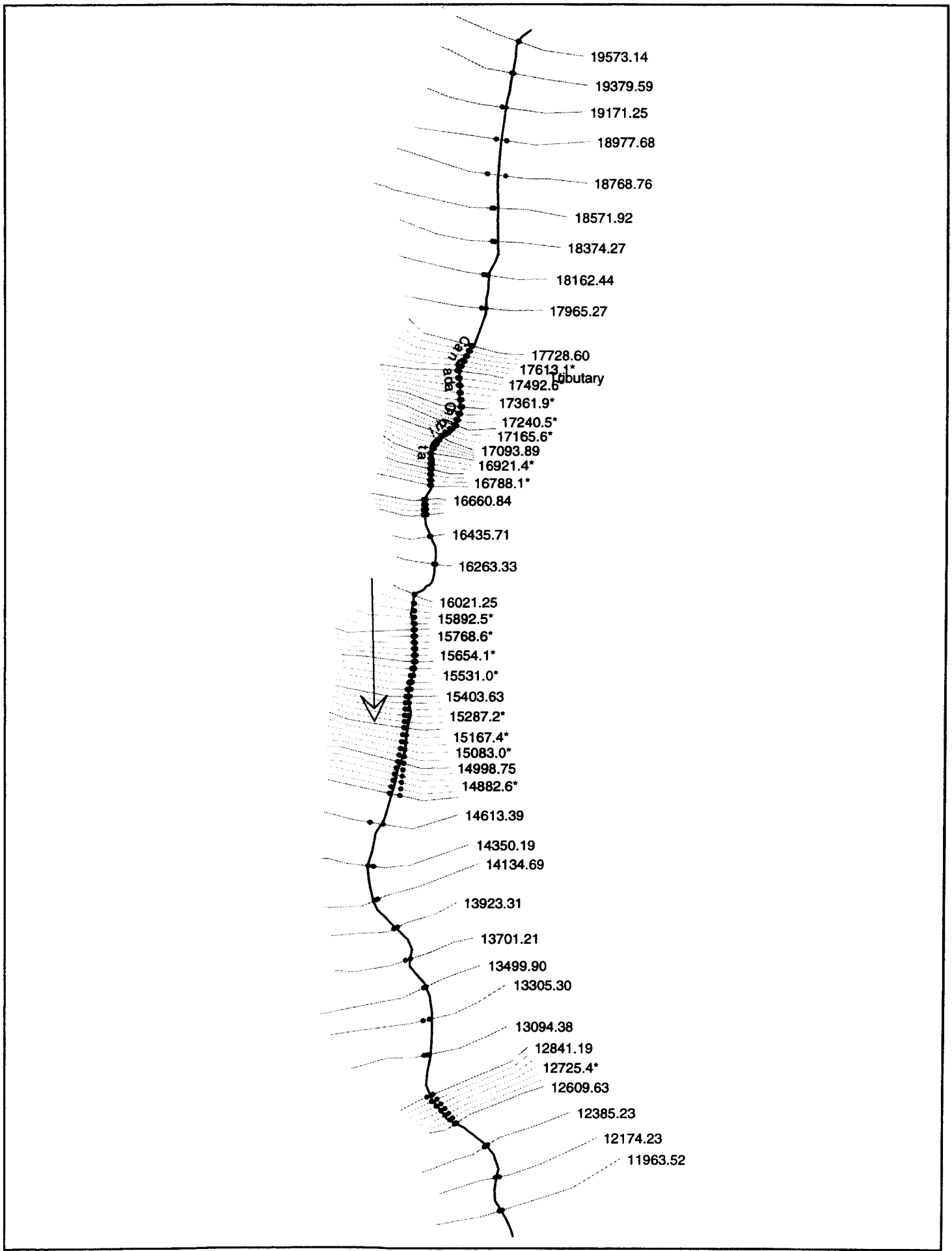
Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	573.81	.02	597.23	.035	737.76	.05	805.68	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
759.94	777.59	11525.31	1963.53	11427.34	.1	.3

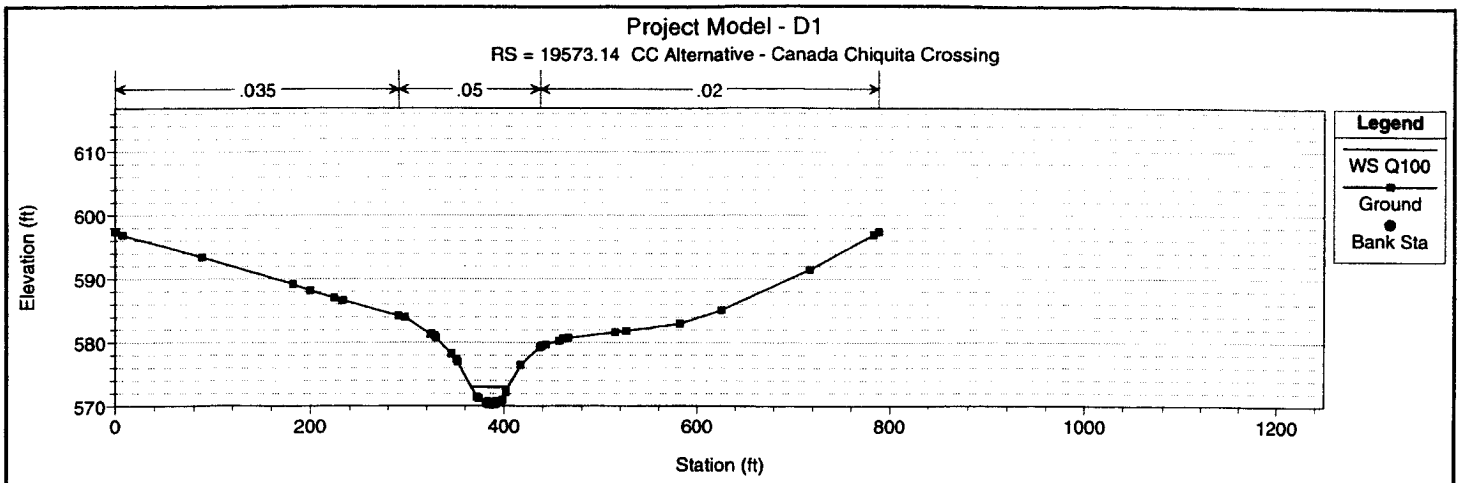
Profile Output Table - Standard Table 1

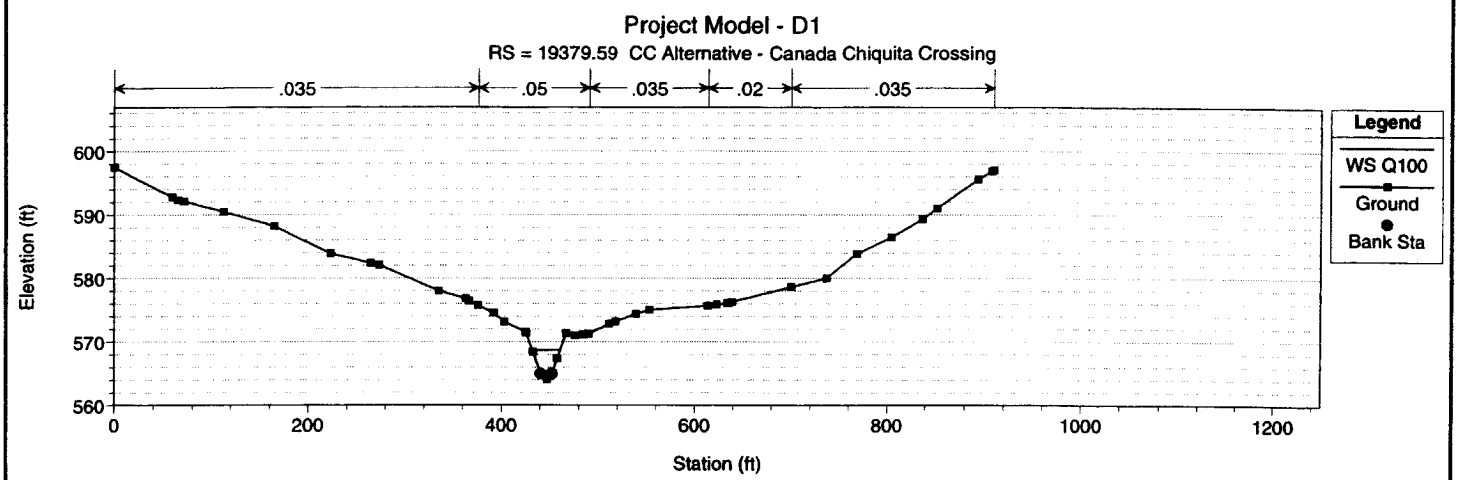
Reach	River Sta	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
		(cfs)	(ft)	(ft)	(ft)	(ft)	(ft/ft)	(ft/s)	(sq ft)	(ft)	
Tributary	19573.14	549.00	570.21	573.06	573.06	574.01	0.026478	9.37	72.91	38.63	1.00
Tributary	19379.59	549.00	564.08	568.71	568.12	569.56	0.011335	8.18	81.20	28.72	0.70
Tributary	19171.25	549.00	564.06	565.43	565.43	565.87	0.028913	6.02	103.74	117.53	0.93
Tributary	18977.68	549.00	560.16	561.47	561.30	561.68	0.015622	4.15	158.61	202.47	0.67
Tributary	18768.76	549.00	556.73	557.79	557.66	558.03	0.019559	4.10	147.57	194.61	0.73
Tributary	18571.92	549.00	551.08	553.07	553.07	553.64	0.024313	7.26	94.73	84.08	0.91
Tributary	18374.27	549.00	544.68	548.30	547.80	548.79	0.009553	6.45	104.48	53.31	0.62
Tributary	18162.44	549.00	543.74	545.54	545.54	546.09	0.018755	7.30	99.30	90.76	0.99
Tributary	17965.27	549.00	537.92	539.18	539.47	540.13	0.054674	7.68	71.40	84.91	1.26
Tributary	17728.60	549.00	531.42	534.73	534.73	535.32	0.015456	7.61	95.20	75.07	

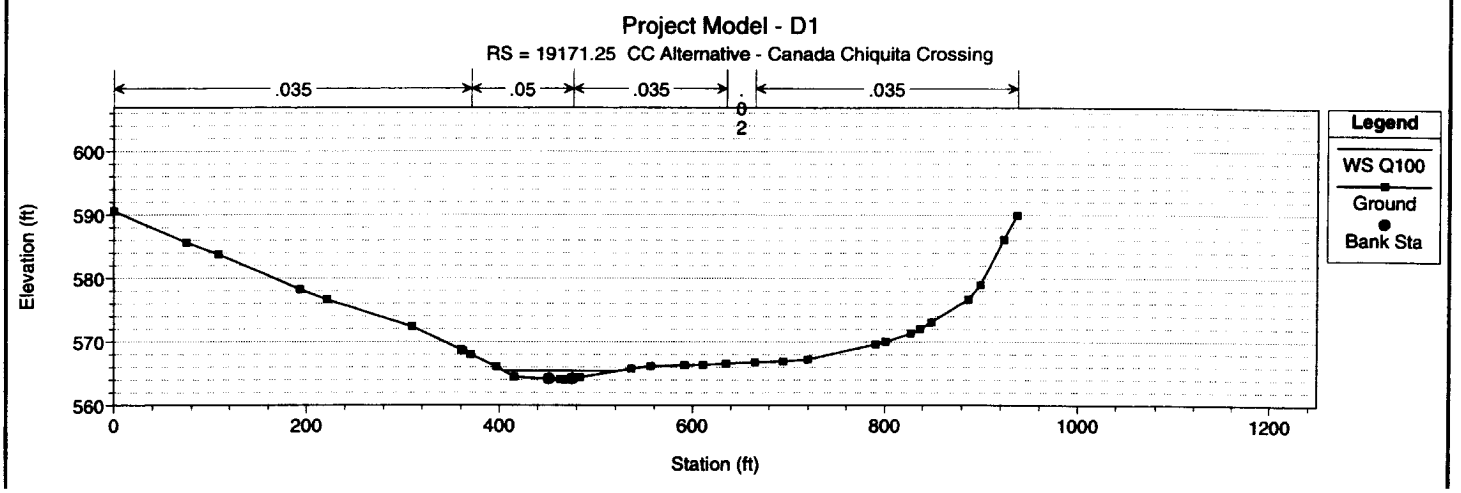
0.78											
	Tributary	17536.17	549.00	524.58	527.23	527.79	529.17	0.054782	12.44	52.24	30.25
1.41											
	Tributary	17318.38	549.00	517.44	520.03	520.51	521.74	0.048327	11.59	55.36	31.87
1.33											
	Tributary	17201.59	549.00	511.68	514.14	514.95	516.76	0.070582	13.84	44.69	24.56
1.60											
	Tributary	17093.89	549.00	510.32	512.83	513.31	514.51	0.060206	12.48	56.10	38.26
1.46											
	Tributary	16954.99	549.00	503.11	505.41	505.99	507.35	0.081887	14.11	51.73	38.61
1.70											
	Tributary	16854.23	549.00	498.15	501.11	501.97	503.88	0.067513	14.40	44.04	23.46
1.58											
	Tributary	16755.06	549.00	491.01	496.62	495.15	497.03	0.010038	6.19	114.05	33.95
0.48											
	Tributary	16660.84	549.00	490.71	495.98		496.23	0.006420	4.70	143.23	43.67
0.38											
	Tributary	16569.86	549.00	491.26	494.37	494.37	495.52	0.049498	8.94	66.37	30.08
0.97											
	Tributary	16435.71	549.00	483.61	487.54	487.35	488.42	0.034391	9.19	77.70	33.57
0.85											
	Tributary	16263.33	549.00	479.04	483.14	482.46	483.88	0.021112	7.70	85.37	30.01
0.68											
	Tributary	16021.25	549.00	471.63	475.55	475.55	476.79	0.044497	10.77	65.99	26.77
0.98											
	Tributary	15806.78	549.00	465.41	468.07	469.04	471.12	0.157289	15.10	41.79	23.42
1.71											
	Tributary	15615.97	549.00	464.30	467.41		468.38	0.040111	8.68	74.37	35.41
0.89											
	Tributary	15403.63	549.00	457.05	462.20		462.41	0.002244	3.93	162.87	48.50
0.32											
	Tributary	15209.62	549.00	457.98	460.12	460.12	460.71	0.024550	7.59	97.15	79.49
0.93											
	Tributary	14998.75	549.00	452.08	454.69	454.13	454.91	0.007263	4.31	155.72	110.66
0.51											
	Tributary	14805.31	549.00	451.32	452.41	452.41	452.74	0.031383	5.32	134.53	220.47
0.93											
	Tributary	14613.39	549.00	445.60	446.75	446.67	447.06	0.023733	4.83	133.11	174.50
0.82											
	Tributary	14350.19	549.00	438.02	439.41	439.41	439.91	0.031554	6.43	101.73	107.87
0.98											
	Tributary	14134.69	549.00	430.85	433.32	433.36	433.79	0.024589	7.88	114.89	132.28
0.93											
	Tributary	13923.31	549.00	426.15	427.66	427.67	428.09	0.031637	6.46	109.29	125.08
0.98											
	Tributary	13701.21	549.00	419.47	421.36	421.25	421.73	0.019179	5.80	124.15	126.69
0.79											
	Tributary	13499.90	549.00	416.88	418.28	418.27	418.57	0.013664	5.85	134.60	222.93
0.91											
	Tributary	13305.30	549.00	413.18	414.37	414.37	414.69	0.028925	5.33	128.20	202.68
0.90											
	Tributary	13094.38	549.00	406.86	410.00	409.39	410.27	0.007803	5.14	162.32	145.20
0.55											
	Tributary	12841.19	549.00	405.22	406.92		407.32	0.019267	5.53	111.98	103.32
0.78											
	Tributary	12609.63	549.00	400.16	404.40		404.51	0.002064	3.36	209.45	83.67
0.30											
	Tributary	12385.23	549.00	399.60	403.50	402.41	403.80	0.005070	4.87	137.92	60.97
0.46											
	Tributary	12174.23	549.00	399.85	401.28	401.28	401.72	0.032598	6.38	108.12	122.62
0.99											
	Tributary	11963.52	549.00	393.88	396.25	395.82	396.57	0.010002	5.06	123.94	84.13
0.60											

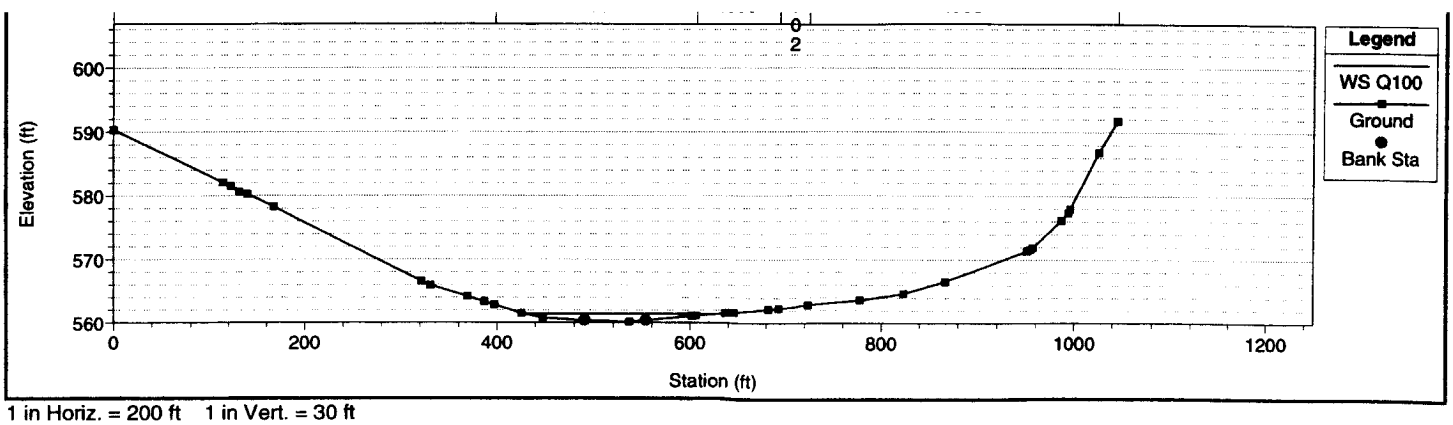


1 in Horiz. = 2000 ft 1 in Vert. = 800 ft

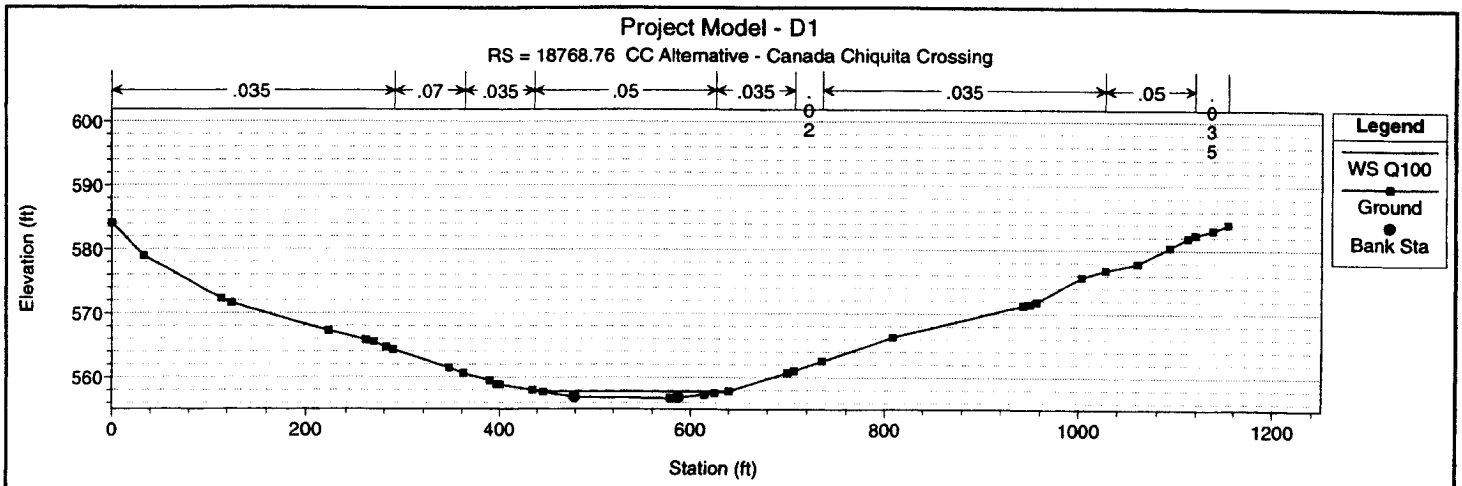


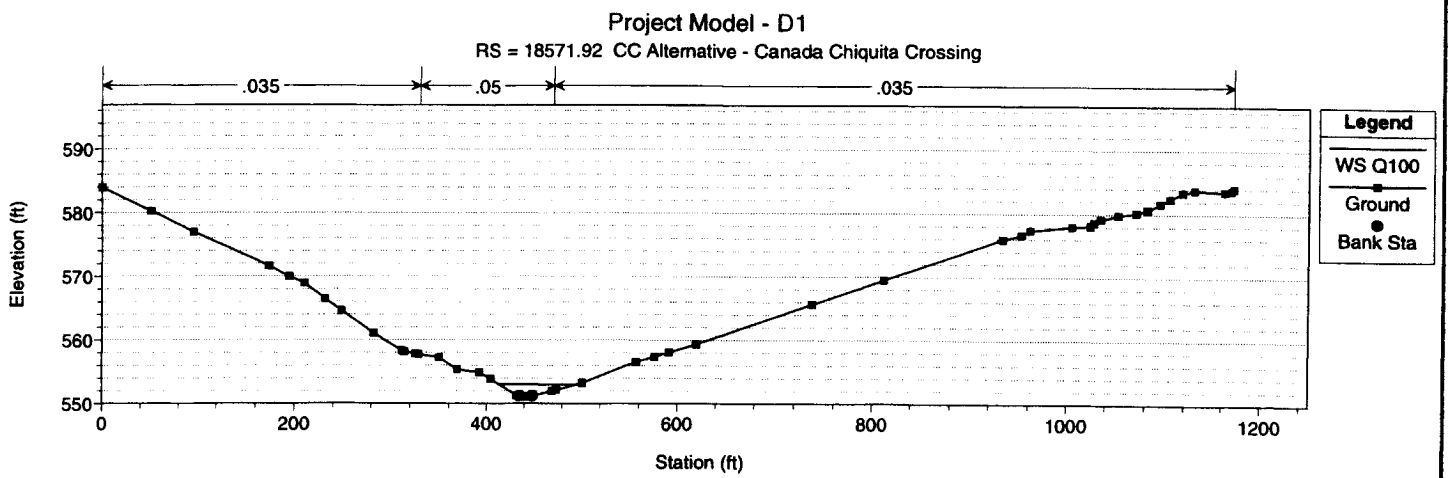


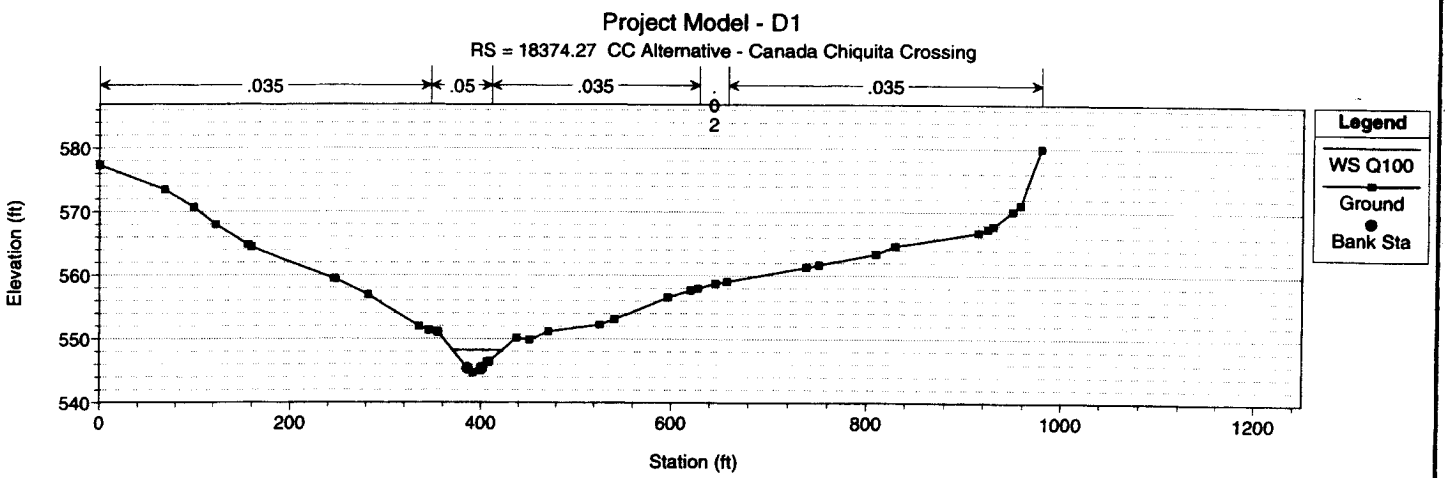


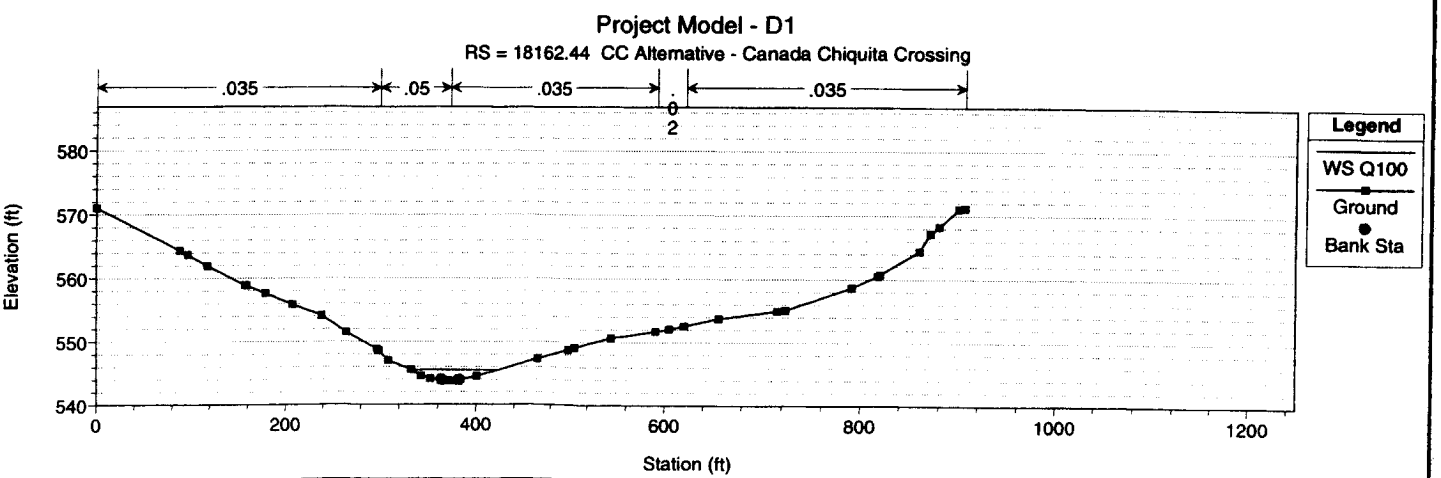


1 in Horiz. = 200 ft 1 in Vert. = 30 ft

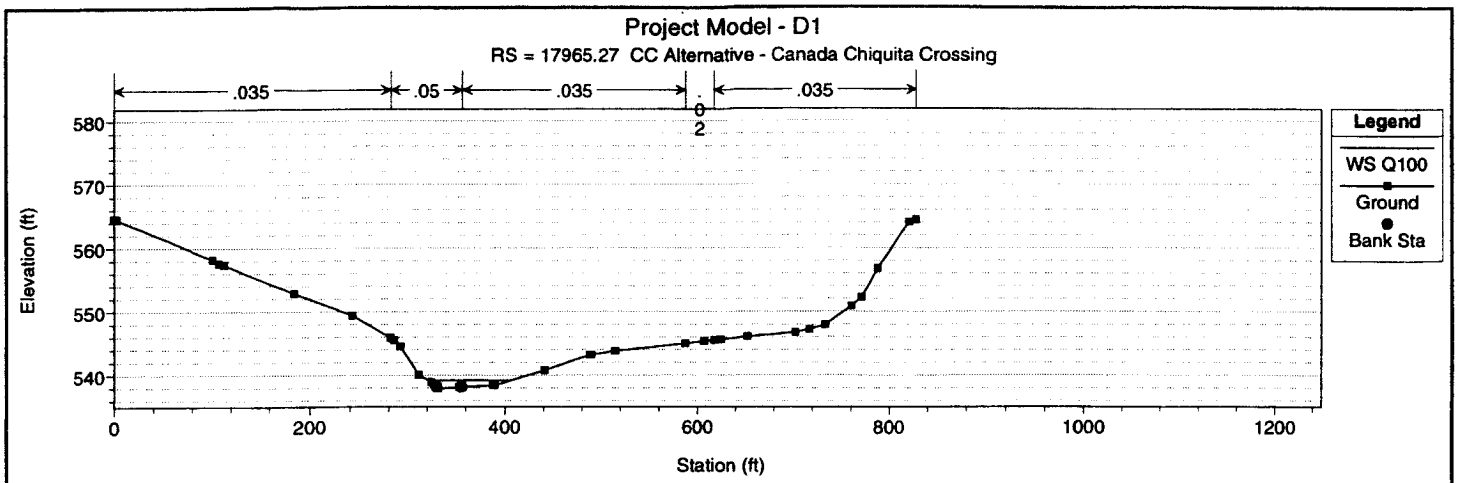


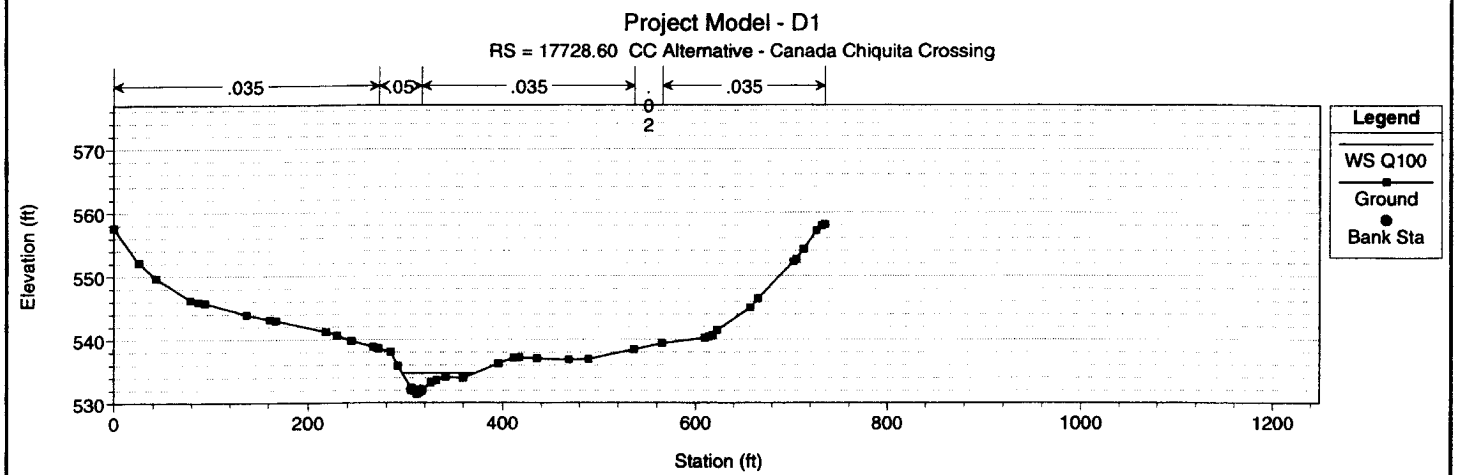


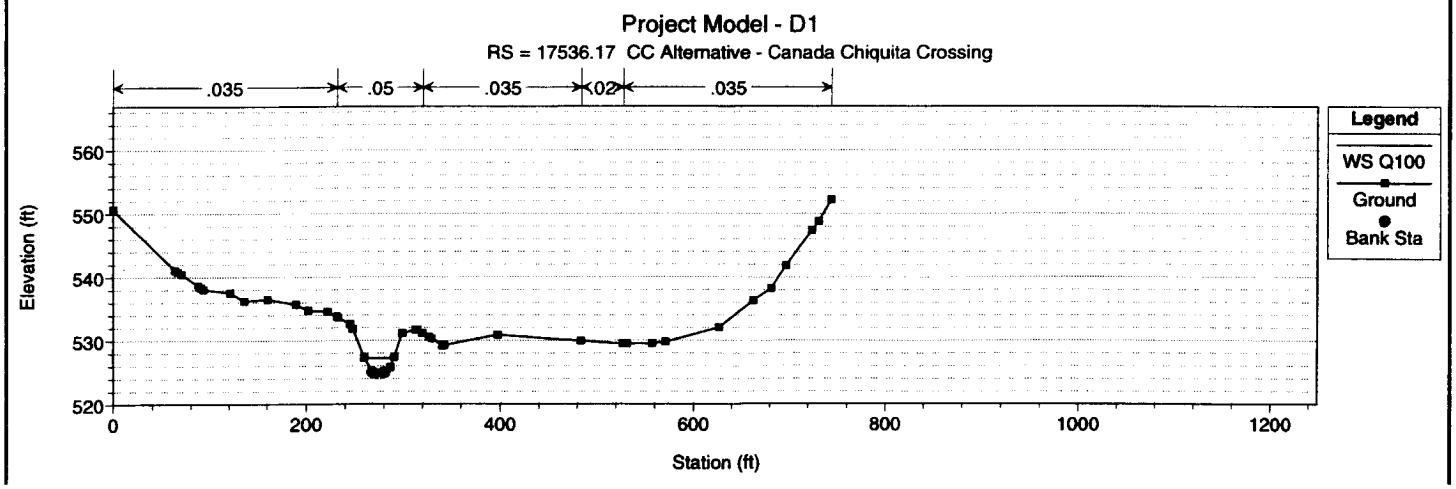


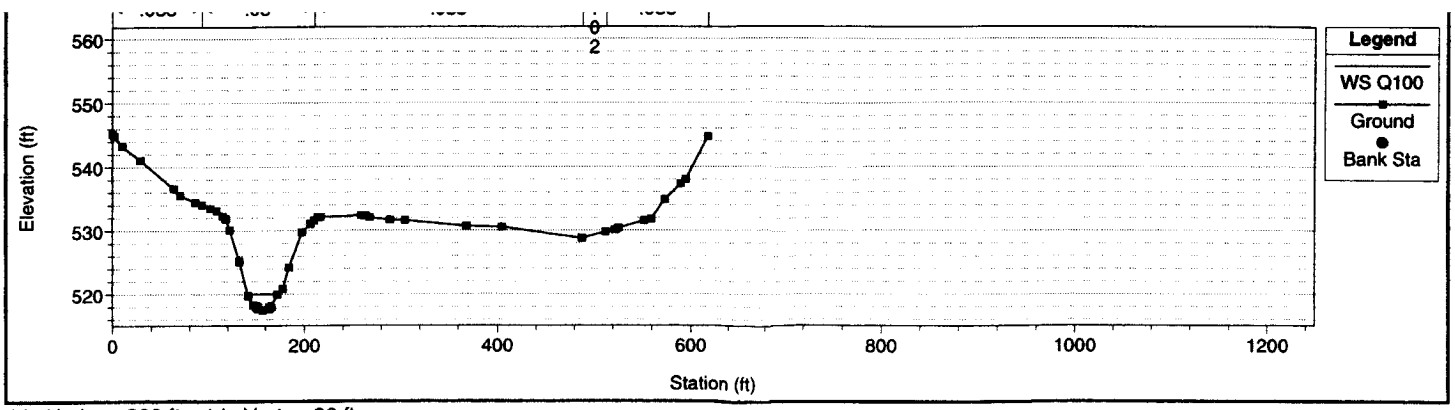


1 in Horiz. = 200 ft 1 in Vert. = 30 ft

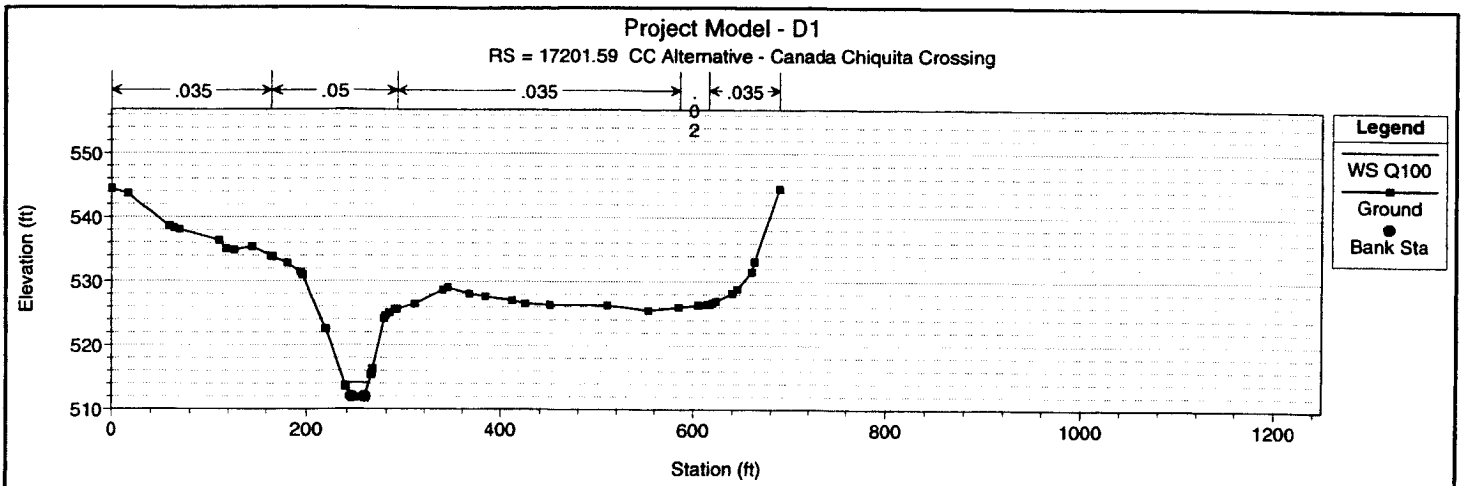


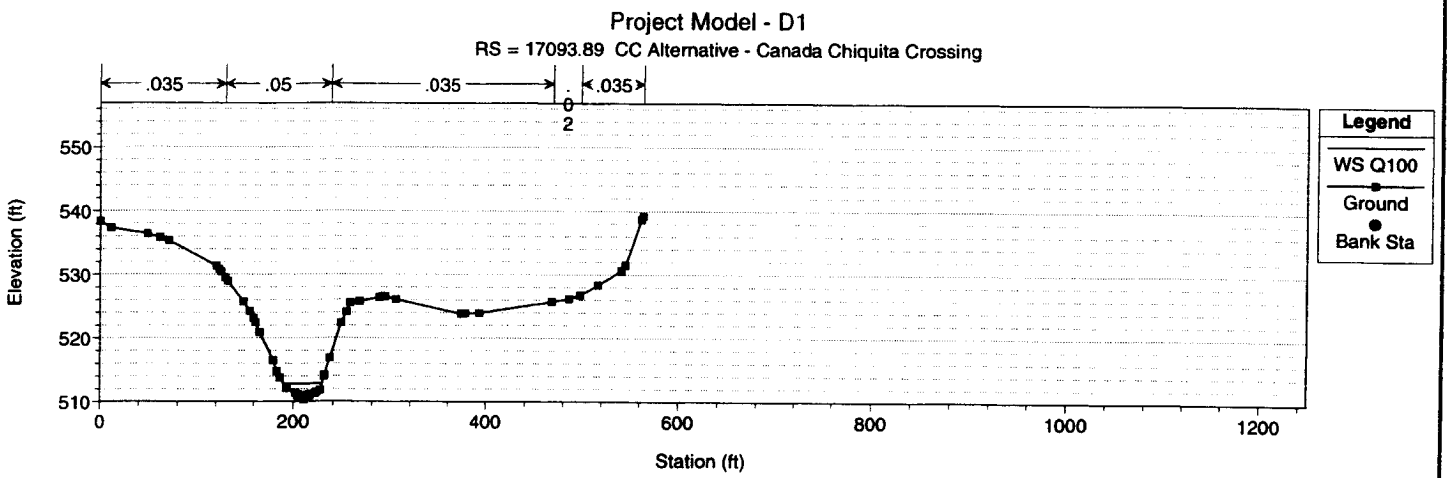


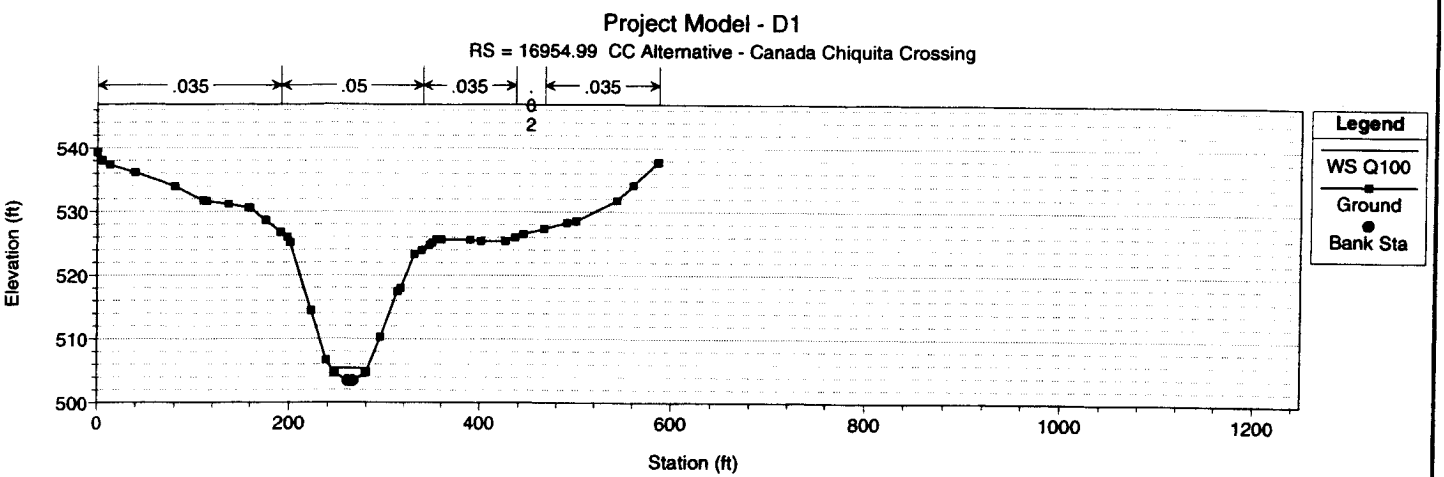


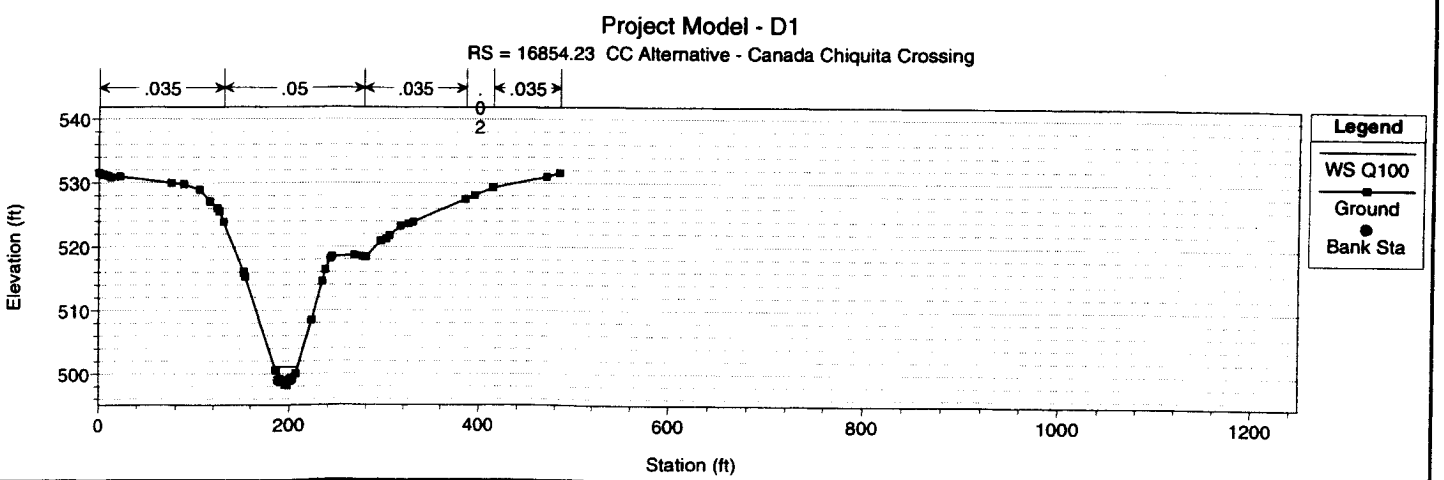


1 in Horiz. = 200 ft 1 in Vert. = 30 ft

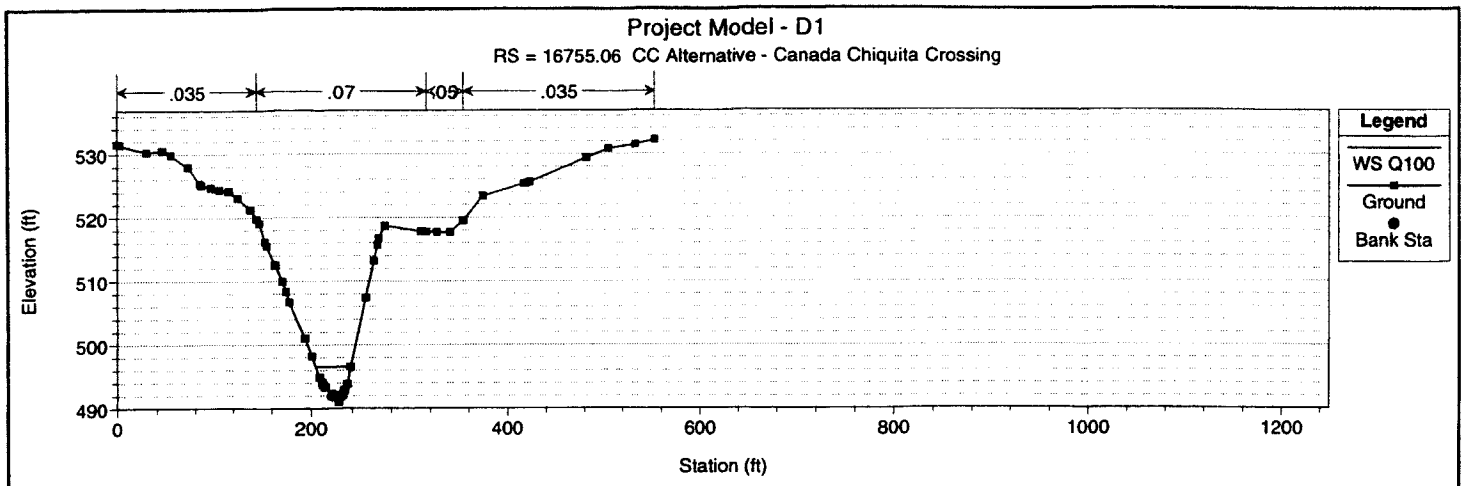


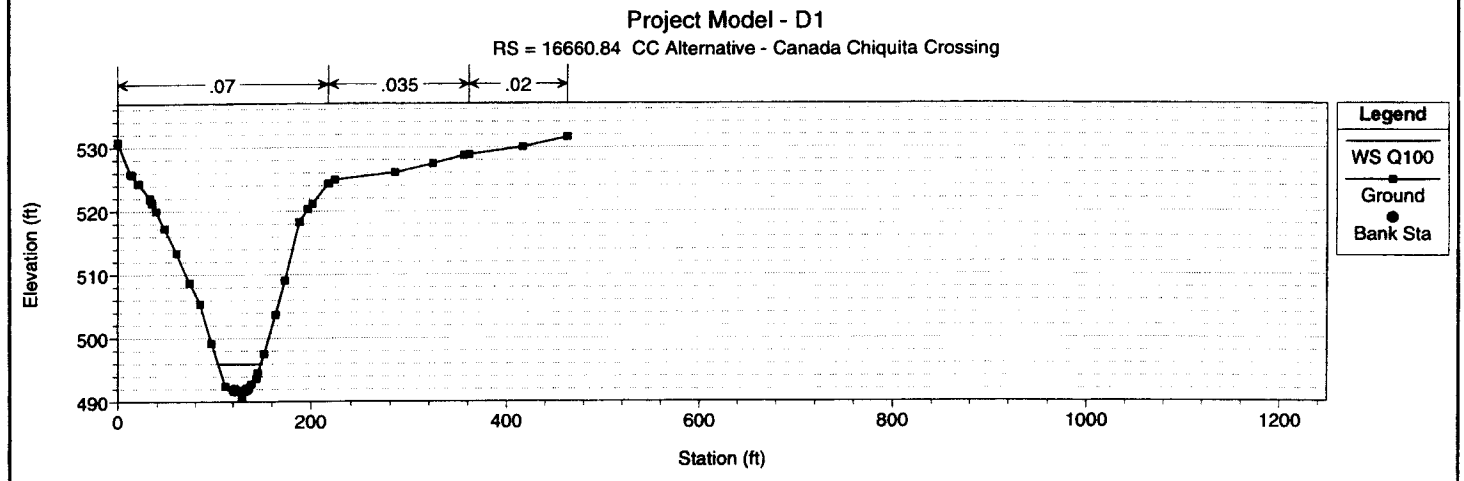


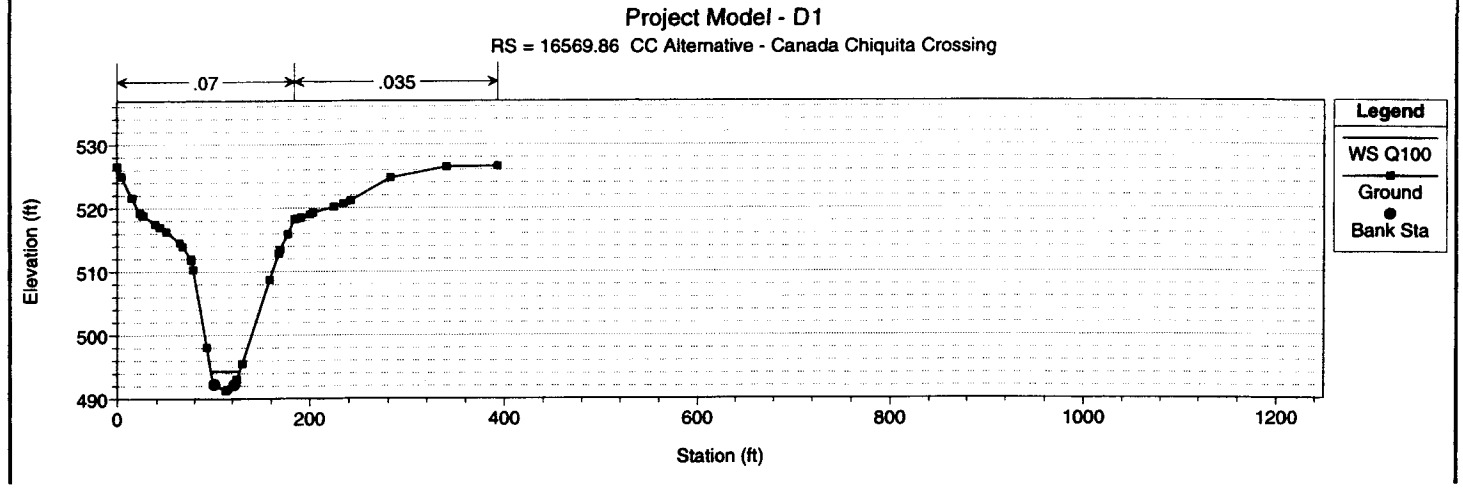


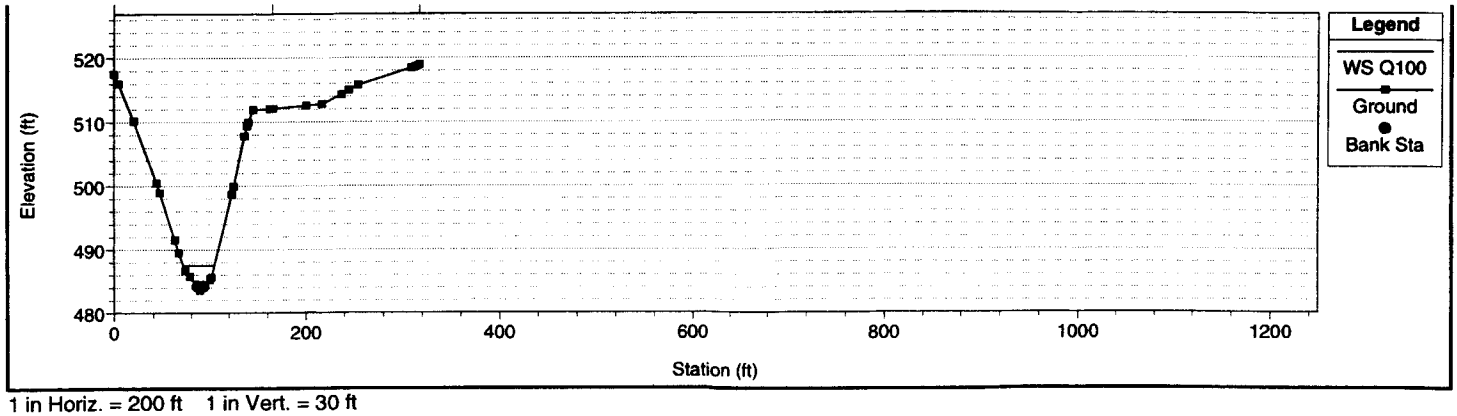


1 in Horiz. = 200 ft 1 in Vert. = 30 ft





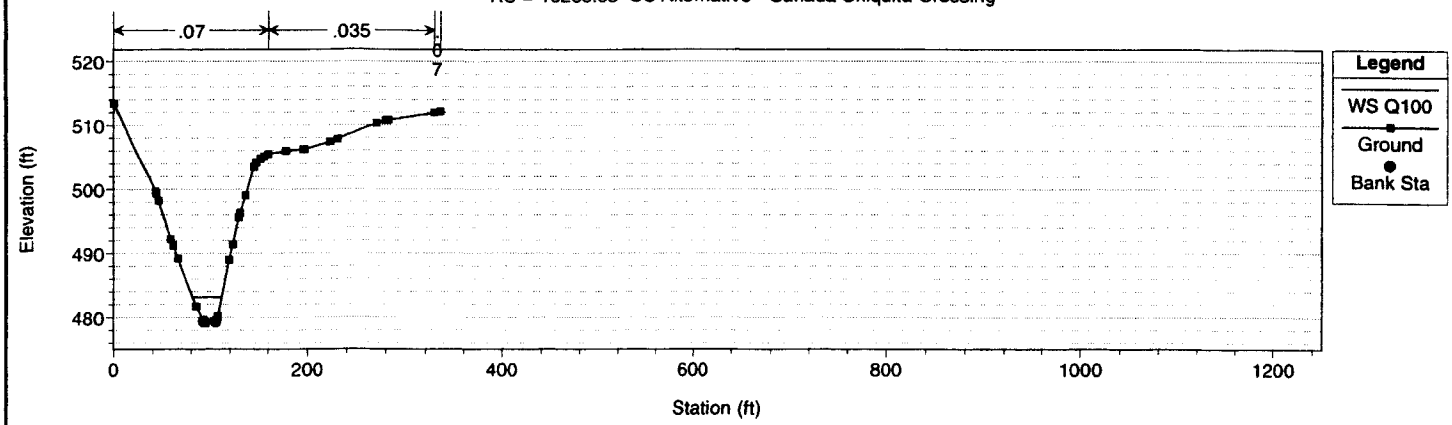




1 in Horiz. = 200 ft 1 in Vert. = 30 ft

Project Model - D1

RS = 16263.33 CC Alternative - Canada Chiquita Crossing



Project Model - D1

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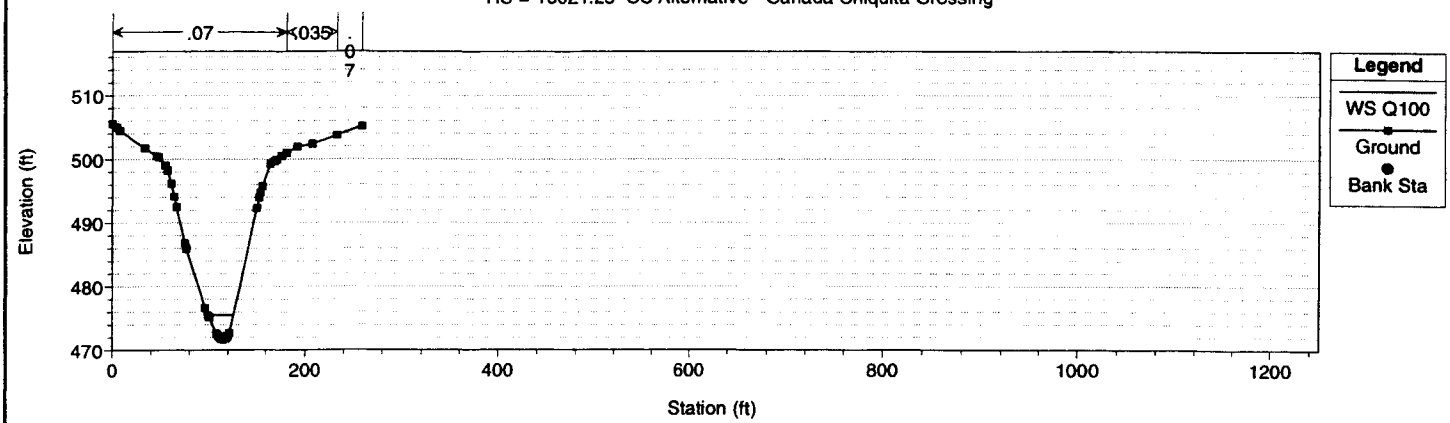

Project Model - D1

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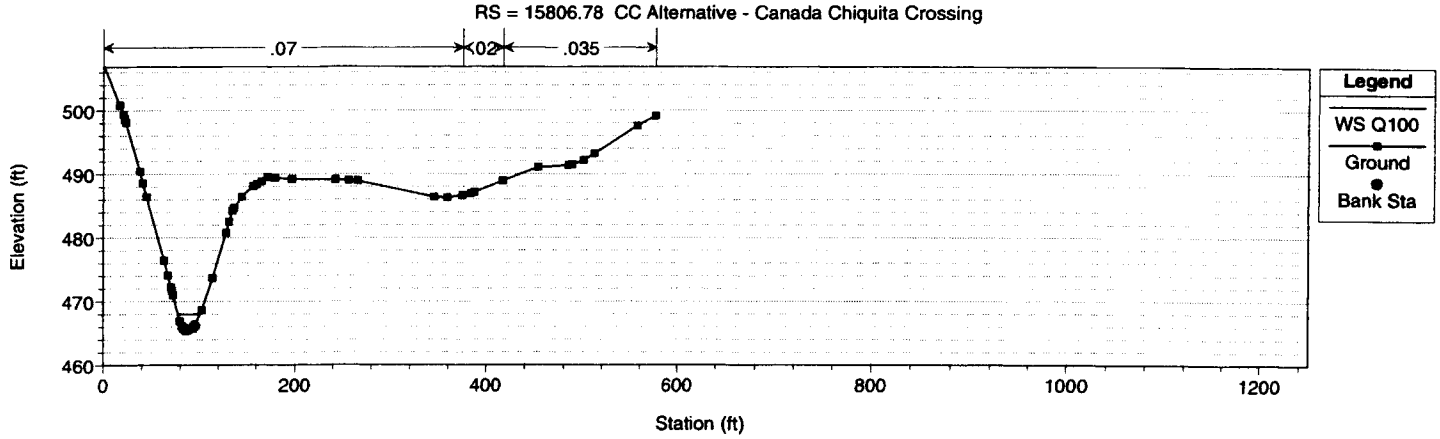
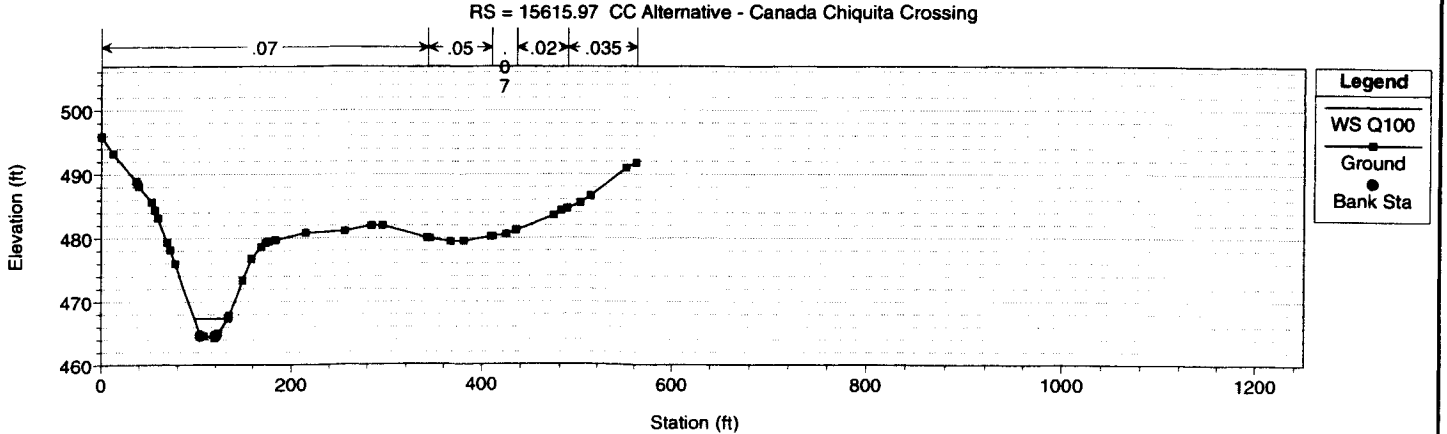
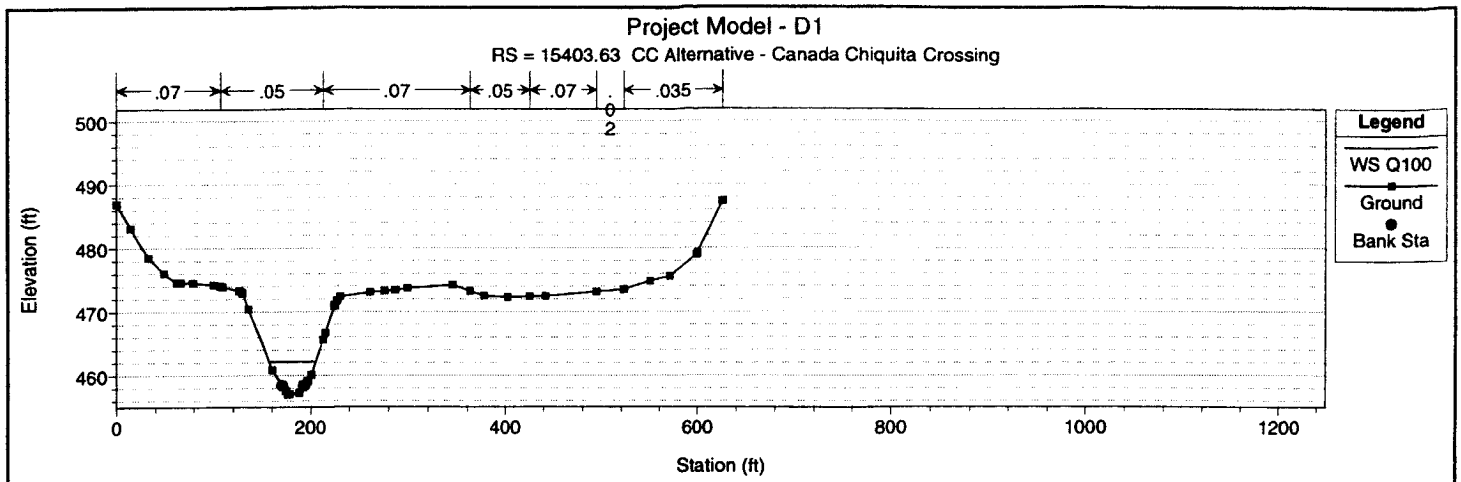


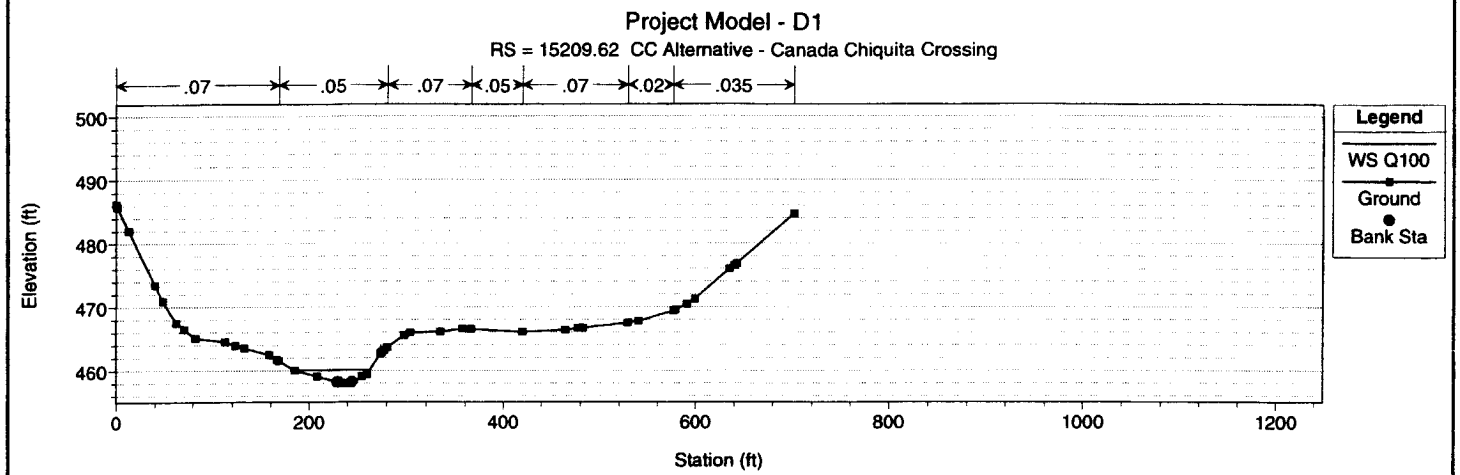
Project Model - D1

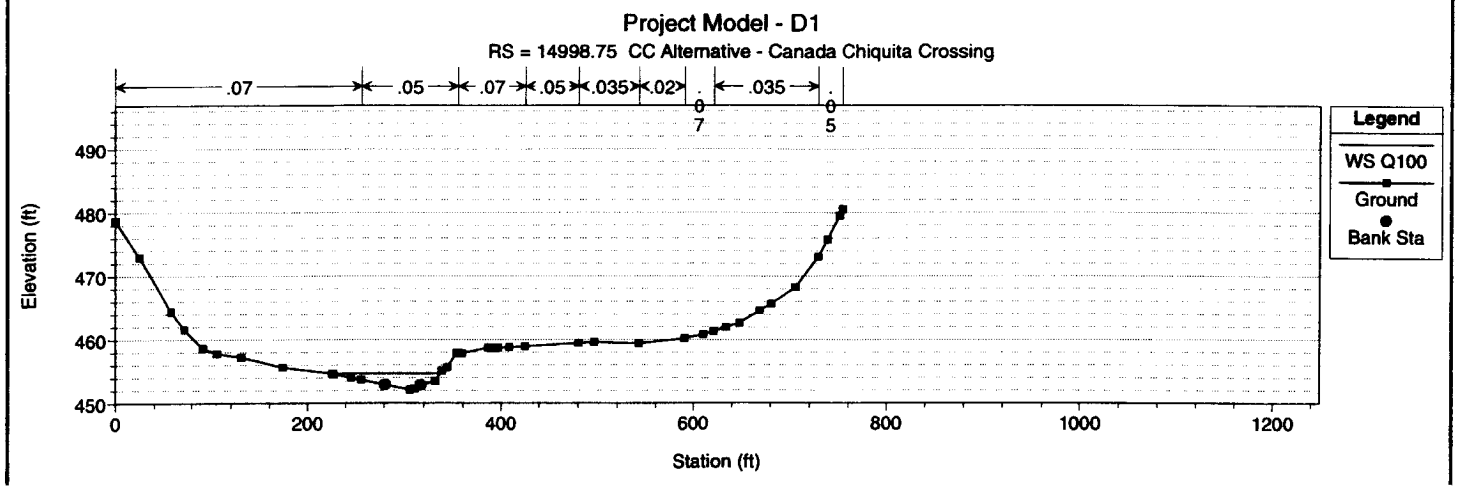
RS = 15615.97 CC Alternative - Canada Chiquita Crossing

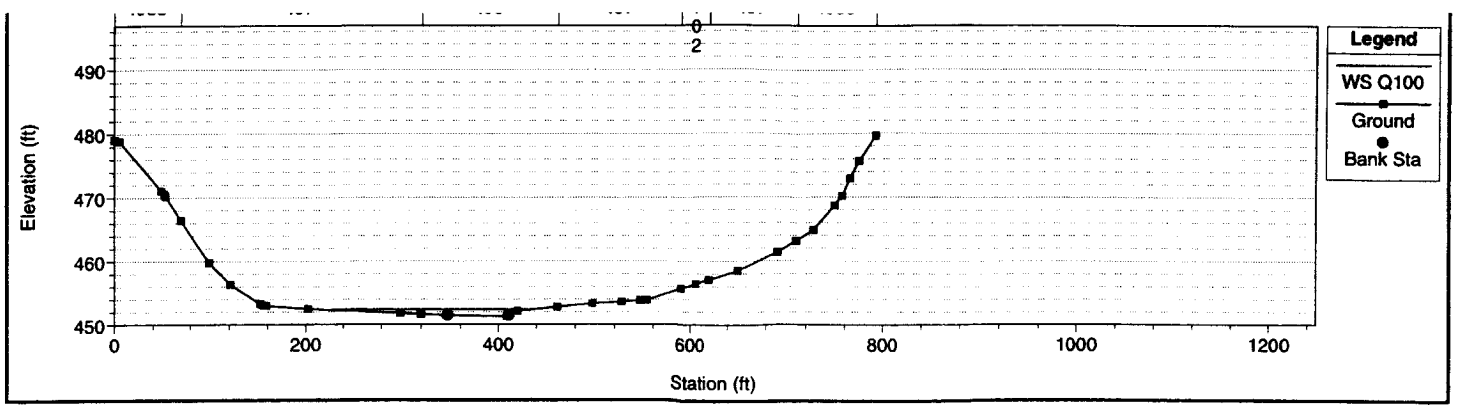


1 in Horiz. = 200 ft 1 in Vert. = 30 ft

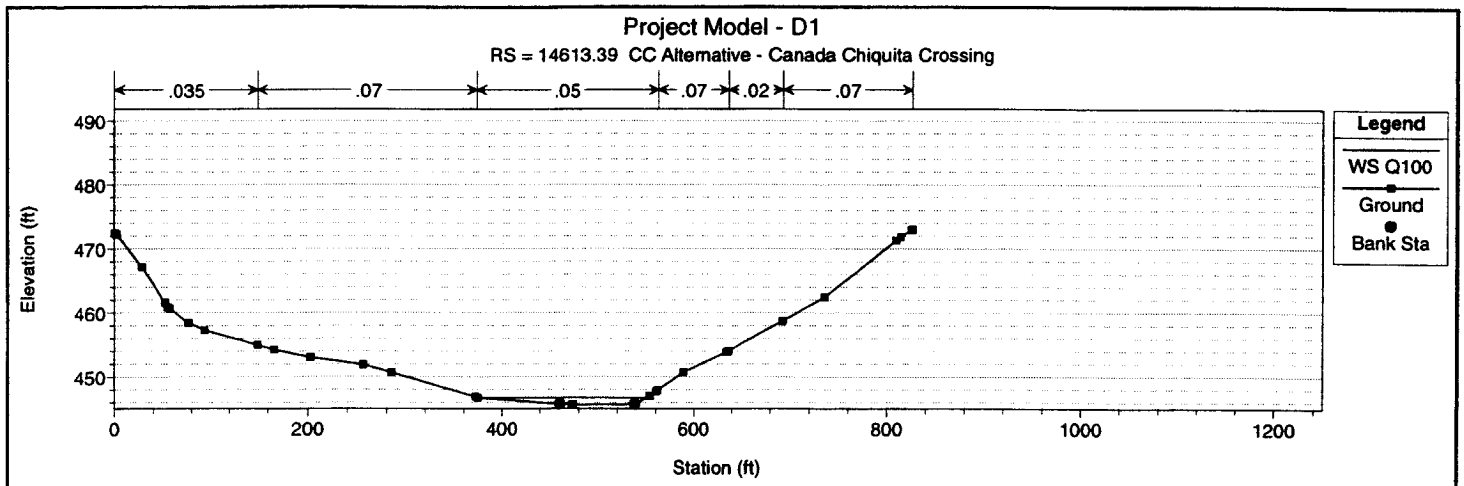


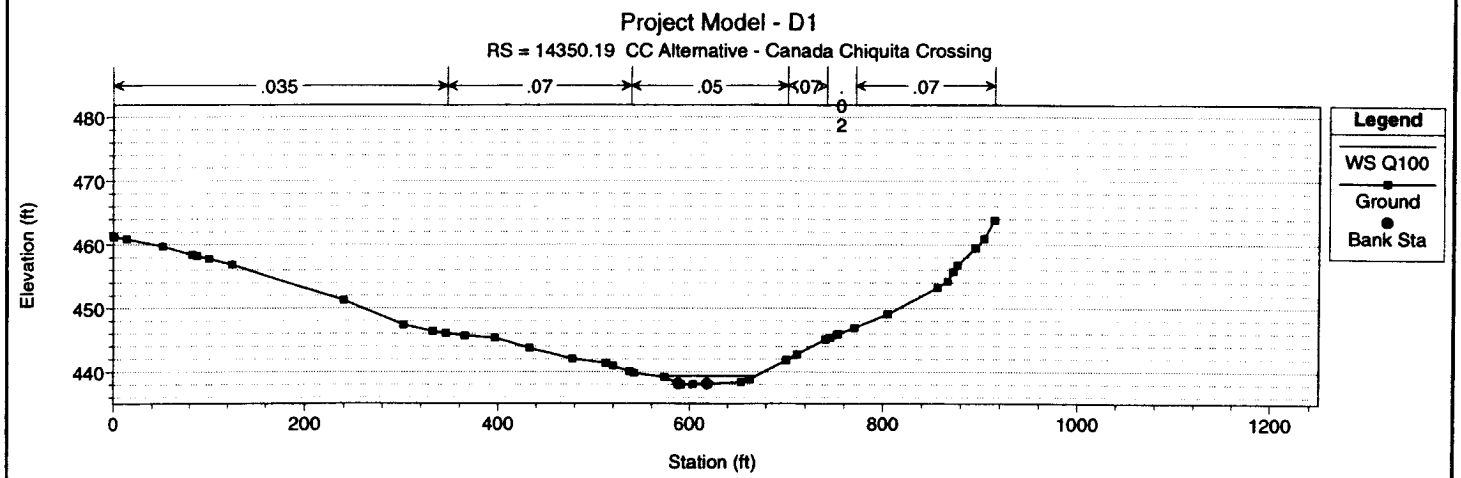


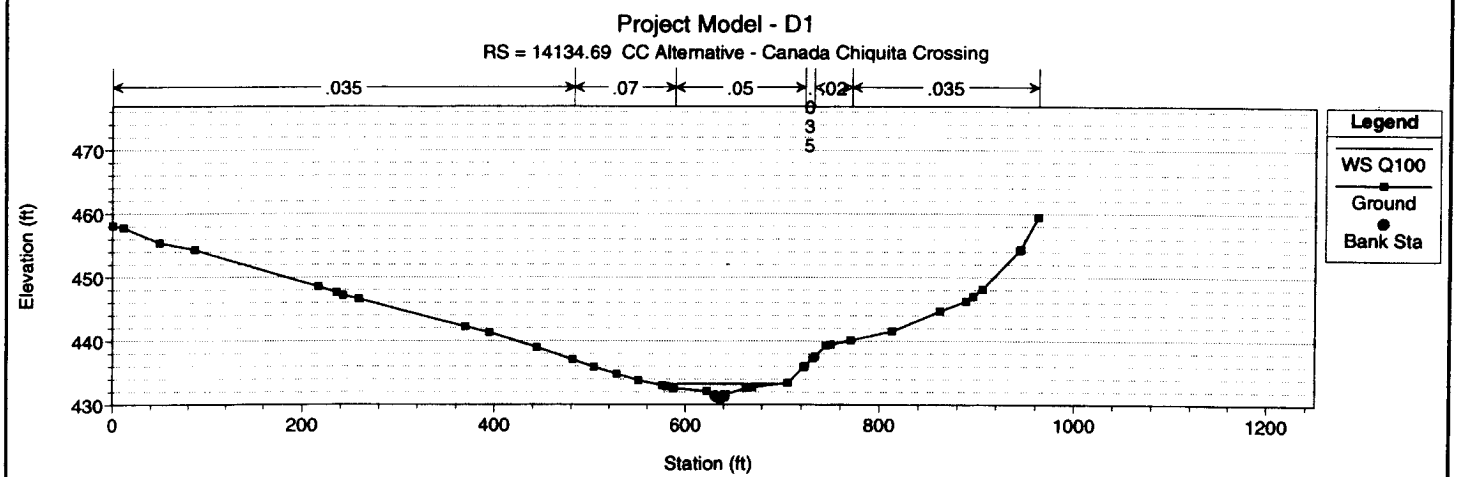


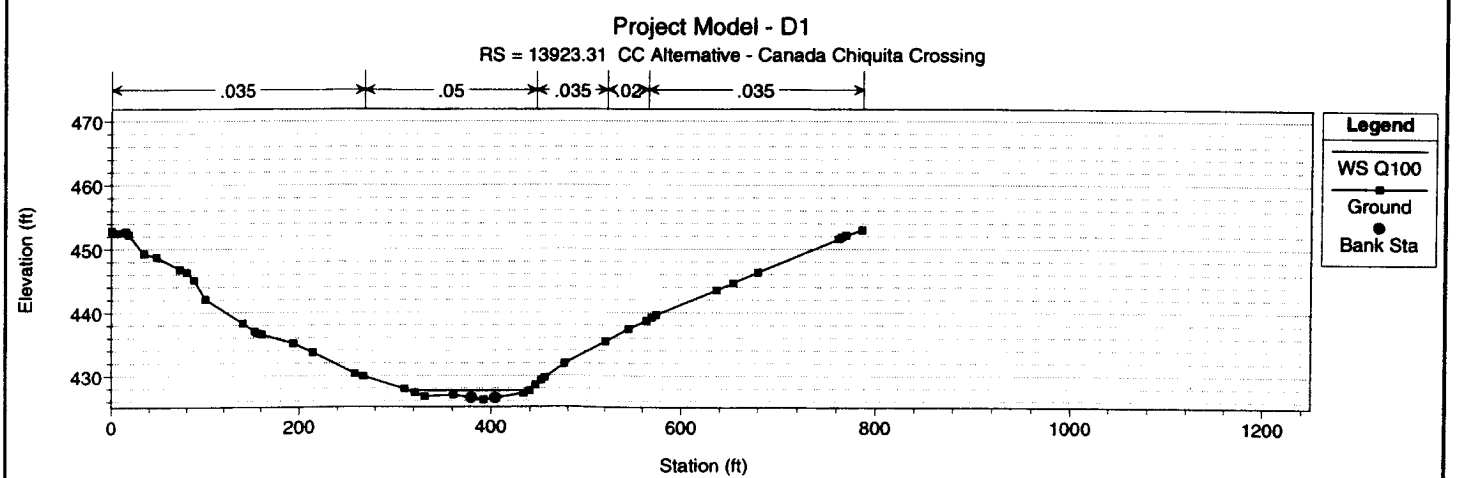


1 in Horiz. = 200 ft 1 in Vert. = 30 ft

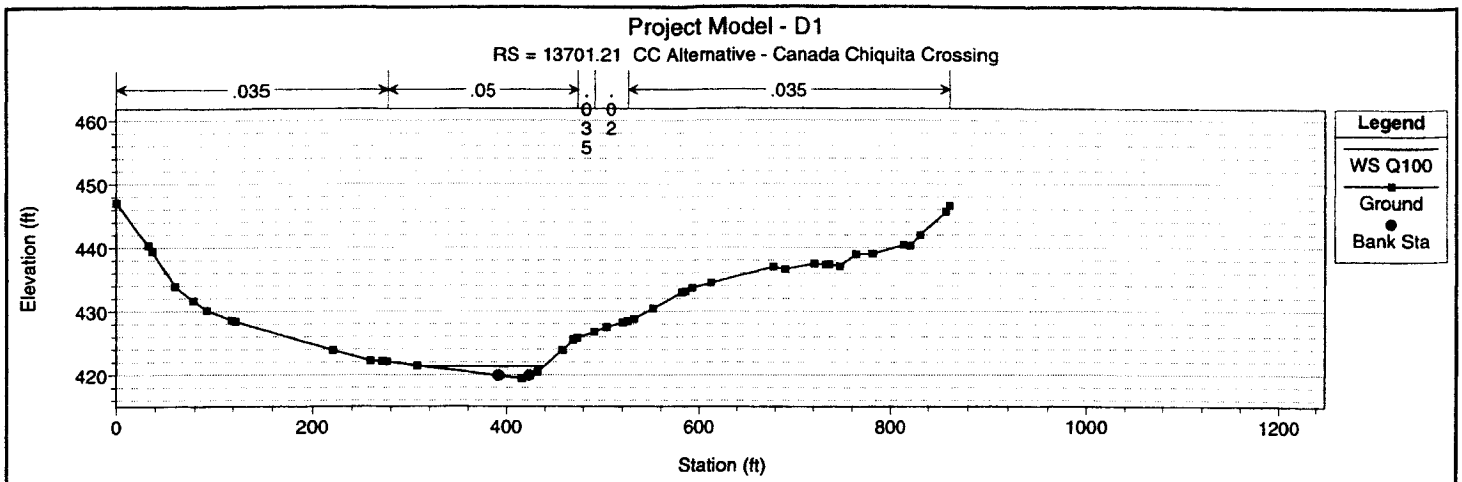


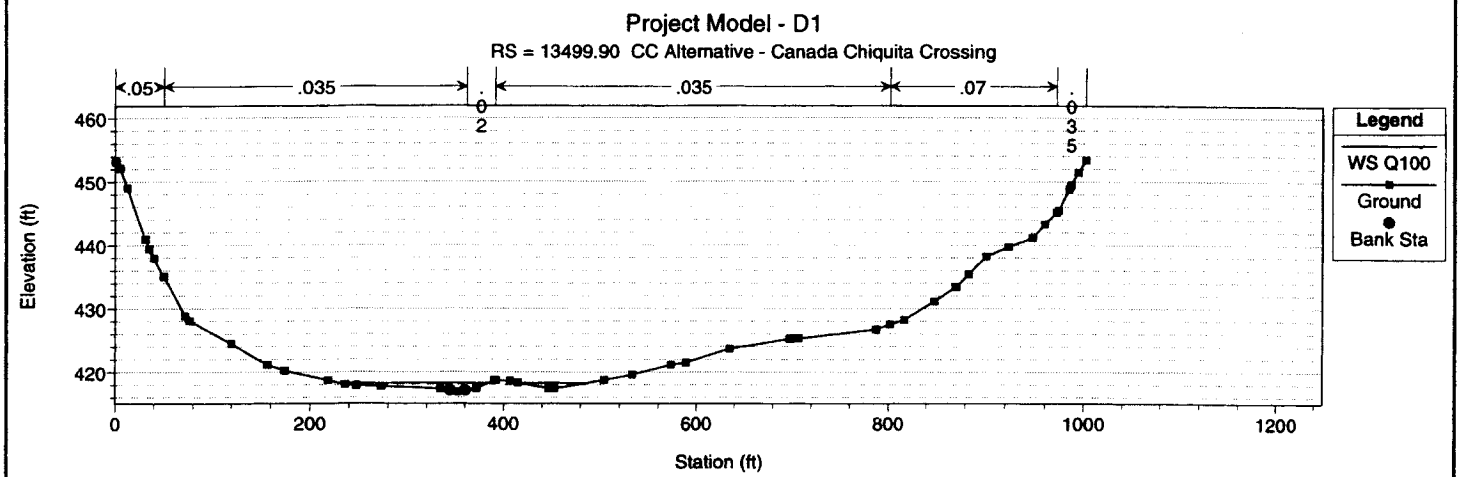


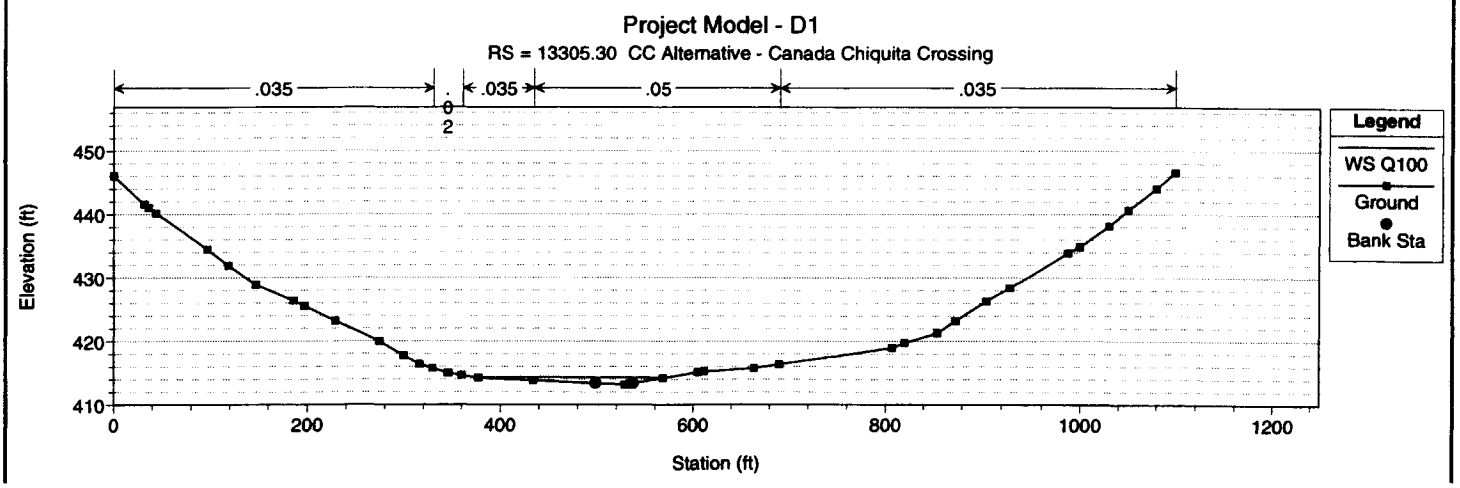


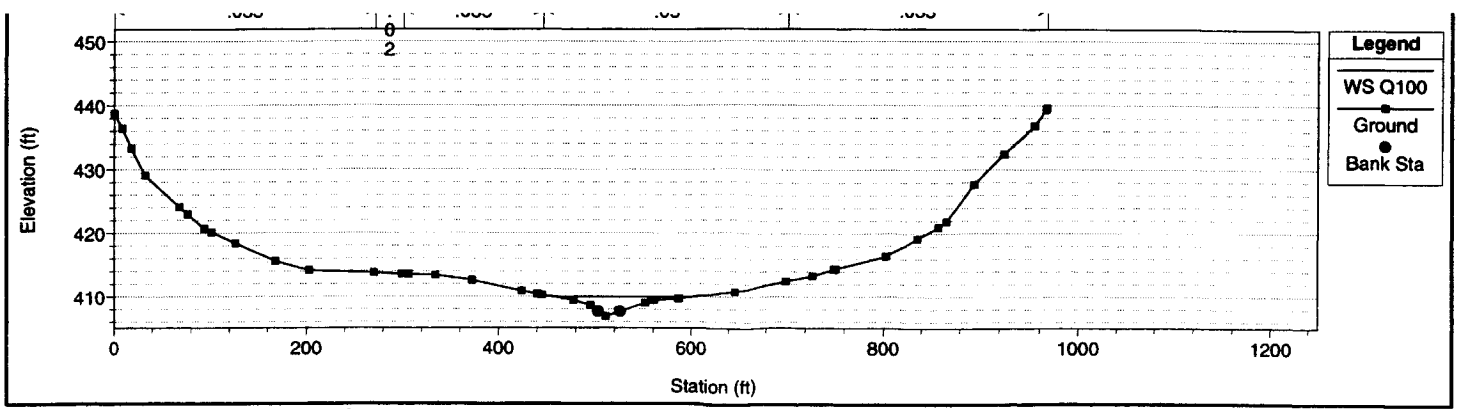


1 in Horiz. = 200 ft 1 in Vert. = 30 ft

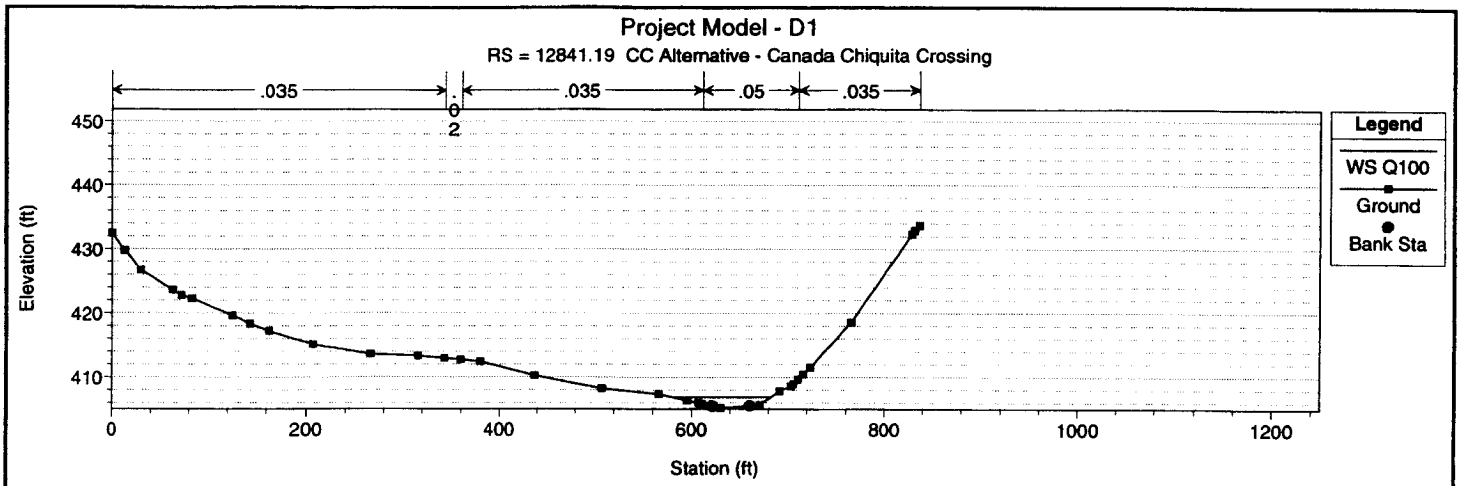


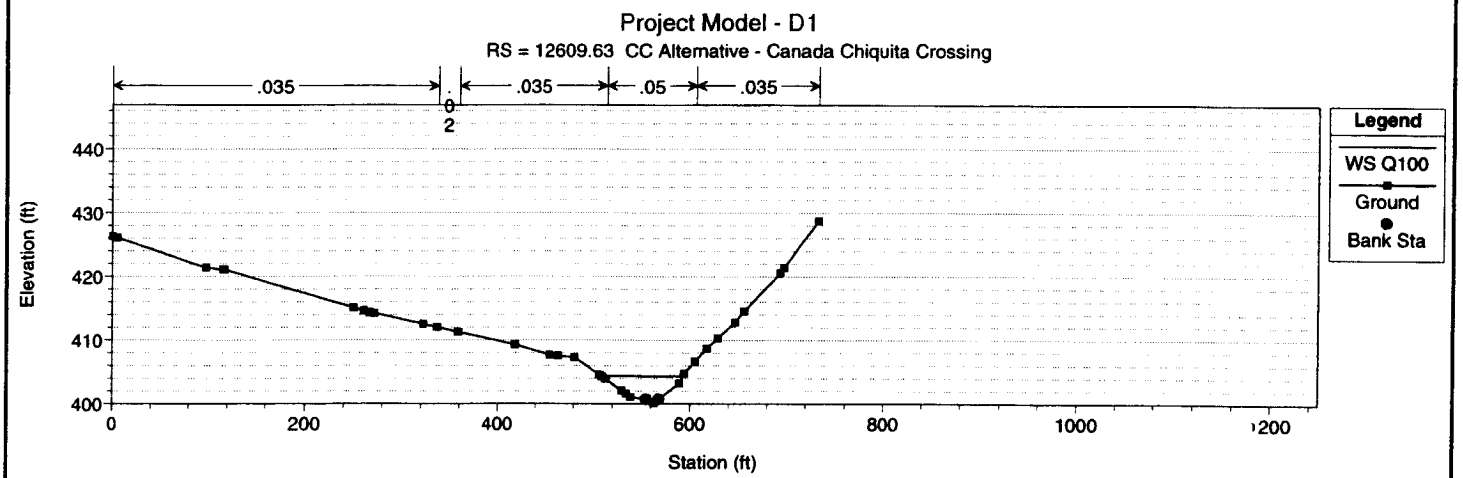


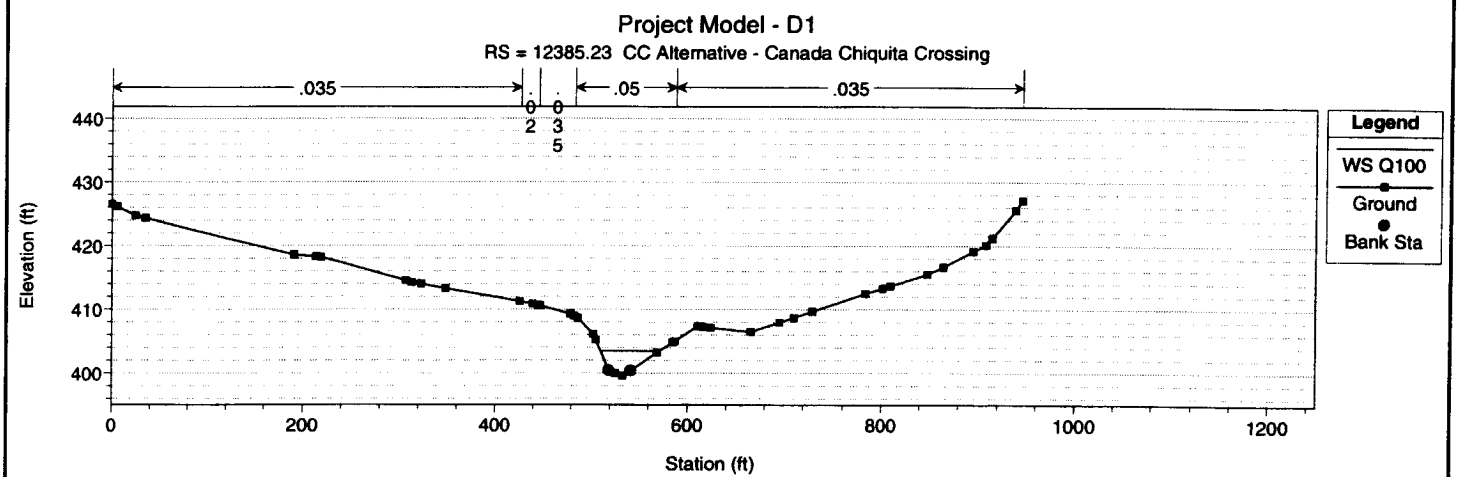


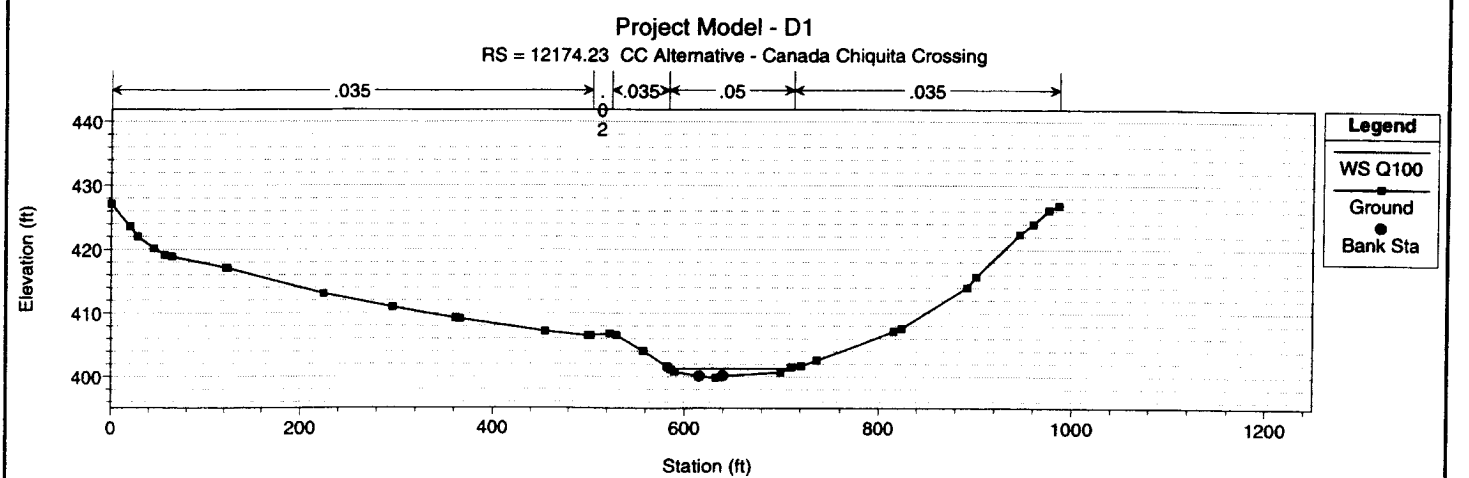


1 in Horiz. = 200 ft 1 in Vert. = 30 ft

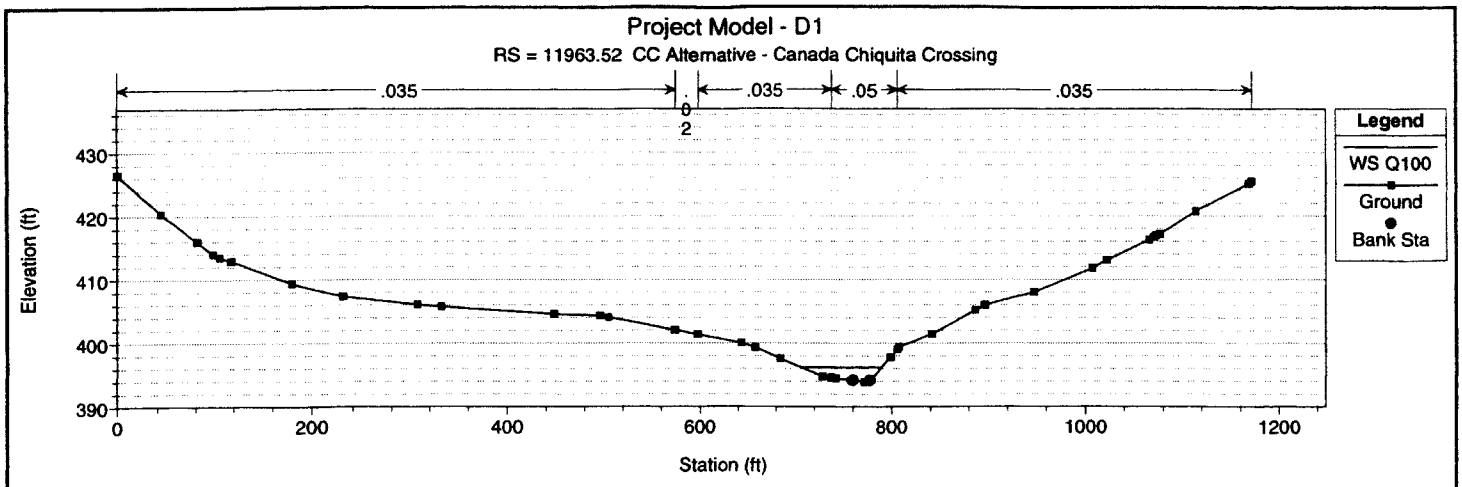




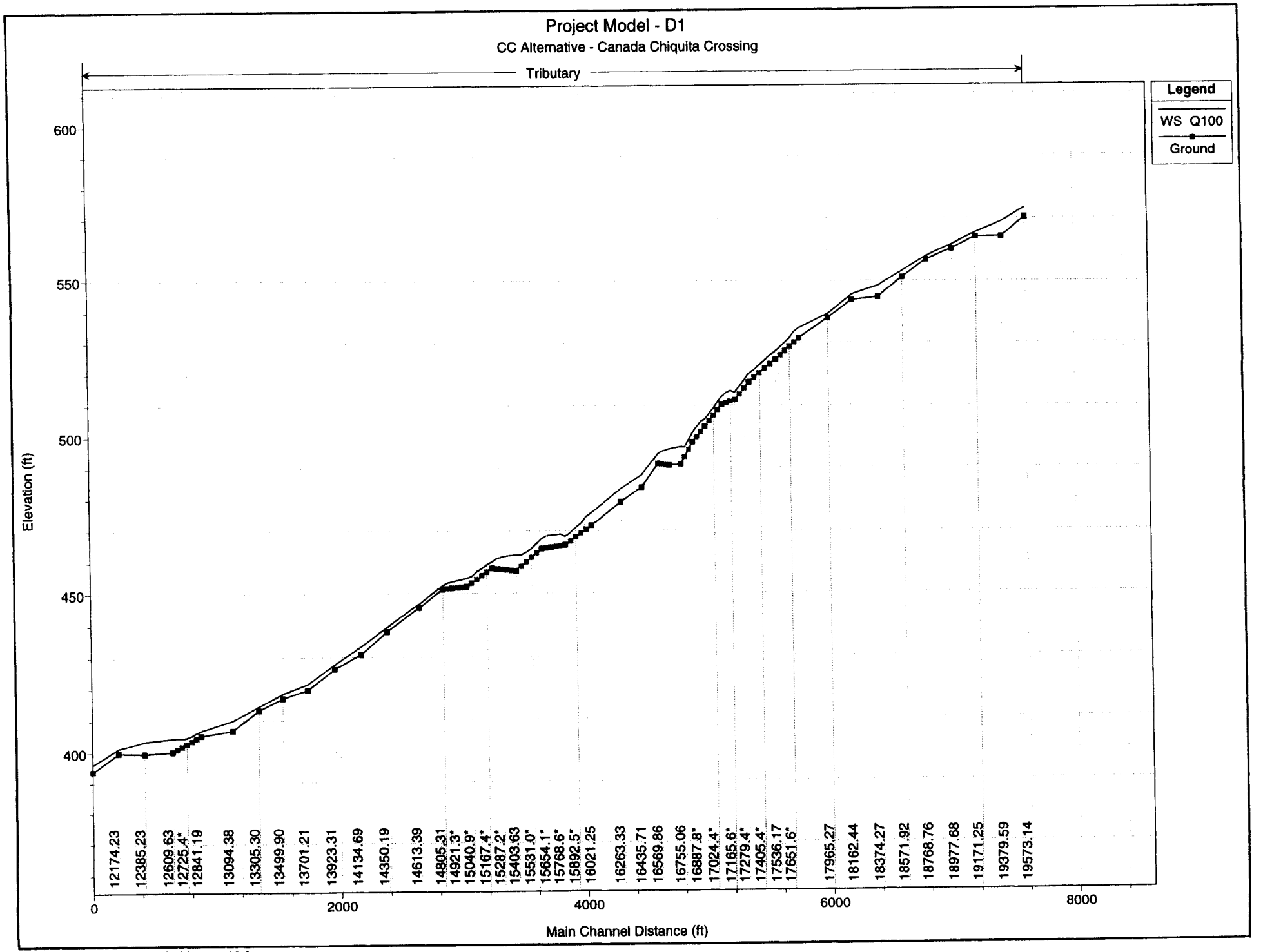




1 in Horiz. = 200 ft 1 in Vert. = 30 ft



1 in Horiz. = 200 ft 1 in Vert. = 30 ft



1 in Horiz. = 1000 ft 1 in Vert. = 40 ft

APPENDIX J
HYDRAULIC MODEL INPUT & RESULTS
CC ALTERNATIVE AT CAÑADA CHIQUITA
(MODEL "D2")

Appendix J. **Hydraulic Model Input & Results**

CC Alternative at Canada Chiquita (Model D2)

- Model Report
- Project geometry, plan view
- Cross Sections comparing 100-yr existing and project geometries and water surface elevations
- Geometry and water surface elevation profile

HEC-RAS Version 3.0.1 Mar 2001
U.S. Army Corp of Engineers
Hydrologic Engineering Center
609 Second Street, Suite D
Davis, California 95616-4687
(916) 756-1104

```
X     X  XXXXXX    XXXX        XXXX       XX      XXXX
X     X  X        X    X       X   X     X  X    X
X     X  X        X            X   X    X    X   X
XXXXXXX  XXXX     X       XXX  XXXX     XXXXXX    XXXX
X     X  X        X            X  X     X    X        X
X     X  X        X    X       X   X    X    X        X
X     X  XXXXXX    XXXX        X    X   X    X   XXXXX
```

PROJECT DATA
Project Title: Project Model - D2
Project File : PMD2.prj
Run Date and Time: 11/14/02 10:04:56 AM

Project in English units

Project Description:
CC Alternative - Canada Chiquita Encroachment

PLAN DATA

Plan Title: Existing Flow/Existing Geometry
Plan File : p:\2PDA0104\Hydr\LHS\Modeling\Model D\HecRas D\PMD2.p01

Geometry Title: Existing Conditions
Geometry File : p:\2PDA0104\Hydr\LHS\Modeling\Model D\HecRas D\PMD2.g01

Flow Title : Existing Conditions
Flow File : p:\2PDA0104\Hydr\LHS\Modeling\Model D\HecRas D\PMD2.f01

Plan Summary Information:
Number of: Cross Sections = 109 Mulitple Openings = 0
Culverts = 0 Inline Weirs = 0
Bridges = 0

Computational Information
Water surface calculation tolerance = 0.01
Critical depth calculaton tolerance = 0.01
Maximum number of interations = 20
Maximum difference tolerance = 0.3
Flow tolerance factor = 0.001

Computation Options
Critical depth computed only where necessary
Conveyance Calculation Method: At breaks in n values only
Friction Slope Method: Average Conveyance
Computational Flow Regime: Mixed Flow

FLOW DATA

Flow Title: Existing Conditions
Flow File : p:\2PDA0104\Hydr\LHS\Modeling\Model D\HecRas D\PMD2.f01

Flow Data (cfs)

River	Reach	RS	Q2	Q5	Q10	Q25	Q50	Q100	Q100HC
Canada Chiquita Tributary		7987.100	1	30	104	346	785	1226	4154

Boundary Conditions

River	Reach	Profile	Upstream	Downstream
Canada Chiquita Tributary		Q2	Normal S = .01	Normal S = .03
Canada Chiquita Tributary		Q5	Normal S = .01	Normal S = .03
Canada Chiquita Tributary		Q10	Normal S = .01	Normal S = .03
Canada Chiquita Tributary		Q25	Normal S = .01	Normal S = .03
Canada Chiquita Tributary		Q50	Normal S = .01	Normal S = .03
Canada Chiquita Tributary		Q100	Normal S = .01	Normal S = .03
Canada Chiquita Tributary		Q100HC	Normal S = .01	Normal S = .03

GEOMETRY DATA

Geometry Title: Existing Conditions
Geometry File : p:\2PDA0104\Hydr\LHS\Modeling\Model D\HecRas D\PMD2.g01

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 7987.100

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 40

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	347.72	32.77	346.03	55.43	343.73	98.19	338.97	138.47	334.55
160.97	334.49	168.14	334.47	188	334.41	199.61	334.37	215.61	335
232.61	334.89	251.78	335.3	278.59	336.07	284.54	335.62	285.13	335.5
288.36	334.89	290.31	334.57	316.78	323.74	318.41	323.06	325.67	321.78
329.48	321.19	334.41	320.27	340.57	321.19	351.37	325.54	358.53	328.28
364.3	328.64	370.55	329.03	381.61	329.14	389.41	330.05	411.04	332.27
416.31	332.67	422.98	333.87	446.36	334.68	527.17	338.84	554.36	340.16
558.6	340.37	641.11	344.12	657.88	345.07	675.72	346.4	700.57	347.78

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	168.14	.02	188	.035	288.36	.05	446.36	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
329.48	340.57	262.14	226.44	167.64	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 7760.639

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 43

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	341.41	35.67	339.1	92.47	333.46	100.89	332.52	118.12	330.64
134.58	330	177.84	329.15	184.26	329.17	201	329.22	303.15	329.49
322.1	329.43	353.4	328.72	364.4	328.65	373.45	328.66	380.39	328.02
396.78	325.99	399.5	325.1	406.49	322.82	408.81	321.48	420.36	315.24
425.67	314.5	429.48	314.02	433.28	313.52	439.17	314.02	458.26	315.99
459.92	316.13	460.27	316.23	478.35	321.18	484.93	322.32	489.88	323.18
498.71	324.79	501.88	325.48	502.96	325.55	527	328.28	544.55	330.27
557.32	331.03	567.38	331.63	626.23	334.02	663.34	335.08	773.6	338.08
804.95	339.82	806.3	339.88	837.53	341.07				

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	184.26	.02	201	.035	399.5	.05	527	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
429.48	439.17	160.35	213.35	260.25	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 7547.305

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 42

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	341.5	83.81	336.57	119.99	335.11	164.67	330.63	200.16	328.42
223.02	327.18	243.85	326.27	263.56	326.43	265.95	326.45	270.85	326.49
288.75	326.42	328.68	326.24	378.09	325.16	464.79	324.77	526.73	324.49
546.74	323.8	558.02	322.42	558.5	322.36	565.66	321.42	582.55	315.77
583.57	315.48	585.93	314.44	587.44	313.93	595.8	312.06	600.77	310.88
606.77	312.06	611.19	312.76	612.36	313.18	616.68	314.09	623.58	317.38
630.55	321.05	632.04	321.14	639.97	321.74	655	323.49	661.08	324.2
663.28	324.45	676.77	326	694.74	328.51	705.82	330.24	732.54	336.21
755.82	340.71	759.87	341.22						

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	265.95	.02	288.75	.035	558.02	.05	655	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
595.8	606.77	39.84	42.1	43.2	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 7505.20*

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	341.45	1.09	341.4	5.83	341.11	65.81	337.39	75.88	336.81
85.39	336.28	122.25	334.75	158.07	331.58	167.77	330.71	172	330.46
189.72	329.41	203.92	328.49	212	328.01	227.21	326.93	248.43	325.6
249.54	325.58	251.01	325.54	251.76	325.54	268.51	325.43	270.95	325.41
273.66	325.39	275.94	325.41	294.18	325.38	308.08	325.35	310.97	325.34
326.14	325.3	334.86	325.28	385.2	324.46	403.14	324.41	466.97	324.17
473.53	324.14	485.23	324.08	500.42	324	515.18	323.91	536.63	323.85
557.02	323.32	567.7	322.3	568.51	322.21	568.54	322.21	569	322.14
569.83	322.01	576.29	321.01	586.41	317.81	589.32	316.79	591.24	316.11
593.5	315.37	594.54	315.06	596.94	314.07	598.48	313.55	602.31	312.62
607	311.51	613.29	310.64	614.55	310.45	616.67	310.85	619.62	311.51
621.39	311.91	623.99	312.54	625.14	313.01	629.41	314.23	631.25	315.16
636.22	317.4	637.75	318.15	643.1	320.73	644.57	320.88	646.95	321.16
652.4	321.56	661.95	322.58	667.24	323.19	673.25	323.87	675.42	324.12
686.66	325.39	687.49	325.48	688.74	325.62	693.98	326.32	706.48	328.12
712.55	329.07	717.42	329.83	721.65	330.73	743.8	336.03	746.59	336.63
756.45	338.64	766.79	340.67	770.79	341.23				

Manning's n Values num= 12

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val

0	.035	270.95	.023	294.18	.035	310.97	.032	326.14	.023
568.51	.047	586.41	.038	607	.035	619.62	.035	667.24	.035
686.66	.035	770.79	.035						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
607	619.62	39.84	42.1	43.2	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 7463.09*

INPUT
Description:
Station Elevation Data num= 83

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	341.41	1.11	341.36	5.94	341.05	67.03	337.07	77.28	336.5
86.96	335.98	124.5	334.39	160.99	331.57	170.86	330.8	175.17	330.55
193.22	329.54	207.69	328.55	215.91	328.03	231.4	326.68	253.02	324.93
254.15	324.87	255.65	324.8	256.4	324.79	273.47	324.42	275.95	324.37
278.71	324.31	281.03	324.33	299.61	324.34	313.77	324.34	316.71	324.34
332.16	324.33	341.04	324.32	392.3	323.76	410.57	323.74	475.58	323.54
482.26	323.51	494.18	323.44	509.65	323.36	524.68	323.24	546.53	323.22
567.3	322.84	578.18	322.09	579	322	579.03	321.99	579.5	321.92
580.35	321.77	586.93	320.59	597.23	317.53	600.2	316.44	602.15	315.71
604.45	314.96	605.51	314.65	607.96	313.69	609.53	313.18	613.42	312.15
618.2	310.96	626.64	310.19	628.34	310.01	630.07	310.34	632.47	310.96
634.22	311.48	636.78	312.33	637.92	312.85	642.13	314.38	643.95	315.34
648.86	317.41	650.37	318.1	655.65	320.41	657.1	320.63	659.45	321
664.83	321.39	674.26	322.3	679.48	322.88	685.41	323.55	687.55	323.79
698.65	325.02	699.47	325.11	700.7	325.25	705.88	325.9	718.22	327.73
724.21	328.67	729.02	329.43	733.19	330.26	755.06	335.86	757.81	336.51
767.55	338.6	777.75	340.62	781.7	341.24				

Manning's n Values num= 12

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	275.95	.026	299.61	.035	316.71	.029	332.16	.026
579	.044	597.23	.041	618.2	.035	632.47	.035	679.48	.035
698.65	.035	781.7	.035						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
618.2	632.47	39.84	42.1	43.2	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 7420.99*

INPUT
Description:
Station Elevation Data num= 83

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	341.36	1.13	341.32	6.04	341	68.24	336.76	78.68	336.19
88.54	335.69	126.76	334.03	163.91	331.57	173.96	330.88	178.34	330.64
196.72	329.67	211.45	328.62	219.83	328.04	235.6	326.43	257.6	324.26
258.75	324.17	260.28	324.05	261.05	324.03	278.42	323.42	280.95	323.33
283.76	323.23	286.12	323.25	305.03	323.3	319.45	323.34	322.44	323.34
338.17	323.35	347.22	323.36	399.41	323.06	418.01	323.07	484.2	322.92
491	322.87	503.13	322.8	518.88	322.71	534.19	322.56	556.43	322.58
577.57	322.36	588.65	321.88	589.49	321.79	589.52	321.78	590	321.69
590.86	321.53	597.56	320.18	608.05	317.25	611.07	316.08	613.06	315.32
615.4	314.56	616.48	314.23	618.97	313.32	620.57	312.8	624.53	311.68
629.4	310.4	640	309.75	642.12	309.58	643.46	309.82	645.33	310.4
647.05	311.05	649.58	312.11	650.7	312.68	654.86	314.52	656.65	315.51
661.5	317.43	662.99	318.05	668.2	320.09	669.64	320.37	671.96	320.84
677.27	321.21	686.57	322.02	691.73	322.58	697.58	323.22	699.69	323.45
710.64	324.65	711.45	324.74	712.67	324.87	717.78	325.48	729.96	327.33
735.88	328.28	740.62	329.02	744.74	329.79	766.32	335.68	769.04	336.39
778.65	338.55	788.72	340.58	792.62	341.26				

Manning's n Values num= 12

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	280.95	.029	305.03	.035	322.44	.026	338.17	.029
589.49	.041	608.05	.044	629.4	.035	645.33	.035	691.73	.035
710.64	.035	792.62	.035						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
629.4	645.33	39.84	42.1	43.2	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 7378.88*

INPUT
Description:
Station Elevation Data num= 83

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	341.32	1.15	341.28	6.15	340.94	69.46	336.44	80.08	335.88
90.11	335.4	129.01	333.67	166.82	331.56	177.05	330.96	181.52	330.73
200.22	329.79	215.21	328.68	223.74	328.06	239.79	326.18	262.19	323.59
263.36	323.46	264.91	323.31	265.69	323.28	283.38	322.41	285.95	322.29
288.81	322.15	291.22	322.17	310.46	322.26	325.14	322.33	328.18	322.34
344.19	322.38	353.39	322.4	406.52	322.35	425.45	322.4	492.81	322.29
499.74	322.24	512.09	322.16	528.12	322.07	543.69	321.89	566.34	321.94
587.85	321.88	599.13	321.66	599.98	321.57	600.01	321.57	600.5	321.47
601.38	321.29	608.19	319.76	618.87	316.96	621.95	315.73	623.97	314.92
626.35	314.15	627.45	313.81	629.99	312.95	631.61	312.42	635.65	311.21
640.6	309.85	653.35	309.31	655.91	309.14	656.86	309.3	658.18	309.85
659.88	310.61	662.37	311.89	663.49	312.51	667.59	314.66	669.36	315.69
674.14	317.44	675.61	318	680.76	319.77	682.17	320.11	684.46	320.68
689.7	321.03	698.88	321.73	703.97	322.28	709.74	322.9	711.83	323.12
722.64	324.28	723.44	324.36	724.64	324.49	729.68	325.06	741.7	326.94
747.54	327.88	752.22	328.62	756.28	329.32	777.59	335.5	780.26	336.26

789.75	338.51	799.69	340.54	803.53	341.27

Manning's n Values num= 12

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	285.95	.032	310.46	.035	328.18	.023	344.19	.032
599.98	.038	618.87	.047	640.6	.035	658.18	.035	703.97	.035
722.64	.035	803.53	.035						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
640.6	658.18	39.84	42.1	43.2	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 7336.782

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 46

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	341.27	1.17	341.24	6.26	340.89	70.67	336.13	81.48	335.57
169.74	331.56	184.69	330.82	203.72	329.92	227.65	328.08	267.96	322.76
269.54	322.56	270.34	322.52	293.86	321.07	330.82	321.32	333.92	321.34
350.21	321.4	432.89	321.73	501.43	321.66	521.04	321.52	537.35	321.42
553.2	321.21	609.6	321.45	610.5	321.36	611.89	321.05	629.69	316.68
632.82	315.38	634.88	314.52	646.76	310.74	651.8	309.3	666.7	308.87
669.69	308.71	670.25	308.78	671.03	309.3	672.71	310.18	682.06	315.87
688.23	317.95	696.96	320.52	711.19	321.45	734.63	323.91	735.42	323.99
741.58	324.64	759.2	327.48	767.83	328.85	791.49	336.14	800.85	338.46
814.45	341.28								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	333.92	.02	350.21	.035	629.69	.05	734.63	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
651.8	671.03	44.73	43.82	43.18	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 7292.96*

INPUT
Description:
Station Elevation Data num= 91

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	339.89	1.17	339.85	4.87	339.6	6.27	339.51	59.56	335.75
70.78	334.99	81.61	334.44	91.86	333.98	146.61	331.91	170	330.81
184.97	330.05	189.98	329.81	204.03	328.95	217.28	327.83	228	327.11
251.61	324.5	268.37	322.49	269.95	322.3	270.76	322.26	294.31	320.76
331.33	320.41	334.43	320.38	336.69	320.36	350.75	320.2	352.61	320.18
393.83	320.25	423.13	320.28	429.73	320.29	433.56	320.31	433.78	320.31
438.31	320.31	481.97	320.32	502.2	320.4	521.84	320.38	538.18	320.39
554.05	320.3	555.33	320.31	610.54	320.6	610.72	320.58	611.44	320.52
612.83	320.25	622.6	318.23	630.66	316.56	630.9	316.48	633.79	315.49
635.86	314.78	635.89	314.77	636.59	314.56	643.16	312.32	647.75	310.76
650	310.05	652.8	309.12	654.12	309	656.06	308.91	659.19	308.77
668.84	308.33	672.05	308.13	673.91	308.42	674.69	308.65	676.5	309.12
678.68	310.34	678.71	310.35	680.67	311.67	682.3	312.51	689.33	315.21
690.96	315.82	693.16	316.28	699.04	317.67	701.54	318.19	701.94	318.27
710.48	320.08	712.33	320.22	729.13	321.52	734.24	322.04	737.1	322.28
746.59	323.12	759.84	324.21	760.87	324.29	768.95	324.96	770.04	325.08
792.03	327.59	794.42	327.86	798.85	328.36	803.34	328.81	818.24	331.66
828.61	333.85	834.34	335.04	840.68	336.13	846.61	337.21	857.55	338.92
864.43	339.98								

Manning's n Values num= 12

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	334.43	.023	350.75	.035	423.13	.032	438.31	.023
630.66	.047	652.8	.038	657.47	.05	676.5	.035	701.94	.035
759.84	.035	864.43	.035						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
652.8	676.5	44.73	43.82	43.18	.1	.3

CROSS SECTION RIVER: Canada Chiquita

Station Elevation Data num= 91

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	338.51	1.17	338.46	4.88	338.22	6.28	338.13	59.66	334.53
70.89	333.84	81.73	333.32	92	332.86	146.83	331.2	170.26	330.05
185.26	329.28	190.28	329.03	204.35	327.98	217.61	326.75	228.35	326.14
251.99	324.03	268.78	322.22	270.37	322.05	271.17	322	294.76	320.44
331.84	319.51	334.95	319.43	337.21	319.36	351.29	319	353.15	318.95
394.44	318.93	423.78	318.88	430.39	318.86	434.22	318.88	434.44	318.88
438.98	318.89	482.71	318.95	502.97	319.14	522.64	319.25	539	319.35
554.9	319.38	556.18	319.4	611.47	319.74	611.66	319.73	612.38	319.67
613.77	319.46	623.55	317.8	631.63	316.44	631.86	316.37	634.77	315.6
636.83	315.04	636.86	315.04	637.57	314.84	644.15	312.44	648.75	310.77
651	310	653.8	308.94	655.21	308.73	657.29	308.6	660.64	308.41
670.97	307.79	674.42	307.55	677.58	308.07	678.89	308.36	681.98	308.93
684.67	310.51	684.7	310.53	687.13	312.25	689.15	313.17	697.84	315.3
699.85	315.77	702.58	316.13	709.85	317.38	712.95	317.87	713.44	317.94
724	319.65	726.29	319.82	747.06	321.58	753.38	322.21	756.92	322.47
768.66	323.4	785.05	324.51	786.33	324.59	796.31	325.27	797.66	325.39
824.86	327.71	827.82	327.96	833.29	328.42	838.85	328.77	857.28	330.97
870.1	332.9	877.19	333.95	885.04	334.93	892.36	335.96	905.9	337.66
914.4	338.68								

Manning's n Values num= 12

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	334.95	.026	351.29	.035	423.78	.029	438.98	.026
631.63	.044	653.8	.041	659.35	.05	681.98	.035	713.44	.035
785.05	.035	914.4	.035						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
653.8	681.98	44.73	43.82	43.18	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 7205.32*

INPUT
Description:
Station Elevation Data num= 91

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	337.13	1.18	337.07	4.89	336.84	6.29	336.75	59.75	333.32
71	332.7	81.86	332.19	92.14	331.74	147.06	330.49	170.52	329.3
185.54	328.51	190.57	328.25	204.66	327.01	217.94	325.67	228.7	325.18
252.38	323.57	269.2	321.94	270.78	321.79	271.59	321.74	295.22	320.13
332.35	318.6	335.46	318.47	337.73	318.37	351.83	317.8	353.69	317.72
395.04	317.6	424.43	317.47	431.05	317.44	434.89	317.46	435.11	317.46
439.65	317.47	483.45	317.59	503.74	317.88	523.44	318.11	539.83	318.32
555.75	318.47	557.04	318.49	612.41	318.89	612.6	318.88	613.32	318.83
614.71	318.66	624.51	317.37	632.59	316.32	632.83	316.27	635.74	315.71
637.81	315.31	637.84	315.3	638.55	315.12	645.14	312.57	649.74	310.79
651.99	309.94	654.81	308.76	656.31	308.46	658.53	308.3	662.09	308.04
673.11	307.26	676.78	306.96	681.24	307.71	683.1	308.07	687.45	308.75
690.66	310.67	690.7	310.7	693.59	312.82	696	313.83	706.36	315.39
708.75	315.72	712	315.97	720.66	317.1	724.35	317.54	724.93	317.62
737.52	319.21	740.25	319.43	765	321.65	772.53	322.39	776.74	322.66
790.73	323.67	810.26	324.81	811.78	324.9	823.68	325.59	825.28	325.7
857.7	327.82	861.22	328.05	867.74	328.47	874.36	328.73	896.32	330.28
911.59	331.96	920.05	332.85	929.39	333.72	938.12	334.71	954.24	336.39
964.38	337.37								

Manning's n Values num= 12

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	335.46	.029	351.83	.035	424.43	.026	439.65	.029
632.59	.041	654.81	.044	661.23	.05	687.45	.035	724.93	.035
810.26	.035	964.38	.035						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
654.81	687.45	44.73	43.82	43.18	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 7161.50*

INPUT
Description:
Station Elevation Data num= 91

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	335.75	1.18	335.69	4.89	335.45	6.3	335.37	59.84	332.11
71.1	331.56	81.98	331.07	92.28	330.62	147.28	329.78	170.78	328.55
185.83	327.74	190.86	327.48	204.97	326.03	218.28	324.6	229.05	324.21
252.76	323.1	269.61	321.67	271.2	321.54	272	321.48	295.67	319.81
332.85	317.69	335.97	317.51	338.24	317.38	352.36	316.6	354.23	316.5
395.65	316.28	425.08	316.07	431.71	316.01	435.55	316.03	435.77	316.03
440.33	316.05	484.19	316.22	504.51	316.62	524.24	316.98	540.65	317.28
556.6	317.55	557.89	317.58	613.35	318.03	613.53	318.03	614.25	317.98
615.65	317.86	625.46	316.95	633.56	316.19	633.8	316.16	636.71	315.82
638.78	315.57	638.81	315.57	639.52	315.39	646.12	312.69	650.74	310.8
652.99	309.89	655.81	308.58	657.4	308.2	659.76	307.99	663.55	307.68
675.25	306.72	679.15	306.38	684.9	307.35	687.3	307.78	692.93	308.56
696.65	310.84	696.69	310.87	700.05	313.4	702.84	314.49	714.87	315.49
717.65	315.67	721.42	315.82	731.47	316.81	735.76	317.22	736.43	317.29
751.04	318.78	754.21	319.03	782.93	321.72	791.67	322.56	796.57	322.85
812.8	323.95	835.46	325.11	837.23	325.2	851.04	325.91	852.91	326.01
890.53	327.94	894.62	328.15	902.18	328.53	909.87	328.69	935.36	329.59
953.09	331.01	962.9	331.76	973.75	332.52	983.87	333.45	1002.59	335.12
1014.35	336.07								

Manning's n Values num= 12

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	335.97	.032	352.36	.035	425.08	.023	440.33	.032
633.56	.038	655.81	.047	663.12	.05	692.93	.035	736.43	.035
835.46	.035	1014.35	.035						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
655.81	692.93	44.73	43.82	43.18	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 7117.686

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 50

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	334.37	4.9	334.07	59.93	330.9	92.42	329.5	147.51	329.07
191.15	326.7	218.61	323.52	253.15	322.63	338.76	316.39	354.77	315.27
396.25	314.96	425.73	314.66	432.37	314.59	436.44	314.61	441	314.63
484.93	314.86	558.74	316.67	614.47	317.18	626.42	316.52	634.77	316.06
639.79	315.83	640.5	315.67	647.11	312.81	653.99	309.84	656.81	308.4
658.5	307.93	660.99	307.69	665	307.32	681.51	305.8	691.51	307.49
698.4	308.38	702.64	311.01	706.51	313.98	709.69	315.15	723.38	315.58
730.84	315.66	747.16	316.9	747.93	316.96	768.17	318.64	810.82	322.74
816.39	323.04	834.87	324.22	880.53	326.32	928.02	328.24	936.63	328.58

974.4	328.9	994.58	330.07	1018.1	331.31	1050.94	333.85	1064.33	334.77

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	425.73	.02	441	.035	665	.05	747.93	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
656.81	698.4	190	200.15	212.8	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 6917.517

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 46

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	334.67	97.4	332.23	97.56	332.23	97.6	332.23	97.69	332.23
193.24	329.19	234.66	327.01	246.54	325.73	271.97	324.75	356.29	320.78
360.57	320.57	363.47	320.36	375.98	319.45	423.8	315.78	438.16	314.98
487.37	313.87	500.72	313.21	529.12	312.22	552.63	311.41	562.01	311.08
575.62	310.61	627.99	309.46	638.64	309.38	653.86	308.72	695.47	308.74
706.66	308.68	718.04	308.62	756.08	308.38	777.95	308.45	783.84	308.6
808.41	309.5	816.01	309.92	842.54	311.39	875.46	312.96	925.16	313
927.18	313.02	1003.96	313.54	1039.83	314	1064.32	314.96	1093.23	317.92
1111.26	319.94	1128.64	324.15	1162.69	332.97	1167.11	334.08	1169.07	334.41
1175.81	336.26								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	529.12	.02	552.63	.035	706.66	.05	808.41	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
653.86	783.84	39.11	38.19	38.26	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 6879.32*

INPUT
Description:
Station Elevation Data num= 76

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	333.55	17.8	332.75	42.08	331.64	51.27	331.29	59.6	330.9
88.17	329.6	88.31	329.59	88.35	329.59	88.43	329.59	93.72	329.32
125.37	328.12	174.93	326.48	198.57	325.24	212.42	324.49	223.17	323.36
246.19	322.4	272.69	321.08	284.32	320.49	322.52	318.75	326.4	318.57
327.17	318.51	329.02	318.39	340.35	317.6	382.85	314.49	383.63	314.44
396.63	313.72	425.49	313.01	441.18	312.62	453.26	312.02	465.89	311.56
478.97	311.09	500.25	310.33	508.75	310.02	521.07	309.57	537.24	309.18
564.36	308.52	566.25	308.47	568.47	308.42	578.11	308.31	591.89	307.7
627.64	307.66	637.26	307.6	638.73	307.59	647.04	307.54	679.72	307.32
706.94	307.46	714.27	307.6	732.91	308.11	741.02	308.33	749.29	308.68
778.17	309.88	783.71	310.08	814.02	311.21	868.13	311.3	869.23	311.31
870.33	311.32	877.04	311.37	948.07	311.92	953.92	311.97	959.28	312.04
962.36	312.08	965.46	312.14	992.97	312.67	998.7	312.9	1019.64	313.85
1043.12	316.05	1048.84	316.67	1051.11	316.89	1070.74	319.02	1071.51	319.18
1089.67	323.15	1123.26	330.92	1126.74	331.72	1131.55	332.79	1133.68	333.14
1141.02	334.91								

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	465.89	.032	478.97	.02	500.25	.032	537.24	.025
591.89	.047	641.6	.047	714.27	.035	732.91	.035	741.02	.035
1141.02	.035								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
591.89	714.27	39.11	38.19	38.26	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 6841.13*

INPUT
Description:
Station Elevation Data num= 76

220.42	320.04	244.14	318.8	254.55	318.21	288.75	316.72	292.22	316.56
292.92	316.52	294.57	316.41	304.71	315.75	342.76	313.14	343.47	313.09
355.11	312.46	380.94	311.76	394.99	311.37	405.81	310.83	417.11	310.41
428.82	309.96	447.88	309.24	455.48	308.95	466.51	308.54	480.99	308.14
505.27	307.48	506.96	307.43	508.95	307.38	517.59	307.24	529.92	306.68
559.82	306.59	567.86	306.52	569.09	306.51	576.03	306.46	603.37	306.26
635.92	306.46	644.69	306.61	664.86	307	673.62	307.17	682.57	307.43
713.81	308.37	719.8	308.52	752.57	309.47	811.09	309.6	812.28	309.61
813.47	309.62	820.74	309.68	897.56	310.33	903.88	310.4	909.68	310.48
913.01	310.53	916.36	310.61	946.12	311.34	952.31	311.58	974.95	312.73
1000.35	314.93	1006.54	315.62	1009	315.87	1030.23	318.11	1031.06	318.25
1050.69	322.15	1087.02	329.7	1090.78	330.47	1095.99	331.51	1098.3	331.86
1106.23	333.55								

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	417.11	.03	428.82	.02	447.88	.03	480.99	.03
529.92	.045	576.54	.045	644.69	.035	664.86	.035	673.62	.035
1106.23	.035								

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.

529.92	644.69	39.11	38.19	38.26	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 6802.94*

INPUT
Description:
Station Elevation Data num= 76

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	331.3	14.07	329.89	33.27	327.9	40.53	327.36	47.12	326.66
69.71	324.33	69.82	324.32	69.85	324.32	69.91	324.31	74.1	323.86
99.12	322.51	138.3	321.06	156.99	320.1	167.94	319.44	176.44	318.61
194.64	317.69	215.59	316.51	224.78	315.93	254.99	314.69	258.05	314.56
258.66	314.52	260.13	314.44	269.08	313.9	302.68	311.79	303.3	311.75
313.58	311.2	336.4	310.52	348.8	310.13	358.35	309.65	368.33	309.25
378.68	308.83	395.5	308.16	402.22	307.89	411.96	307.5	424.75	307.1
446.18	306.44	447.68	306.39	449.44	306.34	457.06	306.17	467.95	305.67
491.99	305.51	498.46	305.44	499.45	305.43	505.03	305.38	527.01	305.2
564.91	305.47	575.12	305.61	596.8	305.88	606.23	306	615.85	306.19
649.44	306.86	655.88	306.97	691.13	307.72	754.06	307.9	755.34	307.91
756.62	307.92	764.43	307.99	847.04	308.74	853.84	308.83	860.08	308.92
863.66	308.97	867.26	309.08	899.26	310.01	905.92	310.27	930.27	311.62
957.59	313.8	964.24	314.58	966.88	314.84	989.71	317.19	990.6	317.33
1011.72	321.15	1050.79	328.48	1054.83	329.22	1060.43	330.22	1062.91	330.59
1071.45	332.2								

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	368.33	.027	378.68	.02	395.5	.027	424.75	.035
467.95	.043	511.48	.043	575.12	.035	596.8	.035	606.23	.035
1071.45	.035								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
467.95	575.12	39.11	38.19	38.26	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 6764.75*

INPUT
Description:
Station Elevation Data num= 76

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	330.18	12.21	328.47	28.86	326.03	35.17	325.39	40.88	324.54
60.48	321.7	60.57	321.68	60.6	321.68	60.66	321.67	64.29	321.13
85.99	319.7	119.98	318.36	136.2	317.53	145.7	316.92	153.08	316.23
168.87	315.34	187.04	314.22	195.02	313.66	221.22	312.66	223.88	312.56
224.41	312.53	225.68	312.46	233.45	312.05	262.6	310.44	263.14	310.4
272.05	309.94	291.85	309.27	302.61	308.88	310.9	308.46	319.56	308.09
328.53	307.7	343.13	307.08	348.95	306.83	357.4	306.47	368.5	306.07
387.09	305.4	388.39	305.35	389.92	305.3	396.53	305.1	405.98	304.65
424.16	304.43	429.06	304.36	429.81	304.34	434.03	304.31	450.65	304.14
493.89	304.48	505.54	304.61	528.75	304.77	538.83	304.83	549.13	304.95
585.08	305.35	591.97	305.41	629.68	305.97	697.03	306.2	698.4	306.21
699.76	306.22	708.12	306.29	796.52	307.15	803.8	307.25	810.48	307.35
814.3	307.42	818.16	307.55	852.4	308.68	859.53	308.96	885.59	310.5
914.82	312.68	921.93	313.54	924.76	313.82	949.19	316.27	950.15	316.4
972.74	320.15	1014.55	327.25	1018.88	327.96	1024.87	328.94	1027.52	329.31
1036.66	330.85								

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	319.56	.025	328.53	.02	343.13	.025	368.5	.04
405.98	.04	446.42	.04	505.54	.035	528.75	.035	538.83	.035
1036.66	.035								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
405.98	505.54	39.11	38.19	38.26	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 6726.56*

INPUT
Description:
Station Elevation Data num= 76

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	329.05	10.34	327.04	24.46	324.16	29.8	323.43	34.64	322.42
51.24	319.07	51.33	319.05	51.35	319.04	51.4	319.04	54.47	318.41
72.87	316.9	101.67	315.65	115.41	314.96	123.46	314.4	129.71	313.86
143.09	312.98	158.49	311.94	165.25	311.38	187.45	310.63	189.7	310.55
190.15	310.53	191.23	310.49	197.81	310.2	222.51	309.08	222.97	309.06
230.53	308.68	247.3	308.02	256.42	307.63	263.44	307.27	270.78	306.93
278.38	306.57	290.75	306	295.69	305.76	302.85	305.43	312.25	305.03
328.01	304.36	329.11	304.31	330.4	304.25	336	304.03	344.01	303.63
356.34	303.36	359.65	303.27	360.16	303.26	363.03	303.23	374.3	303.08
422.88	303.49	435.97	303.62	460.69	303.65	471.44	303.67	482.41	303.71
520.71	303.84	528.05	303.86	568.24	304.23	639.99	304.5	641.45	304.51
642.91	304.52	651.82	304.6	746.01	305.57	753.76	305.68	760.87	305.79
764.95	305.86	769.06	306.01	805.55	307.35	813.14	307.65	840.91	309.39
872.05	311.56	879.63	312.5	882.64	312.79	908.67	315.35	909.69	315.47
933.77	319.14	978.32	326.03	982.93	326.71	989.31	327.65	992.14	328.04
1001.87	329.49								

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	270.78	.022	278.38	.02	290.75	.022	312.25	.045
344.01	.038	381.36	.038	435.97	.035	460.69	.035	471.44	.035
1001.87	.035								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
344.01	435.97	39.11	38.19	38.26	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 6688.378

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 35

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	327.93	8.48	325.61	20.05	322.29	24.43	321.46	28.4	320.3
44.66	315.68	59.74	314.09	94.62	312.39	129.94	309.65	135.48	309.1
155.9	308.54	182.43	307.73	202.75	306.77	222	305.77	256	303.99
268.92	303.32	269.82	303.27	282.04	302.61	290.52	302.18	297.94	302.02
366.39	302.62	392.64	302.54	464.14	302.3	584.51	302.81	595.51	302.91
695.49	303.98	711.27	304.23	715.6	304.31	719.96	304.48	766.75	306.34
829.28	310.44	837.33	311.46	869.24	314.54	942.08	324.81	967.08	328.14

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	222	.02	256	.05	392.64	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
282.04	366.39	226.05	202.6	176.55	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 6485.790

INPUT
Description:
Station Elevation Data num= 33

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	328.52	2.07	327.86	3.48	327.22	4.69	326.93	7.81	325.96
50.05	314.88	65.04	310.28	65.24	310.23	65.59	310.18	82.51	307.53
90.64	306.19	105.23	305.22	107.41	305.01	131.95	302.63	141.17	302.35
145.34	302.22	145.77	302.21	162.86	301.86	170.52	301.74	238.61	301.82
274.23	301.87	283.88	301.88	289.98	301.89	457.88	301.75	536.98	302.95
553.75	303.48	565.89	303.95	598.52	305.65	653.02	308.57	702.7	316.51
730.62	320.46	765.4	327.61	767.23	328				

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	107.41	.02	145.77	.05	283.88	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
162.86	238.61	199.05	192.7	179.75	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 6293.091

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 42

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	328.2	7.71	326.15	15.55	323.74	31.1	319	36.24	317.54
41.76	316.49	66.31	309.08	70.07	308.39	85.54	305.43	96.29	302.76
107	301.31	114.98	300.23	117.15	300.03	120.79	300.12	131.71	298.1
144.16	296.62	153.39	295.51	157.4	295.04	168.23	295.5	170.25	295.72
171.44	296.01	188.99	298.45	195.72	298.78	220.01	299.65	225.55	299.92
242.07	300.73	255.31	300.88	276.57	300.96	284.23	300.97	352.2	300.83
397.53	302.41	527.53	311.5	527.76	311.52	527.96	311.53	528.93	311.61
603.92	316.33	629.31	320.14	645.07	322.17	658.51	323.25	676.84	326.75
682.75	327.57	689.74	328.34						

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	107	.02	153.39	.05	352.2	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
153.39	168.23	205.55	222.2	231.5	.1	.3

CROSS SECTION RIVER: Canada Chiquita
[illegible]

[illegible]

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	321.49	14.65	318.05	27.29	312.86	43.78	306.73	53.71	304.38
60.17	302.61	70.56	301.52	84.96	299.95	85.99	299.84	89.05	299.53
110.12	296.25	129.6	296	133.74	295.95	158.77	295.43	182.08	294.93
193.71	295.43	203.07	295.84	224.8	296.93	246	298	281.9	299.8
338.64	302.64	348.73	303.23	358.7	303.87	463.8	311.48	527.75	315.54
539.53	316.33	559.9	317.64	561.83	317.77	614.2	321.85		

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	85.99	.02	133.74	.05	246	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
158.77	193.71	192	188.05	180.5	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 5882.887

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 34

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	322.93	3.58	322.74	10.45	322.08	18.16	319.5	22.09	317.82
29.57	316.35	36.25	314.72	42.32	312.4	59.62	305.49	62.56	304.64
72.12	302.17	76.72	301.66	132.87	298.17	148.64	297.23	158.03	296.88
178.81	296.11	198.67	294.56	201.81	294.31	218.34	293.91	251.92	293.71
259.29	293.93	302.57	295.19	304.02	295.25	332.36	296.36	337.68	296.63
400.98	300.19	500.66	306.94	523.68	308.14	553.22	308.96	621.05	313.89
682.82	318.25	700.56	318.86	720.94	320.52	752.53	321.54		

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	158.03	.02	198.67	.05	302.57	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
218.34	259.29	230.7	219.45	209.5	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 5663.432

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 46

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	314.56	14.64	310.28	32.3	307.27	51.95	306.47	51.98	306.47
52.04	306.47	102.58	305.16	123.99	304.61	170.55	306.05	185.99	306.18
218.7	305.05	227	304.72	236.51	304.34	247.16	303.91	258	303.33
269.61	302.7	279.12	301.88	300.51	300.19	321.19	297.85	344.53	295.65
381.2	294.83	427	292.46	470.33	290.21	501.06	289.06	509.15	289.04
583.77	288.88	595.71	288.73	602.55	288.87	605.21	289	608	289.17
620	289.84	638.71	290.89	698.49	293.99	699.71	294.05	736.63	296.26
758.55	297.07	799.81	297.34	809.8	297.53	812.06	297.52	843.57	299.19
863.17	300.95	886.54	302.91	890.29	303.86	914.55	309.23	931.34	315.19
932.51	315.6								

Manning's n Values num= 9

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	102.58	.05	227	.02	258	.035	427	.02
470.33	.035	509.15	.05	620	.035	914.55	.05		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
509.15	605.21	182.2	204.5	241.5	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 5458.911

INPUT
Description:
Station Elevation Data num= 45

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	314.11	10.62	310.78	19.05	309.26	39.43	305.65	50.62	304.22
52.13	304.07	73.98	301.96	102.04	300.98	143.08	298.89	173.6	298.05
174.48	298.02	189.32	296.91	199.82	296.55	225.89	295.68	236.61	295.32
263.55	294.67	315.95	293.71	360.83	292.55	377.68	292.45	382.27	292.27
409.56	291.21	417.02	290.9	486.53	287.99	490.97	287.8	494.34	287.52
515.82	285.7	562.46	285.51	580.68	285.04	586.09	285.35	587.18	285.53
592.9	286.89	603.64	287.81	606.09	287.88	631.65	288.62	634.22	288.77
636.83	288.92	657.78	290.14	760.05	298.09	789.63	300.08	809.79	301.72
827.72	304.07	839.81	308.79	842.73	309.57	857.92	313.66	868.8	315.22

Manning's n Values num= 9

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	52.13	.05	199.82	.02	225.89	.035	382.27	.02
417.02	.035	486.53	.05	634.22	.035	842.73	.05		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
515.82	587.18	40.34	39.8	40.62	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 5419.10*

INPUT
Description:
Station Elevation Data num= 79

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	312.88	9.72	310.03	14.96	309.11	17.44	308.64	36.09	305.2
46.33	303.75	47.71	303.59	67.71	301.31	68.24	301.28	73.25	300.97
90.03	300	93.4	299.8	102.56	299.13	130.96	296.96	131.22	296.94
141.09	296.56	158.9	295.92	159.7	295.89	160.15	295.86	173.29	294.97
182.9	294.66	190.95	294.41	206.76	293.92	216.57	293.61	241.23	293.04
270.42	292.51	272.66	292.47	273.92	292.44	282.03	292.28	289.19	292.13
291.19	292.08	330.27	291.02	345.69	290.87	349.89	290.71	374.87	289.75
381.7	289.47	445.32	286.87	449.39	286.7	450.4	286.62	452.47	286.46
472.13	284.92	513.73	284.67	529.98	284.25	537.82	284.62	539.4	284.78
545.44	285.92	545.8	285.94	556.77	286.73	559.35	286.8	570.24	287.11
574.27	287.22	586.32	287.79	589.03	287.97	591.78	288.16	613.89	289.69
613.93	289.69	614.76	289.76	614.96	289.78	615.67	289.83	617.98	290.01
637.61	291.51	721.79	297.95	747.55	299.72	753	300.1	766.58	301.18
774.27	301.96	778.52	302.55	781.09	302.89	784.04	303.28	793.19	304.5
797.23	305.84	805.94	308.5	808.71	309.08	809.02	309.15	825.01	312.44
825.05	312.45	830.71	313.11	835.18	313.68	836.53	313.83		

Manning's n Values num= 17

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	47.71	.047	182.9	.023	190.95	.032	206.76	.032
273.92	.023	349.89	.023	381.7	.035	445.32	.047	450.4	.038
472.13	.035	539.4	.035	589.03	.035	637.61	.035	784.04	.042
809.02	.054	836.53	.054						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
472.13	539.4	40.34	39.8	40.62	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 5379.30*

INPUT
Description:
Station Elevation Data num= 79

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	311.65	8.82	309.28	13.57	308.47	15.82	308.03	32.75	304.75
42.05	303.29	43.3	303.12	61.45	300.67	61.92	300.62	66.48	300.19
81.7	298.9	84.76	298.63	93.07	297.79	118.84	295.03	119.08	295.01
128.04	294.54	144.19	293.8	144.92	293.76	145.33	293.73	157.25	293.03
165.97	292.78	173.28	292.57	187.63	292.15	196.53	291.9	218.91	291.4
245.4	290.93	247.43	290.89	248.57	290.87	255.93	290.7	262.43	290.55
264.24	290.5	299.71	289.49	313.7	289.3	317.52	289.15	340.18	288.3
346.38	288.05	404.12	285.74	407.8	285.59	408.72	285.53	410.6	285.4
428.44	284.13	465.01	283.82	479.29	283.46	489.55	283.88	491.62	284.04
497.97	284.94	498.36	284.97	509.89	285.64	512.61	285.71	524.07	286.03
528.31	286.15	540.99	286.95	543.84	287.18	546.74	287.4	570	289.24
570.04	289.25	570.92	289.32	571.13	289.34	571.87	289.39	574.3	289.58
594.96	291.14	683.53	297.82	710.63	299.71	716.37	300.11	730.65	301.22
738.75	302.2	743.22	302.86	745.93	303.21	749.03	303.63	758.66	304.94
762.9	306.11	772.08	308.2	774.99	308.67	775.32	308.72	792.13	311.23
792.18	311.24	798.13	311.79	802.84	312.33	804.26	312.44		

Manning's n Values num= 17

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	43.3	.044	165.97	.026	173.28	.029	187.63	.029
248.57	.026	317.52	.026	346.38	.035	404.12	.044	408.72	.041
428.44	.035	491.62	.035	543.84	.035	594.96	.035	749.03	.049
775.32	.058	804.26	.058						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
428.44	491.62	40.34	39.8	40.62	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 5339.50*

INPUT
Description:
Station Elevation Data num= 79

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	310.41	7.92	308.53	12.19	307.82	14.21	307.41	29.41	304.31
37.76	302.82	38.88	302.64	55.18	300.02	55.61	299.97	59.7	299.42
73.37	297.79	76.11	297.45	83.58	296.46	106.73	293.09	106.93	293.07
114.98	292.52	129.49	291.67	130.15	291.63	130.51	291.6	141.22	291.09
149.05	290.89	155.61	290.72	168.49	290.39	176.49	290.19	196.58	289.77
220.38	289.35	222.2	289.32	223.22	289.29	229.83	289.13	235.67	288.97
237.3	288.92	269.15	287.97	281.72	287.72	285.14	287.59	305.5	286.84
311.06	286.62	362.91	284.62	366.22	284.49	367.04	284.44	368.73	284.34
384.76	283.35	416.28	282.98	428.59	282.68	441.28	283.15	443.84	283.29
450.51	283.97	450.91	283.99	463.02	284.56	465.87	284.63	477.9	284.96
482.35	285.08	495.66	286.12	498.65	286.38	501.69	286.65	526.1	288.79
526.15	288.8	527.07	288.88	527.29	288.9	528.07	288.96	530.63	289.15
552.31	290.76	645.27	297.68	673.72	299.69	679.74	300.13	694.73	301.27
703.23	302.44	707.93	303.17	710.77	303.54	714.02	303.98	724.12	305.37
728.58	306.38	738.21	307.91	741.26	308.27	741.61	308.3	759.26	310.02
759.31	310.03	765.56	310.47	770.5	310.97	771.99	311.04		

Manning's n Values num= 17

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	38.88	.041	149.05	.029	155.61	.026	168.49	.026
223.22	.029	285.14	.029	311.06	.035	362.91	.041	367.04	.044
384.76	.035	443.84	.035	498.65	.035	552.31	.035	714.02	.056
741.61	.062	771.99	.062						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
384.76	443.84	40.34	39.8	40.62	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 5299.69*

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	309.18	7.02	307.78	10.8	307.18	12.6	306.79	26.07	303.86
33.47	302.36	34.47	302.17	48.92	299.37	49.29	299.31	52.92	298.64
65.04	296.69	67.47	296.27	74.09	295.12	94.61	291.16	94.79	291.13
101.93	290.5	114.79	289.55	115.37	289.51	115.69	289.48	125.18	289.15
132.12	289	137.94	288.88	149.36	288.63	156.45	288.47	174.26	288.14
195.35	287.78	196.97	287.74	197.88	287.72	203.74	287.55	208.91	287.39
210.35	287.35	238.59	286.44	249.73	286.14	252.76	286.03	270.81	285.38
275.74	285.2	321.7	283.5	324.64	283.39	325.37	283.35	326.87	283.28
341.07	282.56	367.55	282.13	377.9	281.89	393.01	282.42	396.06	282.55
403.04	283	403.47	283.02	416.15	283.47	419.14	283.55	431.73	283.88
436.39	284.01	450.33	285.28	453.46	285.58	456.65	285.89	482.21	288.34
482.26	288.35	483.23	288.44	483.46	288.46	484.27	288.52	486.95	288.72
509.65	290.39	607.01	297.54	636.8	299.68	643.11	300.14	658.81	301.32
667.71	302.68	672.63	303.47	675.6	303.86	679.01	304.33	689.59	305.8
694.26	306.65	704.34	307.62	707.54	307.86	707.91	307.88	726.39	308.81
726.44	308.81	732.98	309.15	738.16	309.62	739.72	309.65		

Manning's n Values num= 17

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	34.47	.038	132.12	.032	137.94	.023	149.36	.023

197.88	.032	252.76	.032	275.74	.035	321.7	.038	325.37	.047
341.07	.035	396.06	.035	453.46	.035	509.65	.035	679.01	.063
707.91	.066	739.72	.066						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
341.07	396.06	40.34	39.8	40.62	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 5259.894

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 39

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	307.95	9.42	306.54	42.98	298.65	46.14	297.86	56.71	295.58
64.6	293.78	82.65	289.19	88.87	288.48	100.87	287.35	120.27	287.03
170.33	286.2	171.74	286.17	172.53	286.14	177.64	285.98	183.41	285.77
283.69	282.26	297.38	281.78	327.2	281.1	348.28	281.8	356.02	282.04
385.56	282.81	390.43	282.94	438.37	287.9	439.38	288	439.62	288.02
440.47	288.08	443.27	288.29	467	290.01	599.89	299.67	622.89	301.37
637.33	303.78	640.44	304.18	644	304.68	659.94	306.92	673.82	307.45
693.52	307.6	700.41	307.83	705.82	308.26	707.45	308.26		

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	120.27	.02	172.53	.035	283.69	.05	467	.035
644	.07								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
297.38	348.28	36.64	42.12	49.31	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 5217.77*

INPUT
Description:
Station Elevation Data num= 70

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	307.88	6.51	306.72	9.87	306.11	25.77	302.15	30.56	301.06
39.94	298.91	41.21	298.62	45.01	297.7	48.32	296.86	59.37	294.34
59.39	294.34	60.88	293.98	62.59	293.63	67.55	292.74	67.66	292.72
86.56	288.8	93.08	288.14	103.76	287.23	105.64	287.07	116.74	286.78
125.96	286.59	135.61	286.38	151.12	286.06	168.61	285.81	178.39	285.65
179.87	285.62	180.7	285.59	186.05	285.44	192.09	285.25	237.93	283.84
251.51	283.45	265.41	283.06	297.12	282.15	311.45	281.74	340.27	281.16
355.13	281.45	370.63	281.75	377.62	281.96	404.29	282.63	408.69	282.74
423.91	284.17	451.97	286.74	452.88	286.82	453.1	286.83	453.87	286.88
456.4	287.05	458.32	287.17	477.82	288.42	478.54	288.47	483.63	288.79
484.17	288.83	549.62	293.46	597.81	297.27	604.86	297.83	604.88	297.83
604.93	297.84	618.57	299.12	625.11	300.27	631.61	301.5	634.42	301.94
636.54	302.29	637.64	302.47	652.03	304.81	664.56	305.7	672.58	306.06
682.35	306.8	688.57	307.41	691.94	307.89	693.45	308.09	694.92	308.18

Manning's n Values num= 14

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	103.76	.032	125.96	.02	151.12	.023	180.7	.035
265.41	.038	297.12	.05	311.45	.035	370.63	.035	458.32	.035
477.82	.035	625.11	.042	637.64	.07	694.92	.07		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
311.45	370.63	36.64	42.12	49.31	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 5175.65*

INPUT
Description:
Station Elevation Data num= 70

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	307.8	6.81	306.42	10.31	305.67	26.94	301.33	31.94	300.23
41.75	298.02	43.07	297.73	47.05	296.74	50.51	295.85	62.05	293.1
62.08	293.09	63.64	292.71	65.42	292.38	70.6	291.69	70.71	291.67
90.47	288.41	97.28	287.81	108.45	286.94	110.42	286.79	122.01	286.39
131.65	286.14	141.74	285.88	157.95	285.5	176.23	285.27	186.45	285.1
188	285.07	188.86	285.04	194.45	284.9	200.77	284.73	248.68	283.44
262.87	283.12	277.4	282.79	310.54	282.04	325.53	281.7	353.34	281.22
372.74	281.45	392.98	281.7	399.22	281.87	423.02	282.45	426.94	282.55
440.53	283.66	465.57	285.57	466.39	285.63	466.58	285.65	467.27	285.68
469.52	285.81	471.24	285.9	488.64	286.83	489.29	286.86	493.83	287.1
494.31	287.13	552.72	291.13	595.73	294.86	602.02	295.41	602.04	295.41
602.08	295.42	614.26	296.87	620.09	297.97	625.9	299.23	628.4	299.7
630.29	300.08	631.27	300.26	644.11	302.69	655.3	303.95	662.46	304.6
671.17	306	676.73	307	679.74	307.64	681.08	307.91	682.4	308.1

Manning's n Values num= 14

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	108.45	.029	131.65	.02	157.95	.026	188.86	.035
277.4	.041	310.54	.05	325.53	.035	392.98	.035	471.24	.035
488.64	.035	620.09	.049	631.27	.07	682.4	.07		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
325.53	392.98	36.64	42.12	49.31	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 5133.53*

INPUT
Description:

Station Elevation Data num= 70

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	307.73	7.1	306.13	10.76	305.24	28.1	300.5	33.32	299.39
43.55	297.14	44.94	296.84	49.08	295.79	52.69	294.85	64.73	291.86
64.76	291.85	66.39	291.43	68.24	291.13	73.66	290.63	73.77	290.61
94.38	288.02	101.49	287.47	113.14	286.66	115.19	286.51	127.29	286
137.35	285.7	147.86	285.38	164.78	284.93	183.85	284.73	194.51	284.55
196.12	284.52	197.03	284.49	202.86	284.37	209.45	284.21	259.44	283.05
274.24	282.79	289.39	282.53	323.97	281.93	339.6	281.67	366.42	281.28
390.35	281.46	415.33	281.65	420.82	281.79	441.75	282.27	445.2	282.35
457.15	283.15	479.18	284.41	479.89	284.45	480.06	284.46	480.66	284.48
482.65	284.57	484.16	284.63	499.47	285.24	500.03	285.26	504.03	285.42
504.45	285.44	555.82	288.79	593.64	292.46	599.18	292.99	599.19	293
599.24	293	609.94	294.62	615.08	295.66	620.18	296.95	622.38	297.47
624.04	297.86	624.91	298.05	636.2	300.58	646.04	302.21	652.34	303.14
660	305.2	664.88	306.58	667.53	307.4	668.72	307.74	669.87	308.02

Manning's n Values num= 14

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	113.14	.026	137.35	.02	164.78	.029	197.03	.035
289.39	.044	323.97	.05	339.6	.035	415.33	.035	484.16	.035
499.47	.035	615.08	.056	624.91	.07	669.87	.07		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
339.6	415.33	36.64	42.12	49.31	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 5091.41*

INPUT
Description:
Station Elevation Data num= 70

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	307.65	7.4	305.83	11.2	304.8	29.27	299.68	34.7	298.56
45.36	296.25	46.8	295.96	51.12	294.83	54.87	293.84	67.42	290.61
67.45	290.61	69.14	290.16	71.07	289.87	76.71	289.57	76.83	289.56
98.3	287.63	105.69	287.13	117.83	286.37	119.97	286.23	132.56	285.6
143.04	285.25	153.99	284.89	171.61	284.36	191.47	284.18	202.57	284
204.25	283.97	205.19	283.95	211.27	283.83	218.13	283.69	270.19	282.65
285.6	282.46	301.39	282.26	337.39	281.83	353.68	281.63	379.49	281.34
407.97	281.46	437.68	281.6	442.41	281.71	460.48	282.09	463.46	282.15
473.77	282.63	492.78	283.25	493.4	283.27	493.54	283.27	494.06	283.28
495.78	283.32	497.08	283.35	510.29	283.65	510.78	283.66	514.22	283.73
514.59	283.74	558.92	286.46	591.56	290.05	596.34	290.58	596.35	290.58
596.39	290.59	605.63	292.37	610.06	293.36	614.46	294.68	616.36	295.23
617.8	295.65	618.54	295.85	628.29	298.46	636.78	300.46	642.21	301.68
648.83	304.4	653.04	306.17	655.33	307.16	656.35	307.57	657.35	307.94

Manning's n Values num= 14

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	117.83	.023	143.04	.02	171.61	.032	205.19	.035
301.39	.047	337.39	.05	353.68	.035	437.68	.035	497.08	.035
510.29	.035	610.06	.063	618.54	.07	657.35	.07		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
353.68	437.68	36.64	42.12	49.31	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 5049.293

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 36

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	307.58	7.69	305.53	30.43	298.86	36.08	297.72	47.16	295.37
48.66	295.07	70.1	289.37	71.89	288.88	73.9	288.62	79.76	288.51
122.52	286.08	137.84	285.21	160.12	284.39	178.44	283.79	199.09	283.64
280.94	282.25	296.97	282.13	313.38	282	367.75	281.59	392.56	281.4
425.58	281.47	460.03	281.55	490.39	282.12	510	282.08	521.52	282.06
524.42	282.04	524.73	282.05	562.02	284.13	593.5	288.16	593.51	288.16
593.54	288.17	605.04	291.05	611.55	293.43	632.09	300.22	643.12	306.92
644.82	307.86								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
367.75	460.03	196.45	215.25	246.7	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 4834.044

INPUT
Description:
Station Elevation Data num= 41

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	298.82	16.17	294.06	31.39	288.02	36.18	286.3	39.84	285.46
52.63	282.79	61.67	282.24	72.24	281.36	101.1	282.19	118.2	281.15
140.96	281.3	181	280.5	208.97	279.95	216.38	279.8	232.71	279.49
302.96	278.15	315	278.26	324.5	277.12	327.68	276.74	333.64	276
342.6	271.39	343.59	270.88	346.79	269.21	352.18	268.94	359.57	267.96
369.43	267.9	379.97	269.2	400.11	271.57	401.07	271.63	411	272.42
418.89	272.85	420.17	272.97	443.45	275.15	471.35	277.77	488.14	279.72
519.52	282.11	521.31	282.25	579.52	287.52	615.66	292.73	631.08	293.88
646.42	295.11								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	181	.02	232.71	.035	342.6	.07	420.17	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
346.79	379.97	246.15	208.45	136.4	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 4625.617

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 45

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	295.43	4.75	293.78	11.66	290.4	15.95	289.23	22.98	288.02
26.51	287.46	32.97	286.94	50.72	285.61	76.08	283.32	101.4	281.1
120.89	278.64	136.78	276.67	208.53	274.2	218.57	273.7	220.57	273.7
240.69	273.73	270	274.52	288.9	275.03	298.27	275.93	308.69	277.13
309.54	277.08	321.64	276.62	323.07	276.33	326.65	275.6	339.59	269.86
341.36	269.12	343.76	269.12	398.67	268.93	407.91	269.1	419.09	269.31
451.24	269.91	458.19	270.22	489.37	273.26	503.11	274.66	517.22	276.93
528.32	278.69	530.59	279.03	531.43	279.23	562.96	282.96	571.34	284.19
631.98	294.41	634.08	294.78	634.82	294.89	635.1	294.92	648.74	295.56

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	220.57	.02	270	.035	323.07	.07	419.09	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
341.36	407.91	202.35	195.4	199.05	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 4430.204

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 37

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	289.52	4.96	287.67	11.29	284.36	19.2	282.2	37.62	275.59
40.35	275.35	48.09	274.67	57.49	274.24	75.08	273.52	88.34	273.2
116.94	272.43	119.67	272.37	145.64	270.26	162.88	269.41	175.6	269.37
215.22	269.24	252.57	269.11	264.42	269.02	268.08	268.97	303.33	268.41
313	268.25	325.74	268.05	352.39	266.78	363.48	268.03	393.45	268.19
414.02	268.3	436.05	268.52	484.31	270.68	496	271.6	512.78	273.58
523.51	274.8	535.09	276.12	578.63	279.54	594.94	281.06	655.36	284.98
669.33	287.85	672.57	288.72						

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	40.35	.035	215.22	.02	264.42	.035	313	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
325.74	363.48	161.7	181.2	203.3	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 4249.023

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 35

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	288.52	5.08	286.41	8.18	284.65	13	282.74	16.28	281.02
23.77	277.94	29.9	275.31	31.93	274.83	50.28	269.53	59.91	268.53
72.78	267.64	101.14	266.76	125.94	266.2	160.29	265.42	187.18	265.37
207.25	264.58	223.88	263.78	235.54	263.21	239.96	263.01	248.7	262.54
257.16	262.53	320.41	263.01	329.69	263.09	366	265.09	374.43	265.55
383.18	266.1	435.2	269.41	447.16	270.9	483.66	274.43	512.13	277.24
521.91	278.8	551.63	281.96	554.7	282.48	556.07	282.97	581.51	288.88

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	50.28	.035	160.29	.02	207.25	.035	235.54	.05
366	.035	512.13	.05						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
239.96	320.41	51.94	42.86	32.23	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 4206.16*

INPUT
Description:
Station Elevation Data num= 65

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	287.29	4.67	285.28	7.52	283.67	11.94	281.84	14.96	280.26
15.17	280.17	15.85	279.9	21.84	277.62	27.47	275.4	29.34	274.98
33.03	273.97	43.21	271.19	46.2	270.34	47.23	270.21	55.05	269.2
62.91	268.41	66.29	268.15	66.87	268.1	71.1	267.92	88.31	267.1
92.93	266.89	99.1	266.65	104.38	266.44	115.72	266.14	129.14	265.77
147.28	265.26	158.57	265.14	165.84	265.06	171.98	265	190.43	264.21
204.07	263.52	205.71	263.42	216.42	262.73	220.48	262.49	231.55	262.1
231.98	262.1	242.27	262.06	293.63	262.49	302.76	262.66	327.2	264.03
330.77	264.2	338.51	264.56	346.81	264.94	355.42	265.39	391.58	267.33
395.55	267.54	406.49	268.12	406.62	268.13	407.43	268.2	408.85	268.36
410.57	268.55	418.4	269.41	453.83	272.51	454.33	272.56	478.44	275.04
482.35	275.44	491.98	276.89	502.51	278.03	521.23	280.43	522.53	280.66
524.26	280.97	525.6	281.42	535.09	283.61	543.03	285.56	550.65	287.62

Manning's n Values num= 14

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	33.03	.047	46.2	.035	99.1	.032	147.28	.02
158.57	.026	190.43	.038	216.42	.05	220.48	.035	293.63	.035
338.51	.035	395.55	.035	482.35	.047	550.65	.047		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
220.48	293.63	51.94	42.86	32.23	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 4163.30*

INPUT
Description:
Station Elevation Data num= 65

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	286.05	4.26	284.14	6.85	282.7	10.89	280.94	13.64	279.49
13.83	279.41	14.45	279.17	19.91	277.31	25.05	275.49	26.75	275.12
30.12	274.27	39.39	271.91	42.12	271.14	43.06	271	50.18	269.86
57.36	268.89	60.43	268.61	60.96	268.57	64.81	268.33	80.51	267.29
84.72	267.02	90.35	266.69	95.16	266.41	105.49	266.07	117.73	265.68
134.27	265.09	144.56	264.88	151.19	264.75	156.79	264.63	173.6	263.84
186.04	263.17	187.53	263.05	197.3	262.25	201	261.96	214.4	261.66
214.92	261.66	227.37	261.58	266.85	261.97	275.84	262.22	299.89	263.6
303.4	263.73	311.01	264.02	319.18	264.33	327.66	264.69	363.24	266.21
367.15	266.38	377.92	266.84	378.05	266.84	378.85	266.9	380.24	267.02
381.93	267.18	389.63	267.92	424.51	270.64	424.99	270.69	448.72	273.23
452.57	273.64	462.05	274.99	472.41	276.12	490.84	278.9	492.11	279.15
493.81	279.47	495.14	279.88	504.47	282.02	512.29	284.05	519.78	286.36

Manning's n Values num= 14

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	30.12	.044	42.12	.035	90.35	.029	134.27	.02
144.56	.032	173.6	.041	197.3	.05	201	.035	266.85	.035
311.01	.035	367.15	.035	452.57	.044	519.78	.044		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
201	266.85	51.94	42.86	32.23	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 4120.44*

INPUT
Description:
Station Elevation Data num= 65

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	284.82	3.84	283.01	6.19	281.72	9.83	280.04	12.32	278.73
12.49	278.65	13.05	278.45	17.98	276.99	22.62	275.58	24.15	275.27
27.2	274.57	35.58	272.64	38.03	271.95	38.89	271.8	45.32	270.53
51.8	269.37	54.57	269.08	55.06	269.03	58.53	268.75	72.7	267.48
76.51	267.15	81.59	266.73	85.93	266.37	95.27	266.01	106.32	265.58
121.25	264.93	130.55	264.62	136.53	264.43	141.59	264.26	156.78	263.47
168.01	262.82	169.36	262.69	178.18	261.78	181.52	261.44	197.25	261.22
197.86	261.22	212.48	261.11	240.07	261.44	248.91	261.79	272.58	263.18
276.03	263.27	283.52	263.49	291.56	263.71	299.89	263.98	334.9	265.1
338.75	265.22	349.35	265.55	349.47	265.56	350.26	265.59	351.63	265.69
353.3	265.82	360.87	266.42	395.18	268.76	395.66	268.82	419	271.42
422.79	271.83	432.11	273.08	442.31	274.21	460.44	277.38	461.69	277.63
463.37	277.96	464.67	278.33	473.85	280.42	481.55	282.53	488.92	285.09

Manning's n Values num= 14

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	27.2	.041	38.03	.035	81.59	.026	121.25	.02
130.55	.038	156.78	.044	178.18	.05	181.52	.035	240.07	.035
283.52	.035	338.75	.035	422.79	.041	488.92	.041		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
181.52	240.07	51.94	42.86	32.23	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 4077.57*

INPUT

11.15	277.89	11.65	277.72	16.05	276.68	20.19	275.67	21.56	275.42
24.28	274.87	31.76	273.36	33.95	272.76	34.71	272.59	40.46	271.19
46.24	269.84	48.72	269.54	49.15	269.5	52.25	269.17	64.9	267.66
68.3	267.28	72.84	266.77	76.71	266.34	85.04	265.95	94.91	265.49
108.24	264.76	116.54	264.37	121.88	264.11	126.4	263.89	139.95	263.09
149.98	262.48	151.18	262.32	159.06	261.3	162.04	260.91	180.1	260.78
180.8	260.78	197.58	260.63	213.29	260.92	221.99	261.36	245.26	262.75
248.66	262.81	256.03	262.95	263.93	263.1	272.13	263.27	306.57	263.99
310.35	264.07	320.77	264.27	320.9	264.27	321.67	264.28	323.02	264.35
324.66	264.45	332.11	264.93	365.86	266.89	366.33	266.95	389.29	269.62
393.01	270.03	402.18	271.17	412.21	272.31	430.04	275.85	431.28	276.11
432.92	276.46	434.21	276.78	443.24	278.83	450.8	281.01	458.05	283.83

Manning's n Values num= 14

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	24.28	.038	33.95	.035	72.84	.023	108.24	.02
116.54	.044	139.95	.047	159.06	.05	162.04	.035	213.29	.035
256.03	.035	310.35	.035	393.01	.038	458.05	.038		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
162.04	213.29	51.94	42.86	32.23	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 4034.719

INPUT
Description:
Station Elevation Data num= 35

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	282.35	9.81	277.13	10.25	277	21.36	275.17	27.94	274.08
30.54	273.39	40.68	270.32	42.86	270.01	45.97	269.59	57.1	267.85
64.08	266.81	67.49	266.3	83.5	265.39	102.53	264.11	107.23	263.79
131.95	262.13	142.56	260.39	163.74	260.34	182.69	260.16	186.51	260.4
217.95	262.32	221.29	262.35	278.23	262.88	281.95	262.91	292.2	262.99
293.08	262.97	294.41	263.02	296.02	263.09	336.53	265.02	359.57	267.81
382.11	270.4	400.86	274.59	412.62	277.23	420.06	279.49	427.19	282.57

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	21.36	.035	64.08	.02	102.53	.05	281.95	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
142.56	186.51	45.99	44.21	43.52	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 3990.51*

INPUT
Description:
Station Elevation Data num= 59

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	279.68	10.21	275.05	10.67	274.93	20.97	273.17	22.24	272.96
24.74	272.53	26.84	272.22	29.09	271.9	31.8	271.31	33.32	270.93
42.35	268.73	44.62	268.45	46.71	268.22	47.86	268.11	57.66	267.01
59.45	266.82	66.71	266.05	70.27	265.67	85.27	265.14	86.37	265.1
86.93	265.08	87.44	265.06	89.6	264.9	96.72	264.44	102.49	264.06
106.75	263.78	110.58	263.53	111.64	263.42	137.38	260.92	139.24	260.6
139.26	260.6	148.42	259.41	168.51	259.32	186.48	259.13	187.91	259.22
190.71	259.42	209.37	260.62	218.37	261.33	221.31	261.42	235.09	261.86
241.13	262.06	251.83	262.29	271.4	262.68	274.68	262.75	283.7	262.91
284.47	262.91	285.64	262.96	287.06	263.03	289.44	263.17	322.7	265
342.97	267.47	362.8	269.78	379.29	273.33	380.66	273.62	387.28	275.03
389.64	275.54	390.21	275.71	396.18	277.41	402.46	279.94		

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	20.97	.044	22.24	.032	57.66	.023	66.71	.023
96.72	.038	106.75	.05	148.42	.038	190.71	.038	274.68	.038
402.46	.038								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
148.42	190.71	45.99	44.21	43.52	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 3946.30*

INPUT
Description:
Station Elevation Data num= 59

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	277	10.62	272.97	11.09	272.86	21.8	270.97	23.12	270.74
25.72	270.29	27.9	270.01	30.24	269.72	33.05	269.22	34.63	268.91
44.03	267.14	46.38	266.9	48.56	266.69	49.75	266.62	59.94	265.91
61.8	265.78	69.35	265.28	73.04	265.04	88.64	264.8	89.78	264.79
90.37	264.77	90.89	264.75	93.14	264.59	100.54	264.11	106.54	263.73
110.96	263.45	114.95	263.19	116.05	263.05	142.8	259.72	144.74	259.37
144.76	259.37	154.28	258.44	173.28	258.31	190.27	258.11	191.84	258.19
194.91	258.44	211.02	259.55	218.79	260.34	221.33	260.5	233.23	261.23
238.45	261.55	247.68	261.9	264.58	262.49	267.41	262.58	275.19	262.84
275.86	262.85	276.87	262.9	278.09	262.98	280.15	263.11	308.86	264.98
326.36	267.14	343.48	269.16	357.72	272.07	358.91	272.31	364.62	273.44
366.66	273.85	367.15	273.98	372.31	275.34	377.72	277.31		

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	21.8	.038	23.12	.029	59.94	.026	69.35	.026
100.54	.041	110.96	.05	154.28	.041	194.91	.041	267.41	.041
377.72	.041								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
154.28	194.91	45.99	44.21	43.52	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 3902.09*

INPUT
Description:
Station Elevation Data num= 59

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	274.33	11.02	270.9	11.51	270.78	22.62	268.78	23.99	268.53
26.7	268.04	28.96	267.8	31.39	267.55	34.31	267.14	35.95	266.89
45.7	265.54	48.15	265.34	50.4	265.17	51.64	265.14	62.22	264.81
64.14	264.75	71.98	264.52	75.82	264.41	92	264.47	93.19	264.47
93.8	264.46	94.34	264.45	96.68	264.28	104.36	263.79	110.58	263.4
115.18	263.12	119.32	262.86	120.46	262.69	148.23	258.51	150.24	258.14
150.26	258.14	160.15	257.46	178.05	257.29	194.06	257.08	195.77	257.17
199.12	257.47	212.68	258.48	219.22	259.36	221.35	259.57	231.37	260.6
235.76	261.05	243.53	261.52	257.75	262.29	260.13	262.42	266.69	262.76
267.25	262.78	268.1	262.84	269.13	262.92	270.86	263.06	295.03	264.96

309.76	266.8	324.17	268.54	336.15	270.8	337.15	270.99	341.96	271.85
343.67	272.16	344.09	272.26	348.43	273.26	352.99	274.67		

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	22.62	.032	23.99	.026	62.22	.029	71.98	.029
104.36	.044	115.18	.05	160.15	.044	199.12	.044	260.13	.044
352.99	.044								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
160.15	199.12	45.99	44.21	43.52	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 3857.89*

INPUT
Description:
Station Elevation Data num= 59

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	271.65	11.42	268.82	11.94	268.71	23.45	266.58	24.87	266.32
27.67	265.8	30.02	265.58	32.54	265.37	35.56	265.06	37.26	264.87
47.37	263.95	49.91	263.79	52.25	263.64	53.53	263.65	64.49	263.7
66.49	263.71	74.62	263.75	78.59	263.77	95.37	264.13	96.6	264.16
97.23	264.15	97.8	264.15	100.22	263.96	108.18	263.47	114.63	263.08
119.39	262.79	123.68	262.52	124.87	262.32	153.65	257.31	155.74	256.91
155.76	256.91	166.01	256.49	182.81	256.27	197.85	256.06	199.7	256.14
203.32	256.49	214.33	257.4	219.64	258.37	221.37	258.65	229.5	259.96
233.07	260.54	239.38	261.13	250.93	262.09	252.86	262.25	258.18	262.69
258.64	262.72	259.33	262.79	260.16	262.87	261.57	263	281.19	264.94
293.15	266.46	304.85	267.92	314.59	269.54	315.4	269.68	319.3	270.25
320.69	270.47	321.03	270.53	324.55	271.18	328.25	272.04		

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	23.45	.026	24.87	.023	64.49	.032	74.62	.032
108.18	.047	119.39	.05	166.01	.047	203.32	.047	252.86	.047
328.25	.047								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
166.01	203.32	45.99	44.21	43.52	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 3813.686

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 29

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	268.98	24.28	264.38	28.65	263.56	31.08	263.37	38.58	262.85
54.09	262.12	66.77	262.6	98.74	263.79	100.01	263.84	101.25	263.85
103.76	263.65	112	263.15	118.68	262.75	128.05	262.19	161.24	255.68
161.26	255.68	171.87	255.51	201.64	255.03	203.63	255.12	207.52	255.51
215.98	256.33	227.64	259.33	230.38	260.04	235.23	260.75	252.28	262.95
293.64	268.36	296.64	268.66	297.97	268.81	303.52	269.41		

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	24.28	.02	66.77	.035	112	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
171.87	207.52	34.64	39.46	42.17	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 3774.22*

INPUT
Description:
Station Elevation Data num= 55

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	269	14.64	266.32	24.02	264.6	26.04	264.21	29.4	263.57
30.72	263.36	33.33	263.18	33.5	263.17	35.5	263.05	41.37	262.7
52.08	262.25	58	262.04	60.58	262.12	71.6	262.45	79.96	262.69
97.22	263.27	105.88	263.56	107.24	263.61	108.57	263.63	111.26	263.47
236.68	258.17	238.44	258.64	239.23	258.86	243.05	259.56	243.76	259.68
259.66	262.32	262.35	262.77	271.89	264.37	286.71	266.86	290.08	267.39
298.22	268.54	301.02	268.85	302.26	269.01	302.94	269.09	307.44	269.76

Manning's n Values num= 10

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	26.04	.025	29.4	.045	60.58	.022	71.6	.035
97.22	.038	120.1	.05	184.3	.053	217.92	.053	307.44	.053

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
184.3	217.92	34.64	39.46	42.17	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 3734.76*

INPUT
Description:
Station Elevation Data num= 55

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	269.01	15.62	266.25	25.64	264.47	27.79	264.05	31.38	263.34
32.79	263.17	35.57	263	35.76	262.99	37.89	262.87	44.16	262.55

55.59	262.13	61.91	261.96	64.66	262.02	76.43	262.29	85.35	262.49
103.78	263.06	113.02	263.34	114.47	263.39	115.89	263.41	118.76	263.3
124.99	263.13	128.2	262.98	135.84	262.61	138.16	262.5	146.57	262
156.18	260.67	162.13	259.6	174.12	257.45	182.27	255.93	184.56	255.34
184.58	255.34	189.59	254.58	196.72	253.46	214.53	252.89	221.95	252.74
223.89	252.91	224.1	252.93	228.31	253.45	235.63	254.28	237.64	254.75
245.72	257	247.35	257.46	248.09	257.69	251.62	258.47	252.28	258.62
267.03	261.69	269.53	262.22	278.38	264.07	292.13	266.97	295.25	267.57
302.81	268.71	305.4	269.04	306.56	269.2	307.19	269.29	311.36	270.1

Manning's n Values num= 10

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	27.79	.03	31.38	.04	64.66	.025	76.43	.035
103.78	.04	128.2	.05	196.72	.057	228.31	.057	311.36	.057

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
196.72	228.31	34.64	39.46	42.17	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 3695.30*

INPUT
Description:
Station Elevation Data num= 55

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	269.03	16.61	266.18	27.26	264.33	29.55	263.88	33.36	263.12
34.86	262.97	37.82	262.81	38.01	262.8	40.29	262.68	46.95	262.4
59.1	262	65.82	261.88	68.75	261.93	81.25	262.14	90.75	262.29
110.33	262.84	120.16	263.11	121.7	263.16	123.21	263.18	126.27	263.12
132.88	263.04	136.29	262.89	144.42	262.54	146.89	262.44	155.83	261.91
166.04	260.73	172.37	259.64	185.11	257.44	193.78	255.86	196.21	255.17
196.24	255.17	201.56	254.06	209.15	252.43	225.36	251.76	232.11	251.6
234.12	251.82	234.34	251.84	238.71	252.42	245.45	253.25	247.31	253.66
254.75	255.84	256.26	256.28	256.94	256.51	260.2	257.39	260.81	257.55
274.41	261.06	276.71	261.66	284.87	263.77	297.55	267.09	300.43	267.75
307.39	268.89	309.79	269.24	310.85	269.4	311.43	269.48	315.27	270.45

Manning's n Values num= 10

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	29.55	.035	33.36	.035	68.75	.027	81.25	.035
110.33	.043	136.29	.05	209.15	.06	238.71	.06	315.27	.06

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
209.15	238.71	34.64	39.46	42.17	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 3655.84*

INPUT
Description:
Station Elevation Data num= 55

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	269.05	17.6	266.1	28.88	264.2	31.3	263.71	35.35	262.9
36.94	262.77	40.07	262.62	40.27	262.61	42.68	262.5	49.74	262.26
62.62	261.88	69.73	261.8	72.83	261.84	86.08	261.98	96.14	262.09
116.89	262.62	127.3	262.89	128.93	262.93	130.53	262.96	133.77	262.95
140.78	262.95	144.39	262.81	153	262.48	155.62	262.38	165.08	261.81
175.91	260.79	182.61	259.67	196.11	257.43	205.29	255.78	207.87	255
207.9	254.99	213.54	253.54	221.58	251.41	236.18	250.62	242.27	250.46
244.35	250.72	244.58	250.75	249.1	251.39	255.28	252.22	256.98	252.58
263.79	254.68	265.17	255.11	265.79	255.34	268.78	256.31	269.33	256.49
281.78	260.43	283.89	261.1	291.36	263.47	302.96	267.2	305.6	267.93
311.98	269.07	314.17	269.43	315.14	269.59	315.67	269.68	319.19	270.8

Manning's n Values num= 10

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	31.3	.04	35.35	.03	72.83	.03	86.08	.035
116.89	.045	144.39	.05	221.58	.063	249.1	.063	319.19	.063

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
221.58	249.1	34.64	39.46	42.17	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 3616.38*

INPUT
Description:
Station Elevation Data num= 55

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	269.06	18.58	266.03	30.5	264.06	33.06	263.54	37.33	262.67
39.01	262.58	42.32	262.44	42.53	262.43	45.08	262.32	52.53	262.11
66.13	261.75	73.64	261.72	76.92	261.74	90.91	261.83	101.53	261.89
123.44	262.41	134.44	262.66	136.16	262.7	137.85	262.74	141.27	262.77
148.67	262.85	152.49	262.72	161.58	262.41	164.34	262.31	174.34	261.72
185.77	260.85	192.85	259.71	207.11	257.42	216.81	255.71	219.53	254.83
219.56	254.82	225.51	253.03	234	250.38	247.01	249.48	252.42	249.31
254.58	249.62	254.82	249.65	259.5	250.36	265.1	251.2	266.64	251.49
272.83	253.52	274.08	253.93	274.64	254.16	277.35	255.22	277.86	255.42
289.16	259.8	291.07	260.55	297.85	263.17	308.38	267.32	310.78	268.1
316.56	269.24	318.55	269.62	319.43	269.79	319.92	269.88	323.11	271.14

Manning's n Values num= 10

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	33.06	.045	37.33	.025	76.92	.032	90.91	.035
123.44	.047	152.49	.05	234	.067	259.5	.067	323.11	.067

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
234	259.5	34.64	39.46	42.17	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 3576.919

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 31

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	269.08	19.57	265.96	32.12	263.93	39.31	262.45	44.79	262.24
47.47	262.14	69.64	261.63	81	261.65	106.92	261.69	130	262.19
156.57	262.76	173.07	262.25	195.64	260.91	203.09	259.75	218.11	257.41
228.32	255.64	237.49	252.51	246.43	249.36	257.83	248.34	262.58	248.17
264.81	248.52	269.89	249.33	276.31	250.4	282.99	252.75	285.93	254.14
298.25	259.99	304.34	262.87	313.8	267.43	315.95	268.28	324.16	270.08
327.03	271.49								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	39.31	.02	81	.035	130	.05	246.43	.07

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
246.43	269.89	33.82	41.19	42.78	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 3535.73*

INPUT
Description:
Station Elevation Data num= 55

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	267.74	18.69	264.77	25.41	263.7	30.68	262.86	37.54	261.52
42.78	261.24	45.34	261.1	50.86	260.87	56.84	260.75	66.51	260.55
73.05	260.55	77.36	260.54	92.61	260.52	94.74	260.54	102.12	260.59
124.16	261.11	135.21	261.37	149.54	261.7	159.08	261.51	164.53	261.37
165.3	261.35	168.06	261.2	179.53	260.47	186.85	260.03	193.97	259.02
196.44	258.67	196.76	258.63	202.12	257.62	205.44	256.99	208.31	256.45
218.07	254.47	218.45	254.34	220.08	253.84	226.82	251.79	235.36	249.12
244.88	248.26	248.84	248.11	251.46	248.41	257.42	249.1	263.42	250.13
263.65	250.17	268.71	251.8	270.14	252.25	272.99	253.45	275.51	254.5
277.4	255.36	281.54	257.25	284.96	258.81	290.87	261.52	295.74	263.78
300.06	266.1	302.15	267.08	307.59	268.82	310.12	269.58	312.91	271.05

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	37.54	.026	56.84	.044	77.36	.032	94.74	.023
124.16	.047	202.12	.038	235.36	.07	257.42	.07	263.42	.07
312.91	.07								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
235.36	257.42	33.82	41.19	42.78	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 3494.54*

INPUT
Description:
Station Elevation Data num= 55

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	266.39	17.81	263.59	24.21	262.57	29.23	261.8	35.78	260.6
40.77	260.24	43.21	260.06	48.46	259.73	54.17	259.63	63.38	259.46
69.62	259.45	73.72	259.43	88.26	259.37	90.29	259.4	97.32	259.49
118.32	260.03	128.86	260.29	142.51	260.65	151.6	260.57	156.79	260.46
157.52	260.45	160.16	260.33	171.09	259.58	178.07	259.14	184.85	258.29
187.2	258	187.51	257.96	192.61	256.82	195.78	256.11	198.52	255.49
207.81	253.3	208.18	253.17	209.73	252.76	216.16	251.07	224.29	248.88
231.92	248.18	235.1	248.04	238.1	248.29	244.95	248.87	250.77	249.89
250.99	249.93	255.9	251.37	257.29	251.76	260.06	252.75	262.5	253.63
264.33	254.42	268.35	256.17	271.67	257.64	277.4	260.17	282.13	262.28
286.32	264.78	288.34	265.87	293.63	268.13	296.08	269.09	298.78	270.61

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	35.78	.032	54.17	.038	73.72	.029	90.29	.026

224.29	244.95	33.82	41.19	42.78	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 3453.35*

INPUT
Description:
Station Elevation Data num= 55

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	265.05	16.93	262.4	23.02	261.44	27.79	260.73	34.01	259.67
38.75	259.23	41.07	259.02	46.07	258.59	51.5	258.51	60.26	258.38
66.18	258.35	70.09	258.32	83.9	258.22	85.83	258.26	92.51	258.38
112.48	258.94	122.5	259.22	135.47	259.59	144.12	259.62	149.05	259.56
149.75	259.54	152.26	259.45	162.64	258.68	169.28	258.26	175.73	257.56
177.97	257.32	178.26	257.29	183.11	256.01	186.12	255.22	188.72	254.53
197.56	252.13	197.91	252.01	199.38	251.67	205.49	250.35	213.23	248.63
218.97	248.1	221.36	247.98	224.75	248.18	232.47	248.65	238.12	249.66
238.34	249.7	243.1	250.94	244.44	251.26	247.12	252.06	249.49	252.76
251.26	253.49	255.16	255.1	258.37	256.46	263.94	258.82	268.52	260.78
272.58	263.45	274.54	264.67	279.66	267.45	282.04	268.59	284.66	270.16

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	34.01	.038	51.5	.032	70.09	.026	85.83	.029
112.48	.041	183.11	.044	213.23	.07	232.47	.07	238.12	.07
284.66	.07								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
213.23	232.47	33.82	41.19	42.78	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 3412.16*

INPUT
Description:
Station Elevation Data num= 55

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	263.7	16.05	261.21	21.82	260.32	26.35	259.66	32.25	258.75
36.74	258.23	38.94	257.98	43.68	257.46	48.82	257.4	57.13	257.29
62.75	257.26	66.45	257.22	79.55	257.07	81.38	257.12	87.71	257.28
106.65	257.86	116.14	258.15	128.44	258.53	136.64	258.68	141.32	258.65
141.98	258.64	144.35	258.58	154.2	257.79	160.49	257.38	166.6	256.83
168.73	256.65	169	256.63	173.6	255.21	176.46	254.34	178.93	253.58
187.3	250.96	187.63	250.84	189.03	250.59	194.82	249.63	202.16	248.39
206.01	248.02	207.62	247.91	211.4	248.07	220	248.42	225.47	249.42
225.68	249.46	230.29	250.5	231.59	250.77	234.19	251.36	236.48	251.89
238.2	252.55	241.97	254.02	245.08	255.29	250.47	257.47	254.9	259.27
258.83	262.12	260.74	263.46	265.7	266.76	268	268.09	270.53	269.72

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	32.25	.044	48.82	.026	66.45	.023	81.38	.032
106.65	.038	173.6	.047	202.16	.07	220	.07	225.47	.07
270.53	.07								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
202.16	220	33.82	41.19	42.78	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 3370.982

INPUT
Description:
Station Elevation Data num= 29

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	262.36	20.63	259.19	41.29	256.32	46.15	256.28	59.31	256.16
75.19	255.92	76.92	255.98	109.78	257.08	129.16	257.74	133.58	257.75
136.45	257.7	145.76	256.89	159.49	255.97	159.75	255.96	164.1	254.41
166.8	253.45	177.36	249.68	178.68	249.51	191.09	248.15	193.88	247.85
207.53	248.19	212.82	249.19	217.48	250.07	223.47	251.02	225.13	251.62
228.78	252.95	241.29	257.77	251.73	266.07	256.41	269.28		

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	46.15	.02	76.92	.035	164.1	.05	212.82	.07

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
191.09	207.53	32.87	38.29	40.04	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 3332.68*

INPUT
Description:
Station Elevation Data num= 52

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	262.36	21.79	259.69	40.39	257.62	43.61	257.25	44.99	257.23
48.75	257.17	59.49	257.01	62.65	256.94	79.42	256.48	81.25	256.49
82.55	256.51	90.93	256.52	97.33	256.46	104.69	256.41	115.96	256.34
133.85	256.24	136.43	256.22	141.1	256.09	141.9	256.05	144.13	256.01
150.86	255.51	153.96	255.28	156.73	255.12	168.46	254.31	168.74	254.29
173.33	252.97	176.19	252.15	179.87	251.08	187.34	248.95	187.76	248.91
188.73	248.8	201.84	247.52	204.72	247.27	205.74	247.2	206.02	247.16
206.13	247.16	219.24	247.55	225.09	248.44	230.25	249.22	236.88	250.08
238.72	250.59	239.4	250.78	242.75	251.71	246.37	252.77	247.7	253.17
249.37	253.72	253.38	255.11	256.59	256.22	257.06	256.52	266.24	263.22
268.15	264.6	273.32	267.94						

Manning's n Values num= 12

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.054	48.75	.03	81.25	.042	104.69	.066	150.86	.044
173.33	.044	187.76	.023	201.84	.066	219.24	.066	225.09	.066
249.37	.054	273.32	.07						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
201.84	219.24	32.87	38.29	40.04	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 3294.39*

INPUT
Description:
Station Elevation Data num= 52

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	262.37	22.95	260.2	42.54	258.5	45.94	258.18	47.39	258.15
51.34	258.07	62.66	257.83	65.98	257.71	83.65	257.03	85.58	257.01
86.95	256.99	95.77	256.75	102.52	256.43	110.27	256.1	122.13	255.6
140.98	254.81	143.69	254.71	148.61	254.42	149.45	254.37	151.81	254.31
158.89	253.88	162.16	253.68	165.07	253.53	177.44	252.65	177.73	252.63

182.57	251.53	185.57	250.85	189.45	249.96	197.32	248.23	197.76	248.19
198.79	248.09	212.59	246.89	216.42	246.61	217.78	246.52	218.16	246.47
218.39	246.47	230.95	246.91	237.37	247.69	243.02	248.37	250.29	249.14
252.3	249.55	253.06	249.71	256.73	250.47	260.69	251.33	262.15	251.67
263.98	252.19	268.37	253.57	271.9	254.67	272.41	254.93	282.47	261.74
284.56	263.13	290.24	266.61						

Manning's n Values num= 12

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.058	51.34	.04	85.58	.049	110.27	.062	158.89	.038
182.57	.038	197.76	.026	212.59	.062	230.95	.062	237.37	.062
263.98	.058	290.24	.07						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
212.59	230.95	32.87	38.29	40.04	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 3256.09*

INPUT
Description:
Station Elevation Data num= 52

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	262.37	24.11	260.7	44.7	259.38	48.26	259.11	49.79	259.06
53.94	258.96	65.83	258.65	69.32	258.49	87.88	257.59	89.9	257.52
91.35	257.48	100.61	256.98	107.7	256.39	115.85	255.79	128.31	254.86
148.11	253.39	150.96	253.19	156.13	252.76	157.01	252.68	159.48	252.62
166.93	252.24	170.36	252.07	173.42	251.94	186.41	250.98	186.72	250.96
191.8	250.09	194.96	249.55	199.04	248.84	207.3	247.5	207.77	247.46
208.84	247.37	223.35	246.26	228.13	245.94	229.83	245.85	230.29	245.79
230.64	245.79	242.67	246.28	249.64	246.94	255.79	247.52	263.7	248.2
265.89	248.52	266.71	248.64	270.7	249.22	275.02	249.88	276.6	250.17
278.59	250.66	283.37	252.03	287.2	253.12	287.76	253.35	298.7	260.26
300.98	261.66	307.15	265.27						

Manning's n Values num= 12

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.062	53.94	.05	89.9	.056	115.85	.058	166.93	.032
191.8	.032	207.77	.029	223.35	.058	242.67	.058	249.64	.058
278.59	.062	307.15	.07						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
223.35	242.67	32.87	38.29	40.04	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 3217.80*

INPUT
Description:
Station Elevation Data num= 52

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	262.38	25.27	261.2	46.85	260.25	50.58	260.04	52.18	259.98
56.54	259.85	69	259.48	72.66	259.27	92.11	258.14	94.23	258.04
95.74	257.96	105.46	257.21	112.89	256.36	121.42	255.47	134.49	254.12
155.24	251.97	158.23	251.67	163.64	251.1	164.57	251	167.16	250.92
174.96	250.61	178.57	250.46	181.77	250.34	195.39	249.32	195.7	249.3
201.03	248.65	204.34	248.24	208.62	247.72	217.28	246.78	217.77	246.74
218.89	246.66	234.1	245.63	239.83	245.27	241.87	245.17	242.43	245.1
242.9	245.1	254.38	245.64	261.92	246.19	268.56	246.67	277.1	247.25
279.47	247.48	280.36	247.57	284.67	247.98	289.34	248.44	291.05	248.66
293.2	249.13	298.36	250.49	302.51	251.57	303.11	251.76	314.94	258.78
317.39	260.19	324.07	263.94						

Manning's n Values num= 12

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.066	56.54	.06	94.23	.063	121.42	.054	174.96	.026
201.03	.026	217.77	.032	234.1	.054	254.38	.054	261.92	.054
293.2	.066	324.07	.07						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
234.1	254.38	32.87	38.29	40.04	.1	.3

CROSS SECTION RIVER: Canada Chiquita

Station Elevation Data num= 28

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	262.38	49	261.13	54.58	260.9	72.17	260.3	100.14	258.45
110.3	257.44	118.07	256.33	127	255.16	162.37	250.55	172.13	249.31
183	248.97	190.12	248.75	218.2	246.6	227.77	246.02	244.85	245
251.54	244.6	253.92	244.5	254.57	244.41	255.15	244.41	266.09	245
294.01	246.5	303.66	247	305.5	247.16	307.81	247.6	313.36	248.95
318.46	250.18	331.17	257.3	340.98	262.6				

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.07	127	.05	183	.02	227.77	.035	266.09	.05
307.81	.07								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
244.85	266.09	46.01	44.88	34.07	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 3134.63*

INPUT

Description:
Station Elevation Data num= 51

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	261.34	17.71	260.7	28.57	260.36	47.45	259.85	52.86	259.63
69.89	259.05	82.68	258.26	96.98	257.37	106.82	256.48	114.34	255.52
119.55	254.9	122.99	254.49	143.05	252.09	157.24	250.4	166.69	249.29
177.22	248.93	180.68	248.82	184.12	248.66	196.82	247.57	201.33	247.19
211.31	246.29	212.79	246.18	220.58	245.7	237.12	244.7	244.4	244.23
246.99	244.1	247.7	244.01	248.18	244.01	258.17	244.53	261.04	244.67
261.89	244.77	280.33	246.4	285.19	246.6	295.31	246.85	297.23	246.89
307.15	247.12	307.32	247.13	309.41	247.24	312.25	247.6	314.38	247.94
317.07	248.38	317.53	248.46	319.06	248.72	324.51	249.66	325.32	249.82
327.88	250.89	336.75	255.2	339.36	256.45	340.92	257.1	343.72	258.22
352.96	261.88								

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.07	122.99	.053	143.05	.067	177.22	.025	220.58	.038
237.12	.045	261.04	.045	312.25	.062	314.38	.02	327.88	.025
352.96	.067								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
237.12	261.04	46.01	44.88	34.07	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 3089.75*

INPUT
Description:
Station Elevation Data num= 51

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	260.3	17.13	259.48	27.64	259.09	45.91	258.57	51.13	258.36
67.61	257.79	79.98	257.08	93.82	256.29	103.33	255.52	110.61	254.7
115.65	254.18	118.98	253.82	138.39	251.72	152.12	250.24	161.26	249.28
171.44	248.9	174.79	248.77	178.11	248.57	190.4	247.4	194.77	246.99
204.42	245.98	205.85	245.84	213.39	245.38	229.39	244.4	237.26	243.87
240.06	243.71	240.83	243.62	241.21	243.62	252.69	244.18	255.99	244.34
257	244.5	278.85	246.96	284.61	247.14	296.61	247.19	298.89	247.2
310.65	247.24	310.84	247.24	313.32	247.33	316.68	247.6	319.21	247.87
322.4	248.2	322.95	248.27	324.76	248.5	331.22	249.3	332.18	249.47
335.21	250.43	345.72	255	348.82	256.32	350.67	256.9	353.99	257.91
364.94	261.15								

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.07	118.98	.057	138.39	.063	171.44	.03	213.39	.04
229.39	.04	255.99	.04	316.68	.053	319.21	.02	335.21	.03
364.94	.063								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
229.39	255.99	46.01	44.88	34.07	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 3044.87*

INPUT
Description:
Station Elevation Data num= 51

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	259.26	16.55	258.26	26.7	257.82	44.36	257.29	49.41	257.09
65.33	256.54	77.29	255.91	90.65	255.21	99.85	254.56	106.89	253.89
111.75	253.46	114.97	253.15	133.72	251.35	146.99	250.09	155.82	249.26
165.66	248.86	168.89	248.73	172.11	248.47	183.98	247.23	188.2	246.79
197.53	245.67	198.92	245.51	206.19	245.06	221.65	244.1	230.12	243.5
233.13	243.31	233.96	243.23	234.24	243.23	247.21	243.84	250.95	244.01
252.1	244.23	277.38	247.51	284.04	247.69	297.91	247.54	300.54	247.51
314.14	247.36	314.37	247.36	317.24	247.41	321.12	247.6	324.04	247.79
327.73	248.02	328.36	248.08	330.46	248.27	337.93	248.95	339.03	249.11
342.54	249.97	354.7	254.8	358.27	256.19	360.41	256.7	364.26	257.6
376.92	260.43								

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.07	114.97	.06	133.72	.06	165.66	.035	206.19	.043
221.65	.035	250.95	.035	321.12	.045	324.04	.02	342.54	.035
376.92	.06								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
221.65	250.95	46.01	44.88	34.07	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 2999.99*

INPUT
Description:
Station Elevation Data num= 51

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	258.22	15.97	257.04	25.77	256.55	42.81	256.01	47.69	255.82
63.05	255.29	74.59	254.74	87.49	254.13	96.37	253.6	103.16	253.07
107.86	252.74	110.96	252.48	129.06	250.99	141.86	249.94	150.39	249.25
159.89	248.82	163	248.69	166.11	248.38	177.57	247.06	181.64	246.6
190.64	245.36	191.98	245.18	199	244.74	213.92	243.79	222.98	243.13
226.2	242.91	227.08	242.83	227.28	242.83	241.73	243.5	245.9	243.67
247.21	243.97	275.9	248.07	283.46	248.23	299.21	247.89	302.2	247.82
317.63	247.47	317.89	247.47	321.15	247.49	325.56	247.6	328.88	247.71
333.06	247.85	333.78	247.9	336.16	248.05	344.63	248.59	345.89	248.76
349.88	249.52	363.67	254.6	367.73	256.06	370.16	256.5	374.53	257.29
388.89	259.71								

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.07	110.96	.063	129.06	.057	159.89	.04	199	.045
213.92	.03	245.9	.03	325.56	.037	328.88	.02	349.88	.04
388.89	.057								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
213.92	245.9	46.01	44.88	34.07	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 2955.11*

INPUT
Description:
Station Elevation Data num= 51

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	257.18	15.4	255.83	24.84	255.28	41.26	254.73	45.96	254.56
60.78	254.03	71.9	253.57	84.33	253.05	92.89	252.63	99.43	252.26
103.96	252.01	106.95	251.81	124.39	250.62	136.73	249.78	144.95	249.23
154.11	248.79	157.11	248.64	160.1	248.29	171.15	246.89	175.07	246.4
183.75	245.05	185.04	244.85	191.81	244.42	206.19	243.49	215.84	242.77
219.27	242.51	220.21	242.43	220.31	242.43	236.26	243.15	240.85	243.34
242.32	243.7	274.43	248.62	282.89	248.78	300.51	248.23	303.85	248.13
321.13	247.59	321.42	247.59	325.06	247.57	329.99	247.6	333.71	247.63
338.39	247.67	339.19	247.71	341.85	247.82	351.34	248.23	352.75	248.4
357.21	249.06	372.65	254.4	377.19	255.92	379.91	256.3	384.79	256.98
400.87	258.98								

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.07	106.95	.067	124.39	.053	154.11	.045	191.81	.047
206.19	.025	240.85	.025	329.99	.028	333.71	.02	357.21	.045
400.87	.053								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
206.19	240.85	46.01	44.88	34.07	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 2910.241

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 28

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	256.14	14.82	254.61	23.91	254.01	69.2	252.4	100.06	251.29
119.73	250.25	151.22	248.6	164.73	246.72	168.51	246.2	178.1	244.52
198.46	243.19	213.34	242.04	230.78	242.81	235.8	243.01	237.43	243.43
272.95	249.18	282.31	249.32	305.51	248.44	324.94	247.7	338.54	247.55
343.72	247.49	344.61	247.52	358.05	247.87	364.54	248.6	381.62	254.2
386.65	255.79	395.06	256.67	412.85	258.26				

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.07	119.73	.05	338.54	.02	364.54	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
198.46	235.8	211.75	214.95	200.2	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 2695.270

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 25

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	255.82	11.43	252.35	26.32	250.15	34.39	248.56	64.21	246.65
67.15	246.49	77.79	245.87	118.86	244.04	146.63	243.13	168.09	243.4
188.8	243.22	269.38	242.49	302.24	241.57	316.64	241.15	324.83	241.36
327.5	241.55	343.56	242.71	352.67	243.35	368.66	247.65	374.16	249.16
375.02	249.26	387.16	250.63	405	251.91	429.55	253.68	447.4	256.21

Manning's n Values num= 4

302.24	327.5	160.6	197.15	200.15	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 2498.115

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 32

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	256.11	1.55	255.71	2.5	255.32	27.95	245.84	29.26	245.24
29.74	245.1	39.3	242.86	46.18	242.57	62.06	241.74	72.81	241.19
117.17	240.71	128.17	240.4	186.08	238.79	204.08	238.29	213.43	237.91
218.53	237.84	244.41	238.04	265.33	238.36	274.88	238.41	310.08	240.77
316.15	241.14	336.1	242.35	342.03	242.76	375	244.03	388.6	244.55
396.05	244.74	404.61	245.64	413	246.36	438.69	248.55	449.78	250.01
464.54	253.39	474.7	255.82						

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.07	128.17	.05	375	.02	413	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
204.08	265.33	40.03	38.99	38.2	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 2459.12*

INPUT
Description:
Station Elevation Data num= 52

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	255.06	1.41	254.67	2.27	254.31	25.34	245.53	26.52	244.98
26.96	244.85	31.36	243.73	35.62	242.74	36.53	242.69	41.86	242.42
56.25	241.55	66	240.98	76.98	240.74	106.21	240.11	113.59	239.84
114.11	239.82	116.18	239.76	168.67	238.2	170.67	238.14	184.99	237.71
193.18	237.37	197.65	237.3	200.63	237.3	224.17	237.49	243.2	237.77
254.35	237.84	281.47	239.21	295.44	239.92	302.53	240.25	325.82	241.32
327.42	241.41	332.74	241.67	346.76	242.05	363.33	242.5	371.24	242.73
387.11	243.2	395.81	243.37	397.82	243.53	405.8	244.14	406.17	244.16
415.6	244.85	428.06	245.75	445.59	247.02	447.64	247.24	450.32	247.52
451.36	247.65	453.19	247.88	458.54	248.55	470.95	250.97	475.77	252.09
478.05	252.64	487.63	254.78						

Manning's n Values num= 10

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.07	114.11	.064	116.18	.047	184.99	.025	243.2	.025
371.24	.025	415.6	.038	428.06	.045	451.36	.022	487.63	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
184.99	243.2	40.03	38.99	38.2	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 2420.12*

INPUT
Description:
Station Elevation Data num= 52

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	254.01	1.26	253.64	2.03	253.31	22.72	245.22	23.79	244.73
24.18	244.6	28.13	243.5	31.95	242.62	32.76	242.57	37.54	242.27
50.45	241.37	59.19	240.77	69.04	240.41	95.25	239.52	101.87	239.2
102.33	239.18	104.19	239.12	151.27	237.61	153.06	237.55	165.9	237.13
172.94	236.83	176.77	236.76	182.73	236.76	203.93	236.93	221.07	237.18
233.82	237.27	264.83	238.46	280.81	239.07	288.91	239.36	315.54	240.3
317.37	240.37	323.46	240.58	339.49	240.88	358.43	241.23	367.47	241.44
385.63	241.84	395.57	242	397.87	242.13	407	242.64	407.42	242.65
418.2	243.33	432.45	244.23	452.49	245.49	454.84	245.69	457.9	245.96
459.09	246.1	461.18	246.35	467.3	247.09	481.49	249.5	487	250.8
489.61	251.43	500.56	253.74						

Manning's n Values num= 10

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.07	102.33	.058	104.19	.045	165.9	.03	221.07	.03
367.47	.03	418.2	.04	432.45	.04	459.09	.025	500.56	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
165.9	221.07	40.03	38.99	38.2	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 2381.13*

INPUT
Description:
Station Elevation Data num= 52

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	252.96	1.12	252.6	1.8	252.3	20.11	244.9	21.05	244.47
21.39	244.35	24.89	243.27	28.27	242.51	28.99	242.44	33.22	242.12
44.64	241.18	52.38	240.55	61.09	240.09	84.29	238.92	90.15	238.56
90.56	238.54	92.2	238.48	133.86	237.02	135.45	236.96	146.81	236.55
152.69	236.29	155.9	236.22	164.83	236.22	183.69	236.38	198.94	236.58
213.29	236.7	248.19	237.71	266.17	238.23	275.29	238.47	305.26	239.27
307.32	239.33	314.17	239.49	332.21	239.71	353.53	239.96	363.71	240.14
384.14	240.49	395.33	240.63	397.91	240.74	408.19	241.13	408.67	241.15
420.8	241.82	436.84	242.71	459.39	243.96	462.03	244.15	465.48	244.39
466.81	244.55	469.18	244.82	476.06	245.63	492.03	248.02	498.23	249.5
501.17	250.21	513.49	252.7						

Manning's n Values num= 10

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.07	90.56	.053	92.2	.043	146.81	.035	198.94	.035
363.71	.035	420.8	.043	436.84	.035	466.81	.027	513.49	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
146.81	198.94	40.03	38.99	38.2	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 2342.13*

INPUT
Description:
Station Elevation Data num= 52

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	251.91	.97	251.56	1.56	251.3	17.49	244.59	18.31	244.21
18.61	244.1	21.65	243.04	24.6	242.39	25.22	242.31	28.9	241.97
38.84	241	45.57	240.34	53.15	239.77	73.33	238.32	78.42	237.91
78.78	237.9	80.21	237.85	116.46	236.43	117.84	236.38	127.72	235.97
132.44	235.75	135.02	235.68	146.94	235.68	163.46	235.82	176.81	235.99
192.76	236.13	231.55	236.96	251.54	237.38	261.67	237.58	294.99	238.25
297.27	238.29	304.89	238.39	324.94	238.53	348.63	238.7	359.94	238.84

382.65	239.14	395.09	239.26	397.96	239.34	409.39	239.63	409.92	239.64
423.4	240.31	441.23	241.19	466.3	242.43	469.23	242.6	473.06	242.83
474.54	243	477.17	243.3	484.81	244.17	502.57	246.55	509.46	248.21
512.72	249	526.43	251.65						

Manning's n Values num= 10

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.07	78.78	.047	80.21	.04	127.72	.04	176.81	.04
359.94	.04	423.4	.045	441.23	.03	474.54	.03	526.43	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
127.72	176.81	40.03	38.99	38.2	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 2303.14*

INPUT
Description:
Station Elevation Data num= 52

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	250.86	.83	250.52	1.33	250.29	14.88	244.28	15.57	243.95
15.83	243.85	18.42	242.81	20.92	242.27	21.45	242.19	24.58	241.82
33.03	240.81	38.76	240.13	45.2	239.44	62.37	237.73	66.7	237.27
67.01	237.26	68.22	237.21	99.05	235.84	100.22	235.79	108.63	235.39
112.19	235.21	114.14	235.14	129.04	235.14	143.22	235.27	154.68	235.4
172.23	235.57	214.91	236.2	236.9	236.53	248.05	236.69	284.71	237.22
287.22	237.26	295.6	237.3	317.66	237.36	343.73	237.43	356.18	237.55
381.17	237.78	394.85	237.9	398.01	237.95	410.58	238.13	411.16	238.14
426	238.8	445.61	239.67	473.2	240.9	476.42	241.06	480.64	241.26
482.27	241.45	485.16	241.77	493.57	242.71	513.11	245.07	520.69	246.91
524.28	247.78	539.36	250.61						

Manning's n Values num= 10

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.07	67.01	.041	68.22	.037	108.63	.045	154.68	.045
356.18	.045	426	.048	445.61	.025	482.27	.033	539.36	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
108.63	154.68	40.03	38.99	38.2	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 2264.151

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 25

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	249.81	15.18	242.58	17.68	242.06	37.26	239.12	54.98	236.63
55.23	236.62	82.61	235.2	89.54	234.81	93.26	234.6	111.14	234.6
132.55	234.81	198.27	235.45	277.17	236.22	310.39	236.19	338.83	236.16
398.06	236.55	412.41	236.63	450	238.15	483.62	239.51	488.22	239.7
490	239.9	493.15	240.24	523.65	243.6	535.84	246.57	552.29	249.57

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.07	55.23	.035	132.55	.05	450	.02	490	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
89.54	132.55	44.23	41.72	38.81	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 2222.42*

INPUT
Description:
Station Elevation Data num= 50

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	248.41	9.32	245.72	15.59	243.9	16.51	243.63	20.77	242.34
24.19	241.84	44.51	239.57	50.99	238.86	53.4	238.61	59.4	238.05
75.23	236.56	75.58	236.55	81.53	236.3	86.41	236.01	101.97	235.07
112.36	234.58	113.04	234.55	121.86	234.05	122.53	234.03	135.99	233.82
150.29	233.82	175.26	233.96	181.16	234.04	231.88	234.58	242.05	234.69
260.2	234.88	275.59	235.06	315.14	235.65	319.92	235.68	345.92	235.82
372.27	235.96	373.07	235.97	385.93	236.12	392.94	236.15	400.95	236.21
427.14	236.43	440.44	236.52	457.31	237.16	475.26	237.83	486.81	238.26
493.96	238.49	506.41	239.19	510.62	239.43	510.67	239.43	512.32	239.62
515.24	239.93	543.49	243.02	554.79	245.56	558.7	246.23	570.03	248.22

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.063	75.58	.035	86.41	.038	122.53	.047	181.16	.047
231.88	.035	400.95	.032	457.31	.023	475.26	.023	512.32	.035
570.03	.035								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
122.53	181.16	44.23	41.72	38.81	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 2180.70*

INPUT
Description:
Station Elevation Data num= 50

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	247.01	11.83	244.86	19.79	243.41	20.95	243.2	26.36	242.1
30.71	241.63	56.49	239.32	64.71	238.61	67.78	238.36	75.39	237.84
95.49	236.5	95.92	236.49	103.48	236.21	109.68	235.81	129.42	234.53
142.61	233.94	143.48	233.9	154.67	233.27	155.51	233.25	178.72	233.05

189.44	233.05	222.07	233.15	229.77	233.27	276.46	233.82	285.83	233.93
302.54	234.12	316.71	234.31	353.12	235.09	357.51	235.15	381.45	235.45
405.71	235.75	406.44	235.77	418.29	235.98	424.74	235.98	432.11	236.06
456.22	236.3	468.46	236.42	484	236.94	500.52	237.5	511.15	237.86
517.74	238.01	529.2	238.87	533.08	239.17	533.12	239.17	534.64	239.34
537.33	239.62	563.34	242.45	573.74	244.55	577.34	245.13	587.77	246.87

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.056	95.92	.035	109.68	.041	155.51	.044	229.77	.044
276.46	.035	432.11	.029	484	.026	500.52	.026	534.64	.035
587.77	.035								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
155.51	229.77	44.23	41.72	38.81	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 2138.98*

INPUT
Description:
Station Elevation Data num= 50

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	245.62	14.33	244.01	23.99	242.92	25.39	242.76	31.96	241.86
37.22	241.41	68.47	239.06	78.44	238.35	82.16	238.1	91.38	237.63
115.74	236.43	116.27	236.42	125.42	236.12	132.94	235.61	156.88	233.98
172.86	233.3	173.91	233.24	187.48	232.49	188.5	232.48	221.44	232.27
228.6	232.27	268.87	232.35	278.39	232.49	321.05	233.06	329.6	233.17
344.88	233.37	357.82	233.56	391.09	234.52	395.11	234.62	416.98	235.08
439.15	235.55	439.82	235.57	450.64	235.84	456.53	235.82	463.28	235.91
485.31	236.18	496.49	236.31	510.69	236.73	525.79	237.18	535.5	237.47
541.52	237.53	551.99	238.55	555.53	238.9	555.57	238.9	556.96	239.05
559.41	239.32	583.18	241.87	592.68	243.55	595.98	244.02	605.5	245.53

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.049	116.27	.035	132.94	.044	188.5	.041	278.39	.041
321.05	.035	463.28	.026	510.69	.029	525.79	.029	556.96	.035
605.5	.035								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
188.5	278.39	44.23	41.72	38.81	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 2097.26*

INPUT
Description:
Station Elevation Data num= 50

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	244.22	16.84	243.16	28.18	242.44	29.84	242.33	37.55	241.62
43.73	241.19	80.46	238.81	92.17	238.1	96.53	237.84	107.37	237.43
136	236.37	136.62	236.35	147.37	236.03	156.21	235.41	184.33	233.44
203.11	232.66	204.34	232.59	220.28	231.7	221.48	231.7	264.17	231.5
267.75	231.5	315.68	231.54	327	231.72	365.63	232.29	373.38	232.41
387.21	232.61	398.94	232.82	429.07	233.96	432.7	234.08	452.51	234.71
472.59	235.35	473.19	235.37	483	235.7	488.33	235.66	494.44	235.75
514.39	236.05	524.52	236.2	537.37	236.52	551.05	236.86	559.84	237.07
565.29	237.06	574.78	238.24	577.99	238.64	578.02	238.64	579.28	238.77
581.5	239.01	603.03	241.3	611.63	242.54	614.61	242.92	623.24	244.18

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.042	136.62	.035	156.21	.047	221.48	.038	327	.038
365.63	.035	494.44	.023	537.37	.032	551.05	.032	579.28	.035
623.24	.035								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
221.48	327	44.23	41.72	38.81	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 2055.543

INPUT
Description:
Station Elevation Data num= 30

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	242.82	19.35	242.31	32.38	241.95	34.28	241.89	92.44	238.55
110.91	237.58	123.36	237.22	169.32	235.94	179.47	235.21	211.78	232.89
233.36	232.02	253.09	230.92	254.47	230.92	306.9	230.72	362.48	230.73
375.61	230.95	410.22	231.53	429.55	231.85	440.05	232.07	470.3	233.55
506.57	235.17	515.35	235.56	520.13	235.5	525.6	235.6	564.06	236.31
584.19	236.68	589.07	236.58	600.44	238.37	633.25	241.81	640.98	242.83

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	179.47	.05	410.22	.035	525.6	.02	564.06	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
254.47	375.61	173.95	195.7	217.35	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 1859.868

INPUT
Description:
Station Elevation Data num= 26

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev

0	242.89	11.75	242.36	56.42	239.23	87.16	237.42	129.51	235.03
172.43	232.97	188.28	231.46	194.36	230.86	213.86	230.23	257.82	228.81
264.14	228.61	294.87	228.68	346.44	228.81	395.32	228.93	401.8	228.95
402.94	228.95	444.82	228.82	500.19	229.95	505.21	230.1	532.59	230.89
547.37	232.13	557.34	232.99	589.74	235.79	626.05	238.92	636.67	240.53
648.07	242.69								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	213.86	.05	401.8	.035	557.34	.02	589.74	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
257.82	346.44	208.85	203	192.55	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 1656.863

INPUT
Description:
Station Elevation Data num= 22

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	236.28	22.94	235.04	96.59	233.54	190.43	230.84	245.82	229.18
302.74	227.36	332.37	226.39	390.39	224.47	396.63	224.27	413.9	223.7
431.75	224.14	485.48	226.06	499.29	226.25	539.57	226.81	561.33	227.11
577.52	227.34	624.01	228.83	654.16	229.78	670.1	230.3	686.9	231.7
699.76	232.77	738.6	236.31						

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	332.37	.05	561.33	.035	686.9	.02

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
396.63	431.75	231.2	220.1	188.45	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 1436.744

INPUT
Description:
Station Elevation Data num= 27

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	229.69	44.41	226.65	66.73	225.1	75.62	224.78	93.34	224.43
235.55	221.86	263.04	221.37	290.98	221.85	299.77	222.01	302.57	222.07
336	222.22	407.49	222.53	465.64	222.79	495.72	222.73	509.84	222.91
517.94	222.73	519.66	222.74	524.73	222.78	619.85	223.55	621.96	223.56
644.11	223.72	647.72	224.17	655.56	224.68	688.83	228.06	708.82	229.32
713.57	229.67	714.89	229.68						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.035	336	.05	621.96	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
235.55	290.98	36.22	35.03	33.69	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 1401.71*

INPUT
Description:
Station Elevation Data num= 54

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	229.65	1.44	229.56	1.98	229.53	7.36	229.17	52.43	226.16
78.77	224.38	82.6	224.2	83.57	224.17	89.27	223.93	102.25	223.55
110.19	223.37	135.59	222.83	158.42	222.39	186.37	221.91	196.4	221.9
223.8	221.9	230.91	221.89	233.15	221.91	255.94	221.52	278.06	221.1
311.07	220.46	313.03	220.43	314.55	220.45	320.56	220.56	345.23	221.01
353.38	221.16	355.98	221.22	386.99	221.43	453.32	221.88	480.38	222.06
491.12	222.16	498.51	222.25	507.26	222.32	508.58	222.32	516.37	222.34
535.17	222.39	535.51	222.39	548.27	222.62	555.78	222.53	557.38	222.55
562.08	222.62	650.33	223.86	652.28	223.89	658.67	223.97	659.62	223.98
661.76	224.02	672.83	224.21	676.18	224.6	683.45	225.09	714.32	228.11
718.17	228.36	732.86	229.35	737.27	229.69	738.5	229.71		

Manning's n Values num= 8

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	196.4	.038	278.06	.047	345.23	.047	386.99	.047
508.58	.035	652.28	.035	738.5	.035				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
278.06	345.23	36.22	35.03	33.69	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 1366.68*

INPUT
Description:
Station Elevation Data num= 54

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	229.62	1.66	229.51	2.28	229.48	8.48	229.09	60.44	225.67
90.82	223.65	95.23	223.43	96.34	223.38	102.92	223.09	117.88	222.53
127.03	222.31	156.32	221.62	182.64	221.09	214.86	220.55	226.43	220.7
258.02	221.11	266.21	221.21	268.79	221.26	295.07	220.85	320.57	220.34
360.64	219.53	363.02	219.48	364.74	219.51	371.55	219.63	399.48	220.17
407	220.32	409.39	220.37	437.99	220.64	499.14	221.23	524.1	221.46
534	221.6	540.82	221.74	548.89	221.85	550.1	221.86	557.28	221.91
574.62	222.05	574.94	222.05	586.7	222.34	593.62	222.34	595.1	222.37
599.43	222.46	680.8	224.18	682.61	224.21	688.49	224.33	689.38	224.34

691.35	224.41	701.55	224.69	704.64	225.03	711.35	225.49	739.81	228.16
743.36	228.4	756.91	229.38	760.97	229.7	762.1	229.74		

Manning's n Values num= 8

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	226.43	.041	320.57	.044	399.48	.044	437.99	.044
550.1	.035	682.61	.035	762.1	.035				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
320.57	399.48	36.22	35.03	33.69	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 1331.66*

INPUT
Description:
Station Elevation Data num= 54

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	229.58	1.88	229.46	2.58	229.43	9.61	229	68.46	225.17
102.86	222.93	107.85	222.65	109.12	222.59	116.56	222.24	133.51	221.52
143.88	221.25	177.05	220.41	206.86	219.8	243.35	219.19	256.46	219.49
292.24	220.32	301.51	220.52	304.44	220.62	334.2	220.17	363.09	219.57
410.21	218.59	413	218.54	414.93	218.57	422.53	218.7	453.72	219.34
460.61	219.47	462.8	219.52	488.98	219.86	544.97	220.57	567.82	220.87
576.88	221.05	583.12	221.24	590.51	221.37	591.62	221.39	598.19	221.48
614.07	221.71	614.36	221.71	625.12	222.05	631.47	222.14	632.81	222.18
636.78	222.3	711.28	224.49	712.93	224.54	718.32	224.7	719.13	224.7
720.93	224.8	730.28	225.18	733.1	225.47	739.24	225.9	765.3	228.21
768.55	228.43	780.95	229.41	784.67	229.72	785.71	229.77		

Manning's n Values num= 8

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	256.46	.044	363.09	.041	453.72	.041	488.98	.041
591.62	.035	712.93	.035	785.71	.035				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
363.09	453.72	36.22	35.03	33.69	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 1296.63*

INPUT
Description:
Station Elevation Data num= 54

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	229.55	2.1	229.42	2.89	229.38	10.73	228.91	76.47	224.68
114.9	222.21	120.48	221.87	121.89	221.8	130.21	221.39	149.15	220.5
160.72	220.19	197.78	219.2	231.08	218.5	271.85	217.84	286.48	218.29
326.45	219.53	336.82	219.83	340.08	219.98	373.33	219.5	405.6	218.81
459.78	217.66	462.99	217.59	465.12	217.62	473.52	217.78	507.97	218.5
514.22	218.63	516.21	218.67	539.98	219.07	590.79	219.92	611.53	220.27
619.76	220.49	625.43	220.74	632.13	220.9	633.14	220.93	639.11	221.05
653.51	221.36	653.78	221.37	663.55	221.77	669.31	221.95	670.53	222
674.14	222.14	741.75	224.81	743.25	224.87	748.14	225.06	748.88	225.06
750.52	225.19	759	225.67	761.57	225.9	767.14	226.3	790.79	228.26
793.74	228.47	805	229.44	808.38	229.73	809.31	229.8		

Manning's n Values num= 8

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	286.48	.047	405.6	.038	507.97	.038	539.98	.038
633.14	.035	743.25	.035	809.31	.035				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
405.6	507.97	36.22	35.03	33.69	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 1261.604

INPUT
Description:
Station Elevation Data num= 32

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	229.51	2.32	229.37	3.19	229.33	11.86	228.82	133.11	221.09
134.67	221.01	164.78	219.49	218.51	217.99	255.3	217.2	300.34	216.48
316.51	217.08	360.67	218.74	372.12	219.14	375.73	219.34	412.46	218.82
448.11	218.05	509.35	216.72	512.98	216.65	515.31	216.68	524.5	216.85
562.22	217.66	655.25	219.67	662.64	219.94	667.73	220.24	674.66	220.46
680.02	220.62	693.2	221.03	777.97	225.42	778.63	225.42	780.1	225.58
818.93	228.51	832.92	229.83						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.035	316.51	.05	674.66	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
448.11	562.22	40.11	36.97	34.95	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888			F

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 1224.62*

INPUT
Description:
Station Elevation Data num= 62

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	228.69	2.11	228.56	2.9	228.53	10.8	228.08	62.99	224.9

95.15	222.87	121.22	221.23	122.64	221.16	150.06	219.76	168.82	219.18
198.99	218.23	232.49	217.37	261.95	216.75	273.51	216.54	283.29	216.78
292.51	217.04	344.39	218.54	357.85	218.9	362.09	219.08	400.86	218.47
401.98	218.45	411.19	218.35	415.75	218.27	426.49	218.13	440.99	217.94
458.84	217.7	515.46	216.63	518.82	216.57	520.93	216.59	529.28	216.73
563.53	217.4	580.09	217.68	615.91	218.24	659.21	219.01	661.41	219.05
669.18	219.28	673.65	219.48	674.54	219.52	681.83	219.71	687.47	219.84
700.53	220.17	701.34	220.19	719.63	220.96	724.95	221.22	728.35	221.34
758.62	222.4	771.76	222.9	774.9	223.03	785.05	223.59	790.53	223.89
791.22	223.9	792.77	224.05	795.32	224.24	803.3	224.99	808.05	225.43
810.42	225.67	812.14	225.86	829.64	227.11	833.62	227.41	836.61	227.68
841.87	228.29	848.34	229.03						

Manning's n Values num= 8

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	324.09	.047	399.44	.038	458.84	.035	563.53	.035
673.65	.035	681.83	.035	848.34	.035				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
458.84	563.53	40.11	36.97	34.95	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 1187.65*

INPUT
Description:
Station Elevation Data num= 62

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	227.86	1.91	227.76	2.62	227.73	9.74	227.34	56.81	224.63
85.82	222.82	109.32	221.38	110.61	221.31	135.34	220.03	152.26	219.44
179.46	218.47	209.68	217.54	236.25	216.82	246.67	216.59	257.91	216.77
268.5	217.01	328.12	218.34	343.58	218.67	348.45	218.82	396.99	218.02
398.39	217.99	409.92	217.87	415.63	217.8	429.07	217.69	447.22	217.54
469.57	217.36	521.57	216.53	524.66	216.49	526.56	216.51	534.06	216.62
564.84	217.13	582.22	217.36	619.81	217.74	665.26	218.4	667.57	218.44
675.73	218.62	680.42	218.78	681.35	218.81	689	218.96	694.92	219.07
708.62	219.33	709.47	219.35	728.67	219.99	734.26	220.24	737.83	220.33
769.6	220.96	783.38	221.31	786.69	221.41	797.34	222.04	803.08	222.36
803.81	222.38	805.43	222.52	808.11	222.71	816.49	223.65	821.47	224.19
823.97	224.48	825.77	224.75	844.13	225.99	848.31	226.31	851.44	226.58
856.97	227.33	863.76	228.23						

Manning's n Values num= 8

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	331.67	.044	408.78	.041	469.57	.035	564.84	.035
680.42	.035	689	.035	863.76	.035				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
469.57	564.84	40.11	36.97	34.95	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 1150.68*

INPUT
Description:
Station Elevation Data num= 62

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	227.04	1.7	226.95	2.33	226.92	8.68	226.6	50.63	224.36
76.48	222.77	97.43	221.52	98.57	221.46	120.61	220.3	135.7	219.7
159.94	218.71	186.87	217.7	210.55	216.89	219.84	216.65	232.53	216.77
244.5	216.97	311.84	218.14	329.3	218.43	334.81	218.55	393.12	217.56
394.8	217.53	408.64	217.4	415.51	217.32	431.65	217.25	453.46	217.14
480.31	217.01	527.69	216.44	530.49	216.41	532.18	216.42	538.83	216.5
566.14	216.87	584.35	217.04	623.71	217.24	671.31	217.79	673.72	217.82
682.27	217.96	687.18	218.07	688.16	218.09	696.17	218.21	702.37	218.29
716.72	218.49	717.61	218.5	737.71	219.02	743.57	219.26	747.3	219.31
780.57	219.51	795.01	219.72	798.47	219.78	809.62	220.48	815.64	220.83
816.4	220.86	818.1	221	820.9	221.18	829.67	222.3	834.89	222.95
837.51	223.3	839.4	223.63	858.62	224.87	863	225.21	866.28	225.49
872.07	226.36	879.18	227.44						

Manning's n Values num= 8

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	339.25	.041	418.12	.044	480.31	.035	566.14	.035
687.18	.035	696.17	.035	879.18	.035				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
480.31	566.14	40.11	36.97	34.95	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 1113.70*

INPUT
Description:
Station Elevation Data num= 62

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	226.21	1.49	226.14	2.05	226.12	7.62	225.86	44.45	224.09
67.15	222.72	85.54	221.66	86.54	221.61	105.89	220.57	119.13	219.96
140.42	218.95	164.06	217.87	184.85	216.96	193	216.7	207.16	216.76

220.49	216.94	295.57	217.94	315.03	218.2	321.17	218.29	389.24	217.11
391.21	217.06	407.37	216.92	415.38	216.85	434.23	216.8	459.69	216.74
491.04	216.67	533.8	216.35	536.33	216.33	537.8	216.34	543.61	216.39
567.45	216.6	586.48	216.72	627.62	216.74	677.36	217.18	679.88	217.2
688.81	217.29	693.95	217.37	694.96	217.38	703.34	217.46	709.82	217.51
724.81	217.65	725.74	217.66	746.76	218.05	752.87	218.29	756.78	218.3
791.55	218.07	806.63	218.13	810.25	218.16	821.91	218.93	828.19	219.3
828.99	219.35	830.77	219.47	833.7	219.66	842.86	220.96	848.32	221.7
851.05	222.12	853.02	222.52	873.12	223.76	877.69	224.11	881.12	224.39
887.17	225.4	894.6	226.64						

Manning's n Values num= 8

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	346.83	.038	427.47	.047	491.04	.035	567.45	.035
693.95	.035	703.34	.035	894.6	.035				

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
491.04 567.45 40.11 36.97 34.95 .1 .3
Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888			F

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 1076.731

INPUT
Description:
Station Elevation Data num= 37

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	225.39	38.27	223.82	57.81	222.67	102.57	220.22	159.15	217.03
166.17	216.76	181.78	216.75	307.53	218.03	385.37	216.65	387.62	216.6
415.26	216.37	436.81	216.36	465.93	216.34	501.77	216.32	542.17	216.25
568.76	216.34	588.61	216.4	631.52	216.24	683.41	216.57	700.71	216.66
732.91	216.81	755.8	217.08	762.18	217.31	766.25	217.28	802.52	216.62
818.26	216.54	822.03	216.54	834.19	217.37	846.49	218.13	856.05	219.61
861.74	220.46	864.59	220.94	866.65	221.41	887.61	222.64	895.96	223.29
902.27	224.44	910.02	225.84						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.035	436.81	.05	700.71	.035

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
501.77 568.76 240.12 252.42 203.34 .1 .3
Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888			F

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 824.292

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 30

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	216.66	91.92	216.61	105.56	216.6	113.04	216.53	120.91	216.42
274.02	214.44	298.2	213.87	320	213.38	337.01	212.99	368.76	212.12
386.96	210.14	418	210.44	431.41	210.56	433.88	210.52	486.4	209.8
491.73	209.73	500.26	209.75	509.52	209.79	513.22	209.8	525.04	210.26
527.92	210.48	550.07	212.11	605.66	215.8	610.85	216.14	630	216.26
652.93	216.4	680	216.5	689.8	216.54	712.02	221.17	723.18	222.93

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	320	.05	525.04	.035	630	.02	680	.035

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
486.4 513.22 286.25 220.85 205.55 .1 .3
Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888			F

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 603.449

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 49

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	216.25	2.71	215.91	14.5	215.55	14.87	215.54	53.56	213.21
75.28	212.46	108.91	213.35	141.18	212.44	185.63	211.23	254.29	209.66
272.96	207.31	276.4	206.85	294.8	205.24	299.94	204.84	308.82	204.25
313.28	203.82	341.71	202.7	354.73	202.03	368.33	202.85	383.93	203.72
396.26	207.55	407.37	210.29	410.14	210.43	415.8	210.66	455.43	211.6
478.04	212.09	491.66	212.12	567.69	211.81	569.39	211.81	570.91	211.64
574.86	211.18	579.58	210.63	585.64	209.92	587.61	209.29	602.05	203.94
609.89	203.89	617.79	203.45	619.41	203.98	631.19	208.32	634.9	209.78
639.64	210.15	659.3	210.93	661.85	211.01	668.58	211.21	675	211.4
687.31	211.75	721.83	215.83	723.53	215.98	724.92	216.24		

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.02	14.5	.05	585.64	.035	675	.02

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
602.05 619.41 26.77 36.63 43.79 .1 .3
Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent

888 F

Blocked Obstructions num= 1

Sta L	Sta R	Elev
0	478.12	212.12

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 566.821*

INPUT
Description:
Station Elevation Data num= 65

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	215.4	2.12	215.14	11.35	214.84	11.64	214.83	41.91	212.99
58.91	212.37	85.23	212.95	102.22	212.43	110.48	212.19	124.17	211.79
136.86	211.43	139.32	211.35	145.26	211.15	159.17	210.72	198.99	209.58
213.6	207.72	216.29	207.36	230.69	206.06	234.71	205.73	241.66	205.24
245.15	204.9	246.42	204.84	267.4	203.8	277.59	203.18	288.23	203.68
300.44	204.19	310.09	206.95	318.78	208.9	320.02	208.95	320.95	208.98
321.28	208.99	325.38	209.1	338.6	209.24	356.39	209.6	374.08	209.92
384.74	209.92	444.24	209.55	445.57	209.55	446.76	209.41	449.85	209.06
453.54	208.64	458.28	208.1	459.83	207.62	471.12	203.58	477.62	203.51
484.15	203.15	486.01	203.61	495.12	206.49	496.99	207.07	499.99	208.06
500.45	208.23	500.97	208.3	504.41	208.71	504.87	208.77	523.19	210.51
525.56	210.72	525.83	210.75	531.23	211.09	531.84	211.13	537.82	211.51
548.47	212.18	549.29	212.22	581.46	216.24	583.04	216.4	584.34	216.64

Manning's n Values num= 8

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.027	11.35	.05	136.86	.046	458.28	.035	471.12	.024
486.01	.024	537.82	.024	584.34	.024				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
471.12	486.01	26.77	36.63	43.79	.1	.3

Blocked Obstructions num= 1

Sta L	Sta R	Elev
0	374.08	209.92

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 530.194*

INPUT
Description:
Station Elevation Data num= 65

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	214.55	1.53	214.37	8.19	214.13	8.4	214.12	30.27	212.76
42.54	212.27	61.54	212.55	73.81	212.13	79.78	211.93	89.60	211.62
98.83	211.33	100.61	211.27	104.89	211.07	114.93	210.62	143.69	209.51
154.24	208.14	156.19	207.87	166.58	206.87	169.49	206.62	174.5	206.23
177.02	205.97	177.94	205.92	193.09	204.91	200.45	204.34	208.13	204.5
216.95	204.65	223.91	206.35	230.19	207.51	231.08	207.52	231.76	207.53
232	207.53	234.96	207.54	244.5	207.41	257.35	207.6	270.13	207.76
277.82	207.72	320.78	207.29	321.74	207.28	322.6	207.19	324.84	206.95
327.5	206.65	330.93	206.28	332.04	205.95	340.2	203.23	345.34	203.14
350.52	202.85	352.62	203.24	361.06	205.41	362.8	205.82	365.57	206.54
366	206.69	366.49	206.77	369.67	207.31	370.09	207.39	387.08	210.1
389.28	210.44	389.53	210.47	394.53	210.99	395.09	211.05	400.64	211.62
410.51	212.64	411.27	212.7	441.09	216.65	442.56	216.82	443.76	217.03

Manning's n Values num= 8

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	8.19	.05	98.83	.043	330.93	.035	340.2	.027
352.62	.027	400.64	.027	443.76	.027				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
340.2	352.62	26.77	36.63	43.79	.1	.3

Blocked Obstructions num= 1

Sta L	Sta R	Elev
0	270.13	207.76

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 493.567*

INPUT
Description:
Station Elevation Data num= 65

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	213.71	.94	213.6	5.04	213.42	5.17	213.42	18.62	212.54
26.17	212.18	37.86	212.14	45.41	211.82	49.07	211.68	55.16	211.45
60.79	211.24	61.89	211.19	64.53	210.98	70.7	210.51	88.39	209.43
94.88	208.55	96.08	208.38	102.47	207.69	104.26	207.51	107.35	207.22
108.9	207.05	109.46	207.01	118.78	206.01	123.31	205.49	128.03	205.33
133.46	205.12	137.74	205.74	141.6	206.13	142.15	206.1	142.57	206.08
142.71	206.08	144.53	205.98	150.41	205.59	158.31	205.59	166.17	205.59
170.9	205.52	197.33	205.03	197.92	205.02	198.45	204.96	199.82	204.83
201.46	204.66	203.57	204.45	204.26	204.28	209.28	202.87	213.07	202.76
216.89	202.56	219.23	202.87	227	204.32	228.6	204.58	231.16	205.01
231.55	205.14	232	205.24	234.93	205.91	235.32	206.01	250.97	209.68
252.99	210.15	253.22	210.2	257.83	210.89	258.35	210.97	263.46	211.73
272.55	213.09	273.25	213.17	300.72	217.07	302.07	217.24	303.18	217.43

Manning's n Values num= 8

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.043	5.04	.05	60.79	.039	203.57	.035	209.28	.031
219.23	.031	263.46	.031	303.18	.031				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
209.28	219.23	26.77	36.63	43.79	.1	.3

Blocked Obstructions num= 1

Sta L	Sta R	Elev
0	141.6	206.13

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 456.940

INPUT
Description:
Station Elevation Data num= 21

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	212.86	17	211.52	20.65	211.28	22.76	211.14	23.17	211.11
26.47	210.41	40.98	208.09	53.22	204.68	53.43	204.62	56.31	203.76
78.35	202.51	83.25	202.26	85.83	202.5	92.94	203.23	96.74	203.49
97.51	203.71	100.19	204.51	116.92	209.93	121.13	210.79	134.59	213.55
162.6	217.82								

Manning's n Values num= 2

Sta	n Val	Sta	n Val
0	.05	22.76	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
78.35	85.83	37.63	42.19	44.64	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 414.749*

INPUT
Description:
Station Elevation Data num= 40

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	211.12	9.49	210.61	15.81	210.36	25.13	209.57	30.45	209.16
30.53	209.15	33.65	208.99	34.25	208.96	39.13	208.33	43.49	207.89
55.35	206.54	60.58	205.96	61.84	205.73	63.2	205.51	70.7	204.27
75.41	203.52	78.67	203.05	78.98	203	83.24	202.34	90.46	202.17
99.4	201.95	101.07	201.92	102.79	201.84	115.82	201.31	117.45	201.25
123.07	201.04	126.31	201.3	134.51	202.01	138.89	202.29	139.77	202.48
142.86	203.17	162.14	207.81	166.99	208.58	172.94	209.52	178.11	210.3
182.51	211.05	185.28	211.42	189.58	211.98	211.48	214.82	214.79	215.41

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	33.65	.038	63.2	.047	115.82	.035	126.31	.035
214.79	.035								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
115.82	126.31	37.63	42.19	44.64	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 372.559*

INPUT
Description:
Station Elevation Data num= 40

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	209.39	12.57	208.87	20.92	208.69	33.26	207.62	40.3	207.03
40.4	207.03	44.53	206.85	45.33	206.81	51.79	206.25	57.55	205.84
73.25	204.42	80.18	203.82	81.85	203.61	83.65	203.42	93.58	202.35
99.81	201.74	104.13	201.41	104.54	201.38	110.17	200.92	119.73	200.85
131.56	200.76	133.77	200.77	136.05	200.66	153.29	200.11	155.45	200.04
162.89	199.82	166.79	200.1	176.07	200.8	181.03	201.09	182.04	201.25
185.53	201.83	207.36	205.7	212.86	206.37	219.59	207.19	225.45	207.84
230.42	208.55	233.56	208.93	238.43	209.48	263.23	212.25	266.97	212.99

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	44.53	.041	83.65	.044	153.29	.035	166.79	.035
266.97	.035								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
153.29	166.79	37.63	42.19	44.64	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 330.369*

INPUT
Description:
Station Elevation Data num= 40

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	207.65	15.64	207.13	26.04	207.03	41.39	205.67	50.16	204.9
50.28	204.9	55.42	204.7	56.41	204.66	64.45	204.17	71.62	203.78
91.16	202.3	99.78	201.69	101.86	201.5	104.1	201.33	116.45	200.44
124.21	199.96	129.58	199.78	130.09	199.76	137.1	199.5	149	199.53
163.72	199.58	166.47	199.61	169.31	199.49	190.77	198.91	193.44	198.83
202.7	198.6	207.28	198.9	217.64	199.58	223.18	199.89	224.3	200.02
228.2	200.49	252.59	203.58	258.72	204.15	266.24	204.86	272.78	205.37
278.34	206.06	281.84	206.44	287.29	206.97	314.98	209.68	319.16	210.58

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	55.42	.044	104.1	.041	190.77	.035	207.28	.035
319.16	.035								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
190.77	207.28	37.63	42.19	44.64	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 288.179*

INPUT
Description:
Station Elevation Data num= 40

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	205.92	18.71	205.38	31.15	205.37	49.52	203.71	60.01	202.78
60.15	202.77	66.3	202.56	67.5	202.52	77.11	202.09	85.69	201.73
109.06	200.19	119.38	199.55	121.87	199.38	124.55	199.25	139.33	198.52
148.61	198.18	155.03	198.14	155.64	198.14	164.03	198.08	178.26	198.22
195.88	198.39	199.17	198.46	202.56	198.31	228.24	197.71	231.44	197.62
242.52	197.38	247.76	197.7	259.2	198.37	265.32	198.7	266.56	198.8
270.88	199.15	297.81	201.46	304.58	201.94	312.89	202.53	320.12	202.91
326.25	203.56	330.13	203.94	336.14	204.47	366.73	207.12	371.34	208.16

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	66.3	.047	124.55	.038	228.24	.035	247.76	.035
371.34	.035								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
228.24	247.76	37.63	42.19	44.64	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 245.989

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 24

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	204.18	21.78	203.64	36.27	203.71	69.86	200.65	99.76	199.68
126.97	198.07	141.88	197.26	145	197.16	162.2	196.61	173.01	196.4
207.53	196.9	228.04	197.2	231.87	197.3	235.82	197.14	265.71	196.51
269.44	196.41	282.34	196.16	288.24	196.5	359.54	200.2	367.45	200.44
378.41	201.45	384.99	201.96	418.48	204.55	423.53	205.75		

Manning's n Values num= 2

Sta	n Val	Sta	n Val
0	.05	145	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
265.71	288.24	36.07	245.99	40.5	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

Profile Output Table - Standard Table 1

Reach	River Sta	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
		(cfs)	(ft)	(ft)	(ft)	(ft)	(ft/ft)	(ft/s)	(sq ft)	(ft)	
Tributary	7987.100	1226.00	320.27	325.72	325.72	327.35	0.019471	12.00	129.51	39.90	0.95
Tributary	7760.639	1226.00	313.52	319.48	317.86	319.97	0.005407	6.95	227.68	59.61	0.51
Tributary	7547.305	1226.00	310.88	316.74		318.05	0.015121	10.90	143.97	42.58	0.84
Tributary	7336.782	1226.00	308.71	313.51	313.41	315.07	0.018448	10.90	131.10	40.11	0.91
Tributary	7117.686	1226.00	305.80	311.67	310.06	312.22	0.004740	6.03	212.41	53.76	0.49
Tributary	6917.517	1226.00	308.38	309.91	309.91	310.44	0.021982	6.10	217.50	208.51	0.94
Tributary	6688.378	1226.00	302.02	303.96	303.25	304.04	0.002749	2.18	535.46	437.05	0.30
Tributary	6485.790	1226.00	301.74	302.63	302.59	302.94	0.020473	3.82	279.46	384.10	0.73
Tributary	6293.091	1226.00	295.04	299.31	299.31	300.52	0.008267	6.84	174.54	85.25	0.60
Tributary	6070.915	1226.00	294.93	298.02	297.31	298.37	0.005154	4.28	282.97	147.71	0.45
Tributary	5882.887	1226.00	293.71	295.85	295.85	296.55	0.022957	7.25	189.28	137.37	0.89
Tributary	5663.432	1226.00	288.73	290.93	290.43	291.22	0.008453	4.34	284.58	182.91	0.54
Tributary	5458.911	1226.00	285.04	287.49	287.49	288.35	0.026563	7.70	171.69	105.31	0.96
Tributary	5259.894	1226.00	281.10	284.19	283.52	284.46	0.006599	4.73	305.62	173.80	0.50
Tributary	5049.293	1226.00	281.40	282.72	282.72	283.14	0.028505	5.78	241.88	283.11	0.92
Tributary	4834.044	1226.00	267.90	273.30	271.76	273.72	0.008807	5.70	256.70	84.75	0.46
Tributary	4625.617	1226.00	268.93	271.87		272.09	0.007871	3.78	327.19	140.08	0.40
Tributary	4430.204	1226.00	266.78	269.46	269.46	269.86	0.017127	6.26	254.03	295.11	0.77
Tributary	4249.023	1226.00	262.53	264.92	264.48	265.29	0.010596	5.14	261.40	164.39	0.61
Tributary	4034.719	1226.00	260.16	263.05	263.05	263.67	0.015072	7.15	228.62	177.02	0.76
Tributary	3813.686	1226.00	255.03	258.07		258.99	0.020061	8.37	165.04	73.70	0.88
Tributary	3576.919	1226.00	248.17	254.67		255.13	0.007205	5.91	235.92	55.90	0.43
Tributary	3370.982	1226.00	247.85	252.20		253.17	0.014202	9.19	165.51	56.44	0.79
Tributary	3179.510	1226.00	244.41	248.18	247.69	248.68	0.004775	6.72	239.63	112.59	0.64

Tributary	2910.241	1226.00	242.04	246.24	245.47	246.77	0.008356	6.46	223.37	86.55	0.59
Tributary	2695.270	1226.00	241.15	243.79	243.77	244.25	0.017891	7.23	257.11	227.84	0.81
Tributary	2498.115	1226.00	237.84	240.05		240.64	0.021103	6.86	214.74	158.71	0.85
Tributary	2264.151	1226.00	234.60	236.66	236.66	237.05	0.009873	6.69	330.81	358.31	0.83
Tributary	2055.543	1226.00	230.72	232.51	232.12	232.78	0.010643	4.42	303.05	227.85	0.59
Tributary	1859.868	1226.00	228.61	230.06	229.82	230.33	0.013778	4.27	297.57	284.77	0.65
Tributary	1656.863	1226.00	223.70	226.36	226.28	226.97	0.020572	7.65	221.38	173.61	0.87
Tributary	1436.744	1226.00	221.37	223.18	223.18	223.55	0.012508	6.40	304.03	411.18	0.90
Tributary	1261.604	1226.00	216.65	219.18	218.77	219.48	0.010352	4.68	304.97	443.00	0.59
Tributary	1076.731	1226.00	216.25	217.12	217.12	217.42	0.032463	4.71	276.80	512.76	0.91
Tributary	824.292	1226.00	209.73	211.76	211.48	212.14	0.015267	5.81	249.93	173.13	0.73
Tributary	603.449	1226.00	203.45	209.13	208.30	210.14	0.004894	9.04	164.90	45.19	0.69
Tributary	456.940	1226.00	202.26	205.17	205.97	207.80	0.036128	15.97	97.25	50.79	1.68
Tributary	245.989	1226.00	196.16	197.68	198.02	198.79	0.041691	10.60	150.73	176.80	1.61

HEC-RAS Version 3.0.1 Mar 2001
U.S. Army Corp of Engineers
Hydrologic Engineering Center
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(916) 756-1104

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X     X  XXXXXX    XXXX        XXXX       XX      XXXX
X     X  X        X    X      X   X     X  X    X
X     X  X        X           X   X    X    X   X
XXXXXXX  XXXX     X       XXX XXXX     XXXXXX    XXXX
X     X  X        X           X  X     X    X        X
X     X  X        X    X      X   X    X    X        X
X     X  XXXXXX    XXXX       X    X   X    X   XXXXX
```

PROJECT DATA
Project Title: Project Model - D2
Project File : PMD2.prj
Run Date and Time: 11/14/02 10:03:47 AM

Project in English units

Project Description:
CC Alternative - Canada Chiquita Encroachment

PLAN DATA

Plan Title: Existing Flow/Proposed-Ultimate Geometry
Plan File : p:\2PDA0104\Hydr\LHS\Modeling\Model D\HecRas D\PMD2.p03

Geometry Title: Proposed Conditions - Ultimate
Geometry File : p:\2PDA0104\Hydr\LHS\Modeling\Model D\HecRas D\PMD2.g03

Flow Title : Existing Conditions
Flow File : p:\2PDA0104\Hydr\LHS\Modeling\Model D\HecRas D\PMD2.f01

Plan Summary Information:
Number of: Cross Sections = 109 Mulitple Openings = 0
Culverts = 0 Inline Weirs = 0
Bridges = 0

Computational Information
Water surface calculation tolerance = 0.01
Critical depth calculaton tolerance = 0.01
Maximum number of interations = 20
Maximum difference tolerance = 0.3
Flow tolerance factor = 0.001

Computation Options
Critical depth computed only where necessary
Conveyance Calculation Method: At breaks in n values only
Friction Slope Method: Average Conveyance
Computational Flow Regime: Mixed Flow

FLOW DATA

Flow Title: Existing Conditions
Flow File : p:\2PDA0104\Hydr\LHS\Modeling\Model D\HecRas D\PMD2.f01

Flow Data (cfs)

River	Reach	RS	Q2	Q5	Q10	Q25	Q50	Q100	Q100HC
Canada Chiquita Tributary		7987.100	1	30	104	346	785	1226	4154

Boundary Conditions

River	Reach	Profile	Upstream	Downstream
Canada Chiquita Tributary		Q2	Normal S = .01	Normal S = .03
Canada Chiquita Tributary		Q5	Normal S = .01	Normal S = .03
Canada Chiquita Tributary		Q10	Normal S = .01	Normal S = .03
Canada Chiquita Tributary		Q25	Normal S = .01	Normal S = .03
Canada Chiquita Tributary		Q50	Normal S = .01	Normal S = .03
Canada Chiquita Tributary		Q100	Normal S = .01	Normal S = .03
Canada Chiquita Tributary		Q100HC	Normal S = .01	Normal S = .03

GEOMETRY DATA

Geometry Title: Proposed Conditions - Ultimate
Geometry File : p:\2PDA0104\Hydr\LHS\Modeling\Model D\HecRas D\PMD2.g03

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 7987.100

INPUT
Description: Manual Modification of Manning's N Values , CS Modified 2:1 Slope
Sta 641.11
Station Elevation Data num= 38

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	347.72	32.77	346.03	55.43	343.73	98.19	338.97	138.47	334.55
160.97	334.49	168.14	334.47	188	334.41	199.61	334.37	215.61	335
232.61	334.89	251.78	335.3	278.59	336.07	284.54	335.62	285.13	335.5
288.36	334.89	290.31	334.57	316.78	323.74	318.41	323.06	325.67	321.78
329.48	321.19	334.41	320.27	340.57	321.19	351.37	325.54	358.53	328.28
364.3	328.64	370.55	329.03	381.61	329.14	389.41	330.05	411.04	332.27
416.31	332.67	422.98	333.87	446.36	334.68	527.17	338.84	554.36	340.16
558.6	340.37	641.11	344.12	700.57	373.565				

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	168.14	.02	188	.035	288.36	.05	446.36	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
329.48	340.57	262.14	226.46	167.66	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 7760.639

INPUT
Description: Manual Modification of Manning's N Values, CS Modified 2:1 Slope
Sta 626.23
Station Elevation Data num= 39

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	341.41	35.67	339.1	92.47	333.46	100.89	332.52	118.12	330.64
134.58	330	177.84	329.15	184.26	329.17	201	329.22	303.15	329.49
322.1	329.43	353.4	328.72	364.4	328.65	373.45	328.66	380.39	328.02
396.78	325.99	399.5	325.1	406.49	322.82	408.81	321.48	420.36	315.24
425.67	314.5	429.48	314.02	433.28	313.52	439.17	314.02	458.26	315.99
459.92	316.13	460.27	316.23	478.35	321.18	484.93	322.32	489.88	323.18
498.71	324.79	501.88	325.48	502.96	325.55	527	328.28	544.55	330.27
557.32	331.03	567.38	331.63	626.23	334.02	837.53	439.67		

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	184.26	.02	201	.035	399.5	.05	527	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
429.48	439.17	160.34	213.33	260.27	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 7547.305

INPUT
Description: Manual Modification of Manning's N Values, CS Modified 2:1 Slope
Sta 663.28
Station Elevation Data num= 37

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	341.5	83.81	336.57	119.99	335.11	164.67	330.63	200.16	328.42
223.02	327.18	243.85	326.27	263.56	326.43	265.95	326.45	270.85	326.49
288.75	326.42	328.68	326.24	378.09	325.16	464.79	324.77	526.73	324.49
546.74	323.8	558.02	322.42	558.5	322.36	565.66	321.42	582.55	315.77
583.57	315.48	585.93	314.44	587.44	313.93	595.8	312.06	600.77	310.88
606.77	312.06	611.19	312.76	612.36	313.18	616.68	314.09	623.58	317.38
630.55	321.05	632.04	321.14	639.97	321.74	655	323.49	661.08	324.2
663.28	324.45	759.87	372.75						

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	265.95	.02	288.75	.035	558.02	.05	655	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
595.8	606.77	39.84	42.1	43.2	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 7505.20*

INPUT
Description:
Station Elevation Data num= 78

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	341.45	1.09	341.4	5.83	341.11	65.81	337.39	75.88	336.81
85.39	336.28	122.25	334.75	158.07	331.58	167.77	330.71	172	330.46
189.72	329.41	203.92	328.49	212	328.01	227.21	326.93	248.43	325.6
249.54	325.58	251.01	325.54	251.76	325.54	268.51	325.43	270.95	325.41
273.66	325.39	275.94	325.41	294.18	325.38	308.08	325.35	310.97	325.34
326.14	325.3	334.86	325.28	385.2	324.46	403.14	324.41	466.97	324.17
473.53	324.14	485.23	324.08	500.42	324	515.18	323.91	536.63	323.85
557.02	323.32	567.7	322.3	568.51	322.21	568.54	322.21	569	322.14
569.83	322.01	576.29	321.01	586.41	317.81	589.32	316.79	591.24	316.11
593.5	315.37	594.54	315.06	596.94	314.07	598.48	313.55	602.31	312.62
607	311.51	613.29	310.64	614.55	310.45	616.67	310.85	619.62	311.51
621.39	311.91	623.99	312.54	625.14	313.01	629.41	314.23	631.25	315.16
636.22	317.4	637.75	318.15	643.1	320.73	644.57	320.88	646.95	321.16
652.4	321.56	661.95	322.58	667.24	323.19	673.25	323.87	675.42	324.12
686.66	328.9	687.49	329.25	693.98	332.01	712.55	340.1	721.65	344.06
746.59	355.62	756.45	360.08	770.79	366.46				

Manning's n Values num= 12

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val

0	.035	270.95	.023	294.18	.035	310.97	.032	326.14	.023
568.51	.047	586.41	.038	607	.035	619.62	.035	667.24	.035
686.66	.035	770.79	.035						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
607	619.62	39.84	42.1	43.2	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 7463.09*

INPUT
Description:
Station Elevation Data num= 78

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	341.41	1.11	341.36	5.94	341.05	67.03	337.07	77.28	336.5
86.96	335.98	124.5	334.39	160.99	331.57	170.86	330.8	175.17	330.55
193.22	329.54	207.69	328.55	215.91	328.03	231.4	326.68	253.02	324.93
254.15	324.87	255.65	324.8	256.4	324.79	273.47	324.42	275.95	324.37
278.71	324.31	281.03	324.33	299.61	324.34	313.77	324.34	316.71	324.34
332.16	324.33	341.04	324.32	392.3	323.76	410.57	323.74	475.58	323.54
482.26	323.51	494.18	323.44	509.65	323.36	524.68	323.24	546.53	323.22
567.3	322.84	578.18	322.09	579	322	579.03	321.99	579.5	321.92
580.35	321.77	586.93	320.59	597.23	317.53	600.2	316.44	602.15	315.71
604.45	314.96	605.51	314.65	607.96	313.69	609.53	313.18	613.42	312.15
618.2	310.96	626.64	310.19	628.34	310.01	630.07	310.34	632.47	310.96
634.22	311.48	636.78	312.33	637.92	312.85	642.13	314.38	643.95	315.34
648.86	317.41	650.37	318.1	655.65	320.41	657.1	320.63	659.45	321
664.83	321.39	674.26	322.3	679.48	322.88	685.41	323.55	687.55	323.79
698.65	327.65	699.47	327.93	705.88	330.17	724.21	336.95	733.19	340.26
757.81	350.75	767.55	354.68	781.7	360.16				

Manning's n Values num= 12

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	275.95	.026	299.61	.035	316.71	.029	332.16	.026
579	.044	597.23	.041	618.2	.035	632.47	.035	679.48	.035
698.65	.035	781.7	.035						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
618.2	632.47	39.84	42.1	43.2	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 7420.99*

INPUT
Description:
Station Elevation Data num= 78

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	341.36	1.13	341.32	6.04	341	68.24	336.76	78.68	336.19
88.54	335.69	126.76	334.03	163.91	331.57	173.96	330.88	178.34	330.64
196.72	329.67	211.45	328.62	219.83	328.04	235.6	326.43	257.6	324.26
258.75	324.17	260.28	324.05	261.05	324.03	278.42	323.42	280.95	323.33
283.76	323.23	286.12	323.25	305.03	323.3	319.45	323.34	322.44	323.34
338.17	323.35	347.22	323.36	399.41	323.06	418.01	323.07	484.2	322.92
491	322.87	503.13	322.8	518.88	322.71	534.19	322.56	556.43	322.58
577.57	322.36	588.65	321.88	589.49	321.79	589.52	321.78	590	321.69
590.86	321.53	597.56	320.18	608.05	317.25	611.07	316.08	613.06	315.32
615.4	314.56	616.48	314.23	618.97	313.32	620.57	312.8	624.53	311.68
629.4	310.4	640	309.75	642.12	309.58	643.46	309.82	645.33	310.4
647.05	311.05	649.58	312.11	650.7	312.68	654.86	314.52	656.65	315.51
661.5	317.43	662.99	318.05	668.2	320.09	669.64	320.37	671.96	320.84
677.27	321.21	686.57	322.02	691.73	322.58	697.58	323.22	699.69	323.45
710.64	326.4	711.45	326.62	717.78	328.32	735.88	333.79	744.74	336.46
769.04	345.88	778.65	349.27	792.62	353.87				

Manning's n Values num= 12

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	280.95	.029	305.03	.035	322.44	.026	338.17	.029
589.49	.041	608.05	.044	629.4	.035	645.33	.035	691.73	.035
710.64	.035	792.62	.035						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
629.4	645.33	39.84	42.1	43.2	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 7378.88*

INPUT
Description:
Station Elevation Data num= 78

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	341.32	1.15	341.28	6.15	340.94	69.46	336.44	80.08	335.88
90.11	335.4	129.01	333.67	166.82	331.56	177.05	330.96	181.52	330.73
200.22	329.79	215.21	328.68	223.74	328.06	239.79	326.18	262.19	323.59
263.36	323.46	264.91	323.31	265.69	323.28	283.38	322.41	285.95	322.29
288.81	322.15	291.22	322.17	310.46	322.26	325.14	322.33	328.18	322.34
344.19	322.38	353.39	322.4	406.52	322.35	425.45	322.4	492.81	322.29
499.74	322.24	512.09	322.16	528.12	322.07	543.69	321.89	566.34	321.94
587.85	321.88	599.13	321.66	599.98	321.57	600.01	321.57	600.5	321.47
601.38	321.29	608.19	319.76	618.87	316.96	621.95	315.73	623.97	314.92
626.35	314.15	627.45	313.81	629.99	312.95	631.61	312.42	635.65	311.21
640.6	309.85	653.35	309.31	655.91	309.14	656.86	309.3	658.18	309.85
659.88	310.61	662.37	311.89	663.49	312.51	667.59	314.66	669.36	315.69
674.14	317.44	675.61	318	680.76	319.77	682.17	320.11	684.46	320.68
689.7	321.03	698.88	321.73	703.97	322.28	709.74	322.9	711.83	323.12
722.64	325.16	723.44	325.3	729.68	326.48	747.54	330.64	756.28	332.65
780.26	341.01	789.75	343.87	803.53	347.57				

Manning's n Values num= 12

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	285.95	.032	310.46	.035	328.18	.023	344.19	.032
599.98	.038	618.87	.047	640.6	.035	658.18	.035	703.97	.035
722.64	.035	803.53	.035						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
640.6	658.18	39.84	42.1	43.2	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 7336.782

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 46

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	341.27	1.17	341.24	6.26	340.89	70.67	336.13	81.48	335.57
169.74	331.56	184.69	330.82	203.72	329.92	227.65	328.08	267.96	322.76
269.54	322.56	270.34	322.52	293.86	321.07	330.82	321.32	333.92	321.34
350.21	321.4	432.89	321.73	501.43	321.66	521.04	321.52	537.35	321.42
553.2	321.21	609.6	321.45	610.5	321.36	611.89	321.05	629.69	316.68
632.82	315.38	634.88	314.52	646.76	310.74	651.8	309.3	666.7	308.87
669.69	308.71	670.25	308.78	671.03	309.3	672.71	310.18	682.06	315.87
688.23	317.95	696.96	320.52	711.19	321.45	734.63	323.91	735.42	323.99
741.58	324.64	759.2	327.48	767.83	328.85	791.49	336.14	800.85	338.46
814.45	341.28								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	333.92	.02	350.21	.035	629.69	.05	734.63	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
651.8	671.03	44.73	43.82	43.18	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 7292.96*

INPUT
Description:
Station Elevation Data num= 86

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	339.89	1.17	339.85	4.87	339.6	6.27	339.51	59.56	335.75
70.78	334.99	81.61	334.44	91.86	333.98	146.61	331.91	170	330.81
184.97	330.05	189.98	329.81	204.03	328.95	217.28	327.83	228	327.11
251.61	324.5	268.37	322.49	269.95	322.3	270.76	322.26	294.31	320.76
331.33	320.41	334.43	320.38	336.69	320.36	350.75	320.2	352.61	320.18
393.83	320.25	423.13	320.28	429.73	320.29	433.56	320.31	433.78	320.31
438.31	320.31	481.97	320.32	502.2	320.4	521.84	320.38	538.18	320.39
554.05	320.3	555.33	320.31	610.54	320.6	610.72	320.58	611.44	320.52
612.83	320.25	622.6	318.23	630.66	316.56	630.9	316.48	633.79	315.49
635.86	314.78	635.89	314.77	636.59	314.56	643.16	312.32	647.75	310.76
650	310.05	652.8	309.12	654.12	309	656.06	308.91	659.19	308.77
668.84	308.33	672.05	308.13	673.91	308.42	674.69	308.65	676.5	309.12
678.68	310.34	678.71	310.35	680.67	311.67	682.3	312.51	689.33	315.21
690.96	315.82	693.16	316.28	699.04	317.67	701.54	318.19	701.94	318.27
710.48	320.08	712.33	320.22	729.13	321.52	734.24	322.04	737.1	322.28
746.59	323.12	759.84	324.21	760.87	324.29	768.95	324.96	770.04	325.08
787.74	327.1	792.03	328.36	803.34	331.66	834.34	343.53	846.61	347.77
864.43	353.5								

Manning's n Values num= 12

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	334.43	.023	350.75	.035	423.13	.032	438.31	.023
630.66	.047	652.8	.038	657.47	.05	676.5	.035	701.94	.035
759.84	.035	864.43	.035						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
652.8	676.5	44.73	43.82	43.18	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 7249.14*

INPUT
Description:
Station Elevation Data num= 86

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	338.51	1.17	338.46	4.88	338.22	6.28	338.13	59.66	334.53
70.89	333.84	81.73	333.32	92	332.86	146.83	331.2	170.26	330.05
185.26	329.28	190.28	329.03	204.35	327.98	217.61	326.75	228.35	326.14
251.99	324.03	268.78	322.22	270.37	322.05	271.17	322	294.76	320.44
331.84	319.51	334.95	319.43	337.21	319.36	351.29	319	353.15	318.95
394.44	318.93	423.78	318.88	430.39	318.86	434.22	318.88	434.44	318.88
438.98	318.89	482.71	318.95	502.97	319.14	522.64	319.25	539	319.35
554.9	319.38	556.18	319.4	611.47	319.74	611.66	319.73	612.38	319.67
613.77	319.46	623.55	317.8	631.63	316.44	631.86	316.37	634.77	315.6
636.83	315.04	636.86	315.04	637.57	314.84	644.15	312.44	648.75	310.77
651	310	653.8	308.94	655.21	308.73	657.29	308.6	660.64	308.41
670.97	307.79	674.42	307.55	677.58	308.07	678.89	308.36	681.98	308.93
684.67	310.51	684.7	310.53	687.13	312.25	689.15	313.17	697.84	315.3
699.85	315.77	702.58	316.13	709.85	317.38	712.95	317.87	713.44	317.94
724	319.65	726.29	319.82	747.06	321.58	753.38	322.21	756.92	322.47
768.66	323.4	785.05	324.51	786.33	324.59	796.31	325.27	797.66	325.39
819.55	327.26	824.86	329.24	838.85	334.47	877.19	350.92	892.36	357.09
914.4	365.72								

Manning's n Values num= 12

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	334.95	.026	351.29	.035	423.78	.029	438.98	.026
631.63	.044	653.8	.041	659.35	.05	681.98	.035	713.44	.035

785.05 .035 914.4 .035

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
653.8 681.98 44.73 43.82 43.18 .1 .3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 7205.32*

INPUT
Description:
Station Elevation Data num= 86

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	337.13	1.18	337.07	4.89	336.84	6.29	336.75	59.75	333.32
71	332.7	81.86	332.19	92.14	331.74	147.06	330.49	170.52	329.3
185.54	328.51	190.57	328.25	204.66	327.01	217.94	325.67	228.7	325.18
252.38	323.57	269.2	321.94	270.78	321.79	271.59	321.74	295.22	320.13
332.35	318.6	335.46	318.47	337.73	318.37	351.83	317.8	353.69	317.72
395.04	317.6	424.43	317.47	431.05	317.44	434.89	317.46	435.11	317.46
439.65	317.47	483.45	317.59	503.74	317.88	523.44	318.11	539.83	318.32
555.75	318.47	557.04	318.49	612.41	318.89	612.6	318.88	613.32	318.83
614.71	318.66	624.51	317.37	632.59	316.32	632.83	316.27	635.74	315.71
637.81	315.31	637.84	315.3	638.55	315.12	645.14	312.57	649.74	310.79
651.99	309.94	654.81	308.76	656.31	308.46	658.53	308.3	662.09	308.04
673.11	307.26	676.78	306.96	681.24	307.71	683.1	308.07	687.45	308.75
690.66	310.67	690.7	310.7	693.59	312.82	696	313.83	706.36	315.39
708.75	315.72	712	315.97	720.66	317.1	724.35	317.54	724.93	317.62
737.52	319.21	740.25	319.43	765	321.65	772.53	322.39	776.74	322.66
790.73	323.67	810.26	324.81	811.78	324.9	823.68	325.59	825.28	325.7
851.37	327.41	857.7	330.13	874.36	337.28	920.05	358.31	938.12	366.4
964.38	377.94								

Manning's n Values num= 12

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	335.46	.029	351.83	.035	424.43	.026	439.65	.029
632.59	.041	654.81	.044	661.23	.05	687.45	.035	724.93	.035
810.26	.035	964.38	.035						

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
654.81 687.45 44.73 43.82 43.18 .1 .3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 7161.50*

INPUT
Description:
Station Elevation Data num= 86

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	335.75	1.18	335.69	4.89	335.45	6.3	335.37	59.84	332.11
71.1	331.56	81.98	331.07	92.28	330.62	147.28	329.78	170.78	328.55
185.83	327.74	190.86	327.48	204.97	326.03	218.28	324.6	229.05	324.21
252.76	323.1	269.61	321.67	271.2	321.54	272	321.48	295.67	319.81
332.85	317.69	335.97	317.51	338.24	317.38	352.36	316.6	354.23	316.5
395.65	316.28	425.08	316.07	431.71	316.01	435.55	316.03	435.77	316.03
440.33	316.05	484.19	316.22	504.51	316.62	524.24	316.98	540.65	317.28
556.6	317.55	557.89	317.58	613.35	318.03	613.53	318.03	614.25	317.98
615.65	317.86	625.46	316.95	633.56	316.19	633.8	316.16	636.71	315.82
638.78	315.57	638.81	315.57	639.52	315.39	646.12	312.69	650.74	310.8
652.99	309.89	655.81	308.58	657.4	308.2	659.76	307.99	663.55	307.68
675.25	306.72	679.15	306.38	684.9	307.35	687.3	307.78	692.93	308.56
696.65	310.84	696.69	310.87	700.05	313.4	702.84	314.49	714.87	315.49
717.65	315.67	721.42	315.82	731.47	316.81	735.76	317.22	736.43	317.29
751.04	318.78	754.21	319.03	782.93	321.72	791.67	322.56	796.57	322.85
812.8	323.95	835.46	325.11	837.23	325.2	851.04	325.91	852.91	326.01
883.18	327.56	890.53	331.01	909.87	340.09	962.9	365.7	983.87	375.72
1014.35	390.16								

Manning's n Values num= 12

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	335.97	.032	352.36	.035	425.08	.023	440.33	.032
633.56	.038	655.81	.047	663.12	.05	692.93	.035	736.43	.035
835.46	.035	1014.35	.035						

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
655.81 692.93 44.73 43.82 43.18 .1 .3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 7117.686

INPUT
Description: Manual Modification of Manning's N Values, CS Modified 2:1 Slope
Sta 915
Station Elevation Data num= 45

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	334.37	4.9	334.07	59.93	330.9	92.42	329.5	147.51	329.07
191.15	326.7	218.61	323.52	253.15	322.63	338.76	316.39	354.77	315.27
396.25	314.96	425.73	314.66	432.37	314.59	436.44	314.61	441	314.63
484.93	314.86	558.74	316.67	614.47	317.18	626.42	316.52	634.77	316.06
639.79	315.83	640.5	315.67	647.11	312.81	653.99	309.84	656.81	308.4
658.5	307.93	660.99	307.69	665	307.32	681.51	305.8	691.51	307.49
698.4	308.38	702.64	311.01	706.51	313.98	709.69	315.15	723.38	315.58
730.84	315.66	747.16	316.9	747.93	316.96	768.17	318.64	810.82	322.74
816.39	323.04	834.87	324.22	880.53	326.32	915	327.71	1064.33	402.38

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	425.73	.02	441	.035	665	.05	747.93	.035

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.

656.81 698.4 190 200.17 212.79 .1 .3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 6917.517

INPUT
Description: Manual Modification of Manning's N Values, CS Modified 2:1 Slope
Sta 995
Station Elevation Data num= 38

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	334.67	97.4	332.23	97.56	332.23	97.6	332.23	97.69	332.23
193.24	329.19	234.66	327.01	246.54	325.73	271.97	324.75	356.29	320.78
360.57	320.57	363.47	320.36	375.98	319.45	423.8	315.78	438.16	314.98
487.37	313.87	500.72	313.21	529.12	312.22	552.63	311.41	562.01	311.08
575.62	310.61	627.99	309.46	638.64	309.38	653.86	308.72	695.47	308.74
706.66	308.68	718.04	308.62	756.08	308.38	777.95	308.45	783.84	308.6
808.41	309.5	816.01	309.92	842.54	311.39	875.46	312.96	925.16	313
927.18	313.02	995	313.48	1175.81	403.89				

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	529.12	.02	552.63	.035	706.66	.05	808.41	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
653.86	783.84	39.11	38.19	38.26	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 6879.32*

INPUT
Description:
Station Elevation Data num= 61

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	333.55	17.8	332.75	42.08	331.64	51.27	331.29	59.6	330.9
88.17	329.6	88.31	329.59	88.35	329.59	88.43	329.59	93.72	329.32
125.37	328.12	174.93	326.48	198.57	325.24	212.42	324.49	223.17	323.36
246.19	322.4	272.69	321.08	284.32	320.49	322.52	318.75	326.4	318.57
327.17	318.51	329.02	318.39	340.35	317.6	382.85	314.49	383.63	314.44
396.63	313.72	425.49	313.01	441.18	312.62	453.26	312.02	465.89	311.56
478.97	311.09	500.25	310.33	508.75	310.02	521.07	309.57	537.24	309.18
564.36	308.52	566.25	308.47	568.47	308.42	578.11	308.31	591.89	307.7
627.64	307.66	637.26	307.6	638.73	307.59	647.04	307.54	679.72	307.32
706.94	307.46	714.27	307.6	732.91	308.11	741.02	308.33	749.29	308.68
778.17	309.88	783.71	310.08	814.02	311.21	868.13	311.3	869.23	311.31
870.33	311.32	877.04	311.37	915.75	311.67	944.17	315.15	1057.84	371.99
1141.02	403.82								

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	465.89	.032	478.97	.02	500.25	.032	537.24	.025
591.89	.047	641.6	.047	714.27	.035	732.91	.035	741.02	.035
1141.02	.035								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
591.89	714.27	39.11	38.19	38.26	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 6841.13*

INPUT
Description:
Station Elevation Data num= 61

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	332.42	15.93	331.32	37.67	329.77	45.9	329.32	53.36	328.78
78.94	326.96	79.07	326.96	79.1	326.96	79.17	326.95	83.91	326.59
112.24	325.32	156.61	323.77	177.78	322.67	190.18	321.97	199.81	320.98
220.42	320.04	244.14	318.8	254.55	318.21	288.75	316.72	292.22	316.56
292.92	316.52	294.57	316.41	304.71	315.75	342.76	313.14	343.47	313.09
355.11	312.46	380.94	311.76	394.99	311.37	405.81	310.83	417.11	310.41
428.82	309.96	447.88	309.24	455.48	308.95	466.51	308.54	480.99	308.14
505.27	307.48	506.96	307.43	508.95	307.38	517.59	307.24	529.92	306.68
559.82	306.59	567.86	306.52	569.09	306.51	576.03	306.46	603.37	306.26
635.92	306.46	644.69	306.61	664.86	307	673.62	307.17	682.57	307.43
713.81	308.37	719.8	308.52	752.57	309.47	811.09	309.6	812.28	309.61
813.47	309.62	820.74	309.68	862.6	310.03	893.33	316.82	1016.27	378.29
1106.23	403.76								

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	417.11	.03	428.82	.02	447.88	.03	480.99	.03
529.92	.045	576.54	.045	644.69	.035	664.86	.035	673.62	.035
1106.23	.035								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
529.92	644.69	39.11	38.19	38.26	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 6802.94*

INPUT
Description:
Station Elevation Data num= 61

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	331.3	14.07	329.89	33.27	327.9	40.53	327.36	47.12	326.66
69.71	324.33	69.82	324.32	69.85	324.32	69.91	324.31	74.1	323.86
99.12	322.51	138.3	321.06	156.99	320.1	167.94	319.44	176.44	318.61
194.64	317.69	215.59	316.51	224.78	315.93	254.99	314.69	258.05	314.56
258.66	314.52	260.13	314.44	269.08	313.9	302.68	311.79	303.3	311.75

313.58	311.2	336.4	310.52	348.8	310.13	358.35	309.65	368.33	309.25
378.68	308.83	395.5	308.16	402.22	307.89	411.96	307.5	424.75	307.1
446.18	306.44	447.68	306.39	449.44	306.34	457.06	306.17	467.95	305.67
491.99	305.51	498.46	305.44	499.45	305.43	505.03	305.38	527.01	305.2
564.91	305.47	575.12	305.61	596.8	305.88	606.23	306	615.85	306.19
649.44	306.86	655.88	306.97	691.13	307.72	754.06	307.9	755.34	307.91
756.62	307.92	764.43	307.99	809.45	308.4	842.5	318.48	974.71	384.59
1071.45	403.69								

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	368.33	.027	378.68	.02	395.5	.027	424.75	.035
467.95	.043	511.48	.043	575.12	.035	596.8	.035	606.23	.035
1071.45	.035								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
467.95	575.12	39.11	38.19	38.26	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 6764.75*

INPUT
Description:
Station Elevation Data num= 61

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	330.18	12.21	328.47	28.86	326.03	35.17	325.39	40.88	324.54
60.48	321.7	60.57	321.68	60.6	321.68	60.66	321.67	64.29	321.13
85.99	319.7	119.98	318.36	136.2	317.53	145.7	316.92	153.08	316.23
168.87	315.34	187.04	314.22	195.02	313.66	221.22	312.66	223.88	312.56
224.41	312.53	225.68	312.46	233.45	312.05	262.6	310.44	263.14	310.4
272.05	309.94	291.85	309.27	302.61	308.88	310.9	308.46	319.56	308.09
328.53	307.7	343.13	307.08	348.95	306.83	357.4	306.47	368.5	306.07
387.09	305.4	388.39	305.35	389.92	305.3	396.53	305.1	405.98	304.65
424.16	304.43	429.06	304.36	429.81	304.34	434.03	304.31	450.65	304.14
493.89	304.48	505.54	304.61	528.75	304.77	538.83	304.83	549.13	304.95
585.08	305.35	591.97	305.41	629.68	305.97	697.03	306.2	698.4	306.21
699.76	306.22	708.12	306.29	756.3	306.76	791.66	320.15	933.14	390.89
1036.66	403.62								

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	319.56	.025	328.53	.02	343.13	.025	368.5	.04
405.98	.04	446.42	.04	505.54	.035	528.75	.035	538.83	.035
1036.66	.035								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
405.98	505.54	39.11	38.19	38.26	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 6726.56*

INPUT
Description:
Station Elevation Data num= 61

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	329.05	10.34	327.04	24.46	324.16	29.8	323.43	34.64	322.42
51.24	319.07	51.33	319.05	51.35	319.04	51.4	319.04	54.47	318.41
72.87	316.9	101.67	315.65	115.41	314.96	123.46	314.4	129.71	313.86
143.09	312.98	158.49	311.94	165.25	311.38	187.45	310.63	189.7	310.55
190.15	310.53	191.23	310.49	197.81	310.2	222.51	309.08	222.97	309.06
230.53	308.68	247.3	308.02	256.42	307.63	263.44	307.27	270.78	306.93
278.38	306.57	290.75	306	295.69	305.76	302.85	305.43	312.25	305.03
328.01	304.36	329.11	304.31	330.4	304.25	336	304.03	344.01	303.63
356.34	303.36	359.65	303.27	360.16	303.26	363.03	303.23	374.3	303.08
422.88	303.49	435.97	303.62	460.69	303.65	471.44	303.67	482.41	303.71
520.71	303.84	528.05	303.86	568.24	304.23	639.99	304.5	641.45	304.51
642.91	304.52	651.82	304.6	703.15	305.13	740.83	321.82	891.57	397.19
1001.87	403.56								

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	270.78	.022	278.38	.02	290.75	.022	312.25	.045
344.01	.038	381.36	.038	435.97	.035	460.69	.035	471.44	.035
1001.87	.035								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
344.01	435.97	39.11	38.19	38.26	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 6688.378

INPUT
Description: Manual Modification of Manning's N Values, CS Modified 2:1 Slope
Sta 650
Station Elevation Data num= 28

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	327.93	8.48	325.61	20.05	322.29	24.43	321.46	28.4	320.3
44.66	315.68	59.74	314.09	94.62	312.39	129.94	309.65	135.48	309.1
155.9	308.54	182.43	307.73	202.75	306.77	222	305.77	256	303.99
268.92	303.32	269.82	303.27	282.04	302.61	290.52	302.18	297.94	302.02
366.39	302.62	392.64	302.54	464.14	302.3	584.51	302.81	595.51	302.91
650	303.49	850	403.49	967.08	403.49				

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	222	.02	256	.05	392.64	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.

282.04	366.39	226.04	202.59	176.57	.1	.3	

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 6485.790

INPUT
Description: CS Modified 2:1 Slope Sta 520
Station Elevation Data num= 27

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	328.52	2.07	327.86	3.48	327.22	4.69	326.93	7.81	325.96
50.05	314.88	65.04	310.28	65.24	310.23	65.59	310.18	82.51	307.53
90.64	306.19	105.23	305.22	107.41	305.01	131.95	302.63	141.17	302.35
145.34	302.22	145.77	302.21	162.86	301.86	170.52	301.74	238.61	301.82
274.23	301.87	283.88	301.88	289.98	301.89	457.88	301.75	520	302.69
710	397.69	767.23	397.69						

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	107.41	.02	145.77	.05	283.88	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
162.86	238.61	199.07	192.7	179.76	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 6293.091

INPUT
Description: Manual Modification of Manning's N Values, CS Modified 2:1 Slope Sta 510
Station Elevation Data num= 33

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	328.2	7.71	326.15	15.55	323.74	31.1	319	36.24	317.54
41.76	316.49	66.31	309.08	70.07	308.39	85.54	305.43	96.29	302.76
107	301.31	114.98	300.23	117.15	300.03	120.79	300.12	131.71	298.1
144.16	296.62	153.39	295.51	157.4	295.04	168.23	295.5	170.25	295.72
171.44	296.01	188.99	298.45	195.72	298.78	220.01	299.65	225.55	299.92
242.07	300.73	255.31	300.88	276.57	300.96	284.23	300.97	352.2	300.83
397.53	302.41	510	310.27	689.74	400.14				

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	107	.02	153.39	.05	352.2	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
153.39	168.23	205.56	222.18	231.48	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 6070.915

INPUT
Description: Manual Modification of Manning's N Values, CS Modified 2:1 Slope Sta 470
Station Elevation Data num= 26

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	321.49	14.65	318.05	27.29	312.86	43.78	306.73	53.71	304.38
60.17	302.61	70.56	301.52	84.96	299.95	85.99	299.84	89.05	299.53
110.12	296.25	129.6	296	133.74	295.95	158.77	295.43	182.08	294.93
193.71	295.43	203.07	295.84	224.8	296.93	246	298	281.9	299.8
338.64	302.64	348.73	303.23	358.7	303.87	463.8	311.48	470	311.87
614.2	383.97								

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	85.99	.02	133.74	.05	246	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
158.77	193.71	191.99	188.03	180.5	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 5882.887

INPUT
Description: Manual Modification of Manning's N Values, CS Modified 2:1 Slope Sta 500.66
Station Elevation Data num= 29

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	322.93	3.58	322.74	10.45	322.08	18.16	319.5	22.09	317.82
29.57	316.35	36.25	314.72	42.32	312.4	59.62	305.49	62.56	304.64
72.12	302.17	76.72	301.66	132.87	298.17	148.64	297.23	158.03	296.88
178.81	296.11	198.67	294.56	201.81	294.31	218.34	293.91	251.92	293.71
259.29	293.93	302.57	295.19	304.02	295.25	332.36	296.36	337.68	296.63
400.98	300.19	500.66	306.94	700.66	406.94	752.53	406.94		

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	158.03	.02	198.67	.05	302.57	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
218.34	259.29	230.7	219.46	209.51	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 5663.432

INPUT
Description: Manual Modification of Manning's N Values, CS Modified 2:1 Slope Sta 730
Station Elevation Data num= 36

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev

0	314.56	14.64	310.28	32.3	307.27	51.95	306.47	51.98	306.47
52.04	306.47	102.58	305.16	123.99	304.61	170.55	306.05	185.99	306.18
218.7	305.05	227	304.72	236.51	304.34	247.16	303.91	258	303.33
269.61	302.7	279.12	301.88	300.51	300.19	321.19	297.85	344.53	295.65
381.2	294.83	427	292.46	470.33	290.21	501.06	289.06	509.15	289.04
583.77	288.88	595.71	288.73	602.55	288.87	605.21	289	608	289.17
620	289.84	638.71	290.89	698.49	293.99	699.71	294.05	730	295.86
932.51	397.12								

Manning's n Values num= 8

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	102.58	.05	227	.02	258	.035	427	.02
470.33	.035	509.15	.05	620	.035				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
509.15	605.21	182.19	204.52	241.52	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 5458.911

INPUT
Description: CS Modified 2:1 Slope Sta 657.78
Station Elevation Data num= 38

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	314.11	10.62	310.78	19.05	309.26	39.43	305.65	50.62	304.22
52.13	304.07	73.98	301.96	102.04	300.98	143.08	298.89	173.6	298.05
174.48	298.02	189.32	296.91	199.82	296.55	225.89	295.68	236.61	295.32
263.55	294.67	315.95	293.71	360.83	292.55	377.68	292.45	382.27	292.27
409.56	291.21	417.02	290.9	486.53	287.99	490.97	287.8	494.34	287.52
515.82	285.7	562.46	285.51	580.68	285.04	586.09	285.35	587.18	285.53
592.9	286.89	603.64	287.81	606.09	287.88	631.65	288.62	634.22	288.77
636.83	288.92	657.78	290.14	868.8	395.65				

Manning's n Values num= 8

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	52.13	.05	199.82	.02	225.89	.035	382.27	.02
417.02	.035	486.53	.05	634.22	.035				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
515.82	587.18	40.34	39.8	40.62	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 5419.10*

INPUT
Description:
Station Elevation Data num= 58

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	312.88	9.72	310.03	14.96	309.11	17.44	308.64	36.09	305.2
46.33	303.75	47.71	303.59	67.71	301.31	68.24	301.28	73.25	300.97
90.03	300	93.4	299.8	102.56	299.13	130.96	296.96	131.22	296.94
141.09	296.56	158.9	295.92	159.7	295.89	160.15	295.86	173.29	294.97
182.9	294.66	190.95	294.41	206.76	293.92	216.57	293.61	241.23	293.04
270.42	292.51	272.66	292.47	273.92	292.44	282.03	292.28	289.19	292.13
291.19	292.08	330.27	291.02	345.69	290.87	349.89	290.71	374.87	289.75
381.7	289.47	445.32	286.87	449.39	286.7	450.4	286.62	452.47	286.46
472.13	284.92	513.73	284.67	529.98	284.25	537.82	284.62	539.4	284.78
545.44	285.92	545.8	285.94	556.77	286.73	559.35	286.8	570.24	287.11
574.27	287.22	586.32	287.79	589.03	287.97	591.78	288.16	607	289.21
613.89	290.35	772.46	369.64	836.53	393.93				

Manning's n Values num= 14

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	47.71	.047	182.9	.023	190.95	.032	206.76	.032
273.92	.023	349.89	.023	381.7	.035	445.32	.047	450.4	.038
472.13	.038	539.4	.038	589.03	.038	836.53	.038		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
472.13	539.4	40.34	39.8	40.62	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 5379.30*

INPUT
Description:
Station Elevation Data num= 58

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	311.65	8.82	309.28	13.57	308.47	15.82	308.03	32.75	304.75
42.05	303.29	43.3	303.12	61.45	300.67	61.92	300.62	66.48	300.19
81.7	298.9	84.76	298.63	93.07	297.79	118.84	295.03	119.08	295.01
128.04	294.54	144.19	293.8	144.92	293.76	145.33	293.73	157.25	293.03
165.97	292.78	173.28	292.57	187.63	292.15	196.53	291.9	218.91	291.4
245.4	290.93	247.43	290.89	248.57	290.87	255.93	290.7	262.43	290.55
264.24	290.5	299.71	289.49	313.7	289.3	317.52	289.15	340.18	288.3
346.38	288.05	404.12	285.74	407.8	285.59	408.72	285.53	410.6	285.4
428.44	284.13	465.01	283.82	479.29	283.46	489.55	283.88	491.62	284.04
497.97	284.94	498.36	284.97	509.89	285.64	512.61	285.71	524.07	286.03
528.31	286.15	540.99	286.95	543.84	287.18	546.74	287.4	562.75	288.67
570	290.56	736.84	373.98	804.26	392.2				

Manning's n Values num= 14

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	43.3	.044	165.97	.026	173.28	.029	187.63	.029
248.57	.026	317.52	.026	346.38	.035	404.12	.044	408.72	.041
428.44	.041	491.62	.041	543.84	.041	804.26	.041		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
428.44	491.62	40.34	39.8	40.62	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 5339.50*

INPUT
Description:
Station Elevation Data num= 58

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	310.41	7.92	308.53	12.19	307.82	14.21	307.41	29.41	304.31
37.76	302.82	38.88	302.64	55.18	300.02	55.61	299.97	59.7	299.42
73.37	297.79	76.11	297.45	83.58	296.46	106.72	293.09	106.93	293.07
114.98	292.52	129.49	291.67	130.15	291.63	130.51	291.6	141.22	291.09
149.05	290.89	155.61	290.72	168.49	290.39	176.49	290.19	196.58	289.77
220.38	289.35	222.2	289.32	223.22	289.29	229.83	289.13	235.67	288.97
237.3	288.92	269.15	287.97	281.72	287.72	285.14	287.59	305.5	286.84
311.06	286.62	362.91	284.62	366.22	284.49	367.04	284.44	368.73	284.34
384.76	283.35	416.28	282.98	428.59	282.68	441.28	283.15	443.84	283.29
450.51	283.97	450.91	283.99	463.02	284.56	465.87	284.63	477.9	284.96
482.35	285.08	495.66	286.12	498.65	286.38	501.69	286.65	518.5	288.12
526.1	290.77	701.23	378.33	771.99	390.48				

Manning's n Values num= 14

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	38.88	.041	149.05	.029	155.61	.026	168.49	.026
223.22	.029	285.14	.029	311.06	.035	362.91	.041	367.04	.044
384.76	.044	443.84	.044	498.65	.044	771.99	.044		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
384.76	443.84	40.34	39.8	40.62	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 5299.69*

INPUT
Description:
Station Elevation Data num= 58

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	309.18	7.02	307.78	10.8	307.18	12.6	306.79	26.07	303.86
33.47	302.36	34.47	302.17	48.92	299.37	49.29	299.31	52.92	298.64
65.04	296.69	67.47	296.27	74.09	295.12	94.61	291.16	94.79	291.13
101.93	290.5	114.79	289.55	115.37	289.51	115.69	289.48	125.18	289.15
132.12	289	137.94	288.88	149.36	288.63	156.45	288.47	174.26	288.14
195.35	287.78	196.97	287.74	197.88	287.72	203.74	287.55	208.91	287.39
210.35	287.35	238.59	286.44	249.73	286.14	252.76	286.03	270.81	285.38
275.74	285.2	321.7	283.5	324.64	283.39	325.37	283.35	326.87	283.28
341.07	282.56	367.55	282.13	377.9	281.89	393.01	282.42	396.06	282.55
403.04	283	403.47	283.02	416.15	283.47	419.14	283.55	431.73	283.88
436.39	284.01	450.33	285.28	453.46	285.58	456.65	285.89	474.25	287.58
482.21	290.98	665.61	382.68	739.72	388.75				

Manning's n Values num= 14

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	34.47	.038	132.12	.032	137.94	.023	149.36	.023
197.88	.032	252.76	.032	275.74	.035	321.7	.038	325.37	.047
341.07	.047	396.06	.047	453.46	.047	739.72	.047		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
341.07	396.06	40.34	39.8	40.62	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 5259.894

INPUT
Description: Manual Modification of Manning's N Values, CS Modified 2:1 Slope
Sta 430
Station Elevation Data num= 25

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	307.95	9.42	306.54	42.98	298.65	46.14	297.86	56.71	295.58
64.6	293.78	82.65	289.19	88.87	288.48	100.87	287.35	120.27	287.03
170.33	286.2	171.74	286.17	172.53	286.14	177.64	285.98	183.41	285.77
283.69	282.26	297.38	281.78	327.2	281.1	348.28	281.8	356.02	282.04
385.56	282.81	390.43	282.94	430	287.03	630	387.03	707.45	387.03

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	120.27	.02	172.53	.035	283.69	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
297.38	348.28	36.64	42.12	49.31	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 5217.77*

INPUT
Description:
Station Elevation Data num= 42

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	307.88	6.51	306.72	9.87	306.11	25.77	302.15	30.56	301.06
39.94	298.91	41.21	298.62	45.01	297.7	48.32	296.86	59.37	294.34
59.39	294.34	60.88	293.98	62.59	293.63	67.55	292.74	67.66	292.72
86.56	288.8	93.08	288.14	103.76	287.23	105.64	287.07	116.74	286.78
125.96	286.59	135.61	286.38	151.12	286.06	168.61	285.81	178.39	285.65
179.87	285.62	180.7	285.59	186.05	285.44	192.09	285.25	237.93	283.84
251.51	283.45	265.41	283.06	297.12	282.15	311.45	281.74	340.27	281.16
362.62	281.73	369.78	282.41	397.12	284.87	401.62	285.28	438.23	291.03
623.27	383.55	694.92	388.4						

Manning's n Values num= 10

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	103.76	.032	125.96	.02	151.12	.023	180.7	.035
265.41	.038	297.12	.05	311.45	.05	362.62	.05	694.92	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
311.45	362.62	36.64	42.12	49.31	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 5175.65*

INPUT
Description:
Station Elevation Data num= 42

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	307.8	6.81	306.42	10.31	305.67	26.94	301.33	31.94	300.23
41.75	298.02	43.07	297.73	47.05	296.74	50.51	295.85	62.05	293.1
62.08	293.09	63.64	292.71	65.42	292.38	70.6	291.69	70.71	291.67
90.47	288.41	97.28	287.81	108.45	286.94	110.42	286.79	122.01	286.39
131.65	286.14	141.74	285.88	157.95	285.5	176.23	285.27	186.45	285.1
188	285.07	188.86	285.04	194.45	284.9	200.77	284.73	248.68	283.44
262.87	283.12	277.4	282.79	310.54	282.04	325.53	281.7	353.34	281.22
376.97	281.66	383.55	282.78	408.67	286.94	412.81	287.62	446.46	295.03
616.54	380.07	682.4	389.77						

Manning's n Values num= 10

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	108.45	.029	131.65	.02	157.95	.026	188.86	.035
277.4	.041	310.54	.05	325.53	.05	376.97	.05	682.4	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
325.53	376.97	36.64	42.12	49.31	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 5133.53*

INPUT
Description:
Station Elevation Data num= 42

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	307.73	7.1	306.13	10.76	305.24	28.1	300.5	33.32	299.39
43.55	297.14	44.94	296.84	49.08	295.79	52.69	294.85	64.73	291.86
64.76	291.85	66.39	291.43	68.24	291.13	73.66	290.63	73.77	290.61
94.38	288.02	101.49	287.47	113.14	286.66	115.19	286.51	127.29	286
137.35	285.7	147.86	285.38	164.78	284.93	183.85	284.73	194.51	284.55
196.12	284.52	197.03	284.49	202.86	284.37	209.45	284.21	259.44	283.05
274.24	282.79	289.39	282.53	323.97	281.93	339.6	281.67	366.42	281.28
391.31	281.6	397.31	283.15	420.23	289	424	289.97	454.69	299.03
609.8	376.59	669.87	391.13						

Manning's n Values num= 10

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	113.14	.026	137.35	.02	164.78	.029	197.03	.035
289.39	.044	323.97	.05	339.6	.05	391.31	.05	669.87	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
339.6	391.31	36.64	42.12	49.31	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 5091.41*

INPUT
Description:
Station Elevation Data num= 42

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	307.65	7.4	305.83	11.2	304.8	29.27	299.68	34.7	298.56
45.36	296.25	46.8	295.96	51.12	294.83	54.87	293.84	67.42	290.61
67.45	290.61	69.14	290.16	71.07	289.87	76.71	289.57	76.83	289.56
98.3	287.63	105.69	287.13	117.83	286.37	119.97	286.23	132.56	285.6
143.04	285.25	153.99	284.89	171.61	284.36	191.47	284.18	202.57	284
204.25	283.97	205.19	283.95	211.27	283.83	218.13	283.69	270.19	282.65
285.6	282.46	301.39	282.26	337.39	281.83	353.68	281.63	379.49	281.34
405.66	281.53	411.08	283.51	431.78	291.06	435.19	292.31	462.92	303.03
603.07	373.11	657.35	392.5						

Manning's n Values num= 10

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	117.83	.023	143.04	.02	171.61	.032	205.19	.035
301.39	.047	337.39	.05	353.68	.05	405.66	.05	657.35	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
353.68	405.66	36.64	42.12	49.31	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 5049.293

INPUT
Description: Manual Modification of Manning's N Values, CS Modified 2:1 Slope
Sta 420
Station Elevation Data num= 22

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	307.58	7.69	305.53	30.43	298.86	36.08	297.72	47.16	295.37
48.66	295.07	70.1	289.37	71.89	288.88	73.9	288.62	79.76	288.51
122.52	286.08	137.84	285.21	160.12	284.39	178.44	283.79	199.09	283.64
280.94	282.25	296.97	282.13	313.38	282	367.75	281.59	392.56	281.4
420	281.46	644.82	393.87						

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val

0	.035	122.52	.02	178.44	.035	313.38	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
367.75	420	196.45	215.25	246.72	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 4834.044

INPUT
Description: CS Modified 2:1 Slope Sta 521.31
Station Elevation Data num= 38

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	298.82	16.17	294.06	31.39	288.02	36.18	286.3	39.84	285.46
52.63	282.79	61.67	282.24	72.24	281.36	101.1	282.19	118.2	281.15
140.96	281.3	181	280.5	208.97	279.95	216.38	279.8	232.71	279.49
302.96	278.15	315	278.26	324.5	277.12	327.68	276.74	333.64	276
342.6	271.39	343.59	270.88	346.79	269.21	352.18	268.94	359.57	267.96
369.43	267.9	379.97	269.2	400.11	271.57	401.07	271.63	411	272.42
418.89	272.85	420.17	272.97	443.45	275.15	471.35	277.77	488.14	279.72
519.52	282.11	521.31	282.25	646.42	344.81				

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	181	.02	232.71	.035	342.6	.07	420.17	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
346.79	379.97	246.13	208.43	136.41	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 4625.617

INPUT
Description: Manual Modification of Manning's N Values, CS Modified 2:1 Slope Sta 562.96
Station Elevation Data num= 40

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	295.43	4.75	293.78	11.66	290.4	15.95	289.23	22.98	288.02
26.51	287.46	32.97	286.94	50.72	285.61	76.08	283.32	101.4	281.1
120.89	278.64	136.78	276.67	208.53	274.2	218.57	273.7	220.57	273.7
240.69	273.73	270	274.52	288.9	275.03	298.27	275.93	308.69	277.13
309.54	277.08	321.64	276.62	323.07	276.33	326.65	275.6	339.59	269.86
341.36	269.12	343.76	269.12	398.67	268.93	407.91	269.1	419.09	269.31
451.24	269.91	458.19	270.22	489.37	273.26	503.11	274.66	517.22	276.93
528.32	278.69	530.59	279.03	531.43	279.23	562.96	282.96	648.74	325.87

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	220.57	.02	270	.035	323.07	.07	419.09	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
341.36	407.91	202.37	195.41	199.06	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 4430.204

INPUT
Description: Manual Modification of Manning's N Values, CS Modified 2:1 Slope Sta 540
Station Elevation Data num= 34

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	289.52	4.96	287.67	11.29	284.36	19.2	282.2	37.62	275.59
40.35	275.35	48.09	274.67	57.49	274.24	75.08	273.52	88.34	273.2
116.94	272.43	119.67	272.37	145.64	270.26	162.88	269.41	175.6	269.37
215.22	269.24	252.57	269.11	264.42	269.02	268.08	268.97	303.33	268.41
313	268.25	325.74	268.05	352.39	266.78	363.48	268.03	393.45	268.19
414.02	268.3	436.05	268.52	484.31	270.68	496	271.6	512.78	273.58
523.51	274.8	535.09	276.12	540	276.51	672.57	342.8		

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	40.35	.035	215.22	.02	264.42	.035	313	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
325.74	363.48	161.68	181.18	203.31	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 4249.023

INPUT
Description: Manual Modification of Manning's N Values, CS Modified 2:1 Slope Sta 483.66
Station Elevation Data num= 30

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	288.52	5.08	286.41	8.18	284.65	13	282.74	16.28	281.02
23.77	277.94	29.9	275.31	31.93	274.83	50.28	269.53	59.91	268.53
72.78	267.64	101.14	266.76	125.94	266.2	160.29	265.42	187.18	265.37
207.25	264.58	223.88	263.78	235.54	263.21	239.96	263.01	248.7	262.54
257.16	262.53	320.41	263.01	329.69	263.09	366	265.09	374.43	265.55
383.18	266.1	435.2	269.41	447.16	270.9	483.66	274.43	581.51	323.36

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	50.28	.035	160.29	.02	207.25	.035	235.54	.05
366	.035								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
239.96	320.41	51.94	42.86	32.23	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 4206.16*

INPUT
Description:
Station Elevation Data num= 57

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	287.29	4.67	285.28	7.52	283.67	11.94	281.84	14.96	280.26
15.17	280.17	15.85	279.9	21.84	277.62	27.47	275.4	29.34	274.98
33.03	273.97	43.21	271.19	46.2	270.34	47.23	270.21	55.05	269.2
62.91	268.41	66.29	268.15	66.87	268.1	71.1	267.92	88.31	267.1
92.93	266.89	99.1	266.65	104.38	266.44	115.72	266.14	129.14	265.77
147.28	265.26	158.57	265.14	165.84	265.06	171.98	265	190.43	264.21
204.07	263.52	205.71	263.42	216.42	262.73	220.48	262.49	231.55	262.1
231.98	262.1	242.27	262.06	293.63	262.49	302.76	262.66	327.2	264.03
330.77	264.2	338.51	264.56	346.81	264.94	355.42	265.39	391.58	267.33
395.55	267.54	406.49	268.12	406.62	268.13	407.43	268.2	408.85	268.36
410.57	268.55	418.4	269.41	453.83	272.51	454.33	272.56	478.44	282.9
502.51	293.2	550.65	317.28						

Manning's n Values num= 13

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	33.03	.047	46.2	.035	99.1	.032	147.28	.02
158.57	.026	190.43	.038	216.42	.05	220.48	.035	293.63	.035
338.51	.035	395.55	.035	550.65	.035				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
220.48	293.63	51.94	42.86	32.23	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 4163.30*

INPUT
Description:
Station Elevation Data num= 57

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	286.05	4.26	284.14	6.85	282.7	10.89	280.94	13.64	279.49
13.83	279.41	14.45	279.17	19.91	277.31	25.05	275.49	26.75	275.12
30.12	274.27	39.39	271.91	42.12	271.14	43.06	271	50.18	269.86
57.36	268.89	60.43	268.61	60.96	268.57	64.81	268.33	80.51	267.29
84.72	267.02	90.35	266.69	95.16	266.41	105.49	266.07	117.73	265.68
134.27	265.09	144.56	264.88	151.19	264.75	156.79	264.63	173.6	263.84
186.04	263.17	187.53	263.05	197.3	262.25	201	261.96	214.4	261.66
214.92	261.66	227.37	261.58	266.85	261.97	275.84	262.22	299.89	263.6
303.4	263.73	311.01	264.02	319.18	264.33	327.66	264.69	363.24	266.21
367.15	266.38	377.92	266.84	378.05	266.84	378.85	266.9	380.24	267.02
381.93	267.18	389.63	267.92	424.51	270.64	424.99	270.69	448.72	279.13
472.41	287.5	519.78	311.19						

Manning's n Values num= 13

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	30.12	.044	42.12	.035	90.35	.029	134.27	.02
144.56	.032	173.6	.041	197.3	.05	201	.035	266.85	.035
311.01	.035	367.15	.035	519.78	.035				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
201	266.85	51.94	42.86	32.23	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 4120.44*

INPUT
Description:
Station Elevation Data num= 57

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	284.82	3.84	283.01	6.19	281.72	9.83	280.04	12.32	278.73
12.49	278.65	13.05	278.45	17.98	276.99	22.62	275.58	24.15	275.27
27.2	274.57	35.58	272.64	38.03	271.95	38.89	271.8	45.32	270.53
51.8	269.37	54.57	269.08	55.06	269.03	58.53	268.75	72.7	267.48
76.51	267.15	81.59	266.73	85.93	266.37	95.27	266.01	106.32	265.58
121.25	264.93	130.55	264.62	136.53	264.43	141.59	264.26	156.78	263.47
168.01	262.82	169.36	262.69	178.18	261.78	181.52	261.44	197.25	261.22
197.86	261.22	212.48	261.11	240.07	261.44	248.91	261.79	272.58	263.18
276.03	263.27	283.52	263.49	291.56	263.71	299.89	263.98	334.9	265.1
338.75	265.22	349.35	265.55	349.47	265.56	350.26	265.59	351.63	265.69
353.3	265.82	360.87	266.42	395.18	268.76	395.66	268.82	419	275.36
442.31	281.8	488.92	305.11						

Manning's n Values num= 13

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	27.2	.041	38.03	.035	81.59	.026	121.25	.02
130.55	.038	156.78	.044	178.18	.05	181.52	.035	240.07	.035
283.52	.035	338.75	.035	488.92	.035				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
181.52	240.07	51.94	42.86	32.23	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 4077.57*

INPUT
Description:
Station Elevation Data num= 57

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	283.58	3.43	281.88	5.52	280.74	8.78	279.14	10.99	277.97
11.15	277.89	11.65	277.72	16.05	276.68	20.19	275.67	21.56	275.42
24.28	274.87	31.76	273.36	33.95	272.76	34.71	272.59	40.46	271.19
46.24	269.84	48.72	269.54	49.15	269.5	52.25	269.17	64.9	267.66

68.3	267.28	72.84	266.77	76.71	266.34	85.04	265.95	94.91	265.49
108.24	264.76	116.54	264.37	121.88	264.11	126.4	263.89	139.95	263.09
149.98	262.48	151.18	262.32	159.06	261.3	162.04	260.91	180.1	260.78
180.8	260.78	197.58	260.63	213.29	260.92	221.99	261.36	245.26	262.75
248.66	262.81	256.03	262.95	263.93	263.1	272.13	263.27	306.57	263.99
310.35	264.07	320.77	264.27	320.9	264.27	321.67	264.28	323.02	264.35
324.66	264.45	332.11	264.93	365.86	266.89	366.33	266.95	389.29	271.58
412.21	276.1	458.05	299.02						

Manning's n Values num= 13

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	24.28	.038	33.95	.035	72.84	.023	108.24	.02
116.54	.044	139.95	.047	159.06	.05	162.04	.035	213.29	.035
256.03	.035	310.35	.035	458.05	.035				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
162.04	213.29	51.94	42.86	32.23	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 4034.719

INPUT
Description: CS Modified 2:1 Slope Sta 382.11
Station Elevation Data num= 32

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	282.35	9.81	277.13	10.25	277	21.36	275.17	27.94	274.08
30.54	273.39	40.68	270.32	42.86	270.01	45.97	269.59	57.1	267.85
64.08	266.81	67.49	266.3	83.5	265.39	102.53	264.11	107.23	263.79
131.95	262.13	142.56	260.39	163.74	260.34	182.69	260.16	186.51	260.4
217.95	262.32	221.29	262.35	278.23	262.88	281.95	262.91	292.2	262.99
293.08	262.97	294.41	263.02	296.02	263.09	336.53	265.02	359.57	267.81
382.11	270.4	427.19	292.94						

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	21.36	.035	64.08	.02	102.53	.05	281.95	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
142.56	186.51	45.99	44.21	43.52	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 3990.51*

INPUT
Description:
Station Elevation Data num= 54

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	279.68	10.21	275.05	10.67	274.93	20.97	273.17	22.24	272.96
24.74	272.53	26.84	272.22	29.09	271.9	31.8	271.31	33.32	270.93
42.35	268.73	44.62	268.45	46.71	268.22	47.86	268.11	57.66	267.01
59.45	266.82	66.71	266.05	70.27	265.67	85.27	265.14	86.37	265.1
86.93	265.08	87.44	265.06	89.6	264.9	96.72	264.44	102.49	264.06
106.75	263.78	110.58	263.53	111.64	263.42	137.38	260.92	139.24	260.6
139.26	260.6	148.42	259.41	168.51	259.32	186.48	259.13	187.91	259.22
190.71	259.42	209.37	260.62	218.37	261.33	221.31	261.42	235.09	261.86
241.13	262.06	251.83	262.29	271.4	262.68	274.68	262.75	283.7	262.91
284.47	262.91	285.64	262.96	287.06	263.03	289.44	263.17	322.7	265
342.97	267.47	350.58	268.36	362.8	270.19	402.46	290.02		

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	20.97	.044	22.24	.032	57.66	.023	66.71	.023
96.72	.038	106.75	.05	148.42	.038	190.71	.038	274.68	.038
402.46	.038								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
148.42	190.71	45.99	44.21	43.52	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 3946.30*

INPUT
Description:
Station Elevation Data num= 54

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	277	10.62	272.97	11.09	272.86	21.8	270.97	23.12	270.74
25.72	270.29	27.9	270.01	30.24	269.72	33.05	269.22	34.63	268.91
44.03	267.14	46.38	266.9	48.56	266.69	49.75	266.62	59.94	265.91
61.8	265.78	69.35	265.28	73.04	265.04	88.64	264.8	89.78	264.79
90.37	264.77	90.89	264.75	93.14	264.59	100.54	264.11	106.54	263.73
110.96	263.45	114.95	263.19	116.05	263.05	142.8	259.72	144.74	259.37
144.76	259.37	154.28	258.44	173.28	258.31	190.27	258.11	191.84	258.19
194.91	258.44	211.02	259.55	218.79	260.34	221.33	260.5	233.23	261.23
238.45	261.55	247.68	261.9	264.58	262.49	267.41	262.58	275.19	262.84
275.86	262.85	276.87	262.9	278.09	262.98	280.15	263.11	308.86	264.98
326.36	267.14	332.93	267.91	343.48	269.98	377.72	287.1		

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	21.8	.038	23.12	.029	59.94	.026	69.35	.026
100.54	.041	110.96	.05	154.28	.041	194.91	.041	267.41	.041
377.72	.041								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
154.28	194.91	45.99	44.21	43.52	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 3902.09*

INPUT
Description:
Station Elevation Data num= 54

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	274.33	11.02	270.9	11.51	270.78	22.62	268.78	23.99	268.53
26.7	268.04	28.96	267.8	31.39	267.55	34.31	267.14	35.95	266.89
45.7	265.54	48.15	265.34	50.4	265.17	51.64	265.14	62.22	264.81
64.14	264.75	71.98	264.52	75.82	264.41	92	264.47	93.19	264.47
93.8	264.46	94.34	264.45	96.68	264.28	104.36	263.79	110.58	263.4
115.18	263.12	119.32	262.86	120.46	262.69	148.23	258.51	150.24	258.14
150.26	258.14	160.15	257.46	178.05	257.29	194.06	257.08	195.77	257.17
199.12	257.47	212.68	258.48	219.22	259.36	221.35	259.57	231.37	260.6
235.76	261.05	243.53	261.52	257.75	262.29	260.13	262.42	266.69	262.76
267.25	262.78	268.1	262.84	269.13	262.92	270.86	263.06	295.03	264.96
309.76	266.8	315.29	267.47	324.17	269.77	352.99	284.18		

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	22.62	.032	23.99	.026	62.22	.029	71.98	.029
104.36	.044	115.18	.05	160.15	.044	199.12	.044	260.13	.044
352.99	.044								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
160.15	199.12	45.99	44.21	43.52	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 3857.89*

INPUT
Description:
Station Elevation Data num= 54

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	271.65	11.42	268.82	11.94	268.71	23.45	266.58	24.87	266.32
27.67	265.8	30.02	265.58	32.54	265.37	35.56	265.06	37.26	264.87
47.37	263.95	49.91	263.79	52.25	263.64	53.53	263.65	64.49	263.7
66.49	263.71	74.62	263.75	78.59	263.77	95.37	264.13	96.6	264.16
97.23	264.15	97.8	264.15	100.22	263.96	108.18	263.47	114.63	263.08
119.39	262.79	123.68	262.52	124.87	262.32	153.65	257.31	155.74	256.91
155.76	256.91	166.01	256.49	182.81	256.27	197.85	256.06	199.7	256.14
203.32	256.49	214.33	257.4	219.64	258.37	221.37	258.65	229.5	259.96
233.07	260.54	239.38	261.13	250.93	262.09	252.86	262.25	258.18	262.69
258.64	262.72	259.33	262.79	260.16	262.87	261.57	263	281.19	264.94
293.15	266.46	297.64	267.02	304.85	269.56	328.25	281.26		

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	23.45	.026	24.87	.023	64.49	.032	74.62	.032
108.18	.047	119.39	.05	166.01	.047	203.32	.047	252.86	.047
328.25	.047								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
166.01	203.32	45.99	44.21	43.52	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 3813.686

INPUT
Description: Manual Modification of Manning's N Values, CS Modified 2:1 Slope
Sta 280
Station Elevation Data num= 27

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	268.98	24.28	264.38	28.65	263.56	31.08	263.37	38.58	262.85
54.09	262.12	66.77	262.6	98.74	263.79	100.01	263.84	101.25	263.85
103.76	263.65	112	263.15	118.68	262.75	128.05	262.19	161.24	255.68
161.26	255.68	171.87	255.51	201.64	255.03	203.63	255.12	207.52	255.51
215.98	256.33	227.64	259.33	230.38	260.04	235.23	260.75	252.28	262.95
280	266.58	303.52	278.34						

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	24.28	.02	66.77	.035	112	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
171.87	207.52	34.64	39.46	42.17	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 3774.22*

INPUT
Description:
Station Elevation Data num= 38

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	269	17.59	265.76	24.84	264.43	28.87	263.69	29.31	263.6
31.8	263.35	35.33	263.02	39.47	262.75	40.26	262.72	42.66	262.61
55.34	262.07	62.59	262.26	68.31	262.44	72.8	262.58	96.09	263.29
101.02	263.46	102.32	263.51	103.58	263.52	106.15	263.36	114.58	262.98
116.84	262.88	121.42	262.67	131	262.25	140.72	260.73	155.55	258.28
164.96	256.67	164.98	256.67	175.83	256.41	201.88	255.82	203.66	255.96
207.12	256.41	214.18	257.09	223.89	259.59	226.18	260.18	230.22	260.78
244.43	262.61	267.52	265.63	307.44	285.57				

Manning's n Values num= 10

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	24.84	.025	35.33	.045	68.31	.032	72.8	.022
114.58	.047	116.84	.038	175.83	.05	207.12	.05	307.44	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.

175.83	207.12	34.64	39.46	42.17	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 3734.76*

INPUT
Description:
Station Elevation Data num= 38

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	269.01	17.98	265.8	25.4	264.47	29.52	263.74	29.97	263.65
32.51	263.33	36.13	262.9	40.36	262.66	41.16	262.62	43.62	262.52
56.58	262.02	64	262.14	69.85	262.28	74.44	262.39	98.26	262.97
103.29	263.13	104.62	263.17	105.92	263.19	108.54	263.08	117.16	262.81
119.47	262.74	124.15	262.6	133.95	262.3	143.89	261.14	159.05	259.07
168.67	257.66	168.69	257.66	179.79	257.31	202.12	256.6	203.68	256.79
206.73	257.31	212.37	257.86	220.14	259.86	221.97	260.33	225.2	260.8
236.57	262.27	255.05	264.69	311.36	292.8				

Manning's n Values num= 10

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	25.4	.03	36.13	.04	69.85	.03	74.44	.025
117.16	.045	119.47	.04	179.79	.05	206.73	.05	311.36	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
179.79	206.73	34.64	39.46	42.17	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 3695.30*

INPUT
Description:
Station Elevation Data num= 38

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	269.03	18.38	265.84	25.96	264.52	30.17	263.79	30.63	263.69
33.23	263.31	36.92	262.79	41.25	262.56	42.07	262.53	44.59	262.42
57.83	261.97	65.41	262.01	71.39	262.12	76.08	262.21	100.42	262.65
105.57	262.8	106.93	262.84	108.25	262.86	110.94	262.79	119.74	262.64
122.1	262.6	126.89	262.52	136.9	262.36	147.06	261.54	162.56	259.87
172.39	258.65	172.41	258.65	183.76	258.21	202.36	257.39	203.71	257.63
206.33	258.21	210.57	258.62	216.39	260.12	217.76	260.48	220.19	260.83
228.71	261.93	242.57	263.74	315.27	300.03				

Manning's n Values num= 10

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	25.96	.035	36.92	.035	71.39	.027	76.08	.027
119.74	.043	122.1	.043	183.76	.05	206.33	.05	315.27	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
183.76	206.33	34.64	39.46	42.17	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 3655.84*

INPUT
Description:
Station Elevation Data num= 38

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	269.05	18.78	265.88	26.52	264.56	30.82	263.83	31.29	263.74
33.95	263.3	37.72	262.68	42.14	262.47	42.98	262.43	45.55	262.33
59.08	261.92	66.82	261.88	72.93	261.96	77.72	262.02	102.59	262.33
107.84	262.47	109.23	262.51	110.59	262.53	113.33	262.5	122.33	262.47
124.74	262.47	129.62	262.45	139.86	262.42	150.23	261.95	166.06	260.66
176.11	259.65	176.13	259.64	187.72	259.11	202.61	258.18	203.73	258.47
205.94	259.11	208.76	259.38	212.65	260.38	213.56	260.62	215.18	260.86
220.86	261.59	230.1	262.8	319.19	307.26				

Manning's n Values num= 10

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	26.52	.04	37.72	.03	72.93	.025	77.72	.03
122.33	.04	124.74	.045	187.72	.05	205.94	.05	319.19	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
187.72	205.94	34.64	39.46	42.17	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 3616.38*

INPUT
Description:
Station Elevation Data num= 38

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	269.06	19.17	265.92	27.08	264.61	31.47	263.88	31.95	263.78
34.66	263.28	38.51	262.56	43.03	262.37	43.88	262.34	46.51	262.23
60.32	261.87	68.23	261.76	74.47	261.8	79.36	261.84	104.75	262.01
110.12	262.14	111.54	262.17	112.92	262.2	115.72	262.22	124.91	262.3
127.37	262.33	132.36	262.37	142.81	262.47	153.4	262.35	169.57	261.46
179.82	260.64	179.85	260.64	191.68	260.01	202.85	258.96	203.76	259.31
205.54	260.01	206.96	260.15	208.9	260.65	209.35	260.77	210.16	260.88
213	261.25	217.62	261.86	323.11	314.49				

Manning's n Values num= 10

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	27.08	.045	38.51	.025	74.47	.023	79.36	.032
124.91	.038	127.37	.047	191.68	.05	205.54	.05	323.11	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
191.68	205.54	34.64	39.46	42.17	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 3576.919

INPUT
Description: Manual Modification of Manning's N Values, CS Modified 2:1 Slope
Sta 203.09
Station Elevation Data num= 16

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	269.08	19.57	265.96	32.12	263.93	39.31	262.45	44.79	262.24
47.47	262.14	69.64	261.63	81	261.65	106.92	261.69	130	262.19
156.57	262.76	173.07	262.25	195.64	260.91	203.09	259.75	205.15	260.91
327.03	321.72								

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	39.31	.02	81	.035	130	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
195.64	205.15	33.82	41.19	42.78	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 3535.73*

INPUT
Description:
Station Elevation Data num= 27

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	267.74	18.57	264.79	26.28	263.56	30.48	262.89	37.31	261.56
42.51	261.28	45.05	261.14	52.59	260.83	58.78	260.7	66.09	260.55
75.55	260.55	76.87	260.55	95.77	260.53	97.98	260.54	101.47	260.57
123.37	261.08	139.83	261.47	148.59	261.67	164.24	261.35	164.52	261.33
170.15	261.05	173.81	260.86	185.66	260.11	194.26	259.01	194.42	258.99
196.43	260.1	312.91	318.23						

Manning's n Values num= 9

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	37.31	.026	58.78	.044	76.87	.032	97.98	.023
123.37	.047	185.66	.047	196.43	.047	312.91	.047		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
185.66	196.43	33.82	41.19	42.78	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 3494.54*

INPUT
Description:
Station Elevation Data num= 27

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	266.39	17.57	263.62	24.87	262.46	28.84	261.85	35.3	260.66
40.22	260.31	42.63	260.14	49.77	259.7	55.63	259.6	62.54	259.47
71.49	259.45	72.74	259.45	90.63	259.38	92.71	259.4	96.02	259.44
116.74	259.97	132.32	260.37	140.6	260.58	155.42	260.44	155.68	260.44
161.01	260.23	164.47	260.07	175.69	259.3	185.57	258.25	185.75	258.23
187.71	259.3	298.78	314.75						

Manning's n Values num= 9

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	35.3	.032	55.63	.038	72.74	.029	92.71	.026
116.74	.044	175.69	.044	187.71	.044	298.78	.044		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
175.69	187.71	33.82	41.19	42.78	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 3453.35*

INPUT
Description:
Station Elevation Data num= 27

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	265.05	16.58	262.46	23.45	261.37	27.21	260.81	33.3	259.77
37.94	259.35	40.21	259.14	46.94	258.57	52.47	258.49	58.99	258.39
67.43	258.36	68.61	258.35	85.48	258.22	87.45	258.26	90.56	258.32
110.11	258.86	124.81	259.27	132.62	259.49	146.59	259.54	146.84	259.54
151.86	259.4	155.13	259.28	165.71	258.5	176.87	257.49	177.09	257.48
178.98	258.49	284.66	311.26						

Manning's n Values num= 9

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	33.3	.038	52.47	.032	68.61	.026	87.45	.029
110.11	.041	165.71	.041	178.98	.041	284.66	.041		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
165.71	178.98	33.82	41.19	42.78	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 3412.16*

INPUT
Description:
Station Elevation Data num= 27

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	263.7	15.58	261.29	22.04	260.28	25.57	259.77	31.29	258.88
35.65	258.38	37.79	258.14	44.12	257.45	49.31	257.39	55.44	257.31
63.37	257.26	64.48	257.25	80.34	257.07	82.18	257.12	85.11	257.2
103.48	257.76	117.29	258.18	124.63	258.4	137.77	258.64	138	258.64
142.72	258.58	145.79	258.49	155.74	257.69	168.18	256.73	168.42	256.72

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  170.26  257.69  270.53  307.78

Manning's n Values          num=       9
     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val
       0     .05   31.29    .044   49.31    .026   64.48    .023   82.18    .032
  103.48    .038  155.74    .038  170.26    .038  270.53    .038

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
        155.74  170.26             33.82   41.19   42.78             .1       .3

CROSS SECTION          RIVER: Canada Chiquita
REACH: Tributary          RS: 3370.982

INPUT
Description: CS Modified 2:1 Slope Sta 159.75
Station Elevation Data     num=      16
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  262.36   20.63  259.19   41.29  256.32   46.15  256.28   59.31  256.16
   75.19  255.92   76.92  255.98  109.78  257.08  129.16  257.74  133.58  257.75
  136.45   257.7  145.76  256.89  159.49  255.97  159.75  255.96  161.54  256.88
  256.41  304.29

Manning's n Values          num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0     .05   46.15     .02   76.92    .035

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
        145.76  161.54             32.87   38.29   40.04             .1       .3

CROSS SECTION          RIVER: Canada Chiquita
REACH: Tributary          RS: 3332.68*

INPUT
Description:
Station Elevation Data     num=      26
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  262.36   21.89  259.69   39.85   257.7    43.8  257.24   44.39  257.23
   48.96  257.17    58.7  257.02   62.92  256.92   79.77  256.45   81.45  256.47
    81.6  256.47   89.71  256.48   96.03  256.41  103.29  256.36  116.46  256.27
  132.06  256.17  137.02  256.15     140  256.06  141.71  256.05  144.76  255.99
  148.84  255.69  154.63  255.26  169.52  254.23   169.8  254.21  171.84  255.27
  273.32  305.98

Manning's n Values          num=       9
     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val
       0    .054   48.96     .03    81.6    .042  103.29    .066  148.84    .044
  154.63    .035  169.55    .035  171.84    .035  273.32    .035

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
        154.63  171.84             32.87   38.29   40.04             .1       .3

CROSS SECTION          RIVER: Canada Chiquita
REACH: Tributary          RS: 3294.39*

INPUT
Description:
Station Elevation Data     num=      26
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  262.37   23.14  260.19   42.14  258.55   46.32  258.16   46.94  258.15
   51.77  258.05   62.07  257.84   66.53  257.68   84.34  256.99   86.12  256.96
   86.28  256.96   94.86  256.72  101.54  256.39  109.22  256.06  123.14  255.47
  139.64  254.77  144.88  254.55  148.03  254.37  149.84  254.35  153.06  254.27
  157.38  254.01   163.5  253.63  179.55  252.49  179.85  252.47  182.14  253.65
  290.24  307.66

Manning's n Values          num=       9
     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val
       0    .058   51.77     .04   86.28    .049  109.22    .062  157.38    .038
   163.5    .035  179.66    .035  182.14    .035  290.24    .035

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         163.5  182.14             32.87   38.29   40.04             .1       .3

CROSS SECTION          RIVER: Canada Chiquita
REACH: Tributary          RS: 3256.09*

INPUT
Description:
Station Elevation Data     num=      26
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  262.37    24.4  260.69   44.43  259.41   48.83  259.09   49.49  259.07
   54.58  258.94   65.43  258.66   70.14  258.44   88.92  257.52   90.79  257.46
   90.97  257.45  100.01  256.96  107.05  256.37  115.15  255.76  129.83  254.66
  147.22  253.36  152.74  252.96  156.07  252.68  157.97  252.65  161.37  252.56
  165.92  252.33  172.38  252.01  189.57  250.74   189.9  250.72  192.45  252.04
  307.15  309.35

Manning's n Values          num=       9
     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val
       0    .062   54.58     .05   90.97    .056  115.15    .058  165.92    .032
  172.38    .035  189.78    .035  192.45    .035  307.15    .035

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
        172.38  192.45             32.87   38.29   40.04             .1       .3

CROSS SECTION          RIVER: Canada Chiquita
REACH: Tributary          RS: 3217.80*
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INPUT
Description:
Station Elevation Data num= 26

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	262.38	25.65	261.19	46.71	260.27	51.34	260.01	52.03	259.98
57.39	259.82	68.8	259.48	73.75	259.2	93.5	258.05	95.47	257.95
95.65	257.94	105.15	257.2	112.56	256.35	121.07	255.46	136.51	253.86
154.79	251.96	160.61	251.37	164.1	251	166.1	250.95	169.67	250.84
174.46	250.65	181.25	250.38	199.6	249	199.95	248.98	202.75	250.42
324.07	311.03								

Manning's n Values num= 9

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.066	57.39	.06	95.65	.063	121.07	.054	174.46	.026
181.25	.035	199.89	.035	202.75	.035	324.07	.035		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
181.25	202.75	32.87	38.29	40.04	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 3179.510

INPUT
Description: Manual Modification of Manning's N Values, CS Modified 2:1 Slope
Sta 210
Station Elevation Data num= 15

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	262.38	49	261.13	54.58	260.9	72.17	260.3	100.14	258.45
110.3	257.44	118.07	256.33	127	255.16	162.37	250.55	172.13	249.31
183	248.97	190.12	248.75	210	247.23	213.05	248.81	340.98	312.72

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.07	127	.05	183	.02	210	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
190.12	213.05	46.01	44.88	34.07	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 3134.63*

INPUT
Description:
Station Elevation Data num= 29

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	261.34	14.3	260.78	23.07	260.5	49.36	259.78	54.98	259.56
66.78	259.15	72.7	258.95	96.56	257.49	100.87	257.22	111.11	256.28
115.54	255.72	118.93	255.29	127.93	254.23	145.92	252.13	158.96	250.41
162.61	249.93	163.56	249.8	171.86	248.67	173.39	248.49	184.34	248.09
191.51	247.82	210.56	246.36	215.44	247.52	216.84	247.84	217.11	247.91
223.03	248.87	224.59	248.9	227.54	248.78	352.96	311.45		

Manning's n Values num= 8

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.07	115.54	.067	127.93	.05	184.34	.025	191.51	.038
213.47	.038	216.84	.038	352.96	.038				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
191.51	216.84	46.01	44.88	34.07	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 3089.75*

INPUT
Description:
Station Elevation Data num= 29

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	260.3	14.4	259.55	23.24	259.2	49.72	258.43	55.38	258.21
67.26	257.8	73.23	257.59	97.26	256.25	101.6	255.98	111.91	255.12
116.38	254.62	119.8	254.24	128.86	253.3	146.98	251.42	160.11	249.67
163.79	249.18	164.74	249.04	173.11	247.84	174.65	247.68	185.68	247.21
192.9	246.9	211.11	245.5	218.51	246.57	220.63	246.88	221.18	247.02
233.02	248.93	236.14	248.98	242.03	248.76	364.94	310.17		

Manning's n Values num= 8

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.07	116.38	.063	128.86	.05	185.68	.03	192.9	.04
216.94	.04	220.63	.04	364.94	.04				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
192.9	220.63	46.01	44.88	34.07	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 3044.87*

INPUT
Description:
Station Elevation Data num= 29

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	259.26	14.51	258.31	23.41	257.9	50.07	257.09	55.78	256.87
67.75	256.45	73.75	256.24	97.96	255.01	102.34	254.75	112.72	253.97
117.21	253.53	120.66	253.2	129.79	252.37	148.04	250.72	161.27	248.93
164.97	248.44	165.93	248.29	174.36	247.01	175.91	246.86	187.01	246.32
194.29	245.97	211.67	244.63	221.57	245.63	224.43	245.91	225.24	246.12
243	248.99	247.68	249.07	256.52	248.73	376.92	308.9		

Manning's n Values num= 8

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val

0	.07	117.21	.06	129.79	.05	187.01	.035	194.29	.043		
220.42	.043	224.43	.043	376.92	.043						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
194.29	224.43	46.01	44.88	34.07	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 2999.99*

INPUT
Description:
Station Elevation Data num= 29

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	258.22	14.61	257.08	23.58	256.61	50.43	255.74	56.18	255.52
68.23	255.1	74.28	254.89	98.66	253.77	103.07	253.52	113.53	252.81
118.05	252.44	121.52	252.15	130.71	251.44	149.1	250.01	162.42	248.19
166.15	247.69	167.12	247.54	175.61	246.18	177.16	246.05	188.35	245.44
195.68	245.04	212.23	243.77	224.64	244.69	228.22	244.94	229.3	245.22
252.98	249.06	259.22	249.15	271.02	248.7	388.89	307.63		

Manning's n Values num= 8

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.07	118.05	.057	130.71	.05	188.35	.04	195.68	.045
223.89	.045	228.22	.045	388.89	.045				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
195.68	228.22	46.01	44.88	34.07	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 2955.11*

INPUT
Description:
Station Elevation Data num= 29

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	257.18	14.72	255.84	23.74	255.31	50.79	254.39	56.58	254.18
68.72	253.75	74.81	253.53	99.36	252.53	103.8	252.29	114.33	251.65
118.89	251.34	122.39	251.11	131.64	250.51	150.16	249.31	163.58	247.46
167.33	246.95	168.31	246.78	176.85	245.35	178.42	245.23	189.69	244.56
197.07	244.12	212.78	242.9	227.71	243.75	232.01	243.98	233.37	244.33
262.97	249.12	270.77	249.24	285.51	248.68	400.87	306.35		

Manning's n Values num= 8

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.07	118.89	.053	131.64	.05	189.69	.045	197.07	.047
227.36	.047	232.01	.047	400.87	.047				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
197.07	232.01	46.01	44.88	34.07	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 2910.241

INPUT
Description: Manual Modification of Manning's N Values, CS Modified 2:1 Slope
Sta 300
Station Elevation Data num= 19

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	256.14	14.82	254.61	23.91	254.01	69.2	252.4	100.06	251.29
119.73	250.25	151.22	248.6	164.73	246.72	168.51	246.2	178.1	244.52
198.46	243.19	213.34	242.04	230.78	242.81	235.8	243.01	237.43	243.43
272.95	249.18	282.31	249.32	300	248.65	412.85	305.08		

Manning's n Values num= 2

Sta	n Val	Sta	n Val
0	.07	119.73	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
198.46	235.8	211.77	214.97	200.2	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 2695.270

INPUT
Description: Manual Modification of Manning's N Values, CS Modified 2:1 Slope
Sta 280
Station Elevation Data num= 14

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	255.82	11.43	252.35	26.32	250.15	34.39	248.56	64.21	246.65
67.15	246.49	77.79	245.87	118.86	244.04	146.63	243.13	168.09	243.4
188.8	243.22	269.38	242.49	280	242.19	447.4	325.89		

Manning's n Values num= 2

Sta	n Val	Sta	n Val
0	.07	146.63	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
269.38	280	160.6	197.15	200.16	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 2498.115

INPUT
Description: Manual Modification of Manning's N Values, CS Modified 2:1 Slope
Sta 240
Station Elevation Data num= 18

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	256.11	1.55	255.71	2.5	255.32	27.95	245.84	29.26	245.24

29.74	245.1	39.3	242.86	46.18	242.57	62.06	241.74	72.81	241.19
117.17	240.71	128.17	240.4	186.08	238.79	204.08	238.29	213.43	237.91
218.53	237.84	240	238.01	474.7	355.36				

Manning's n Values num= 2

Sta	n Val	Sta	n Val
0	.07	128.17	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
204.08	240	40.03	38.99	38.2	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 2459.12*

INPUT
Description:
Station Elevation Data num= 28

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	255.06	1.41	254.67	2.27	254.31	25.34	245.53	26.52	244.98
26.96	244.85	31.36	243.73	35.62	242.74	36.53	242.69	41.86	242.42
56.25	241.55	66	240.98	76.98	240.74	106.21	240.11	113.59	239.84
114.11	239.82	116.18	239.76	168.67	238.2	170.67	238.14	184.99	237.71
193.18	237.37	197.65	237.3	200.63	237.3	222.09	237.48	233.04	237.58
246.2	237.71	251.73	237.71	487.63	355.69				

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.07	114.11	.064	116.18	.047	184.99	.05	222.09	.05
487.63	.05								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
184.99	222.09	40.03	38.99	38.2	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 2420.12*

INPUT
Description:
Station Elevation Data num= 28

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	254.01	1.26	253.64	2.03	253.31	22.72	245.22	23.79	244.73
24.18	244.6	28.13	243.5	31.95	242.62	32.76	242.57	37.54	242.27
50.45	241.37	59.19	240.77	69.04	240.41	95.25	239.52	101.87	239.2
102.33	239.18	104.19	239.12	151.27	237.61	153.06	237.55	165.9	237.13
172.94	236.83	176.77	236.76	182.73	236.76	204.18	236.94	226.09	237.16
252.39	237.41	263.46	237.4	500.56	356.02				

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.07	102.33	.058	104.19	.045	165.9	.05	204.18	.05
500.56	.05								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
165.9	204.18	40.03	38.99	38.2	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 2381.13*

INPUT
Description:
Station Elevation Data num= 28

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	252.96	1.12	252.6	1.8	252.3	20.11	244.9	21.05	244.47
21.39	244.35	24.89	243.27	28.27	242.51	28.99	242.44	33.22	242.12
44.64	241.18	52.38	240.55	61.09	240.09	84.29	238.92	90.15	238.56
90.56	238.54	92.2	238.48	133.86	237.02	135.45	236.96	146.81	236.55
152.69	236.29	155.89	236.22	164.83	236.22	186.27	236.41	219.13	236.73
258.59	237.11	275.2	237.1	513.49	356.35				

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.07	90.56	.052	92.2	.043	146.81	.05	186.27	.05
513.49	.05								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
146.81	186.27	40.03	38.99	38.2	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 2342.13*

INPUT
Description:
Station Elevation Data num= 28

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	251.91	.97	251.56	1.56	251.3	17.49	244.59	18.31	244.21
18.61	244.1	21.65	243.04	24.6	242.39	25.22	242.31	28.9	241.97
38.84	241	45.57	240.34	53.15	239.77	73.33	238.32	78.42	237.91
78.78	237.9	80.21	237.85	116.46	236.43	117.84	236.38	127.72	235.97
132.44	235.75	135.02	235.68	146.94	235.68	168.37	235.88	212.18	236.3
264.78	236.82	286.93	236.8	526.43	356.68				

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.07	78.78	.047	80.21	.04	127.72	.05	168.37	.05
526.43	.05								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
127.72	168.37	40.03	38.99	38.2	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 2303.14*

INPUT
Description:
Station Elevation Data num= 28

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	250.86	.83	250.52	1.33	250.29	14.88	244.28	15.57	243.95
15.83	243.85	18.42	242.81	20.92	242.27	21.45	242.19	24.58	241.82
33.03	240.81	38.76	240.13	45.2	239.44	62.37	237.73	66.7	237.27
67.01	237.26	68.22	237.21	99.05	235.84	100.22	235.79	108.63	235.39
112.19	235.21	114.14	235.14	129.04	235.14	150.46	235.34	205.23	235.88
270.98	236.52	298.66	236.49	539.36	357.01				

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.07	67.01	.041	68.22	.038	108.63	.05	150.46	.05
539.36	.05								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
108.63	150.46	40.03	38.99	38.2	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 2264.151

INPUT
Description: Manual Modification of Manning's N Values, CS Modified 2:1 Slope
Sta 310.39
Station Elevation Data num= 15

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	249.81	15.18	242.58	17.68	242.06	37.26	239.12	54.98	236.63
55.23	236.62	82.61	235.2	89.54	234.81	93.26	234.6	111.14	234.6
132.55	234.81	198.27	235.45	277.17	236.22	310.39	236.19	552.29	357.34

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.07	55.23	.035	132.55	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
89.54	132.55	44.23	41.72	38.81	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 2222.42*

INPUT
Description:
Station Elevation Data num= 27

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	248.41	9.32	245.72	15.59	243.9	16.51	243.63	20.77	242.34
24.19	241.84	44.51	239.57	50.99	238.86	53.4	238.61	59.4	238.05
75.23	236.56	75.58	236.55	81.53	236.3	86.41	236.01	101.97	235.07
112.36	234.58	113.04	234.55	121.86	234.05	122.53	234.03	135.99	233.82
150.29	233.82	175.26	233.96	181.16	234.04	234.8	234.57	299.2	235.21
326.31	235.19	570.03	357.21						

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.063	75.58	.035	86.41	.038	122.53	.047	181.16	.047
202.25	.035	570.03	.047						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
122.53	181.16	44.23	41.72	38.81	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 2180.70*

INPUT
Description:
Station Elevation Data num= 27

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	247.01	11.83	244.86	19.79	243.41	20.95	243.2	26.36	242.1
30.71	241.63	56.49	239.32	64.71	238.61	67.78	238.36	75.39	237.84
95.49	236.5	95.92	236.49	103.48	236.21	109.68	235.81	129.42	234.53
142.61	233.94	143.48	233.9	154.67	233.27	155.51	233.25	178.72	233.05
189.44	233.05	222.07	233.15	229.77	233.27	271.33	233.69	321.23	234.19
342.23	234.19	587.77	357.08						

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.056	95.92	.035	109.68	.041	155.51	.044	229.77	.044
249.19	.035	587.77	.044						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
155.51	229.77	44.23	41.72	38.81	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 2138.98*

INPUT
Description:
Station Elevation Data num= 27

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	245.62	14.33	244.01	23.99	242.92	25.39	242.76	31.96	241.86
37.22	241.41	68.47	239.06	78.44	238.35	82.16	238.1	91.38	237.63
115.74	236.43	116.27	236.42	125.42	236.12	132.94	235.61	156.88	233.98
172.86	233.3	173.91	233.24	187.48	232.49	188.5	232.48	221.44	232.27
228.6	232.27	268.87	232.35	278.39	232.49	307.86	232.8	343.26	233.18

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  358.16  233.19   605.5  356.94

Manning's n Values          num=       7
     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val
       0    .049  116.27    .035  132.94    .044   188.5    .041  278.39    .041
  296.12    .035   605.5    .041

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         188.5  278.39             44.23   41.72   38.81             .1       .3

CROSS SECTION          RIVER: Canada Chiquita
REACH: Tributary          RS: 2097.26*

INPUT
Description:
Station Elevation Data     num=      27
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  244.22   16.84  243.16   28.18  242.44   29.84  242.33   37.55  241.62
   43.73  241.19   80.46  238.81   92.17   238.1   96.53  237.84  107.37  237.43
     136  236.37  136.62  236.35  147.37  236.03  156.21  235.41  184.33  233.44
  203.11  232.66  204.34  232.59  220.28   231.7  221.48   231.7  264.17   231.5
  267.75   231.5  315.68  231.54     327  231.72   344.4  231.92  365.28  232.16
  374.08  232.19  623.24  356.81

Manning's n Values          num=       7
     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val
       0    .042  136.62    .035  156.21    .047  221.48    .038     327    .038
  343.06    .035  623.24    .038

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
        221.48     327             44.23   41.72   38.81             .1       .3

CROSS SECTION          RIVER: Canada Chiquita
REACH: Tributary          RS: 2055.543

INPUT
Description: CS Modified 2:1 Slope Sta 390
Station Elevation Data     num=      18
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  242.82   19.35  242.31   32.38  241.95   34.28  241.89   92.44  238.55
  110.91  237.58  123.36  237.22  169.32  235.94  179.47  235.21  211.78  232.89
  233.36  232.02  253.09  230.92  254.47  230.92   306.9  230.72  362.48  230.73
  375.61  230.95     390  231.19  640.98  356.68

Manning's n Values          num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0    .035  179.47     .05     390    .035

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
        254.47  375.61            173.93  195.68  217.35             .1       .3

CROSS SECTION          RIVER: Canada Chiquita
REACH: Tributary          RS: 1859.868

INPUT
Description: CS Modified 2:1 Slope Sta 430
Station Elevation Data     num=      18
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  242.89   11.75  242.36   56.42  239.23   87.16  237.42  129.51  235.03
  172.43  232.97  188.28  231.46  194.36  230.86  213.86  230.23  257.82  228.81
  264.14  228.61  294.87  228.68  346.44  228.81  395.32  228.93   401.8  228.95
  402.94  228.95     430  228.87  648.07  337.91

Manning's n Values          num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0    .035  213.86     .05   401.8    .035

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
        257.82  346.44            208.87  203.01  192.54             .1       .3

CROSS SECTION          RIVER: Canada Chiquita
REACH: Tributary          RS: 1656.863

INPUT
Description: CS Modified 2:1 Slope Sta 577.52
Station Elevation Data     num=      17
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  236.28   22.94  235.04   96.59  233.54  190.43  230.84  245.82  229.18
  302.74  227.36  332.37  226.39  390.39  224.47  396.63  224.27   413.9   223.7
  431.75  224.14  485.48  226.06  499.29  226.25  539.57  226.81  561.33  227.11
  577.52  227.34   738.6  307.88

Manning's n Values          num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0    .035  332.37     .05  561.33    .035

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
        396.63  431.75            231.21  220.12  188.45             .1       .3

CROSS SECTION          RIVER: Canada Chiquita
REACH: Tributary          RS: 1436.744

INPUT
Description: CS Modified 2:1 Slope Sta 621.96
Station Elevation Data     num=      21
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  229.69   44.41  226.65   66.73   225.1   75.62  224.78   93.34  224.43
  235.55  221.86  263.04  221.37  290.98  221.85  299.77  222.01  302.57  222.07
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336	222.22	407.49	222.53	465.64	222.79	495.72	222.73	509.84	222.91
517.94	222.73	519.66	222.74	524.73	222.78	619.85	223.55	621.96	223.56
714.89	270.03								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.035	336	.05	621.96	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
235.55	290.98	36.22	35.03	33.69	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 1401.71*

INPUT
Description:
Station Elevation Data num= 38

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	229.65	1.44	229.56	1.98	229.53	7.36	229.17	52.43	226.16
78.77	224.38	82.6	224.2	83.57	224.17	89.27	223.93	102.25	223.55
110.19	223.37	135.59	222.83	158.42	222.39	186.37	221.91	196.4	221.9
223.8	221.9	230.91	221.89	233.15	221.91	255.94	221.52	278.06	221.1
311.07	220.46	313.03	220.43	314.55	220.45	320.56	220.56	345.23	221.01
352.62	221.15	354.97	221.2	383.09	221.35	443.21	221.66	492.11	221.92
517.41	221.9	529.28	222.05	536.09	221.92	537.54	221.93	541.8	221.96
621.79	222.66	623.57	222.67	738.5	280.14				

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	196.4	.038	278.06	.05	345.23	.05	386.99	.05
652.28	.038	738.5	.038						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
278.06	345.23	36.22	35.03	33.69	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 1366.68*

INPUT
Description:
Station Elevation Data num= 38

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	229.62	1.66	229.51	2.28	229.48	8.48	229.09	60.44	225.67
90.82	223.65	95.23	223.43	96.34	223.38	102.92	223.09	117.88	222.53
127.03	222.31	156.32	221.62	182.64	221.09	214.86	220.55	226.43	220.7
258.02	221.11	266.21	221.21	268.79	221.26	295.07	220.85	320.57	220.34
360.64	219.53	363.02	219.48	364.74	219.51	371.55	219.63	399.48	220.17
405.47	220.29	407.38	220.33	430.18	220.48	478.93	220.79	518.58	221.05
539.09	221.06	548.72	221.2	554.24	221.1	555.42	221.11	558.87	221.14
623.74	221.77	625.18	221.78	762.1	290.25				

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	226.43	.041	320.57	.05	399.48	.05	437.99	.05
682.61	.041	762.1	.041						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
320.57	399.48	36.22	35.03	33.69	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 1331.66*

INPUT
Description:
Station Elevation Data num= 38

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	229.58	1.88	229.46	2.58	229.43	9.61	229	68.46	225.17
102.86	222.93	107.85	222.65	109.12	222.59	116.56	222.24	133.51	221.52
143.88	221.25	177.05	220.41	206.86	219.8	243.35	219.19	256.46	219.49
292.24	220.32	301.51	220.52	304.44	220.62	334.2	220.17	363.09	219.57
410.21	218.59	413	218.54	414.93	218.57	422.53	218.7	453.72	219.34
458.32	219.42	459.78	219.45	477.26	219.6	514.64	219.92	545.05	220.17
560.78	220.23	568.16	220.34	572.39	220.29	573.29	220.3	575.95	220.33
625.68	220.89	626.78	220.9	785.71	300.36				

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	256.46	.044	363.09	.05	453.72	.05	488.98	.05
712.93	.044	785.71	.044						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
363.09	453.72	36.22	35.03	33.69	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 1296.63*

INPUT
Description:
Station Elevation Data num= 38

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	229.55	2.1	229.42	2.89	229.38	10.73	228.91	76.47	224.68
114.9	222.21	120.48	221.87	121.89	221.8	130.21	221.39	149.15	220.5
160.72	220.19	197.78	219.2	231.08	218.5	271.85	217.84	286.48	218.29
326.45	219.53	336.82	219.83	340.08	219.98	373.33	219.5	405.6	218.81
459.78	217.66	462.99	217.59	465.12	217.62	473.52	217.78	507.97	218.5
511.17	218.56	512.19	218.58	524.35	218.73	550.36	219.05	571.52	219.3
582.46	219.4	587.6	219.48	590.55	219.47	591.17	219.48	593.02	219.51
627.62	220	628.39	220.01	809.31	310.47				

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Manning's n Values          num=        7
     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val
       0    .035  286.48    .047   405.6     .05  507.97     .05  539.98     .05
  743.25    .047  809.31    .047

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         405.6  507.97             36.22   35.03   33.69             .1       .3

CROSS SECTION          RIVER: Canada Chiquita
REACH: Tributary          RS: 1261.604

INPUT
Description: CS Modified 2:1 Slope Sta 630
Station Elevation Data     num=       23
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  229.51    2.32  229.37    3.19  229.33   11.86  228.82  133.11  221.09
  134.67  221.01  164.78  219.49  218.51  217.99   255.3   217.2  300.34  216.48
  316.51  217.08  360.67  218.74  372.12  219.14  375.73  219.34  412.46  218.82
  448.11  218.05  509.35  216.72  512.98  216.65  515.31  216.68   524.5  216.85
  562.22  217.66     630  219.12  832.92  320.58

Manning's n Values          num=        2
     Sta   n Val     Sta   n Val
       0    .035  316.51     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         448.11  562.22             40.11   36.97   34.95             .1       .3
Ineffective Flow     num=        1
   Sta L   Sta R    Elev  Permanent
888        F

CROSS SECTION          RIVER: Canada Chiquita
REACH: Tributary          RS: 1224.62*

INPUT
Description:
Station Elevation Data     num=       36
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  228.69    2.38  228.55    3.27  228.51   12.14  228.03      35  226.68
   52.86  225.56   93.79  223.03   136.3  220.39   137.9  220.31  145.53  219.91
  151.95  219.61  166.23  219.04  168.73  218.95  223.74  217.87  261.41  217.32
  281.22  217.12  307.53  216.69  324.09   217.1   352.4  217.83  354.46  217.88
  369.31  218.28  379.73  218.55  381.03  218.59  384.73  218.75  399.44  218.58
  422.34  218.32  426.07  218.26  458.84   217.7  515.46  216.63  518.82  216.57
  520.93  216.53  529.28  216.73  563.53   217.4   588.5  217.86     628  218.55
  848.34  328.72

Manning's n Values          num=        6
     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val
       0    .035  324.09    .047  399.44    .038  458.84     .05  563.53     .05
  848.34     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         458.84  563.53             40.11   36.97   34.95             .1       .3
Ineffective Flow     num=        1
   Sta L   Sta R    Elev  Permanent
888        F

CROSS SECTION          RIVER: Canada Chiquita
REACH: Tributary          RS: 1187.65*

INPUT
Description:
Station Elevation Data     num=       36
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  227.86    2.43  227.74    3.34   227.7   12.43  227.23   35.81  225.97
    54.1  224.84   95.99  222.33  139.49  219.69  141.12  219.61  148.94  219.19
  155.51  218.89  170.12  218.47  172.67  218.41  228.98  217.75  267.53  217.44
   287.8  217.35  314.73   216.9  331.67  217.13  360.64  217.53  362.75  217.56
  377.95  217.83  388.61  218.01  389.94  218.03  393.73  218.15  408.78  218.03
  432.22  217.83  436.03  217.78  469.57  217.36  521.57  216.53  524.66  216.49
  526.56  216.51  534.06  216.62  564.84  217.13  588.53   217.5     626  217.98
  863.76  336.86

Manning's n Values          num=        6
     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val
       0    .035  331.67    .044  408.78    .041  469.57     .05  564.84     .05
  863.76     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         469.57  564.84             40.11   36.97   34.95             .1       .3
Ineffective Flow     num=        1
   Sta L   Sta R    Elev  Permanent
888        F

CROSS SECTION          RIVER: Canada Chiquita
REACH: Tributary          RS: 1150.68*

INPUT
Description:
Station Elevation Data     num=       36
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  227.04    2.49  226.92    3.42  226.88   12.71  226.44   36.63  225.25
   55.34  224.12   98.18  221.63  142.67     219  144.35   218.9  152.34  218.47
  159.06  218.18     174   217.9  176.62  217.86  234.21  217.63  273.64  217.57
  294.37  217.57  321.92   217.1  339.25  217.15  368.89  217.24  371.04  217.24
  386.58  217.37   397.5  217.46  398.86  217.48  402.73  217.56  418.12  217.47
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  442.09  217.33     446   217.3  480.31  217.01  527.69  216.44  530.49  216.41
  532.18  216.42  538.83   216.5  566.14  216.87  588.56  217.13     624  217.42
  879.18  345.01

Manning's n Values          num=       6
     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val
       0    .035  339.25    .041  418.12    .044  480.31     .05  566.14     .05
  879.18     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
        480.31  566.14             40.11   36.97   34.95              .1       .3
Ineffective Flow     num=        1
   Sta L   Sta R    Elev  Permanent
888        F

CROSS SECTION          RIVER: Canada Chiquita
REACH: Tributary          RS: 1113.70*

INPUT
Description:
Station Elevation Data     num=      36
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  226.21    2.54   226.1     3.5  226.06      13  225.64   37.45  224.54
   56.57  223.39  100.38  220.92  145.86   218.3  147.57   218.2  155.75  217.75
  162.62  217.47  177.89  217.32  180.57  217.32  239.44  217.51  279.76  217.69
  300.95   217.8  329.11  217.31  346.83  217.18  377.13  216.94  379.33  216.92
  395.22  216.92  406.38  216.92  407.77  216.92  411.72  216.96  427.47  216.92
  451.97  216.84  455.96  216.82  491.04  216.67   533.8  216.35  536.33  216.33
   537.8  216.34  543.61  216.39  567.45   216.6  588.58  216.77     622  216.85
   894.6  353.15

Manning's n Values          num=       6
     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val
       0    .035  346.83    .038  427.47    .047  491.04     .05  567.45     .05
   894.6     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
        491.04  567.45             40.11   36.97   34.95              .1       .3
Ineffective Flow     num=        1
   Sta L   Sta R    Elev  Permanent
888        F

CROSS SECTION          RIVER: Canada Chiquita
REACH: Tributary          RS: 1076.731

INPUT
Description: CS Modified 2:1 Slope Sta 620
Station Elevation Data     num=      19
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  225.39   38.27  223.82   57.81  222.67  102.57  220.22  159.15  217.03
  166.17  216.76  181.78  216.75  307.53  218.03  385.37  216.65  387.62   216.6
  415.26  216.37  436.81  216.36  465.93  216.34  501.77  216.32  542.17  216.25
  568.76  216.34  588.61   216.4     620  216.28  910.02  361.29

Manning's n Values          num=       2
     Sta   n Val     Sta   n Val
       0    .035  436.81     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
        501.77  568.76            240.12  252.42  203.34              .1       .3
Ineffective Flow     num=        1
   Sta L   Sta R    Elev  Permanent
888        F

CROSS SECTION          RIVER: Canada Chiquita
REACH: Tributary          RS: 824.292

INPUT
Description: Manual Modification of Manning's N Values, CS Modified 2:1 Slope
             Sta 431.41

Station Elevation Data     num=      16
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  216.66   91.92  216.61  105.56   216.6  113.04  216.53  120.91  216.42
  274.02  214.44   298.2  213.87     320  213.38  337.01  212.99  368.76  212.12
     382  210.68  386.96  210.14     418  210.44  431.41  210.56  681.41  335.56
  723.18  335.56

Manning's n Values          num=       2
     Sta   n Val     Sta   n Val
       0    .035     320     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
            382  431.41            286.25  220.85  205.55              .1       .3
Ineffective Flow     num=        1
   Sta L   Sta R    Elev  Permanent
888        F

CROSS SECTION          RIVER: Canada Chiquita
REACH: Tributary          RS: 603.449

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data     num=      49
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  216.25    2.71  215.91    14.5  215.55   14.87  215.54   53.56  213.21
   75.28  212.46  108.91  213.35  141.18  212.44  185.63  211.23  254.29  209.66
  272.96  207.31   276.4  206.85   294.8  205.24  299.94  204.84  308.82  204.25
```

313.28	203.82	341.71	202.7	354.73	202.03	368.33	202.85	383.93	203.72
396.26	207.55	407.37	210.29	410.14	210.43	415.8	210.66	455.43	211.6
478.04	212.09	491.66	212.12	567.69	211.81	569.39	211.81	570.91	211.64
574.86	211.18	579.58	210.63	585.64	209.92	587.61	209.29	602.05	203.94
609.89	203.89	617.79	203.45	619.41	203.98	631.19	208.32	634.9	209.78
639.64	210.15	659.3	210.93	661.85	211.01	668.58	211.21	675	211.4
687.31	211.75	721.83	215.83	723.53	215.98	724.92	216.24		

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.02	14.5	.05	585.64	.035	675	.02

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
602.05	619.41	26.77	36.63	43.79	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

Blocked Obstructions num= 1

Sta L	Sta R	Elev
0	478.12	212.12

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 566.821*

INPUT
Description:
Station Elevation Data num= 64

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	215.4	2.05	215.15	10.98	214.87	11.26	214.86	40.57	213.09
57.02	212.52	82.5	213.16	106.94	212.46	140.61	211.53	192.62	210.31
206.76	208.54	209.36	208.19	223.3	206.97	227.19	206.67	233.92	206.22
237.3	205.9	258.83	205.04	268.7	204.53	279	205.14	290.81	205.78
300.15	208.64	308.57	210.69	310.67	210.8	314.95	210.97	344.97	211.65
362.1	212	372.41	212.02	430	211.74	431.29	211.74	433.15	211.56
433.66	211.51	435.03	211.38	435.3	211.35	437.44	211.02	437.96	210.96
443.72	210.19	446.86	209.77	451.11	209.01	453.51	208.28	454.81	207.84
454.95	207.8	456.82	207.16	471.12	203.58	477.62	203.51	484.15	203.15
486.01	203.61	495.12	206.49	496.99	207.07	499.99	208.06	500.45	208.23
500.97	208.3	504.41	208.71	504.87	208.77	523.19	210.51	525.56	210.72
525.83	210.75	531.23	211.09	531.84	211.13	537.82	211.51	548.47	212.18
549.29	212.22	581.46	216.24	583.04	216.4	584.34	216.64		

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.027	40.57	.05	140.61	.046	471.12	.024	486.01	.024
537.82	.024	584.34	.024						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
471.12	486.01	26.77	36.63	43.79	.1	.3

Blocked Obstructions num= 1

Sta L	Sta R	Elev
0	362.1	212

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 530.194*

INPUT
Description:
Station Elevation Data num= 64

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	214.55	1.4	214.38	7.47	214.19	7.66	214.18	27.58	212.97
38.76	212.57	56.08	212.98	72.7	212.48	95.59	211.83	130.94	210.96
140.55	209.76	142.33	209.53	151.8	208.7	154.45	208.5	159.02	208.19
161.32	207.97	175.96	207.38	182.66	207.03	189.66	207.42	197.7	207.84
204.05	209.74	209.77	211.1	211.19	211.16	214.11	211.27	234.51	211.69
246.16	211.91	253.17	211.91	292.32	211.67	293.2	211.67	295.38	211.49
295.99	211.44	297.61	211.3	297.92	211.27	300.45	210.82	301.07	210.73
307.86	209.75	311.57	209.21	316.58	208.09	319.42	207.26	320.95	206.79
321.11	206.74	323.31	206.02	340.2	203.23	345.34	203.14	350.52	202.85
352.62	203.24	361.06	205.41	362.8	205.82	365.57	206.54	366	206.69
366.49	206.77	369.67	207.31	370.09	207.39	387.08	210.1	389.28	210.44
389.53	210.47	394.53	210.99	395.09	211.05	400.64	211.62	410.51	212.64
411.27	212.7	441.09	216.65	442.56	216.82	443.76	217.03		

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	27.58	.05	130.94	.043	340.2	.027	352.62	.027
400.64	.027	443.76	.027						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
340.2	352.62	26.77	36.63	43.79	.1	.3

Blocked Obstructions num= 1

Sta L	Sta R	Elev
0	246.16	211.91

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 493.567*

INPUT
Description:
Station Elevation Data num= 64

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	213.71	.74	213.62	3.95	213.51	4.05	213.5	14.59	212.85
20.51	212.63	29.67	212.79	38.46	212.51	50.56	212.12	69.27	211.61
74.35	210.99	75.29	210.87	80.3	210.43	81.7	210.33	84.12	210.16
85.34	210.05	93.08	209.72	96.63	209.53	100.33	209.71	104.58	209.9
107.94	210.83	110.96	211.5	111.72	211.53	113.26	211.58	124.06	211.74
130.21	211.82	133.92	211.81	154.63	211.6	155.1	211.59	157.62	211.41

158.32	211.36	160.18	211.22	160.55	211.19	163.46	210.61	164.17	210.51
172	209.31	176.27	208.65	182.05	207.18	185.32	206.25	187.08	205.73
187.27	205.68	189.81	204.89	209.28	202.87	213.07	202.76	216.89	202.56
219.23	202.87	227	204.32	228.6	204.58	231.16	205.01	231.55	205.14
232	205.24	234.93	205.91	235.32	206.01	250.97	209.68	252.99	210.15
253.22	210.2	257.83	210.89	258.35	210.97	263.46	211.73	272.55	213.09
273.25	213.17	300.72	217.07	302.07	217.24	303.18	217.43		

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.043	14.59	.05	69.27	.039	209.28	.031	219.23	.031
263.46	.031	303.18	.031						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
209.28	219.23	26.77	36.63	43.79	.1	.3

Blocked Obstructions num= 1

Sta L	Sta R	Elev
0	130.21	211.82

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 456.940

INPUT
Description:
Station Elevation Data num= 21

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	212.86	17	211.52	20.65	211.28	22.76	211.14	23.17	211.11
26.47	210.41	40.98	208.09	53.22	204.68	53.43	204.62	56.31	203.76
78.35	202.51	83.25	202.26	85.83	202.5	92.94	203.23	96.74	203.49
97.51	203.71	100.19	204.51	116.92	209.93	121.13	210.79	134.59	213.55
162.6	217.82								

Manning's n Values num= 2

Sta	n Val	Sta	n Val
0	.05	22.76	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
78.35	85.83	37.63	42.19	44.64	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 414.749*

INPUT
Description:
Station Elevation Data num= 40

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	211.12	9.49	210.61	15.81	210.36	25.13	209.57	30.45	209.16
30.53	209.15	33.65	208.99	34.25	208.96	39.13	208.33	43.49	207.89
55.35	206.54	60.58	205.96	61.84	205.73	63.2	205.51	70.7	204.27
75.41	203.52	78.67	203.05	78.98	203	83.24	202.34	90.46	202.17
99.4	201.95	101.07	201.92	102.79	201.84	115.82	201.31	117.45	201.25
123.07	201.04	126.31	201.3	134.51	202.01	138.89	202.29	139.77	202.48
142.86	203.17	162.14	207.81	166.99	208.58	172.94	209.52	178.11	210.3
182.51	211.05	185.28	211.42	189.58	211.98	211.48	214.82	214.79	215.41

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	33.65	.038	63.2	.047	115.82	.035	126.31	.035
214.79	.035								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
115.82	126.31	37.63	42.19	44.64	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 372.559*

INPUT
Description:
Station Elevation Data num= 40

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	209.39	12.57	208.87	20.92	208.69	33.26	207.62	40.3	207.03
40.4	207.03	44.53	206.85	45.33	206.81	51.79	206.25	57.55	205.84
73.25	204.42	80.18	203.82	81.85	203.61	83.65	203.42	93.58	202.35
99.81	201.74	104.13	201.41	104.54	201.38	110.17	200.92	119.73	200.85
131.56	200.76	133.77	200.77	136.05	200.66	153.29	200.11	155.45	200.04
162.89	199.82	166.79	200.1	176.07	200.8	181.03	201.09	182.04	201.25
185.53	201.83	207.36	205.7	212.86	206.37	219.59	207.19	225.45	207.84
230.42	208.55	233.56	208.93	238.43	209.48	263.23	212.25	266.97	212.99

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	44.53	.041	83.65	.044	153.29	.035	166.79	.035
266.97	.035								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
153.29	166.79	37.63	42.19	44.64	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 330.369*

INPUT
Description:
Station Elevation Data num= 40

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	207.65	15.64	207.13	26.04	207.03	41.39	205.67	50.16	204.9
50.28	204.9	55.42	204.7	56.41	204.66	64.45	204.17	71.62	203.78
91.16	202.3	99.78	201.69	101.86	201.5	104.1	201.33	116.45	200.44
124.21	199.96	129.58	199.78	130.09	199.76	137.1	199.5	149	199.53

163.72	199.58	166.47	199.61	169.31	199.49	190.77	198.91	193.44	198.83
202.7	198.6	207.28	198.9	217.64	199.58	223.18	199.89	224.3	200.02
228.2	200.49	252.59	203.58	258.72	204.15	266.24	204.86	272.78	205.37
278.34	206.06	281.84	206.44	287.29	206.97	314.98	209.68	319.16	210.58

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	55.42	.044	104.1	.041	190.77	.035	207.28	.035
319.16	.035								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
190.77	207.28	37.63	42.19	44.64	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 288.179*

INPUT
Description:
Station Elevation Data num= 40

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	205.92	18.71	205.38	31.15	205.37	49.52	203.71	60.01	202.78
60.15	202.77	66.3	202.56	67.5	202.52	77.11	202.09	85.69	201.73
109.06	200.19	119.38	199.55	121.87	199.38	124.55	199.25	139.33	198.52
148.61	198.18	155.03	198.14	155.64	198.14	164.03	198.08	178.26	198.22
195.88	198.39	199.17	198.46	202.56	198.31	228.24	197.71	231.44	197.62
242.52	197.38	247.76	197.7	259.2	198.37	265.32	198.7	266.56	198.8
270.88	199.15	297.81	201.46	304.58	201.94	312.89	202.53	320.12	202.91
326.25	203.56	330.13	203.94	336.14	204.47	366.73	207.12	371.34	208.16

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	66.3	.047	124.55	.038	228.24	.035	247.76	.035
371.34	.035								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
228.24	247.76	37.63	42.19	44.64	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 245.989

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 24

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	204.18	21.78	203.64	36.27	203.71	69.86	200.65	99.76	199.68
126.97	198.07	141.88	197.26	145	197.16	162.2	196.6[illegible]	173.01	196.4
207.53	196.9	228.04	197.2	231.87	197.3	235.82	197.14	265.71	196.51
269.44	196.41	282.34	196.16	288.24	196.5	359.54	200.2	367.45	200.44
378.41	201.45	384.99	201.96	418.48	204.55	423.53	205.75		

Manning's n Values num= 2

Sta	n Val	Sta	n Val
0	.05	145	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
265.71	288.24	36.07	245.99	40.5	.1	.3

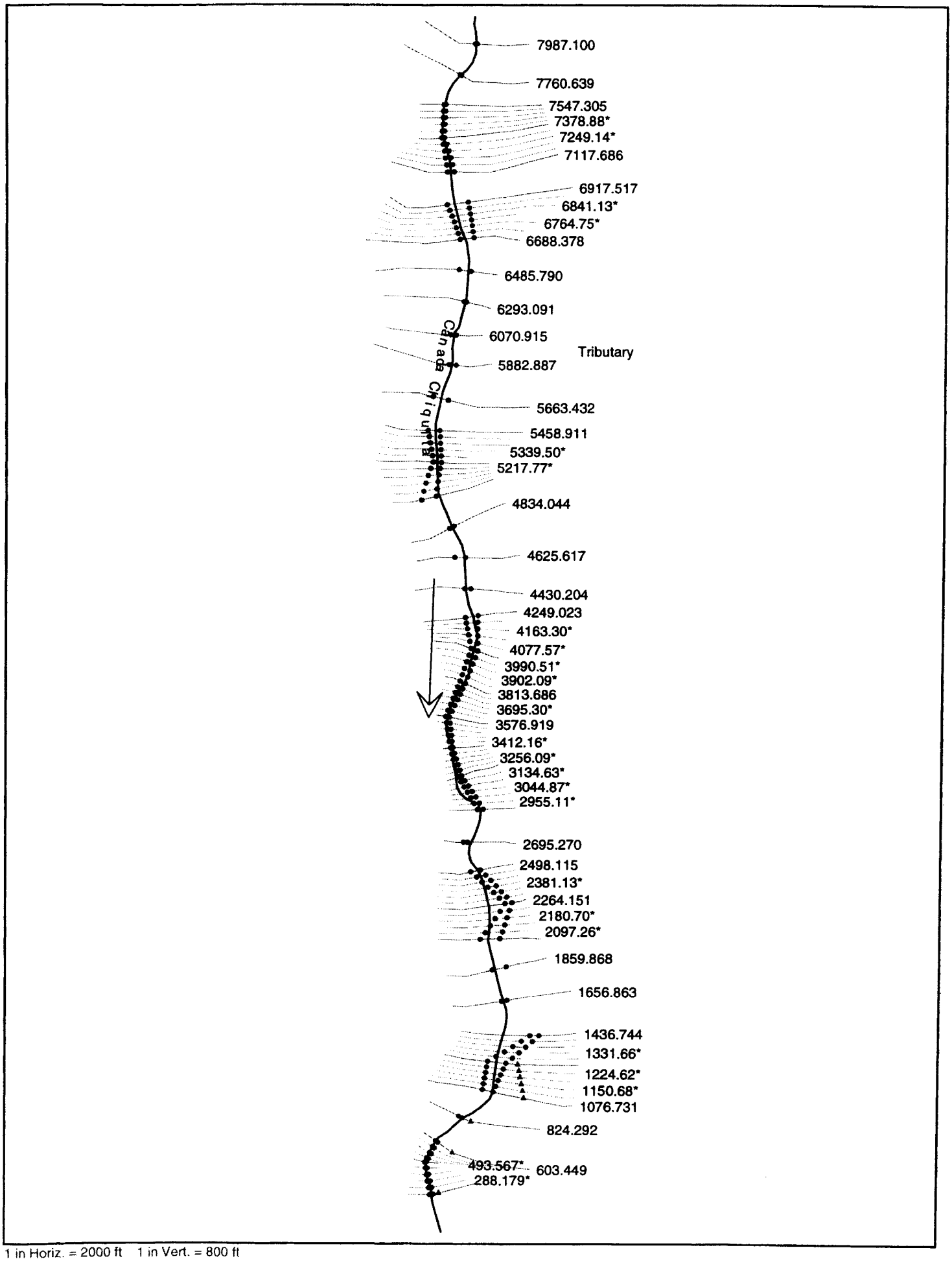
Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

Profile Output Table - Standard Table 1

Reach	River Sta	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
		(cfs)	(ft)	(ft)	(ft)	(ft)	(ft/ft)	(ft/s)	(sq ft)	(ft)	
Tributary	7987.100	1226.00	320.27	325.72	325.72	327.35	0.019471	12.00	129.51	39.90	0.95
Tributary	7760.639	1226.00	313.52	319.48	317.86	319.97	0.005407	6.95	227.68	59.61	0.51
Tributary	7547.305	1226.00	310.88	316.74		318.05	0.015121	10.90	143.97	42.58	0.84
Tributary	7336.782	1226.00	308.71	313.51	313.41	315.07	0.018448	10.90	131.10	40.11	0.91
Tributary	7117.686	1226.00	305.80	311.67	310.06	312.22	0.004739	6.03	212.41	53.76	0.49
Tributary	6917.517	1226.00	308.38	309.91	309.91	310.44	0.021982	6.10	217.50	208.51	0.94
Tributary	6688.378	1226.00	302.02	303.94	303.25	304.03	0.002706	2.14	516.53	393.88	0.30
Tributary	6485.790	1226.00	301.74	302.63	302.59	302.94	0.020305	3.81	280.23	384.39	0.73
Tributary	6293.091	1226.00	295.04	299.31	299.31	300.52	0.008267	6.84	174.54	85.25	0.60
Tributary	6070.915	1226.00	294.93	298.02	297.31	298.37	0.005154	4.28	282.97	147.71	0.45
Tributary	5882.887	1226.00	293.71	295.85	295.85	296.55	0.022957	7.25	189.28	137.37	0.89
Tributary	5663.432	1226.00	288.73	290.92	290.43	291.22	0.008625	4.36	282.75	182.53	0.55
Tributary	5458.911	1226.00	285.04	287.52	287.49	288.35	0.025584	7.61	173.90	105.80	0.94
Tributary	5259.894	1226.00	281.10	284.78		284.92	0.002760	3.48	414.67	196.35	0.34
Tributary	5049.293	1226.00	281.40	283.09	283.09	283.64	0.025656	6.58	209.65	191.61	0.91
Tributary	4834.044	1226.00	267.90	273.30	271.76	273.72	0.008808	5.70	256.69	84.75	0.46

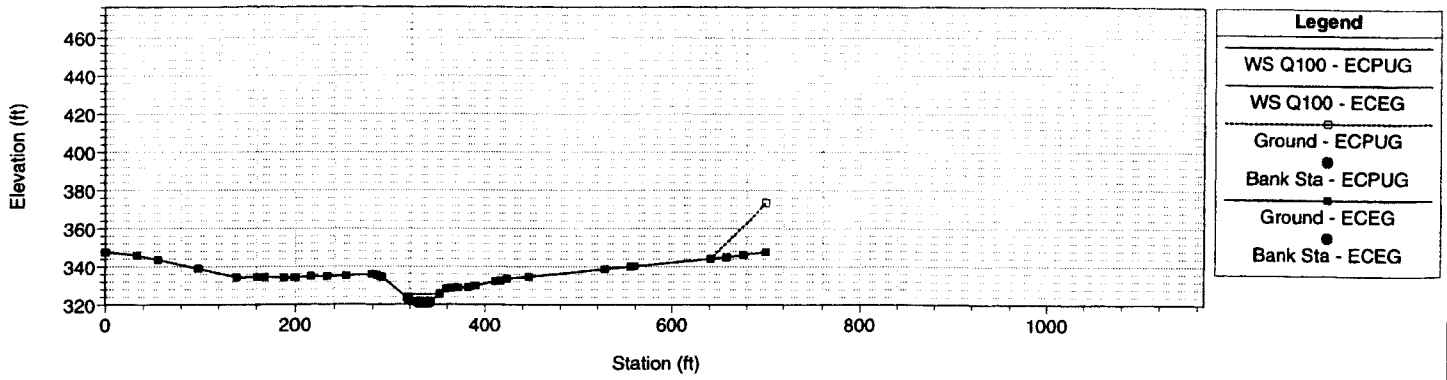
Tributary	4625.617	1226.00	268.93	271.87		272.09	0.007871	3.78	327.19	140.08
0.40										
Tributary	4430.204	1226.00	266.78	269.46	269.46	269.86	0.017127	6.26	254.03	295.11
0.77										
Tributary	4249.023	1226.00	262.53	264.91	264.48	265.28	0.010863	5.18	259.23	163.82
0.62										
Tributary	4034.719	1226.00	260.16	264.09		264.25	0.002752	3.79	431.75	214.27
0.34										
Tributary	3813.686	1226.00	255.03	264.03		264.07	0.000211	1.83	892.89	234.42
0.11										
Tributary	3576.919	1226.00	259.75	263.07	263.07	263.65	0.013990	6.70	201.36	173.17
0.71										
Tributary	3370.982	1226.00	255.96	257.70	258.11	259.10	0.022985	7.49	130.80	123.18
1.17										
Tributary	3179.510	1226.00	247.23	250.41	251.59	254.39	0.022225	17.50	87.59	52.79
1.98										
Tributary	2910.241	1226.00	242.04	246.60	245.46	247.01	0.005722	5.69	255.93	91.47
0.50										
Tributary	2695.270	1226.00	242.19	244.45	244.29	244.91	0.021103	7.10	231.14	174.88
0.86										
Tributary	2498.115	1226.00	237.84	240.58	240.58	241.31	0.019765	7.93	194.82	123.32
0.86										
Tributary	2264.151	1226.00	234.60	236.57	236.57	237.05	0.012165	7.20	275.79	254.94
0.92										
Tributary	2055.543	1226.00	230.72	232.67		232.97	0.010058	4.55	285.29	175.66
0.58										
Tributary	1859.868	1226.00	228.61	230.17	229.92	230.51	0.015276	4.73	266.94	216.89
0.69										
Tributary	1656.863	1226.00	223.70	226.36	226.28	226.97	0.020506	7.64	221.68	173.78
0.87										
Tributary	1436.744	1226.00	221.37	223.18	223.18	223.55	0.012545	6.41	303.68	411.03
0.90										
Tributary	1261.604	1226.00	216.65	219.28	218.76	219.54	0.008302	4.34	330.11	453.26
0.54										
Tributary	1076.731	1226.00	216.25	217.60	217.29	217.83	0.011784	3.86	319.93	406.74
0.59										
Tributary	824.292	1226.00	210.14	212.97	212.97	213.94	0.021739	8.31	169.14	98.63
0.91										
Tributary	603.449	1226.00	203.45	208.94	208.30	210.06	0.005658	9.49	156.43	44.19
0.74										
Tributary	456.940	1226.00	202.26	205.22	205.97	207.72	0.033594	15.57	99.67	51.11
1.63										
Tributary	245.989	1226.00	196.16	197.68	198.02	198.79	0.041691	10.60	150.73	176.80
1.61										



1 in Horiz. = 2000 ft 1 in Vert. = 800 ft

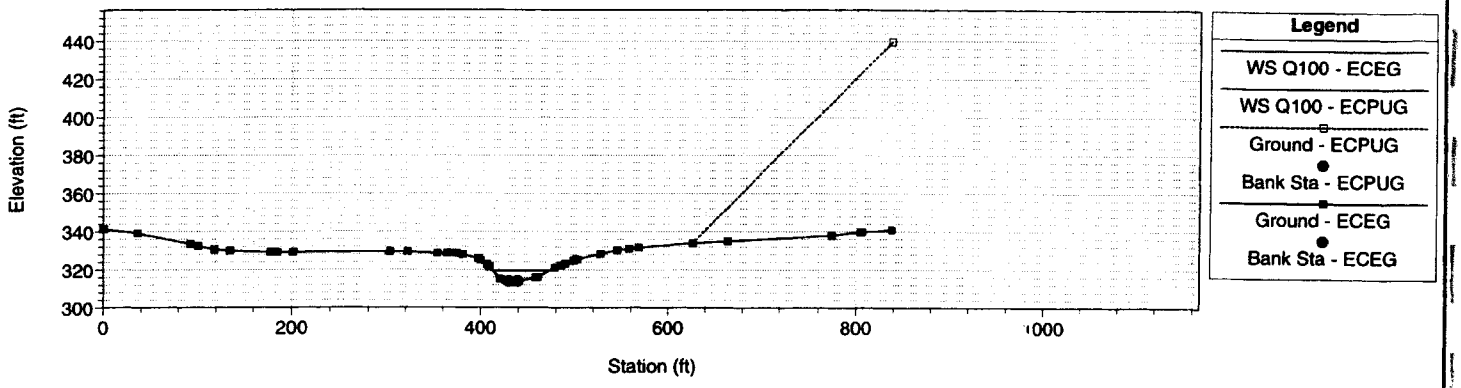
Project Model - D2

RS = 7987.100 CC Alternative - Canada Chiquita Encroachment



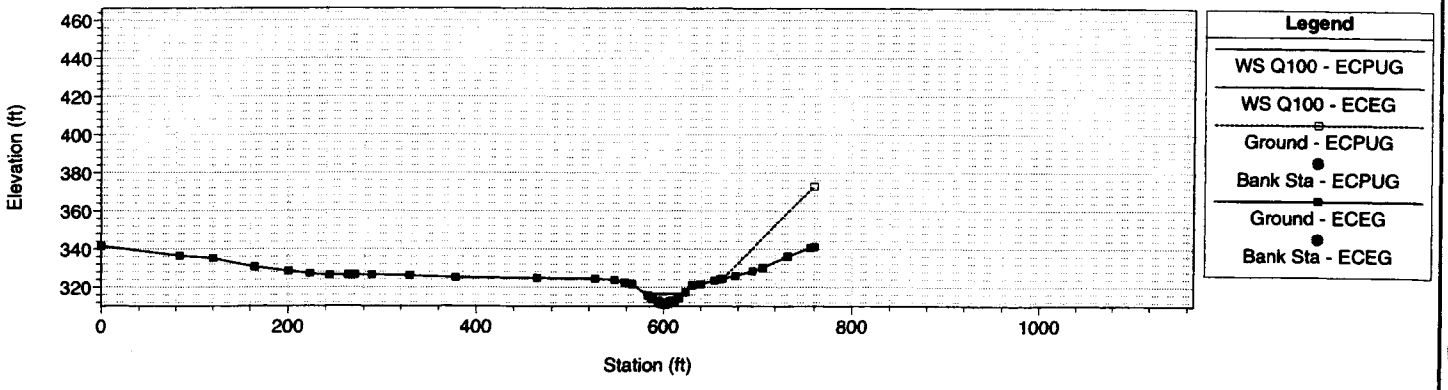
Project Model - D2

RS = 7760.639 CC Alternative - Canada Chiquita Encroachment



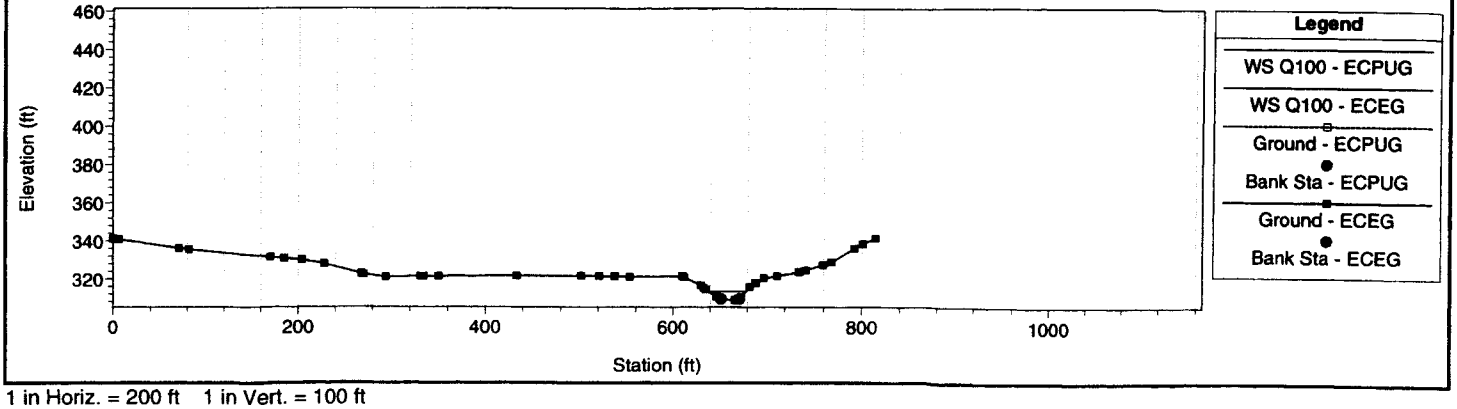
Project Model - D2

RS = 7547.305 CC Alternative - Canada Chiquita Encroachment



Project Model - D2

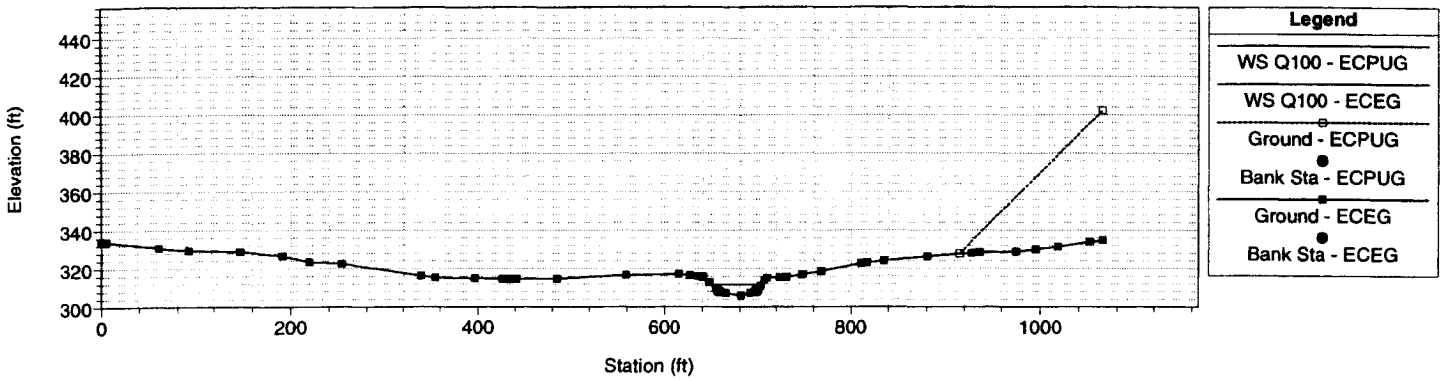
RS = 7336.782 CC Alternative - Canada Chiquita Encroachment



1 in Horiz. = 200 ft 1 in Vert. = 100 ft

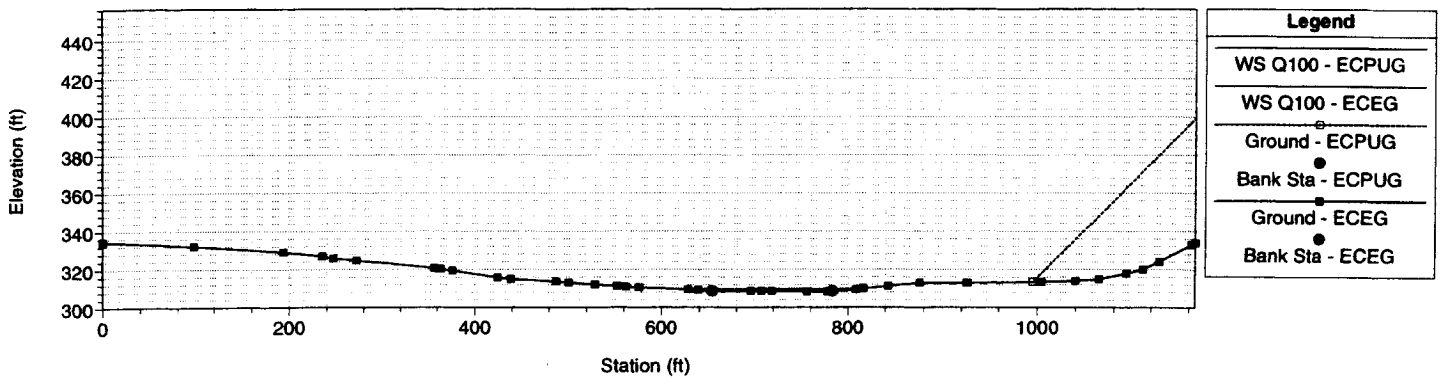
Project Model - D2

RS = 7117.686 CC Alternative - Canada Chiquita Encroachment



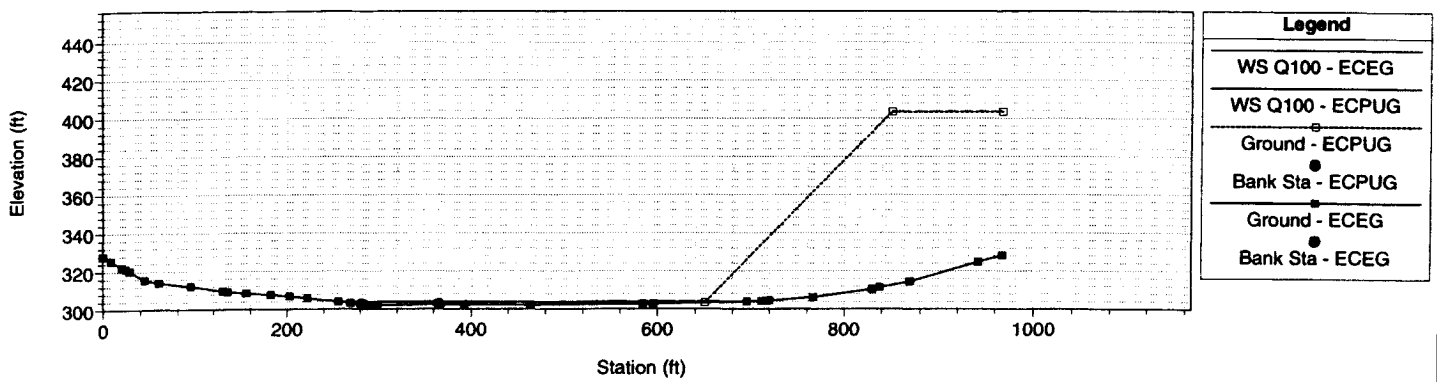
Project Model - D2

RS = 6917.517 CC Alternative - Canada Chiquita Encroachment



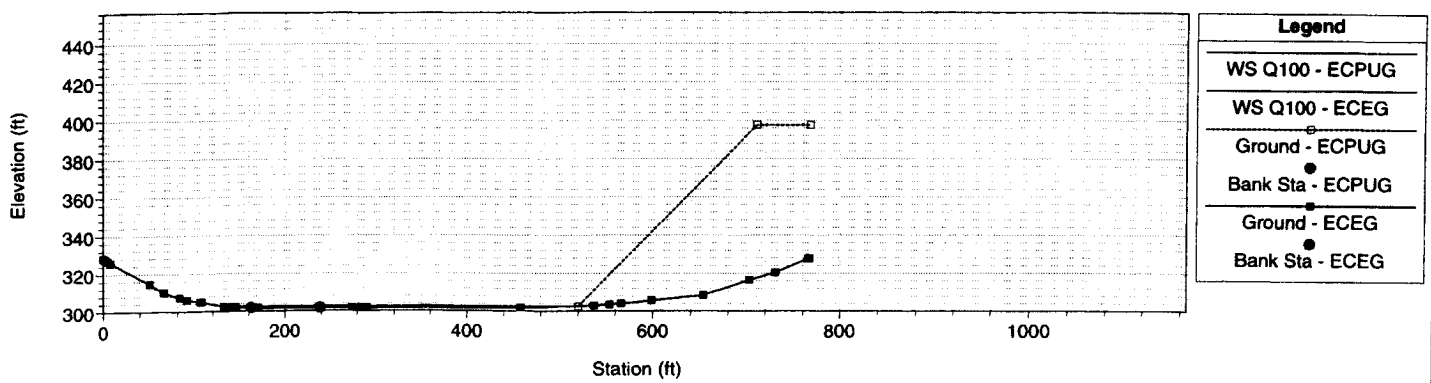
Project Model - D2

RS = 6688.378 CC Alternative - Canada Chiquita Encroachment



Project Model - D2

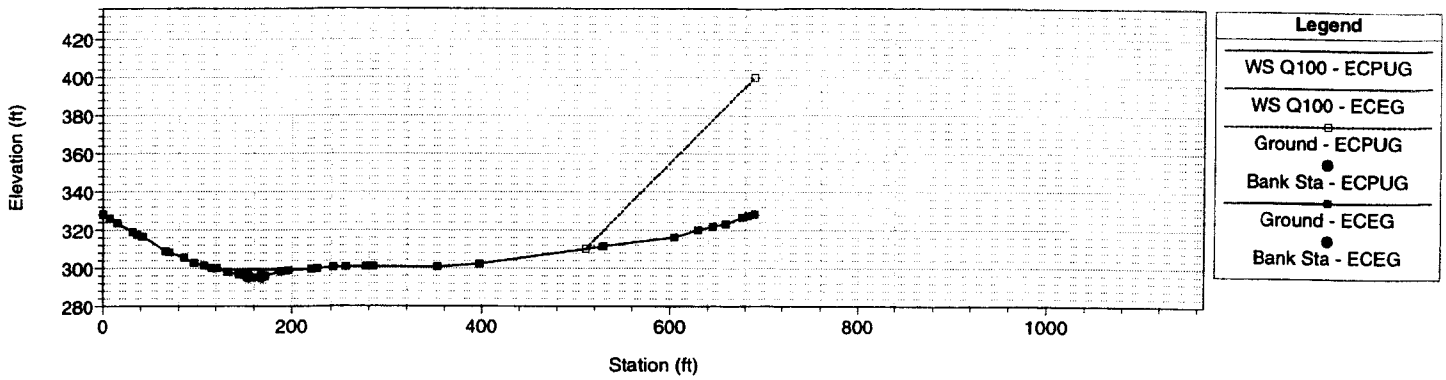
RS = 6485.790 CC Alternative - Canada Chiquita Encroachment



1 in Horiz. = 200 ft 1 in Vert. = 100 ft

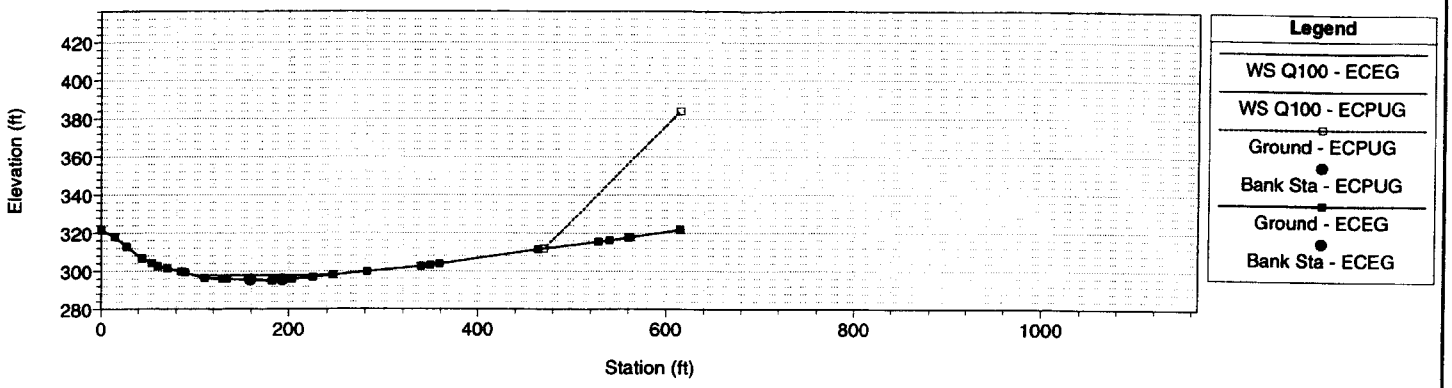
Project Model - D2

RS = 6293.091 CC Alternative - Canada Chiquita Encroachment



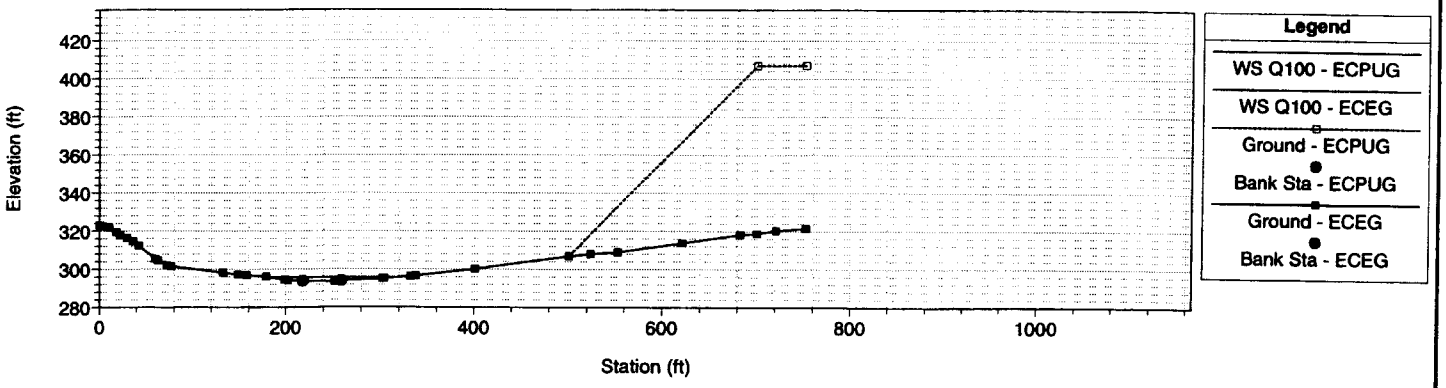
Project Model - D2

RS = 6070.915 CC Alternative - Canada Chiquita Encroachment



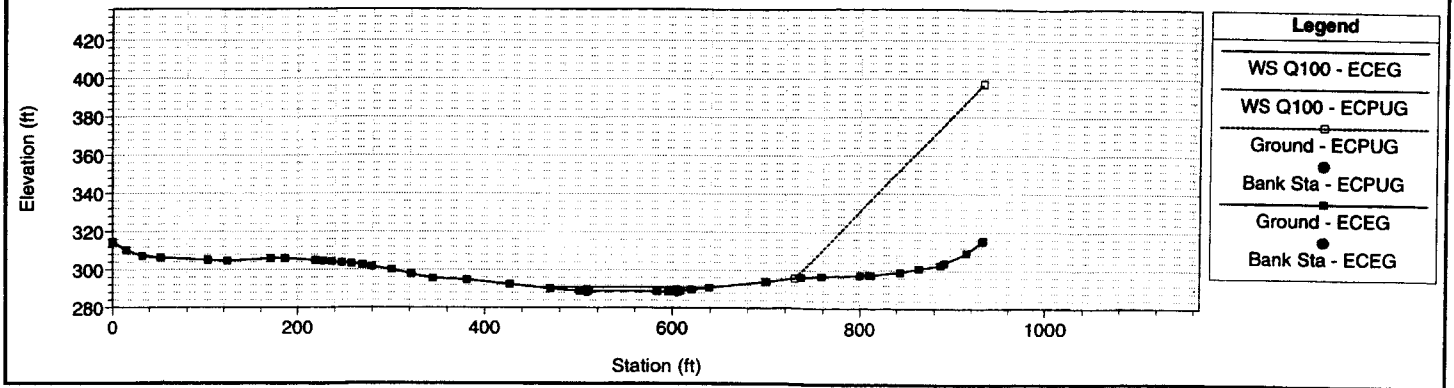
Project Model - D2

RS = 5882.887 CC Alternative - Canada Chiquita Encroachment



Project Model - D2

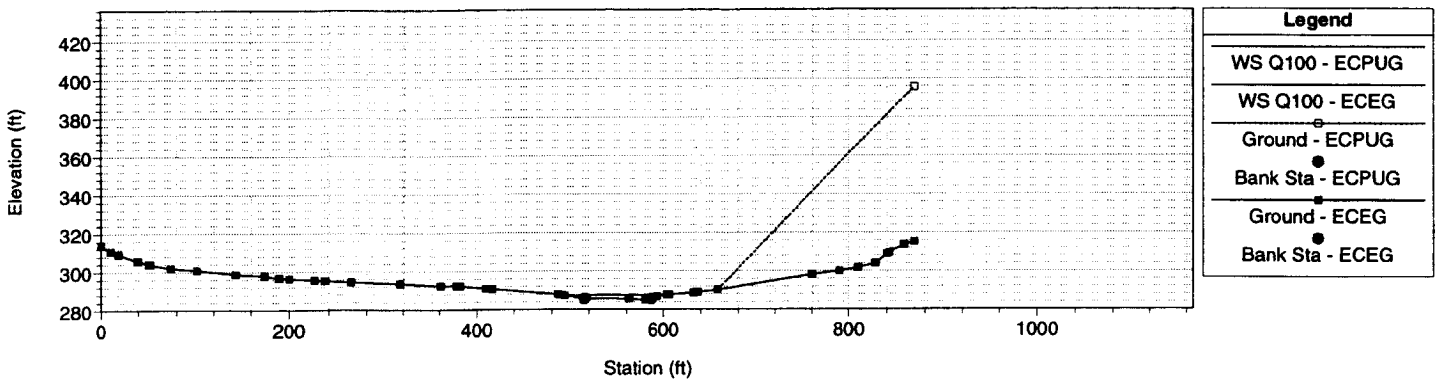
RS = 5663.432 CC Alternative - Canada Chiquita Encroachment



1 in Horiz. = 200 ft 1 in Vert. = 100 ft

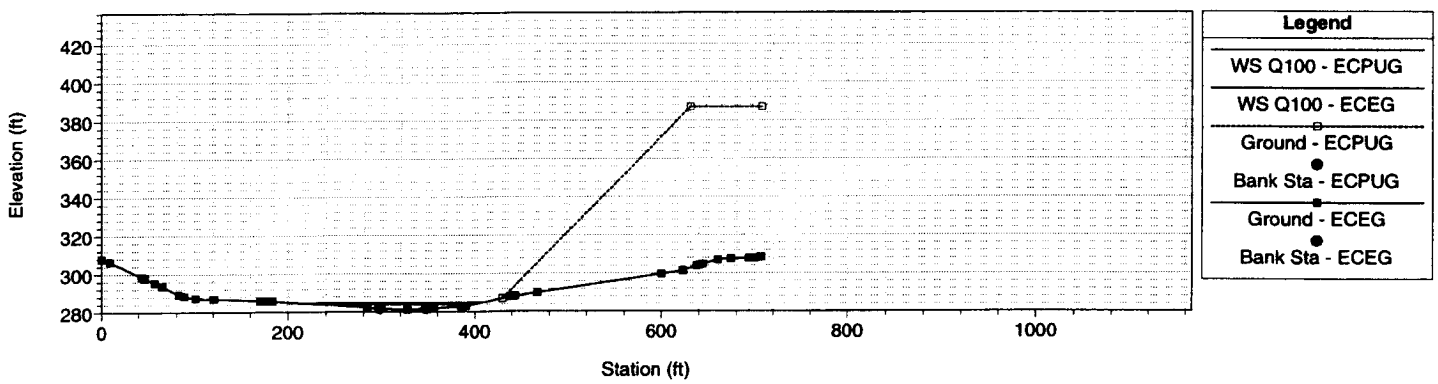
Project Model - D2

RS = 5458.911 CC Alternative - Canada Chiquita Encroachment



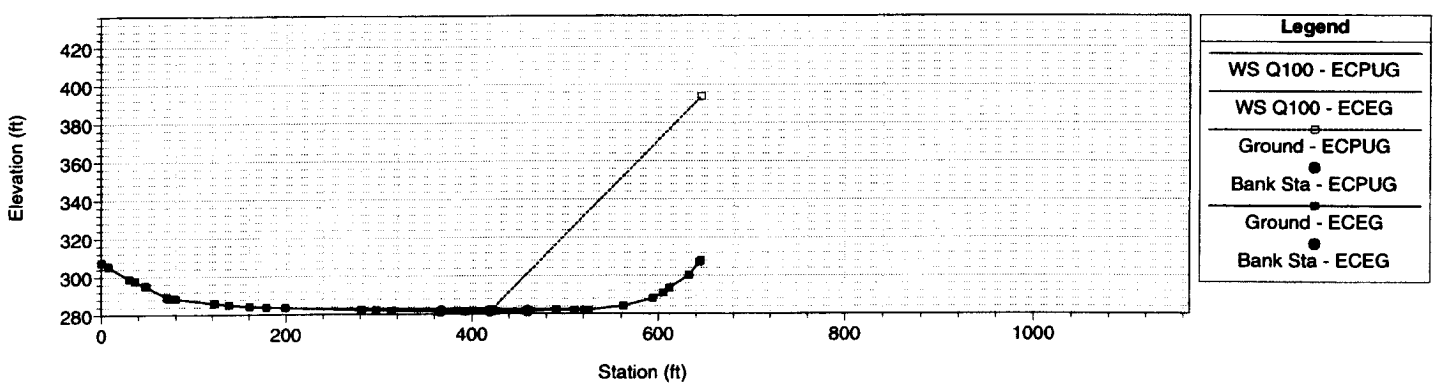
Project Model - D2

RS = 5259.894 CC Alternative - Canada Chiquita Encroachment



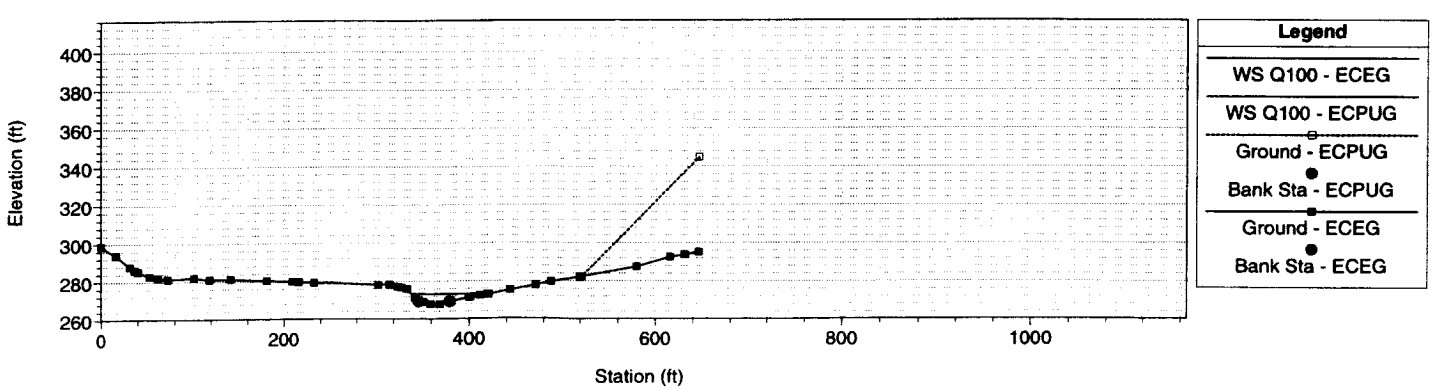
Project Model - D2

RS = 5049.293 CC Alternative - Canada Chiquita Encroachment



Project Model - D2

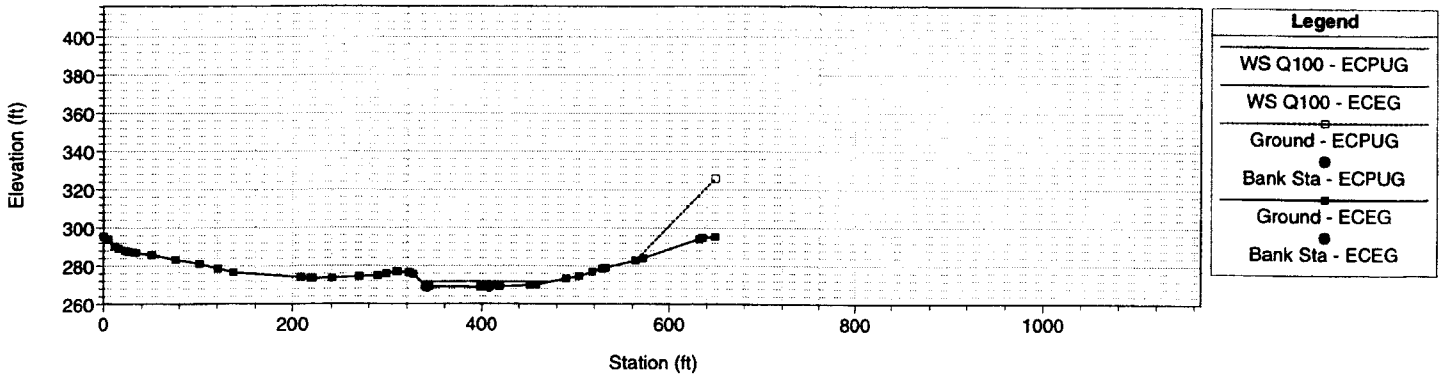
RS = 4834.044 CC Alternative - Canada Chiquita Encroachment



1 in Horiz. = 200 ft 1 in Vert. = 100 ft

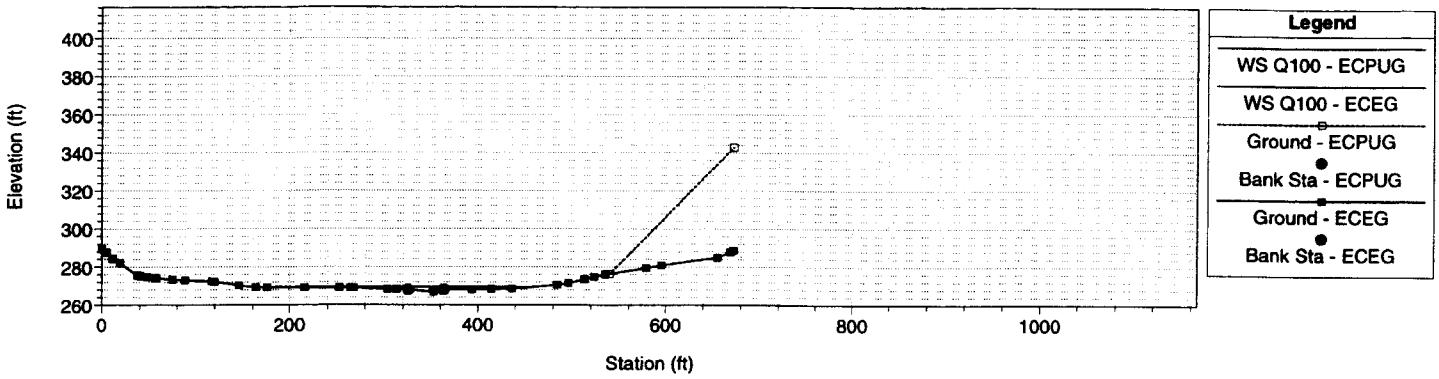
Project Model - D2

RS = 4625.617 CC Alternative - Canada Chiquita Encroachment



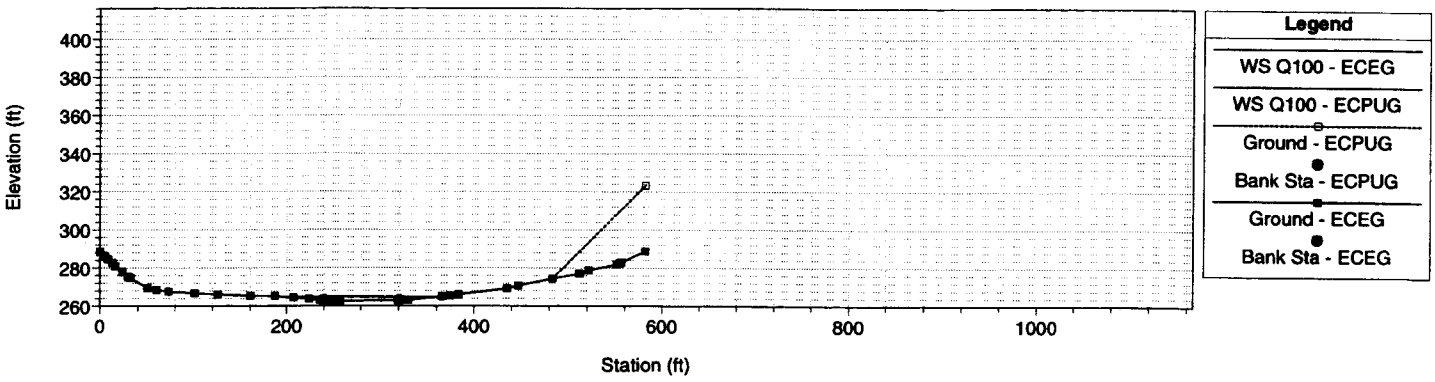
Project Model - D2

RS = 4430.204 CC Alternative - Canada Chiquita Encroachment



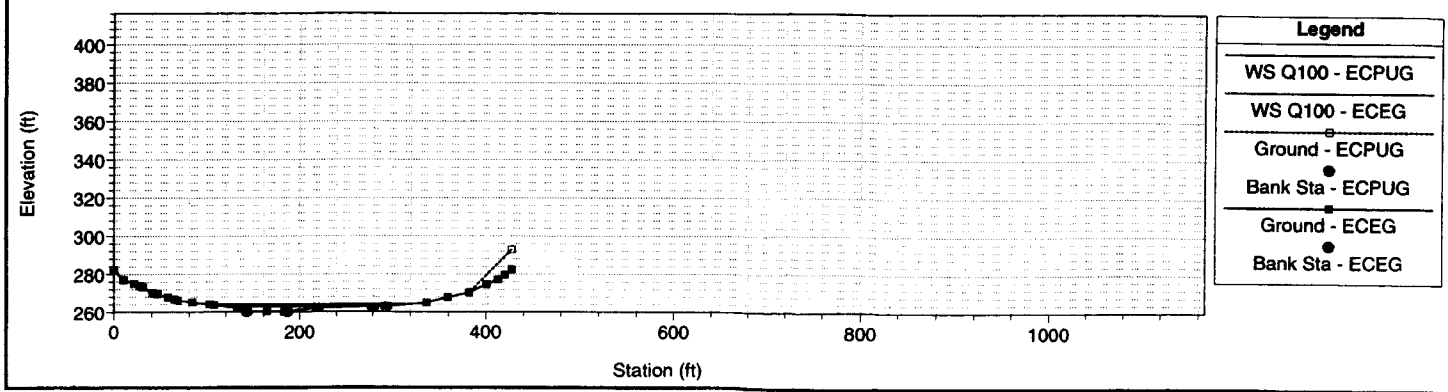
Project Model - D2

RS = 4249.023 CC Alternative - Canada Chiquita Encroachment



Project Model - D2

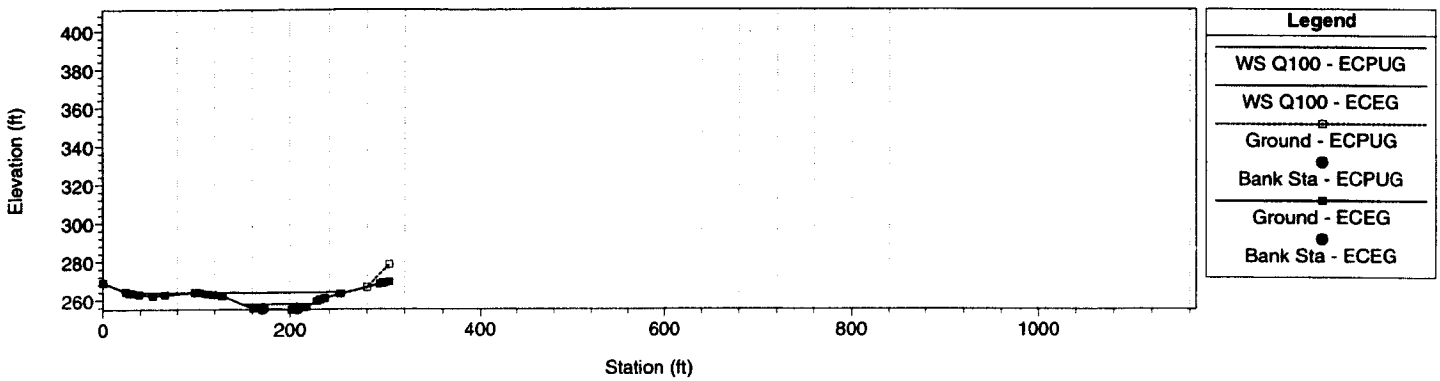
RS = 4034.719 CC Alternative - Canada Chiquita Encroachment



1 in Horiz. = 200 ft 1 in Vert. = 100 ft

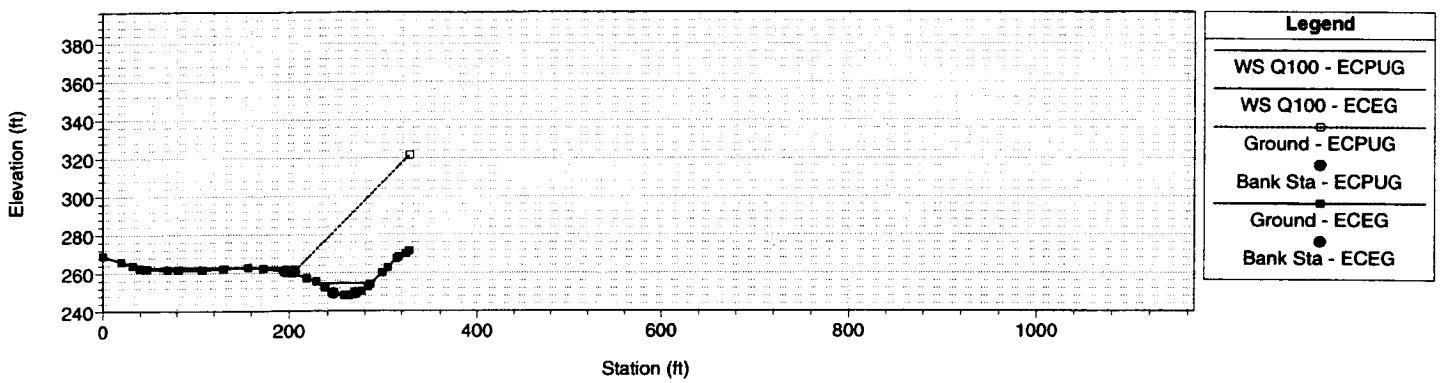
Project Model - D2

RS = 3813.686 CC Alternative - Canada Chiquita Encroachment



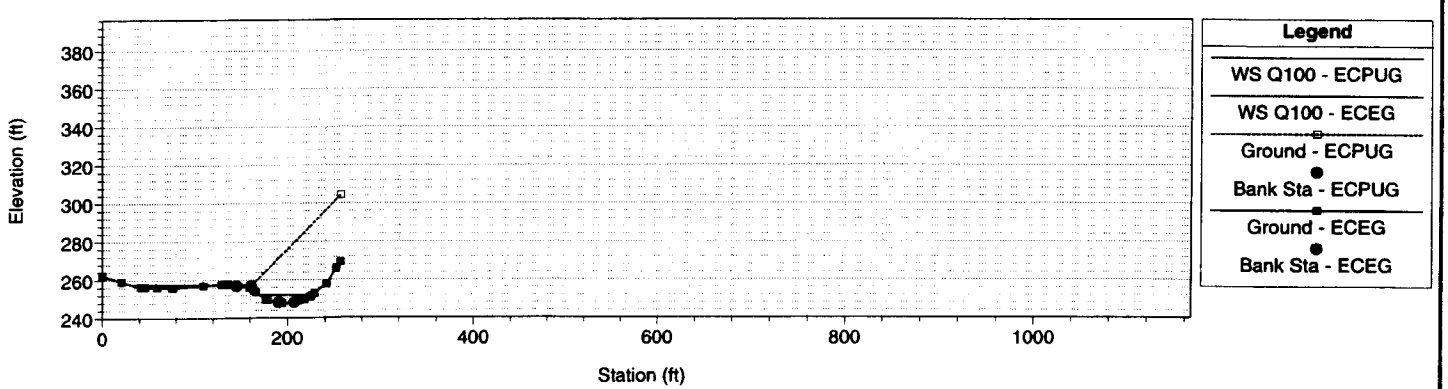
Project Model - D2

RS = 3576.919 CC Alternative - Canada Chiquita Encroachment



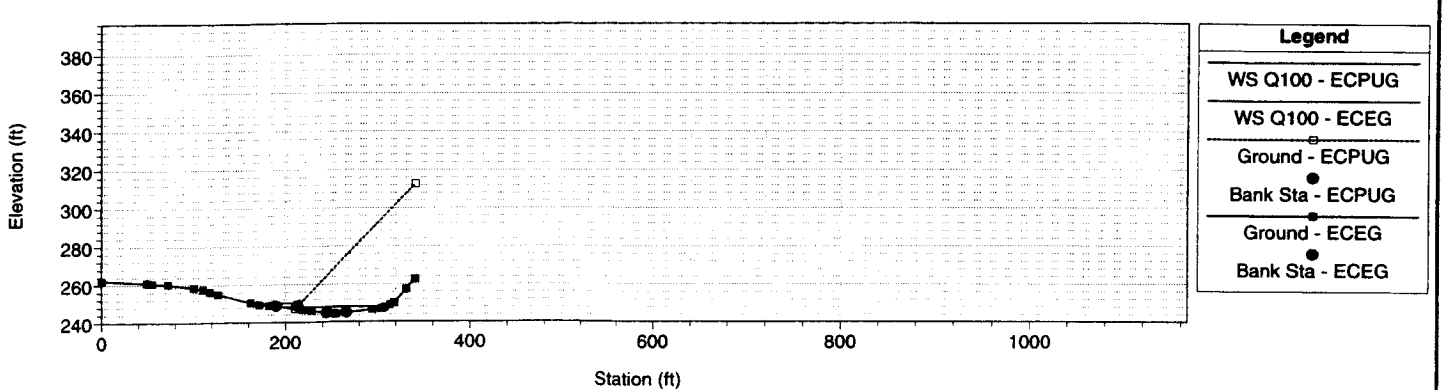
Project Model - D2

RS = 3370.982 CC Alternative - Canada Chiquita Encroachment



Project Model - D2

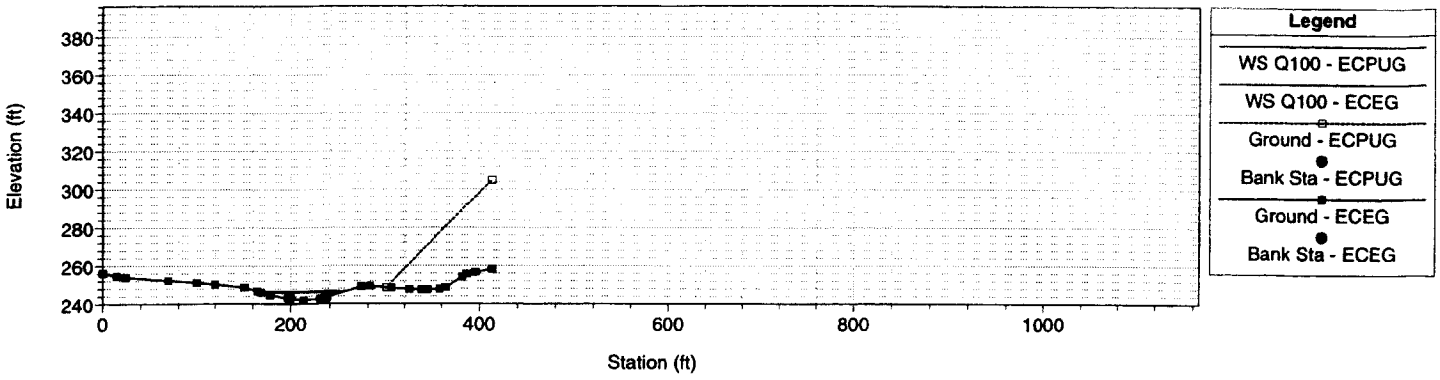
RS = 3179.510 CC Alternative - Canada Chiquita Encroachment



1 in Horiz. = 200 ft 1 in Vert. = 100 ft

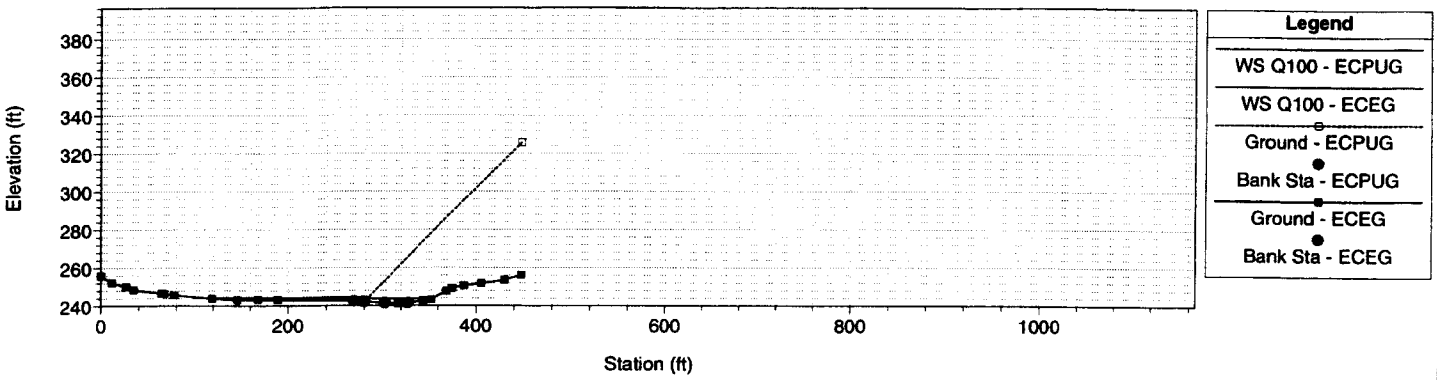
Project Model - D2

RS = 2910.241 CC Alternative - Canada Chiquita Encroachment



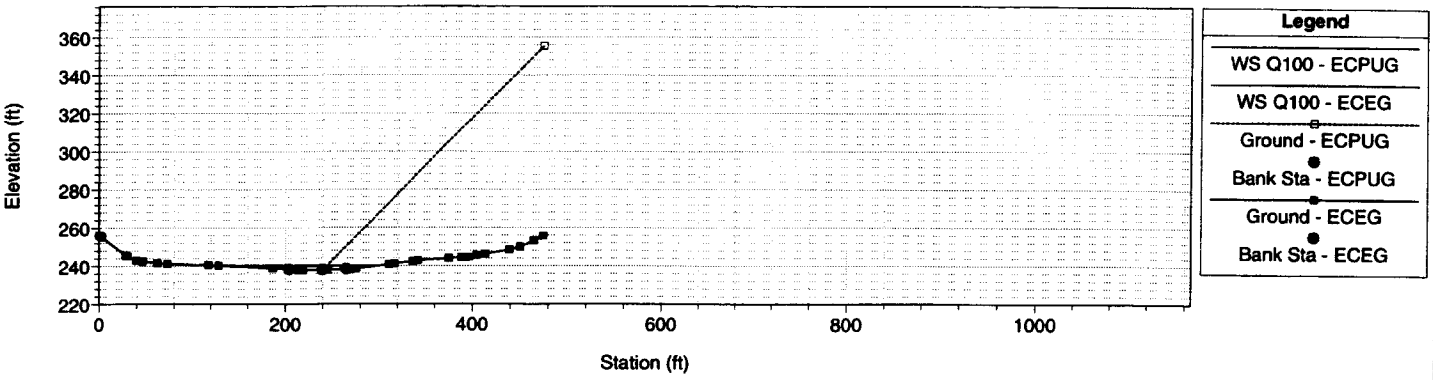
Project Model - D2

RS = 2695.270 CC Alternative - Canada Chiquita Encroachment



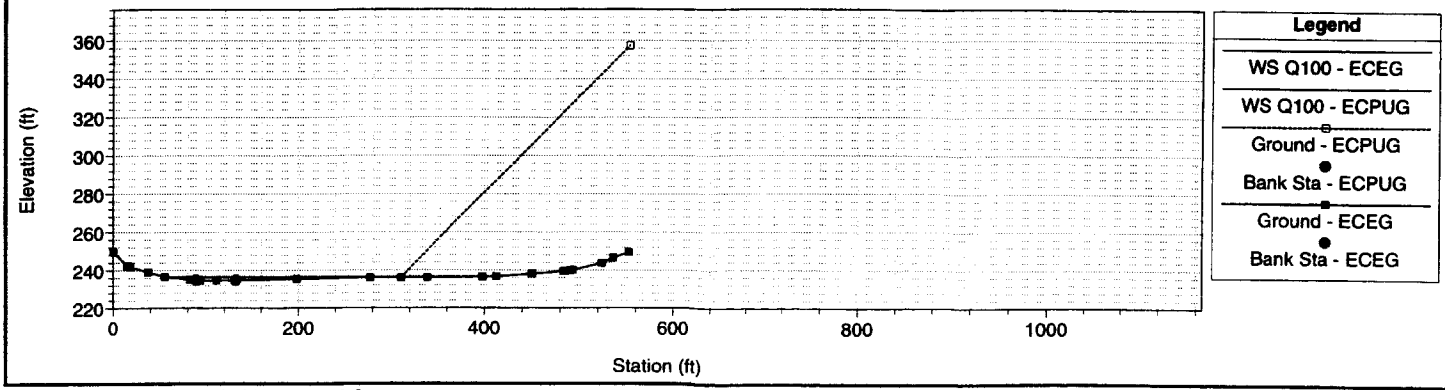
Project Model - D2

RS = 2498.115 CC Alternative - Canada Chiquita Encroachment



Project Model - D2

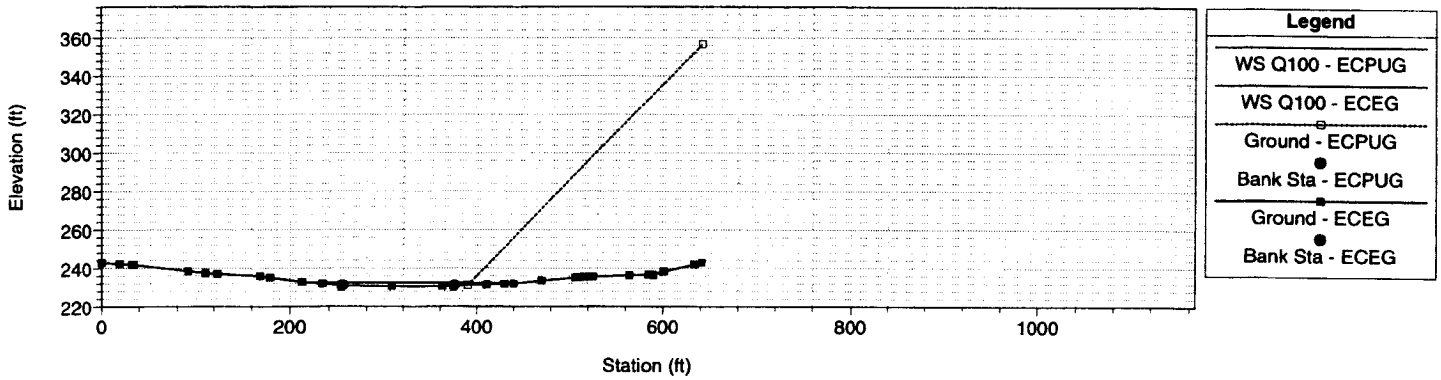
RS = 2264.151 CC Alternative - Canada Chiquita Encroachment



1 in Horiz. = 200 ft 1 in Vert. = 100 ft

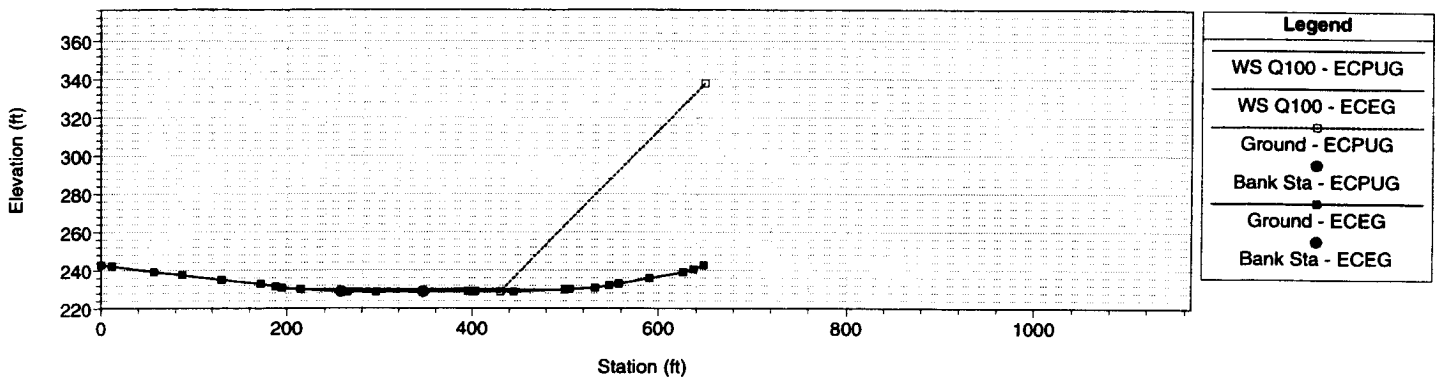
Project Model - D2

RS = 2055.543 CC Alternative - Canada Chiquita Encroachment



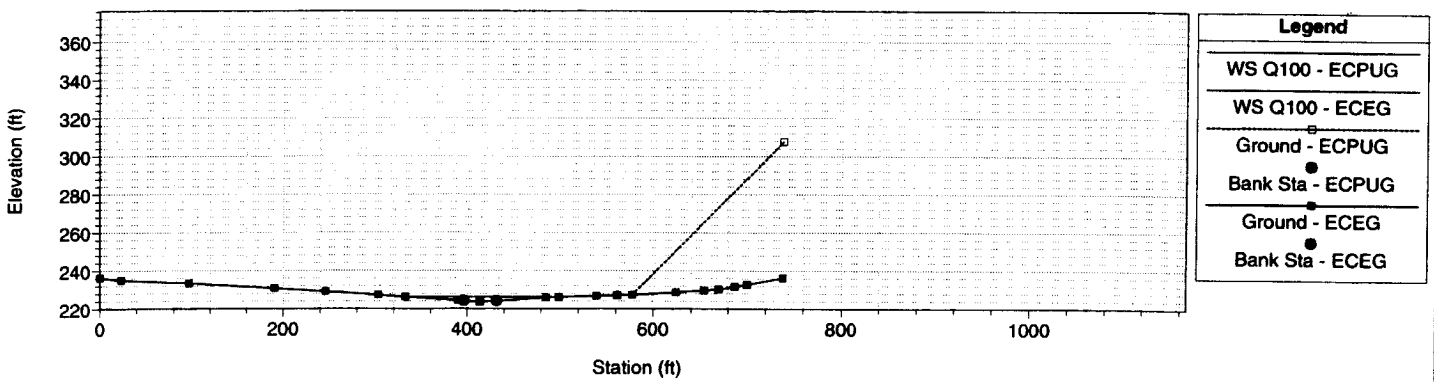
Project Model - D2

RS = 1859.868 CC Alternative - Canada Chiquita Encroachment



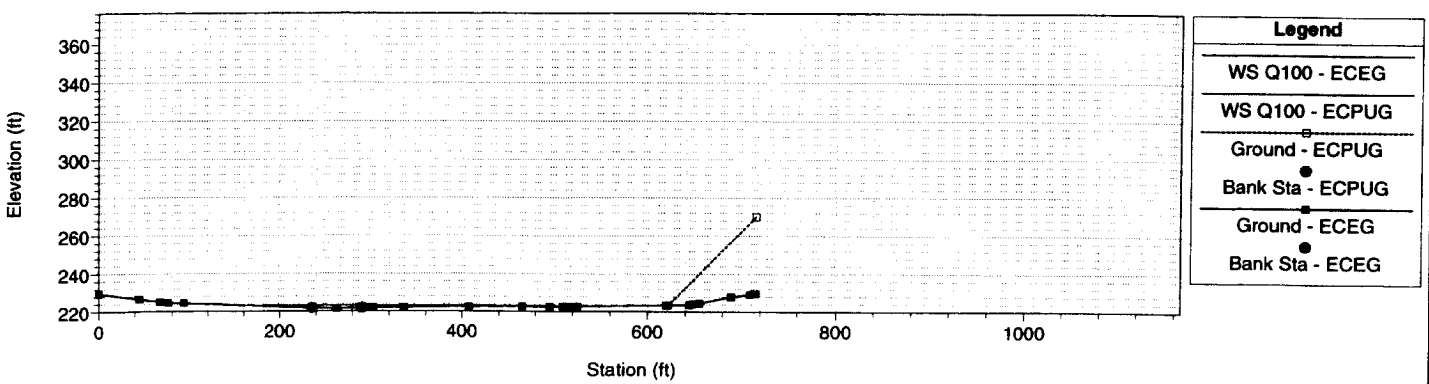
Project Model - D2

RS = 1656.863 CC Alternative - Canada Chiquita Encroachment



Project Model - D2

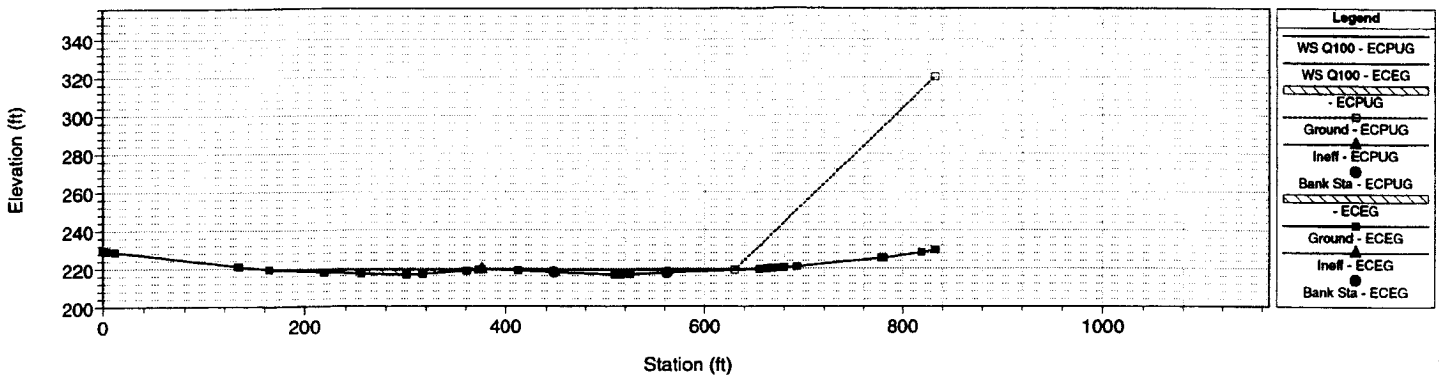
RS = 1436.744 CC Alternative - Canada Chiquita Encroachment



1 in Horiz. = 200 ft 1 in Vert. = 100 ft

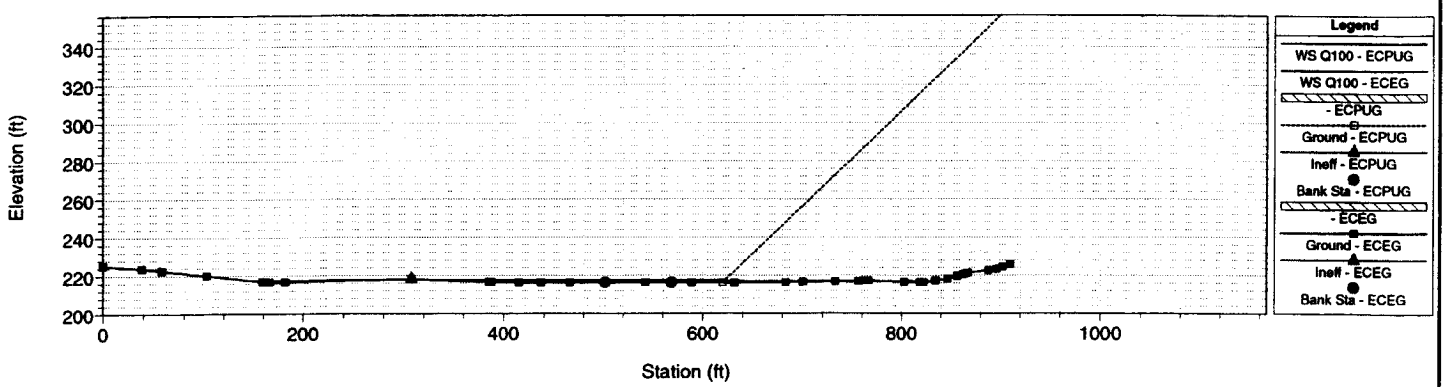
Project Model - D2

RS = 1261.604 CC Alternative - Canada Chiquita Encroachment



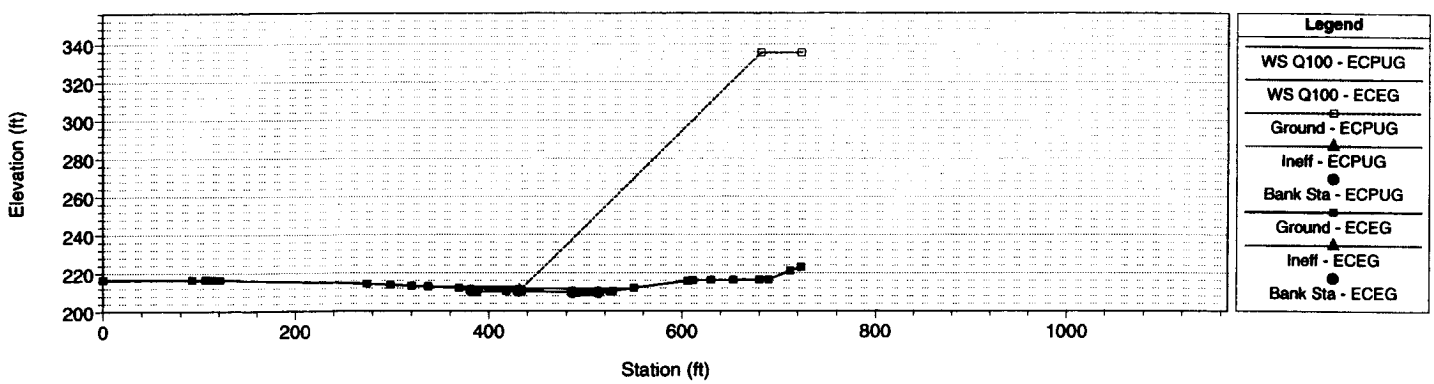
Project Model - D2

RS = 1076.731 CC Alternative - Canada Chiquita Encroachment



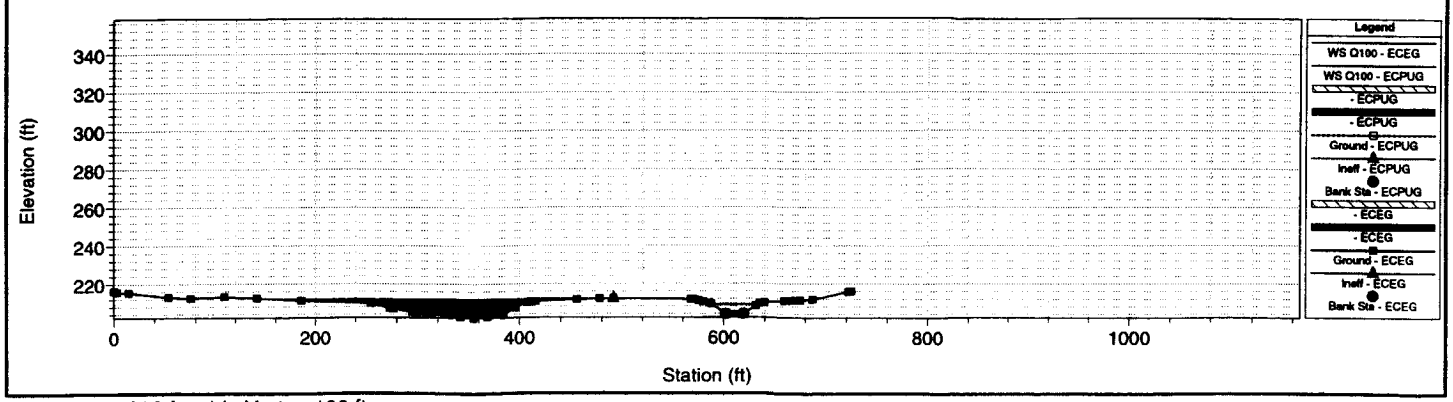
Project Model - D2

RS = 824.292 CC Alternative - Canada Chiquita Encroachment



Project Model - D2

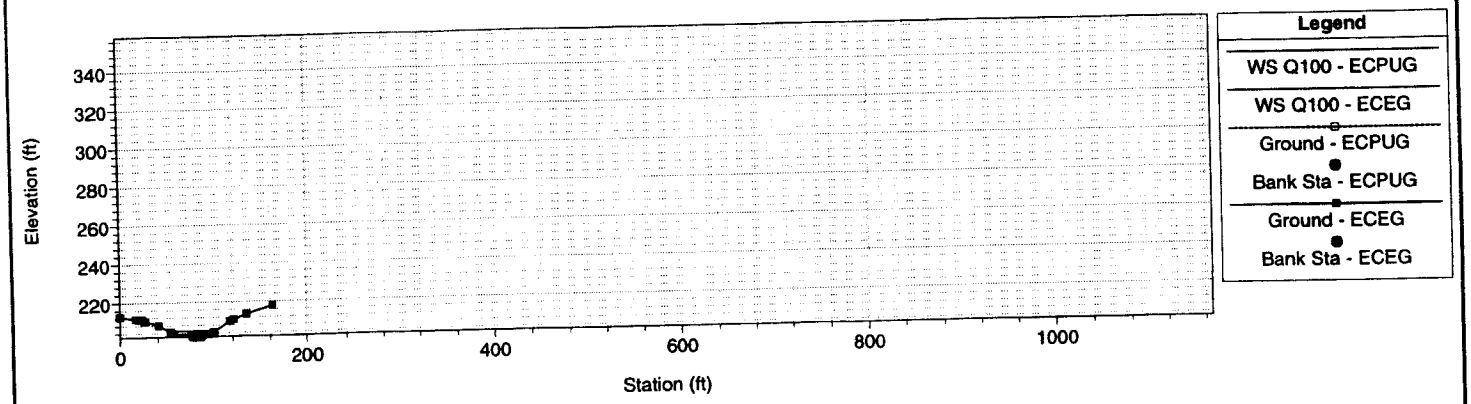
RS = 603.449 CC Alternative - Canada Chiquita Encroachment



1 in Horiz. = 200 ft 1 in Vert. = 100 ft

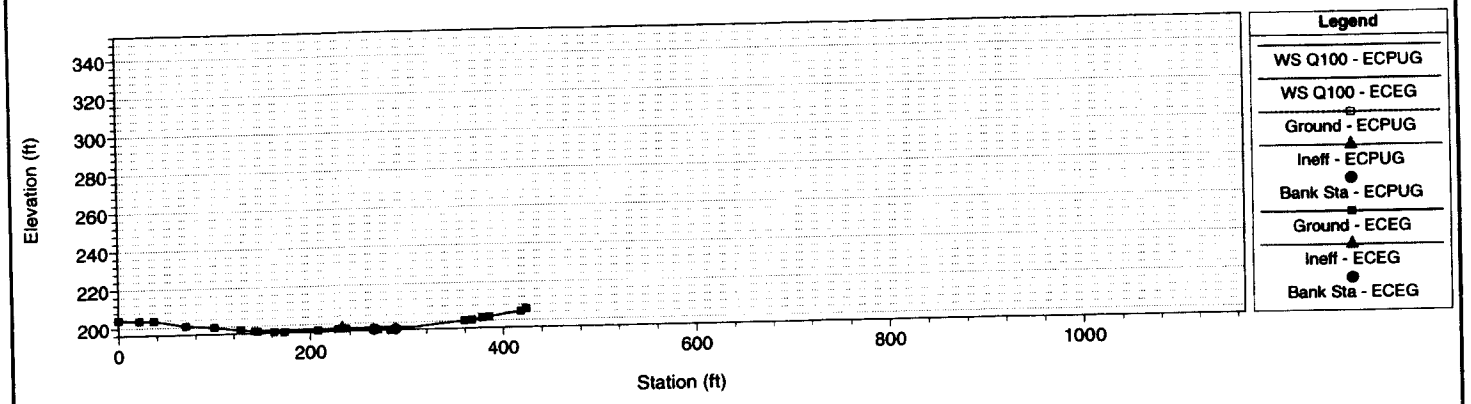
Project Model - D2

RS = 456.940 CC Alternative - Canada Chiquita Encroachment

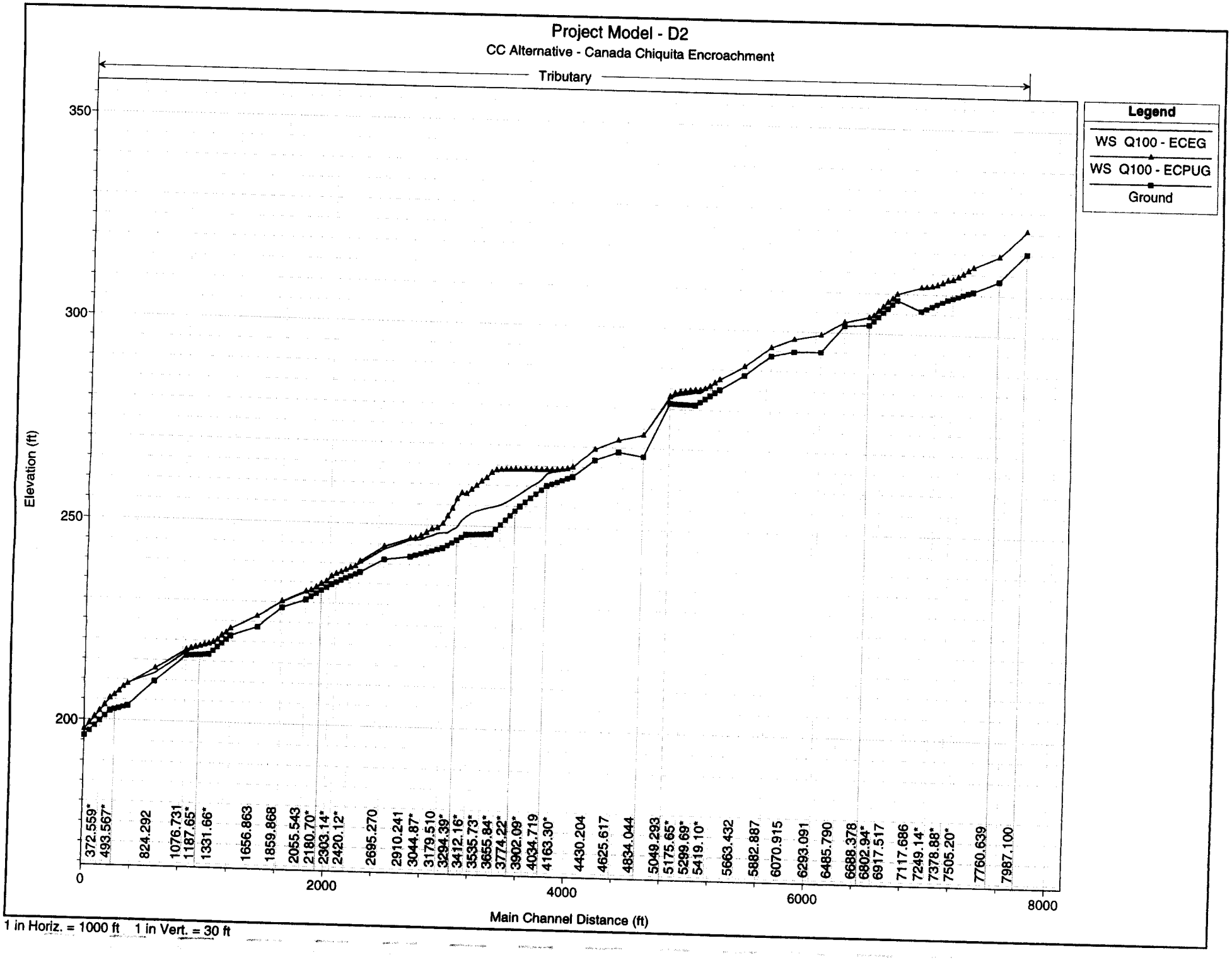


Project Model - D2

RS = 245.989 CC Alternative - Canada Chiquita Encroachment



1 in Horiz. = 200 ft 1 in Vert. = 100 ft


Project Model - D2
CC Alternative - Canada Chiquita Encroachment
Tributary
Legend
WS Q100 - ECEG
WS Q100 - ECPUG
Ground
Elevation (ft)
350
300
250
200
0
2000
4000
6000
8000
Main Channel Distance (ft)
372.559*
493.567*
824.292
1076.731
1187.65*
1331.66*
1656.863
1859.868
2055.543
2180.70*
2303.14*
2420.12*
2695.270
2910.241
3044.87*
3179.510
3294.39*
3412.16*
3535.73*
3655.84*
3774.22*
3902.09*
4034.719
4163.30*
4430.204
4625.617
4834.044
5049.293
5175.65*
5299.69*
5419.10*
5663.432
5882.887
6070.915
6293.091
6485.790
6688.378
6802.94*
6917.517
7117.686
7249.14*
7378.88*
7505.20*
7760.639
7987.100
1 in Horiz. = 1000 ft 1 in Vert. = 30 ft

APPENDIX K
HYDRAULIC MODEL INPUT & RESULTS
CC ALTERNATIVE AT SAN JUAN CREEK
(MODEL "D3")

Appendix K. **Hydraulic Model Input & Results**

CC Alternative at San Juan Creek (Model D3)

- Model Report
- Project geometry, plan view
- Cross Sections comparing 100-yr existing and project geometries and water surface elevations
- Geometry and water surface elevation profile

Cross sections associated with the proposed bridge structure include:

1677	(5503)
1642	(5387)
1600	(5250)
1553	(5094)
1508	(4947)
1477	(4846)
1441	(4728)
1412	(4632)
1379	(4525)
1352	(4434)
1284	(4214)
1222	(4009)

HEC-RAS Version 3.0.1 Mar 2001
U.S. Army Corp of Engineers
Hydrologic Engineering Center
609 Second Street, Suite D
Davis, California 95616-4687
(916) 756-1104

```
X     X  XXXXXX    XXXX        XXXX       XX      XXXX
X     X  X        X    X      X   X     X  X    X
X     X  X        X           X   X    X    X   X
XXXXXXX  XXXX     X       XXX XXXX     XXXXXX    XXXX
X     X  X        X           X  X     X    X        X
X     X  X        X    X      X   X    X    X        X
X     X  XXXXXX    XXXX       X    X   X    X   XXXXX
```

PROJECT DATA
Project Title: Project Model - D3
Project File : PMD3.prj
Run Date and Time: 11/14/02 10:07:06 AM

Project in English units

Project Description:
CC Alternative - San Juan Creek Crossing

PLAN DATA

Plan Title: Existing Flow/Existing Geometry
Plan File : p:\2PDA0104\Hydr\LHS\Modeling\Model D\HecRas D\PMD3.p01

Geometry Title: Existing Conditions
Geometry File : p:\2PDA0104\Hydr\LHS\Modeling\Model D\HecRas D\PMD3.g01

Flow Title : Existing Conditions
Flow File : p:\2PDA0104\Hydr\LHS\Modeling\Model D\HecRas D\PMD3.f01

Plan Summary Information:
Number of: Cross Sections = 138 Mulitple Openings = 0
Culverts = 0 Inline Weirs = 0
Bridges = 1

Computational Information
Water surface calculation tolerance = 0.01
Critical depth calculaton tolerance = 0.01
Maximum number of interations = 20
Maximum difference tolerance = 0.3
Flow tolerance factor = 0.001

Computation Options
Critical depth computed only where necessary
Conveyance Calculation Method: At breaks in n values only
Friction Slope Method: Average Conveyance
Computational Flow Regime: Mixed Flow

FLOW DATA

Flow Title: Existing Conditions
Flow File : p:\2PDA0104\Hydr\LHS\Modeling\Model D\HecRas D\PMD3.f01

Flow Data (cfs)

River	Reach	RS	Q2	Q5	Q10	Q25	Q50	Q100	Q100HC
San Juan	Upper	11261.86	399	2710	5235	13333	21312	33597	84230
San Juan	Upper	6151.870	422	2755	5241	13703	22162	34722	86997

Boundary Conditions

River	Reach	Profile	Upstream	Downstream
San Juan	Upper	Q2	Normal S = .007	Normal S = .006
San Juan	Upper	Q5	Normal S = .007	Normal S = .006
San Juan	Upper	Q10	Normal S = .007	Normal S = .006
San Juan	Upper	Q25	Normal S = .007	Normal S = .006
San Juan	Upper	Q50	Normal S = .007	Normal S = .006
San Juan	Upper	Q100	Normal S = .007	Normal S = .006
San Juan	Upper	Q100HC	Normal S = .007	Normal S = .006

GEOMETRY DATA

Geometry Title: Existing Conditions

Geometry File : p:\2PDA0104\Hydr\LHS\Modeling\Model D\HecRas D\PMD3.g01

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 11261.86

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 77

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	242.54	4.3	242.24	17.83	241.34	54.62	239.7	59.18	239.5
123.46	236.63	252.74	235.97	254.58	235.92	258.01	235.88	345.45	235.75
381	235.91	416.15	236.08	421.47	236.09	444.76	236.48	616.89	237.54
635.95	236.85	686.17	237.78	686.35	237.78	686.66	237.76	705.96	236.3
708.32	235.71	712.55	234.41	719.34	230.57	733.27	223.18	741.67	221.95
761.26	220.33	764.68	220.33	795.12	220.3	799.34	220.3	801.34	220.35
818.73	221.46	873.43	224.78	896.84	225.07	943.86	225.66	963.45	225.9
1024.79	223.71	1034.82	223.73	1056.83	223.25	1126.76	222.61	1155.33	223.03
1185.38	223.52	1191.02	222.57	1192.05	222.48	1202.64	218.02	1206.6	216.44
1218.59	215.06	1223.77	214.46	1227.31	214.32	1282.3	216.37	1294.49	216.87
1330.81	218.33	1349.69	217.75	1364.3	217.74	1409.65	216.8	1415.9	217.4
1418.57	217.99	1426.08	219.58	1427.14	219.78	1440.15	223.77	1449.59	224.59
1452.99	224.9	1460.48	225.02	1497.36	225.89	1543.03	226.26	1544	226.23
1544.51	226.23	1545.71	226.27	1661.88	227.31	1687.17	228	1726.31	230.17
1731.68	230.61	1760.22	235.86	1764.18	236.51	1779.94	238.34	1809.73	240.73
1820.32	241.62	1820.66	241.64						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.07	54.62	.035	764.68	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
1202.64	1418.57	130.03	143.07	149.61	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 11118.79

INPUT
Description:
Station Elevation Data num= 73

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	236.28	6.22	236.08	23.39	235.63	72.28	235.01	95.7	234.71
116.39	234.76	145.25	235.39	253.54	235.79	296.34	235.95	305.3	236
306.56	236.01	307.67	236.01	517.86	235.46	582.18	235.91	651.6	235.74
682.29	234.27	691.5	233.97	727.73	228.91	734.54	228.53	741.74	227.01
761.35	223.21	771.59	222.64	772.91	222.56	777.01	222.33	793.57	221.41
795.23	221.26	799.6	221.41	818.65	222.32	835.77	223.06	838.02	223.54
858.58	230	868.91	230.97	873.43	231.61	877.11	231.89	921.97	231.07
922.09	231.07	922.12	231.07	969.56	227.62	975.21	226.75	1009.04	223.72
1016.91	223.3	1063.95	222.15	1075.79	222.76	1092.71	222.9	1162.63	223.35
1187.76	222.47	1242.01	217.99	1252.71	216.77	1255.07	216.57	1255.52	216.54
1317.4	216.46	1319.11	216.45	1372.17	216.23	1398.59	217.3	1421.05	217
1440.94	216.26	1453.06	216.41	1456.68	217.54	1457.61	217.97	1465.34	221.17
1469.74	223.55	1476.75	224.23	1483.58	225.18	1489.7	224.96	1548.76	224.65
1611.98	227.28	1707.68	229.93	1716.91	230.38	1728.83	231.47	1773.15	235.81
1777.73	236.17	1778.68	236.35	1807.01	237.16				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.07	72.28	.035	777.01	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
1242.01	1457.61	113.3	131.05	129.24	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 10987.74

INPUT
Description:
Station Elevation Data num= 86

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	236.29	4.65	236.1	17.71	235.99	40.01	235.81	61.33	235.71
108.51	235.52	135.11	236.1	160.74	235.99	218.01	234.83	278.02	233.69
285.21	233.54	392.39	233.47	443.26	233.45	562.6	232.91	589.54	232.87
600.16	232.54	647.72	231.1	683.46	231.18	692.86	230.59	705.84	229.38
708.6	228.65	713.49	226.92	723.65	223.34	726.23	222.95	734.77	221.65
736.86	221.37	742.25	220.66	781.95	221.62	787.48	221.88	789.8	222.37
802.82	224.27	805.64	225.65	808.72	227.16	812.84	229.18	814.74	230.22
815.95	230.46	827.13	232.22	835.58	232.69	842.86	232.81	865.03	230.7
874.42	229.56	880.31	228.4	884.46	227.12	897.57	223.21	899.81	222.46
900.69	222.26	920.38	221.07	924.94	220.81	935.4	220.22	943.09	220.04
1006.44	218.49	1014.33	219.06	1040.71	222.3	1049.72	223.1	1065.02	223
1092.15	221.8	1106.38	221.42	1157.88	218.22	1200.31	216.53	1236.43	216.46
1266.17	216.4	1271.79	216.38	1382.69	215.95	1401.69	216.34	1412.06	217.68
1439.71	217.96	1447.39	218.97	1452.82	219.2	1467.43	218.38	1501.43	219.15
1519.8	219.56	1548.43	221.03	1558.95	221.44	1589.62	222.71	1603.43	223.49
1604.51	223.52	1605.84	223.54	1625.44	223.62	1645.18	223.96	1647.53	224.07
1649.57	224.32	1723.55	231.37	1734.13	232.95	1747.54	235.46	1759.85	236.07
1771.3	236.43								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.07	17.71	.035	726.23	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
1157.88	1412.06	237.19	239.78	243.42	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 10747.97

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 48

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	236.04	2.48	235.82	22.5	235.29	61.52	234.89	88.93	234.64
109.76	234.6	183.4	233.36	265.76	230.92	366.1	230.11	416.67	229.73
448.27	229.72	483.41	229.02	550.09	226.85	628.93	225.02	650.44	224.67
700.42	222.47	706	222.26	708.53	221.48	728.5	217.27	732.25	216.48
748.15	216.28	752.69	216.01	770.01	216.56	815.29	216.82	856.16	216.23
885	216.05	924.46	215.81	989.32	216.22	1025	215.84	1088.35	215.17
1100.74	215.11	1106.09	215.22	1106.35	215.22	1167.83	215.55	1185.06	215.41
1227.01	215.06	1328.48	216.48	1329.47	216.54	1346.04	221.53	1349.24	222.67
1362.65	225.06	1406.84	228.93	1410.82	229.21	1412.05	229.37	1417.98	230.91
1425.04	234.92	1427.99	236.1	1431.23	236.75				

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	61.52	.035	728.5	.05	885	.035	1025	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
732.25	1328.48	153.99	201.69	181.38	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 10546.27

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 49

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	236.22	15.31	236.1	82.15	233.76	145.91	232.57	204.39	230.63
237.53	229.94	279.43	229.37	322	228.82	357.76	228.36	467.04	225.64
498.68	225.16	542.5	225.53	555.23	225.12	584.32	224.17	590.62	223.73
603.48	222.96	611.71	223	624.09	219.15	633.77	216.5	636.62	216.16
639.41	216.26	650.3	215.4	651.87	215.27	680	214.57	731.07	213.3
734.14	213.24	736.27	213.13	738.91	213.14	785	213.22	794.25	213.24
855.69	215.03	860.69	215.18	900.15	215.88	949.77	216.48	1078.71	216.09
1087.61	216.06	1206.66	216.79	1213.61	217.18	1253.05	218.16	1274.66	219.45
1285.16	219.95	1314.1	223.32	1332.02	224.38	1339.94	224.86	1345.91	225.6
1361.48	227.69	1371.08	228.8	1373.43	229.44	1395.49	235.75		

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	322	.035	603.48	.05	680	.035	785	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
651.87	1078.71	193.88	481.55	278.86	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 10064.73

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 55

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	236.69	2.25	235.52	3.44	235.23	39.26	231	45.72	230.22
46.1	230.2	54.9	229.94	80	229.2	108.21	228.37	136.39	227.57
139.49	227.54	140.5	227.54	144.18	227.6	241.56	229.75	270.67	229.52
308.9	228.27	350.32	225.72	352.38	225.51	357.79	224.93	392.41	221.01
412.12	217.68	417.62	217.01	425.14	213.21	427.78	212	431.1	210.34
431.53	210.31	449.01	207.79	470.75	208.63	515.87	210.35	524.74	210.61
530.85	210.6	630	211.13	685.58	211.43	715.69	211.75	740.32	211.98
814.18	212.46	842.43	212.85	853.67	213.13	909.6	214.49	967.31	216.31
1043.73	216.78	1139.17	217.15	1168.86	217.63	1227.2	218.61	1249.1	218.99
1297.47	221.72	1310.51	222.39	1317.8	222.77	1323.48	223.09	1327.81	224.11
1341.36	226.67	1347.21	228.87	1363.43	234.6	1371.97	237.09	1372.46	237.17

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.07	54.9	.05	80	.035	270.67	.035	630	.035
853.67	.05								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
427.78	814.18	211.89	236.17	217.43	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 9828.565

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 61

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	236.98	1.55	236.3	7.74	234.46	13.66	232.4	19.63	230.85
48.1	227.01	55.82	225.9	61.58	225.47	89.19	224.43	90.37	224.38
102.46	224.18	103.69	224.17	208.98	223.05	239.58	223.07	242.07	223
253.69	222.62	275.8	223.24	279.3	223.44	284.47	221.81	285.5	221.47
288.04	219.66	289.78	218.35	299.1	212	299.55	211.26	305.25	209.37
310.18	208.19	314.04	208.02	316.25	207.91	317.91	207.84	329.99	208.42
340.14	208.91	355.77	209.46	366.15	209.81	377.03	210.22	433.19	210.2
507.35	210.17	548.46	210.16	566.82	210.11	595.74	210.14	686.65	212
715	212.59	721.13	212.72	803.83	214.42	873.18	215.71	887.08	216.05
902.38	216.51	983.81	216.5	1063.49	217.85	1084.26	218.24	1108.83	218.43
1118.78	218.6	1127.28	219.01	1142.48	219.66	1182	221.49	1216.79	222.99
1218.55	223.27	1225.94	226.07	1235.89	227.79	1243.42	229.53	1268.71	234.66
1274.08	235.96								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val

0	.07	89.19	.035	242.07	.05	433.19	.035	715	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
299.1	686.65	118.07	118.56	92.16	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 9710.010

INPUT
Description:
Station Elevation Data num= 49

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	237.56	9.65	233.67	16.71	230.9	24.72	229.13	28.53	228.26
47.4	226.46	73.88	223.9	78.37	223.7	81.58	223.63	105.5	223.15
122.06	222.81	128.27	222.82	178.12	222.64	188.98	222.6	240.96	219.54
286.21	216.75	293.2	216.54	298.11	213.76	302.07	212.02	304.78	210.35
306	209.73	310.33	208.75	319.5	207.93	327.69	207.81	340.97	208.4
381.78	209.58	396.96	210.19	422.01	210.14	445.07	210.09	486.21	210.12
570.66	210.19	637.15	211.58	656.46	211.95	802.19	214.72	833.25	215.49
866.72	216.5	916.71	216.49	1038.3	216.49	1044.5	216.6	1052.62	216.99
1075.97	218.25	1080.92	218.83	1086.83	219.53	1132.21	222.55	1137.29	223.24
1138.13	223.4	1140.89	224.99	1144.53	226.44	1172.25	237.73		

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	105.5	.05	422.01	.035	656.46	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
302.07	656.46	105.82	122.85	111.7	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 9587.161

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 51

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	235.13	.85	234.8	16.38	229.87	27.38	227.87	29.69	227.46
31.73	227.22	57.78	224.46	97.35	223.56	128.59	222.34	148.19	221.51
180	220.22	212.56	218.9	281.1	216.65	294.01	216.15	309.99	214.06
312.35	213.75	326.78	212.04	334.41	212.32	338.81	212.32	344.29	212.59
353.29	213.96	362.45	212.15	366.12	211.09	370.15	209.41	372.66	209.12
404.96	208.82	425	208.86	448.67	208.91	545.27	210.01	585	210.6
626.43	211.21	626.55	211.21	642.39	211.44	675.79	212.15	741.69	213.41
753.28	213.48	771.95	214.16	797.84	214.81	853.17	216.48	884.32	216.48
909.54	216.85	996.87	216.79	1043.26	216.64	1056.32	216.22	1058.79	216.57
1065.87	219.78	1069.48	221.22	1074.99	224.9	1086.45	230.37	1093.15	234.08
1095.36	235.39								

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	180	.05	425	.035	545.27	.05	585	.035
642.39	.05								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
362.45	675.79	123.08	118.02	93.39	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 9469.136

INPUT
Description:
Station Elevation Data num= 53

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	237.57	12.94	234.3	17.91	232.7	24.18	230.54	59.34	225.73
76.13	223.7	81.78	223.42	135.85	220.64	169.07	219.04	180.99	218.57
187.82	218.35	215.48	217.65	221.82	217.49	328.29	215	340.74	214.75
358	213.99	370.63	212.99	378.86	212.34	395.08	211.79	399.54	212.37
404.97	212.66	409.25	212.27	415.36	211.65	421.14	211.09	444.15	210.57
463.29	210.43	540.01	209.9	570.3	209.82	614.13	210.4	660.46	211
713.27	211.7	714.02	211.69	724.7	211.51	773.82	210.74	774.7	210.73
786.16	210.77	789.96	210.35	813.58	210.1	816.39	210.42	837.61	211.74
855.43	212.89	859.2	213.18	886.42	214.6	922.31	216.41	926.97	216.6
947.26	216.63	1039.24	216.13	1044.89	216.74	1052.81	221.3	1054.77	222
1061.39	227.39	1073.18	236.6	1077.41	239.66				

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	215.48	.05	463.29	.035	614.13	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
415.36	837.61	89.26	118.5	115.68	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 9350.632

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 41

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	235.55	12.28	233.13	24.99	230.02	52.05	227.19	66.18	225.45
90.05	224.42	117.19	223.07	181.12	219.9	202.42	218.92	220.15	218.12
262.29	217.13	319.13	215.8	384.17	214.49	421.88	212.86	466.73	210.99
480.59	210.33	480.81	210.31	481.1	210.3	481.5	210.29	482.43	210.29
543.33	210.13	639.13	209.9	680	210.42	694.61	210.61	718.93	210.93
772.78	210.62	777.09	210.59	809.31	210.02	871.62	211.73	895.72	212.94
932.8	214.27	978.37	215.79	983.34	215.94	1006.1	216.52	1007.14	216.55
1013.04	217.67	1021.96	219.37	1024.06	219.91	1061.51	230.84	1065.28	232.96

1065.35 233.03

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.07	117.19	.035	202.42	.05	543.33	.035	680	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
466.73	871.62	84.67	94.41	83.86	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 9256.219

INPUT
Description:
Station Elevation Data num= 47

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	235.56	11.33	233.02	23.65	230.11	36.67	228.78	56.57	226.31
63.88	226	149.59	222.37	170.35	221.36	171.49	221.31	219.79	219.17
253.31	217.64	300.03	216.55	413.44	214.26	454.77	212.48	458.88	212.3
495.1	210.77	580.72	209.51	585.58	209.57	628.06	210.1	686.73	209.96
716.31	210.34	716.54	210.34	723.99	210.3	788.11	209.93	818.2	209.76
822.23	209.68	830.02	209.9	836.38	210.22	845.79	210.84	862.11	212.09
871.59	212.66	876.13	212.99	884.78	213.94	909.99	216.15	920.78	216.71
948.86	217.91	978.02	218.84	988.49	219.84	1001.47	220.78	1017.4	221.96
1024.33	222.37	1030.22	223.76	1038.84	226.09	1044.05	229.23	1047.45	230.51
1063.67	234.43	1064.7	234.9						

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.07	63.88	.035	170.35	.05	585.58	.035	723.99	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
495.1	845.79	101.89	118.9	108.87	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 9137.316

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 45

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	235.18	22.33	230.75	42.24	228.2	63.9	225.84	101.49	224.61
150.55	222.89	167.63	221.32	180	220.74	235.15	218.14	244.78	218.25
309.54	217.04	325.48	217.26	379.62	216.78	417.92	216.26	427.16	216.09
488.07	212.8	495.35	212.5	507.55	211.99	537.37	210.2	581.23	209.62
613.53	209.59	642	209.07	682.73	208.32	704.34	208.03	723.51	207.79
727.77	208.32	756.83	209.99	773.79	209.62	780.18	209.47	835.8	209.21
899.08	210.85	912.49	211.72	931.6	212.97	954.81	214.4	955.14	214.42
991.54	215.27	999.52	215.73	1014.81	216.69	1035.94	220.35	1049.41	224.63
1055.27	226.59	1067.37	231.66	1070.65	233.33	1074.77	235.81	1079.2	237.67

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	180	.05	642	.035	773.79	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
537.37	899.08	68.43	118.37	170.91	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 9018.948

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 48

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	236.19	5.61	234.34	19.05	230.7	22.32	229.92	34.98	228.26
58.81	225.12	71.59	224.56	125.23	222.86	136.34	221.54	175.03	217.95
186.19	216.91	194.69	216.65	239.64	216.66	295.33	217.21	331.31	216.54
349.96	216.78	393.11	217.37	395.15	217.35	434.37	217.01	456.94	215.29
464.98	214.87	479.59	211.99	496.75	209.99	501.41	209.82	519.32	209.15
581.79	209.78	592.3	209.97	596.43	209.99	600.8	209.99	617.29	209.94
675	209.57	799.23	208.76	846.63	209.31	856.61	209.49	865.04	209.64
867.03	209.63	887.36	209.5	899.78	209.99	949.51	212.86	954.98	213.65
966.37	215.05	971.53	215.74	976.9	216.45	994.13	221.26	1007.41	226.4
1013.51	229.18	1026.11	234.49	1029.58	236.16				

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	175.03	.05	675	.035	865.04	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
617.29	899.78	103.94	141.14	196.85	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 8877.807

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 50

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	235.47	16	230.13	23.53	228.82	43.04	226.02	53.75	225.26
97.11	223.1	121.98	220.27	148.33	216.92	149.86	216.85	175.44	216.02
182.43	215.79	264.01	215.76	359.16	215.66	400.91	215.23	404.49	215.19
423.94	214.49	448.47	213.08	478.83	211.44	485.24	211.18	487.34	210.83
536.77	209.27	566.36	209.8	576.89	209.87	666.14	210.47	670.81	210.46

763.6	210.34	781.64	210.19	791.65	210.67	805.26	211.21	820.04	212.02
844.24	213.88	847.94	213.98	871.25	211.93	872.2	211.87	873.1	211.78
885.93	208.92	895.03	204.91	901.36	204.51	923.65	204.73	925.5	204.75
935.26	204.92	948.14	206.25	961.4	208.7	974.67	211.59	982.85	214.28
989.46	216.85	1012.58	226.37	1021.32	230.5	1028.34	234.21	1032.01	235.71

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	175.44	.05	670.81	.035	935.26	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
885.93	961.4	90.38	91.88	97.21	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888			F

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 8785.928

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 53

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	231.65	17.24	226.79	22.09	226.18	61.29	222.04	91.45	220.2
113.91	217.61	126.85	216.97	154.25	215.99	184.6	215.82	324.44	215.06
367.24	214.93	375.23	214.64	387.3	214.03	407.3	213.48	467.14	211.83
486.18	211.6	514.54	211.07	559.35	209.79	569.19	209.86	616.65	210.18
656.85	209.7	700.89	209.71	776.42	209.15	803.51	210.94	846.49	216.22
850.58	216.45	866.12	214.61	866.92	214.48	867.87	214.26	870.7	213.58
883.15	210.23	900.95	205.79	910.93	204.24	934.29	203.03	935.91	202.95
939.77	202.85	944.19	203.03	960.1	203.43	965.34	204.3	969.91	205.78
976.64	208.01	978.76	208.86	981.84	211.21	984.92	212.46	987.05	211.72
989.84	212.14	992.8	214.24	994.96	215.3	996.84	216.96	998.25	217.71
1017.83	230.92	1023.32	233.95	1025.57	235.44				

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	184.6	.05	656.85	.035	939.77	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
900.95	969.91	89.24	86.51	114.83	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888			F

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 8699.415

INPUT
Description:
Station Elevation Data num= 57

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	228.96	16.5	224.59	22.67	223.16	25.71	222.88	70.95	218.8
120.94	217.13	132.52	216.5	138.16	216.41	177.33	216.52	226.62	216.35
389.19	215.81	440.44	213.92	516.4	210.08	516.93	210.07	518.16	210.05
540.65	210.23	543.99	209.34	546.05	209.12	554.09	204.61	556.71	203.68
559.84	203.47	564.63	203.29	567.58	203.49	568.92	203.58	576.85	204.46
593.65	206.31	607.75	206.8	611.61	206.94	626.8	207.98	653.38	208
669.55	207.98	689.74	207.95	741.83	207.88	759.1	207.73	776.74	208.88
800.07	211.05	801.37	211.01	843.83	207.44	844.58	207.28	855.43	205.99
872.29	203.81	875.46	203.48	931.18	202.95	944.59	203.18	947.68	203.23
958.4	203.41	961.9	203.6	965.82	204.69	971.93	205.96	986	208.87
993.13	209.98	997.35	212.14	1012.4	223.31	1013.12	223.91	1013.28	224.02
1027.96	234.99	1030.08	236.14						

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	226.62	.05	576.85	.035	607.75	.05	669.55	.035
947.68	.05								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
855.43	971.93	196.8	210.5	198	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888			F

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 8488.931

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 44

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	223.53	5.06	222.86	50.35	218.19	100.15	216.85	181.75	215.37
191.02	215.13	194.19	215.09	206.53	215.12	333.22	216.49	363.57	216.83
444.57	216.12	466.47	216.8	497.41	217.45	499.38	217.37	501.77	216.86
505	216.26	509.57	215.4	520.92	209.41	521.52	209.1	521.65	209.03
521.85	209	546.91	205.67	556.86	204.35	582	203.55	590.02	203.36
645	203.5	711.54	203.67	715	203.66	770.23	203.53	837.91	203.44
850.34	203.93	869.98	203.3	929.34	202.79	937.43	202.72	946.04	202.93
953.2	203.42	954.83	203.48	957.04	204.49	959.37	205.75	971.52	214.75
979.71	220.55	984.84	223.89	990.63	227.51	990.77	227.61		

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	505	.05	546.91	.035	645	.05	715	.035
971.52	.05								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
546.91	959.37	41.88	40.32	46.55	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 8448.60*

INPUT
Description:
Station Elevation Data num= 91

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	223.41	4.94	222.8	5.82	222.71	22.26	220.92	41.42	218.8
42.88	218.64	48.31	218.02	49.19	217.94	62.64	217.57	89.34	216.92
95.9	216.76	97.85	216.72	129.23	216.27	141.07	216.11	177.58	215.53
186.64	215.33	189.73	215.29	201.79	215.31	218.68	215.44	248.55	215.82
254.46	215.89	325.57	216.49	336.54	216.58	355.23	216.73	377.59	216.54
434.37	216.35	452.5	216.88	455.77	216.98	469.69	217.27	469.74	217.27
469.79	217.27	469.84	217.27	470.11	217.27	481.32	217.28	486	217
487.92	216.78	490.26	216.19	493.41	215.47	494.34	215.25	496.74	214.71
497.88	214.48	501.63	212.72	508.97	209.26	509.55	208.99	509.68	208.92
509.88	208.89	513.05	208.42	534.36	206.02	537.29	205.68	543.57	204.94
550.35	204.73	566.83	204.23	574.25	204.05	607.9	204.02	625.13	203.98
629.18	203.97	655.59	204.05	686.7	203.93	689.9	203.9	694.22	203.86
741.01	203.72	742.29	203.72	803.64	203.59	815.14	203.97	833.31	203.45
882.59	203.04	888.24	203	895.73	202.94	906.93	203.39	914.47	203.9
916.24	204.02	918.36	204.12	921.23	205	924.26	206.08	932.98	209.28
945.94	213.93	951.7	215.91	954.89	216.88	958.92	217.85	960.55	218.32
961.45	218.55	966.14	219.18	967.69	219.41	969.06	219.61	969.7	219.83
969.89	219.9	970.76	220.53	971.27	220.81	975.12	224.05	980.03	228.35
980.28	228.58								

Manning's n Values num= 14

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	41.42	.038	248.55	.047	452.5	.038	493.41	.05
534.36	.035	548.45	.035	627.09	.047	693.26	.035	717.6	.038
899.75	.047	924.26	.047	945.94	.047	980.28	.047		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
534.36	924.26	41.88	40.32	46.55	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 8408.28*

INPUT
Description:
Station Elevation Data num= 91

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	223.29	4.83	222.73	5.68	222.65	21.74	220.82	40.45	218.59
41.87	218.42	47.17	217.77	48.04	217.7	61.17	217.32	87.24	216.76
93.65	216.61	95.55	216.58	126.19	216.28	137.76	216.16	173.41	215.69
182.25	215.53	185.28	215.5	197.05	215.5	213.55	215.58	242.71	216
248.49	216.08	317.93	216.49	328.64	216.55	346.89	216.63	368.72	216.45
424.17	216.58	441.88	217.07	445.07	217.15	458.66	217.44	458.71	217.44
458.75	217.44	458.81	217.44	459.07	217.44	470.02	217.21	474.59	216.54
476.47	216.2	478.75	215.53	481.83	214.67	482.73	214.42	485.07	213.79
486.19	213.57	489.85	212.06	497.02	209.1	497.59	208.87	497.71	208.82
497.9	208.78	501	208.28	521.81	206.37	524.5	206.1	530.28	205.52
536.51	205.34	551.66	204.9	558.49	204.74	589.42	204.59	605.26	204.45
608.98	204.42	633.27	204.52	661.86	204.18	664.81	204.13	668.77	204.07
711.79	203.92	712.97	203.91	769.37	203.75	779.94	204.02	796.65	203.61
841.95	203.24	847.14	203.21	854.03	203.16	867.81	203.85	877.11	204.47
879.28	204.61	881.89	204.76	885.43	205.51	889.16	206.41	901.71	209.18
920.36	213.1	928.65	214.78	933.24	215.46	939.05	215.8	941.39	216.09
942.68	216.23	949.44	215.77	951.67	215.67	953.65	215.57	954.56	215.78
954.84	215.84	956.09	216.8	956.81	217.17	962.36	222.31	969.43	229.19
969.79	229.55								

Manning's n Values num= 14

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	40.45	.041	242.71	.044	441.88	.041	481.83	.05
521.81	.035	535.09	.035	609.17	.044	671.52	.035	694.45	.041
866.06	.044	889.16	.044	920.36	.044	969.79	.044		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
521.81	889.16	41.88	40.32	46.55	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 8367.96*

INPUT
Description:
Station Elevation Data num= 91

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	223.17	4.71	222.67	5.54	222.59	21.22	220.71	39.48	218.37
40.86	218.2	46.04	217.51	46.88	217.45	59.7	217.06	85.15	216.6
91.39	216.47	93.26	216.45	123.16	216.29	134.45	216.22	169.24	215.85
177.87	215.73	180.82	215.7	192.31	215.68	208.41	215.71	236.87	216.18
242.51	216.27	310.28	216.49	320.74	216.52	338.55	216.53	359.85	216.36
413.97	216.81	431.25	217.25	434.36	217.33	447.63	217.61	447.68	217.61
447.72	217.61	447.78	217.61	448.03	217.6	458.71	217.15	463.17	216.09
465.01	215.61	467.23	214.86	470.24	213.88	471.13	213.59	473.41	212.88
474.5	212.65	478.07	211.4	485.06	208.95	485.62	208.76	485.74	208.71
485.93	208.68	488.96	208.13	509.27	206.73	511.72	206.53	516.99	206.11
522.68	205.95	536.5	205.58	542.72	205.43	570.94	205.16	585.39	204.93
588.79	204.88	610.94	204.99	637.02	204.44	639.71	204.37	643.33	204.29
682.57	204.11	683.65	204.11	735.09	203.9	744.74	204.06	759.98	203.76
801.3	203.44	806.05	203.42	812.32	203.39	828.7	204.31	839.74	205.04
842.32	205.21	845.42	205.39	849.62	206.01	854.05	206.75	870.43	209.09
894.78	212.28	905.6	213.65	911.6	214.04	919.17	213.75	922.23	213.86

923.91	213.91	932.74	212.37	935.65	211.92	938.23	211.52	939.42	211.72
939.78	211.78	941.42	213.07	942.36	213.54	949.6	220.57	958.83	230.03
959.3	230.52								

Manning's n Values num= 14

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	39.48	.044	236.87	.041	431.25	.044	470.24	.05
509.27	.035	521.73	.035	591.26	.041	649.78	.035	671.3	.044
832.38	.041	854.05	.041	894.78	.041	959.3	.041		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
509.27	854.05	41.88	40.32	46.55	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 8327.64*

INPUT
Description:
Station Elevation Data num= 91

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	223.05	4.6	222.6	5.41	222.53	20.69	220.6	38.5	218.16
39.86	217.98	44.9	217.25	45.73	217.21	58.23	216.81	83.05	216.43
89.14	216.32	90.96	216.32	120.12	216.29	131.13	216.28	165.07	216.01
173.49	215.93	176.37	215.91	187.58	215.87	203.28	215.85	231.04	216.36
236.54	216.46	302.64	216.49	312.83	216.49	330.2	216.43	350.99	216.27
403.77	217.04	420.63	217.44	423.66	217.51	436.6	217.78	436.65	217.78
436.69	217.78	436.74	217.77	436.99	217.77	447.41	217.08	451.76	215.64
453.55	215.02	455.72	214.19	458.65	213.09	459.52	212.76	461.74	211.96
462.8	211.74	466.29	210.74	473.11	208.79	473.66	208.64	473.78	208.61
473.96	208.57	476.91	207.99	496.72	207.08	498.93	206.95	503.7	206.7
508.84	206.57	521.33	206.25	526.95	206.12	552.46	205.72	565.52	205.41
568.59	205.33	588.61	205.46	612.19	204.69	614.61	204.61	617.88	204.5
653.35	204.3	654.32	204.3	700.82	204.05	709.54	204.11	723.31	203.91
760.66	203.64	764.95	203.63	770.62	203.61	789.59	204.77	802.37	205.61
805.36	205.81	808.95	206.03	813.81	206.52	818.95	207.08	839.16	208.99
869.2	211.45	882.55	212.53	889.95	212.61	899.3	211.7	903.07	211.63
905.15	211.58	916.03	208.96	919.62	208.18	922.81	207.48	924.28	207.67
924.73	207.73	926.74	209.34	927.91	209.91	936.84	218.83	948.23	230.88
948.81	231.49								

Manning's n Values num= 14

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	38.5	.047	231.04	.038	420.63	.047	458.65	.05
496.72	.035	508.36	.035	573.35	.038	628.04	.035	648.15	.047
798.69	.038	818.95	.038	869.2	.038	948.81	.038		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
496.72	818.95	41.88	40.32	46.55	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 8287.319

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 52

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	222.93	5.27	222.47	20.17	220.49	37.53	217.95	38.85	217.76
43.77	216.99	56.76	216.56	80.95	216.27	86.89	216.18	117.09	216.3
127.82	216.34	198.14	215.98	225.2	216.54	230.56	216.65	304.93	216.46
342.12	216.18	410	217.62	425.57	217.95	425.62	217.95	425.66	217.95
425.71	217.94	425.95	217.93	436.11	217.01	447.91	211.93	450.08	211.05
454.51	210.08	464.86	207.84	484.17	207.43	486.15	207.38	495	207.18
533.98	206.29	548.39	205.79	566.28	205.93	592.44	204.71	625	204.49
720.02	203.84	728.92	203.83	765	206.18	783.84	207.41	807.88	208.9
859.5	211.4	868.3	211.19	879.42	209.65	886.38	209.26	899.33	205.55
903.6	204.43	907.39	203.43	909.67	203.67	912.07	205.61	913.46	206.28
924.08	217.09	938.32	232.46						

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	37.53	.05	225.2	.035	410	.05	495	.035
625	.05	765	.035						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
484.17	783.84	21.4	39.31	35.65	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888		F	

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 8248.00*

INPUT
Description:
Station Elevation Data num= 88

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	222.94	3.21	222.53	5.13	222.35	19.63	220.44	32.04	218.66
36.53	218	37.82	217.81	42.6	217.07	50.62	216.69	55.25	216.55
65.26	216.42	65.4	216.42	78.79	216.25	84.58	216.17	105.83	216.2
113.97	216.23	116.25	216.24	124.42	216.27	176.31	216.08	192.86	215.99
210.35	216.3	219.2	216.52	221.16	216.57	224.42	216.64	272.46	216.59
296.81	216.58	333.01	216.4	359.7	216.95	374.41	217.22	378.9	217.27
399.08	217.5	405.58	217.57	414.24	217.05	414.29	217.04	414.33	217.04
414.38	217.03	414.61	217	416.51	216.7	416.87	216.64	424.5	215.84
426.98	214.84	430.84	213.26	435.99	211.26	438.1	210.49	442.41	209.61
445.12	209.07	452.48	207.58	471.28	207.02	473.02	206.97	480.82	206.79
515.15	205.99	527.85	205.55	543.61	205.66	564.77	204.68	566.65	204.59
595.33	204.35	596.25	204.34	679.03	203.66	686.87	203.64	690.04	203.82

701.81	204.23	718.23	204.8	747.72	205.81	762.14	206.3	779.5	207.04
802.03	208.32	803.14	208.37	848.25	210.07	853.92	210.29	862.57	210.08
868.11	209.39	873.51	208.73	874.24	208.69	880.35	208.44	881.83	208.08
882.11	208.03	893.09	206.21	897.29	205.6	898.85	205.37	901.02	205.15
903.26	205.64	905.62	207.61	906.99	208.36	907.47	208.85	914.24	215.48
917.43	218.65	924.94	226.52	931.44	232.92				

Manning's n Values num= 15

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	36.53	.048	50.62	.037	219.2	.037	399.08	.05
471.28	.035	482.42	.035	491.46	.035	550.2	.037	598.66	.048
616.13	.048	760.12	.035	779.5	.037	802.03	.05	931.44	.037

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
471.28	779.5	21.4	39.31	35.65	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 8208.70*

INPUT
Description:
Station Elevation Data num= 88

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	222.95	3.12	222.42	4.99	222.24	19.1	220.39	31.16	218.69
35.53	218.05	36.78	217.86	41.44	217.14	49.23	216.66	53.74	216.53
63.47	216.41	63.61	216.41	76.64	216.24	82.26	216.15	102.93	216.13
110.86	216.16	113.07	216.17	121.01	216.21	171.49	216.09	187.59	216
204.6	216.24	213.21	216.51	215.12	216.57	218.28	216.62	265.01	216.66
288.69	216.7	323.9	216.63	349.86	217.14	364.17	217.36	368.54	217.36
388.17	217.37	394.48	217.38	402.91	216.14	402.96	216.14	403	216.13
403.04	216.11	403.27	216.07	405.12	215.64	405.47	215.57	412.89	214.68
415.3	213.77	419.06	212.33	424.06	210.6	426.12	209.93	430.31	209.15
432.94	208.66	440.11	207.32	458.39	206.6	459.9	206.56	466.64	206.4
496.33	205.7	507.31	205.32	520.93	205.39	539.23	204.54	540.86	204.47
565.66	204.21	566.45	204.2	638.04	203.47	644.81	203.44	649.29	203.68
665.84	204.05	688.94	204.56	730.45	205.43	750.73	205.86	775.16	206.66
797.31	207.8	798.41	207.84	842.76	209.01	848.33	209.18	856.84	208.97
862.29	208.38	867.6	207.8	868.31	207.77	874.33	207.61	875.78	207.33
876.05	207.32	886.85	206.87	890.98	206.77	892.51	206.73	894.64	206.87
896.85	207.62	899.17	209.61	900.52	210.44	900.99	210.92	907.65	217.16
910.79	220.21	918.16	227.71	924.56	233.37				

Manning's n Values num= 15

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	35.53	.046	49.23	.039	213.21	.039	388.17	.05
458.39	.035	469.84	.035	479.13	.035	539.5	.039	589.3	.046
607.26	.046	755.24	.035	775.16	.039	797.31	.05	924.56	.039

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
458.39	775.16	21.4	39.31	35.65	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 8169.39*

INPUT
Description:
Station Elevation Data num= 88

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	222.96	3.03	222.3	4.85	222.12	18.56	220.34	30.29	218.72
34.53	218.09	35.75	217.92	40.27	217.22	47.85	216.63	52.23	216.52
61.69	216.4	61.83	216.39	74.48	216.22	79.95	216.14	100.04	216.07
107.74	216.1	109.89	216.1	117.61	216.14	166.67	216.11	182.31	216.02
198.84	216.18	207.21	216.49	209.07	216.56	212.15	216.61	257.56	216.73
280.58	216.82	314.8	216.85	340.02	217.33	353.93	217.49	358.17	217.45
377.25	217.25	383.39	217.18	391.58	215.24	391.63	215.23	391.66	215.22
391.71	215.2	391.93	215.14	393.73	214.59	394.07	214.49	401.28	213.51
403.62	212.7	407.28	211.39	412.14	209.93	414.13	209.36	418.21	208.68
420.77	208.25	427.73	207.06	445.5	206.19	446.77	206.15	452.46	206.02
477.5	205.4	486.76	205.08	498.26	205.11	513.69	204.41	515.07	204.34
535.99	204.07	536.66	204.07	597.04	203.29	602.76	203.25	608.53	203.55
629.87	203.87	659.66	204.32	713.17	205.06	739.33	205.41	770.82	206.29
792.6	207.29	793.67	207.32	837.27	207.96	842.75	208.06	851.11	207.86
856.47	207.36	861.68	206.88	862.39	206.84	868.3	206.79	869.73	206.58
870	206.6	880.61	207.52	884.67	207.94	886.18	208.09	888.27	208.59
890.44	209.59	892.72	211.61	894.04	212.52	894.51	213	901.06	218.85
904.14	221.77	911.39	228.91	917.68	233.83				

Manning's n Values num= 15

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	34.53	.044	47.85	.041	207.21	.041	377.25	.05
445.5	.035	457.26	.035	466.8	.035	528.8	.041	579.95	.044
598.38	.044	750.37	.035	770.82	.041	792.6	.05	917.68	.041

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
445.5	770.82	21.4	39.31	35.65	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 8130.08*

INPUT
Description:
Station Elevation Data num= 88

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	222.98	2.94	222.19	4.71	222	18.02	220.29	29.41	218.75
33.53	218.14	34.71	217.97	39.11	217.3	46.46	216.6	50.72	216.5
59.9	216.38	60.04	216.38	72.33	216.21	77.64	216.13	97.14	216
104.62	216.03	106.71	216.04	114.21	216.07	161.85	216.12	177.04	216.03
193.09	216.13	201.22	216.48	203.02	216.55	206.01	216.6	250.11	216.8
272.46	216.94	305.69	217.08	330.18	217.51	343.69	217.63	347.81	217.53
366.34	217.12	372.3	216.99	380.25	214.34	380.3	214.32	380.33	214.31
380.38	214.29	380.59	214.21	382.34	213.53	382.67	213.41	389.67	212.35
391.95	211.63	395.49	210.45	400.21	209.26	402.15	208.8	406.11	208.21
408.59	207.84	415.36	206.81	432.61	205.77	433.65	205.74	438.28	205.63
458.68	205.11	466.22	204.85	475.59	204.84	488.16	204.28	489.28	204.22
506.32	203.94	506.86	203.93	556.05	203.11	560.71	203.05	567.77	203.41
593.91	203.69	630.37	204.09	695.89	204.68	727.92	204.97	766.48	205.91
787.88	206.78	788.94	206.79	831.78	206.9	837.16	206.95	845.38	206.75
850.65	206.35	855.77	205.95	856.46	205.92	862.27	205.97	863.67	205.83
863.94	205.89	874.37	208.18	878.36	209.1	879.84	209.45	881.9	210.31
884.03	211.57	886.27	213.61	887.57	214.6	888.03	215.07	894.46	220.54
897.49	223.33	904.62	230.1	910.79	234.29				

Manning's n Values num= 15

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	33.53	.041	46.46	.044	201.22	.044	366.34	.05
432.61	.035	444.68	.035	454.47	.035	518.1	.044	570.59	.041
589.51	.041	745.49	.035	766.48	.044	787.88	.05	910.79	.044

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
432.61	766.48	21.4	39.31	35.65	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 8090.77*

INPUT
Description:
Station Elevation Data num= 88

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	222.99	2.86	222.08	4.57	221.88	17.49	220.24	28.53	218.79
32.53	218.19	33.68	218.02	37.94	217.37	45.08	216.58	49.2	216.49
58.12	216.37	58.25	216.37	70.17	216.19	75.32	216.11	94.25	215.93
101.5	215.96	103.53	215.97	110.81	216.01	157.02	216.13	171.76	216.04
187.34	216.07	195.22	216.46	196.97	216.54	199.87	216.59	242.65	216.86
264.34	217.06	296.58	217.3	320.35	217.7	333.45	217.77	337.45	217.62
355.42	217	361.21	216.8	368.92	213.43	368.96	213.41	369	213.4
369.04	213.38	369.25	213.28	370.94	212.48	371.26	212.33	378.06	211.18
380.27	210.56	383.71	209.51	388.29	208.6	390.17	208.24	394.01	207.75
396.42	207.44	402.98	206.55	419.72	205.36	420.52	205.34	424.1	205.24
439.85	204.81	445.68	204.61	452.91	204.57	462.62	204.15	463.49	204.1
476.65	203.8	477.07	203.79	515.06	202.93	518.66	202.86	527.01	203.28
557.94	203.52	601.09	203.85	678.61	204.31	716.51	204.53	762.14	205.54
783.16	206.27	784.2	206.26	826.29	205.85	831.58	205.84	839.65	205.64
844.82	205.33	849.86	205.03	850.54	205	856.25	205.14	857.62	205.08
857.88	205.17	868.13	208.84	872.05	210.27	873.5	210.8	875.53	212.03
877.62	213.54	879.82	215.61	881.1	216.68	881.55	217.14	887.87	222.23
890.84	224.89	897.85	231.29	903.91	234.75				

Manning's n Values num= 15

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	32.53	.039	45.08	.046	195.22	.046	355.42	.05
419.72	.035	432.09	.035	442.14	.035	507.4	.046	561.23	.039
580.64	.039	740.61	.035	762.14	.046	783.16	.05	903.91	.046

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
419.72	762.14	21.4	39.31	35.65	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 8051.46*

INPUT
Description:
Station Elevation Data num= 88

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	223	2.77	221.96	4.43	221.77	16.95	220.19	27.66	218.82
31.54	218.24	32.64	218.07	36.78	217.45	43.69	216.55	47.69	216.48
56.33	216.35	56.46	216.35	68.02	216.18	73.01	216.1	91.35	215.87
98.39	215.89	100.35	215.9	107.4	215.94	152.2	216.15	166.49	216.05
181.58	216.02	189.23	216.44	190.92	216.54	193.73	216.57	235.2	216.93
256.22	217.18	287.47	217.53	310.51	217.89	323.21	217.9	327.08	217.71
344.51	216.87	350.11	216.6	357.59	212.53	357.63	212.51	357.67	212.49
357.71	212.46	357.91	212.35	359.55	211.42	359.86	211.26	366.45	210.02
368.59	209.49	371.92	208.57	376.36	207.93	378.19	207.68	381.91	207.28
384.24	207.03	390.6	206.29	406.83	204.94	407.39	204.93	409.92	204.85
421.03	204.52	425.14	204.37	430.24	204.3	437.09	204.01	437.7	203.98
446.98	203.66	447.27	203.65	474.07	202.74	476.6	202.66	486.25	203.14
521.97	203.34	571.8	203.61	661.34	203.93	705.11	204.09	757.8	205.16
778.45	205.75	779.47	205.73	820.8	204.79	825.99	204.73	833.92	204.53
839	204.32	843.95	204.1	844.61	204.08	850.22	204.32	851.57	204.33
851.83	204.46	861.89	209.5	865.74	211.44	867.17	212.16	869.15	213.75
871.21	215.52	873.37	217.61	874.63	218.76	875.07	219.21	881.27	223.91
884.2	226.45	891.07	232.49	897.03	235.2				

Manning's n Values num= 15

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	31.54	.037	43.69	.048	189.23	.048	344.51	.05
406.83	.035	419.51	.035	429.81	.035	496.7	.048	551.88	.037
571.77	.037	735.73	.035	757.8	.048	778.45	.05	897.03	.048

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
406.83	757.8	21.4	39.31	35.65	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 8012.155

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 41

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	223.01	2.68	221.85	26.78	218.85	42.31	216.52	54.55	216.34
54.67	216.34	88.46	215.8	97.17	215.83	147.38	216.16	175.83	215.96
184.87	216.53	227.75	217	300.67	218.08	312.97	218.04	316.72	217.8
339.02	216.41	348.16	210.37	348.46	210.18	356.91	208.42	360.14	207.63
372.07	206.62	393.94	204.53	411.55	203.88	417.48	203.51	434.55	202.47
445.49	203.01	486	203.16	542.52	203.37	693.7	203.65	753.46	204.79
773.73	205.24	815.31	203.74	833.18	203.3	838.69	203.16	845.52	203.58
845.77	203.74	860.83	213.52	868.59	221.28	874.68	225.6	884.3	233.68
890.15	235.66								

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	42.31	.05	417.48	.035	486	.05	542.52	.035
773.73	.05								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
393.94	753.46	39.95	38.28	37.37	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 7973.87*

INPUT
Description:
Station Elevation Data num= 95

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	223.14	2.66	222.09	2.75	222.07	4.18	221.89	8.43	221.4
16.25	220.46	26.54	219.2	41.94	217	48.44	216.79	54.07	216.6
54.19	216.6	74.46	215.9	78.73	215.69	87.68	215.22	96.32	214.9
99.97	214.78	109.04	214.68	116.16	214.61	123.58	214.54	132.03	214.51
146.08	214.64	156.36	214.63	174.28	214.69	180.64	215.07	183.24	215.28
195.25	215.74	222.09	216.5	225.75	216.57	255.87	217.22	257.11	217.23
273.03	217.19	273.28	217.19	284.49	217.09	294.4	216.92	298.02	216.89
310.22	216.61	313.93	216.34	336.04	214.78	345.1	209.76	345.39	209.6
346.98	209.3	353.52	208	353.77	207.95	356.97	207.14	358.34	206.97
360.16	206.83	368.8	206.18	390.47	204.34	406.6	203.72	409.47	203.63
415.87	203.3	423.93	202.9	427.94	202.7	434.28	202.39	445.04	202.85
479.02	203.04	484.9	203.07	517.71	203.26	530.78	203.36	540.51	203.38
611.7	203.47	618.15	203.47	683.78	203.53	684.89	203.52	689.25	203.51
702.04	203.66	715.42	203.88	732.07	204.19	748.04	204.54	768.71	205.07
778.88	204.86	795.05	204.31	811.1	203.75	825.2	203.4	829.32	203.29
830.67	203.25	831.35	203.29	834.94	203.55	836.13	203.72	836.15	203.72
841.91	205.28	842.16	205.47	846.37	208.55	849.47	210.76	852.01	212.53
856.16	215.02	857.52	215.82	858.15	216.37	858.89	216.96	864.57	221.9
865.43	222.59	868.85	224.59	871.64	226.14	881.45	232.6	887.41	234.18

Manning's n Values num= 14

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	41.94	.047	109.04	.038	390.47	.035	413.89	.035
439.94	.035	482.03	.047	491.06	.038	538.25	.038	623.96	.047
748.04	.05	768.71	.05	795.05	.05	887.41	.05		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
390.47	748.04	39.95	38.28	37.37	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 7935.60*

INPUT
Description:
Station Elevation Data num= 95

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	223.28	2.63	222.33	2.72	222.31	4.14	222.13	8.35	221.68
16.1	220.77	26.31	219.55	41.57	217.49	48.01	217.15	53.59	216.86
53.71	216.85	73.8	215.78	78.03	215.44	86.9	214.64	95.46	213.98
99.08	213.7	108.07	213.45	115.13	213.26	122.48	213.07	130.86	212.94
144.79	213.12	154.97	213.17	172.74	213.42	179.04	213.78	181.62	214.03
193.52	214.83	220.11	216.04	223.74	216.14	253.6	216.99	254.83	217
270.61	216.67	270.86	216.66	281.97	216.3	291.79	215.82	295.38	215.71
307.46	215.18	311.15	214.88	333.05	213.14	342.03	209.14	342.33	209.02
343.9	208.75	350.38	207.53	350.63	207.47	353.8	206.65	355.16	206.43
356.96	206.31	365.52	205.73	387.01	204.15	404.31	203.45	407.39	203.37
414.25	203.09	422.9	202.74	427.2	202.57	434.01	202.3	444.59	202.68

478.02	202.94	483.8	202.99	516.07	203.23	528.92	203.38	538.49	203.4
608.52	203.43	614.86	203.43	679.42	203.42	680.51	203.41	684.8	203.38
697.38	203.43	710.54	203.59	726.91	203.89	742.63	204.3	763.69	204.9
774.05	204.84	790.54	204.3	806.9	203.77	821.26	203.39	825.47	203.27
826.84	203.23	827.53	203.34	831.2	203.95	832.4	204.21	832.42	204.22
838.29	206.98	838.55	207.19	842.84	210.67	846.01	213.11	848.59	215.05
852.82	217.39	854.2	218.12	854.85	218.59	855.6	219.05	861.4	223.35
862.27	223.9	865.75	225.51	868.59	226.68	878.59	231.52	884.67	232.71

Manning's n Values num= 14

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	41.57	.044	108.07	.041	387.01	.035	410.29	.035
436.21	.035	478.07	.044	487.04	.041	533.98	.041	619.22	.044
742.63	.05	763.69	.05	790.54	.05	884.67	.05		

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
387.01 742.63 39.95 38.28 37.37 .1 .3
Ineffective Flow num= 1
Sta L Sta R Elev Permanent
888 F

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 7897.32*

INPUT
Description:
Station Elevation Data num= 95

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	223.41	2.61	222.57	2.7	222.55	4.1	222.36	8.28	221.95
15.96	221.08	26.07	219.9	41.19	217.97	47.58	217.51	53.11	217.12
53.23	217.11	73.14	215.66	77.33	215.19	86.13	214.07	94.61	213.05
98.19	212.62	107.11	212.22	114.1	211.91	121.38	211.59	129.68	211.38
143.49	211.61	153.59	211.71	171.19	212.15	177.44	212.49	179.99	212.78
191.79	213.91	218.14	215.58	221.74	215.7	251.33	216.76	252.54	216.77
268.19	216.15	268.43	216.14	279.44	215.51	289.18	214.72	292.73	214.52
304.71	213.75	308.36	213.43	330.07	211.51	338.97	208.53	339.26	208.44
340.82	208.2	347.25	207.06	347.49	207	350.63	206.16	351.98	205.89
353.76	205.78	362.25	205.29	383.54	203.95	402.02	203.19	405.31	203.12
412.64	202.88	421.87	202.59	426.47	202.45	433.73	202.22	444.14	202.52
477.01	202.85	482.69	202.9	514.43	203.21	527.07	203.4	536.48	203.41
605.34	203.4	611.57	203.39	675.05	203.3	676.13	203.29	680.34	203.24
692.71	203.19	705.66	203.31	721.76	203.6	737.21	204.05	758.67	204.73
769.23	204.83	786.03	204.3	802.69	203.78	817.33	203.39	821.61	203.26
823.01	203.21	823.71	203.38	827.45	204.34	828.68	204.7	828.7	204.71
834.68	208.69	834.94	208.92	839.32	212.8	842.54	215.47	845.17	217.56
849.48	219.76	850.89	220.42	851.54	220.82	852.32	221.15	858.22	224.8
859.1	225.21	862.65	226.44	865.55	227.22	875.74	230.44	881.93	231.23

Manning's n Values num= 14

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	41.19	.041	107.11	.044	383.54	.035	406.7	.035
432.47	.035	474.1	.041	483.03	.044	529.7	.044	614.48	.041
737.21	.05	758.67	.05	786.03	.05	881.93	.05		

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
383.54 737.21 39.95 38.28 37.37 .1 .3
Ineffective Flow num= 1
Sta L Sta R Elev Permanent
888 F

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 7859.05*

INPUT
Description:
Station Elevation Data num= 95

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	223.55	2.59	222.8	2.67	222.78	4.07	222.6	8.2	222.23
15.81	221.4	25.84	220.25	40.82	218.46	47.15	217.88	52.63	217.37
52.75	217.36	72.48	215.55	76.63	214.94	85.35	213.49	93.75	212.12
97.31	211.55	106.14	210.99	113.07	210.56	120.29	210.12	128.51	209.82
142.19	210.09	152.2	210.26	169.64	210.88	175.83	211.19	178.36	211.53
190.05	212.99	216.17	215.12	219.73	215.27	249.06	216.53	250.26	216.53
265.76	215.63	266.01	215.61	276.92	214.72	286.56	213.62	290.09	213.33
301.96	212.32	305.57	211.97	327.09	209.87	335.91	207.92	336.2	207.85
337.74	207.66	344.11	206.59	344.35	206.53	347.47	205.67	348.8	205.35
350.57	205.26	358.98	204.84	380.08	203.76	399.73	202.93	403.23	202.86
411.02	202.67	420.85	202.43	425.73	202.32	433.46	202.13	443.7	202.36
476.01	202.75	481.59	202.81	512.79	203.18	525.21	203.43	534.47	203.42
602.16	203.36	608.29	203.35	670.69	203.19	671.75	203.17	675.89	203.1
688.05	202.96	700.78	203.03	716.6	203.3	731.8	203.81	753.65	204.56
764.4	204.81	781.51	204.3	798.49	203.8	813.39	203.38	817.76	203.24
819.18	203.2	819.9	203.43	823.7	204.74	824.95	205.19	824.97	205.2
831.07	210.39	831.33	210.65	835.79	214.92	839.07	217.83	841.75	220.08
846.14	222.12	847.57	222.72	848.24	223.04	849.03	223.24	855.04	226.26
855.94	226.52	859.56	227.37	862.51	227.76	872.88	229.37	879.19	229.76

Manning's n Values num= 14

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	40.82	.038	106.14	.047	380.08	.035	403.11	.035
428.74	.035	470.14	.038	479.01	.047	525.43	.047	609.74	.038
731.8	.05	753.65	.05	781.51	.05	879.19	.05		

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
380.08 731.8 39.95 38.28 37.37 .1 .3
Ineffective Flow num= 1
Sta L Sta R Elev Permanent
888 F

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 7820.775

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 59

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	223.68	2.65	223.02	4.03	222.83	8.13	222.5	15.67	221.71
46.72	218.24	71.82	215.43	75.93	214.69	96.42	210.47	105.17	209.76
112.04	209.21	119.19	208.65	127.34	208.26	150.81	208.8	174.23	209.9
188.32	212.07	214.2	214.66	246.79	216.3	247.98	216.3	263.34	215.11
263.58	215.09	274.39	213.93	283.95	212.52	334.66	207.11	340.97	206.12
345.62	204.81	347.37	204.73	376.61	203.57	397.44	202.67	419.82	202.28
425	202.19	433.19	202.05	475	202.65	511.15	203.16	523.36	203.45
598.98	203.33	605	203.31	666.33	203.08	667.37	203.05	683.39	202.72
695.9	202.75	711.45	203.01	726.38	203.56	759.58	204.79	777	204.3
809.46	203.38	815.35	203.18	816.08	203.47	821.23	205.68	821.25	205.69
832.26	217.05	835.6	220.19	838.33	222.6	842.8	224.49	844.94	225.27
845.74	225.33	851.86	227.71	856.46	228.3	876.45	228.28		

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	105.17	.05	425	.035	475	.05	605	.035
777	.05								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
376.61	726.38	42.15	43.12	43.34	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 7777.65*

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	223.49	3.25	222.74	4.95	222.47	9.99	221.86	16.37	220.99
19.25	220.7	34.19	219.13	42.72	218.24	45.2	218.04	57.38	217.02
74.94	215.55	88.21	214.43	89.94	214.21	93.26	213.79	97.53	213.17
108.47	211.58	116.16	210.41	118.42	210.05	129.17	209.23	137.6	208.59
145.41	208	146.39	207.94	156.4	207.49	177.72	207.97	199.01	208.91
200.62	209.13	211.81	210.64	235.33	212.7	264.94	213.99	266.03	213.99
284.17	212.94	284.45	212.92	297.21	211.92	308.5	210.73	314.62	210.25
368.39	206	375.84	205.16	381.33	204.07	383.4	204	395.83	203.58
400.9	203.4	417.93	202.81	422.37	202.64	441.94	201.9	460.66	201.53
467.75	201.4	473.72	201.29	483.16	201.13	504.63	201.4	520.8	201.61
541.39	201.87	553.35	202.02	564.34	202.25	632.42	202.16	637.84	202.15
693.04	201.97	693.06	201.97	693.99	201.94	708.42	201.69	712.57	201.7
719.68	201.76	733.68	202.06	747.12	202.6	761.63	203.3	768.1	203.61
780.55	203.65	786.66	203.36	798.09	202.85	798.77	202.82	818.65	202.37
820.51	202.33	826.15	202.23	830.78	202.65	831.82	202.74	833.02	202.84
834.93	203.07	836.71	203.29	837.45	203.63	842.63	206.19	842.65	206.21
843.4	206.93	848.01	211.23	853.1	215.85	853.74	216.42	857.1	219.2
859.85	221.35	864.35	223.22	865.09	223.5	866.51	223.96	867.31	224.03
871.03	225.31	873.47	226.21	878.11	226.95	885.16	227.36	895.32	227.88
898.24	228.05								

Manning's n Values num= 14

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	116.71	.047	121.82	.038	392.38	.047	417.93	.038
426.98	.05	463.47	.038	510.53	.05	566.99	.047	632.88	.035
747.12	.05	761.63	.05	798.09	.05	898.24	.05		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
417.93	747.12	42.15	43.12	43.34	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 7734.52*

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	223.29	3.86	222.45	5.87	222.11	11.84	221.22	19.41	220.02
22.82	219.69	40.54	217.9	50.66	216.9	53.6	216.73	68.04	215.8
88.86	214.46	104.6	213.43	106.64	213.24	110.58	212.88	115.64	212.36
128.62	211.03	137.75	209.97	140.42	209.64	153.16	208.7	163.17	207.96
172.43	207.29	173.58	207.22	185.45	206.72	204.64	207.15	223.78	207.91
225.24	208.08	235.3	209.21	256.46	210.74	283.1	211.69	284.07	211.68
304.99	210.76	305.32	210.75	320.04	209.91	333.06	208.93	340.11	208.53
402.12	204.89	410.71	204.2	417.05	203.34	419.43	203.26	433.76	202.84
439.62	202.66	459.25	202.04	464.27	201.87	486.45	201.13	507.64	200.66
515.67	200.52	522.44	200.4	533.13	200.21	552.22	200.42	566.6	200.57
584.91	200.77	595.55	200.88	605.32	201.06	665.86	200.99	670.68	200.98
719.77	200.85	719.79	200.85	720.62	200.84	733.45	200.65	737.14	200.67
743.46	200.77	755.91	201.12	767.86	201.63	782.47	202.5	788.99	202.88
801.53	202.51	807.67	202.1	819.19	201.41	819.87	201.36	839.88	201.02
841.76	200.99	847.44	200.94	852.1	201.92	853.15	202.13	854.35	202.38
856.27	202.89	858.07	203.4	858.81	203.8	864.03	206.71	864.05	206.72
864.81	207.41	869.45	211.28	874.58	215.3	875.22	215.79	878.6	218.21
881.37	220.1	885.9	221.96	886.65	222.23	888.07	222.64	888.88	222.73
892.63	223.85	895.09	224.71	899.75	225.61	906.85	226.43	917.08	227.48

920.02 227.81

Manning's n Values num= 14

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	128.25	.044	133.87	.041	431.18	.044	459.25	.041
467.74	.05	501.95	.041	546.06	.05	598.99	.044	660.77	.035
767.86	.05	782.47	.05	819.19	.05	920.02	.05		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
459.25	767.86	42.15	43.12	43.34	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 7691.40*

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	223.1	4.46	222.17	6.79	221.74	13.7	220.58	22.46	219.05
26.4	218.68	46.89	216.68	58.6	215.57	62	215.42	78.7	214.58
102.78	213.38	120.98	212.44	123.35	212.27	127.91	211.98	133.76	211.55
148.78	210.47	159.33	209.54	162.42	209.22	177.16	208.16	188.73	207.34
199.44	206.57	200.78	206.51	214.51	205.95	231.55	206.32	248.56	206.92
249.85	207.04	258.79	207.78	277.59	208.77	301.25	209.38	302.12	209.38
325.82	208.59	326.19	208.58	342.86	207.9	357.61	207.14	365.6	206.82
435.85	203.78	445.58	203.24	452.76	202.6	455.46	202.53	471.69	202.11
478.33	201.91	500.57	201.28	506.18	201.11	530.95	200.36	554.63	199.8
563.6	199.64	571.15	199.5	583.1	199.28	599.81	199.43	612.41	199.53
628.44	199.67	637.74	199.74	646.3	199.86	699.31	199.83	703.53	199.82
746.5	199.74	746.52	199.74	747.24	199.73	758.47	199.62	761.7	199.63
767.24	199.79	778.14	200.17	788.61	200.67	803.32	201.7	809.88	202.16
822.5	201.38	828.69	200.83	840.28	199.96	840.97	199.91	861.12	199.67
863.01	199.65	868.72	199.66	873.42	201.18	874.48	201.52	875.69	201.92
877.62	202.72	879.43	203.51	880.18	203.96	885.44	207.22	885.46	207.24
886.22	207.89	890.89	211.33	896.05	214.75	896.7	215.16	900.11	217.23
902.89	218.85	907.46	220.69	908.21	220.97	909.64	221.33	910.46	221.44
914.22	222.4	916.7	223.21	921.4	224.26	928.55	225.5	938.85	227.08
941.81	227.58								

Manning's n Values num= 14

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	139.79	.041	145.91	.044	469.97	.041	500.57	.044
508.49	.05	540.42	.044	581.59	.05	631	.041	688.65	.035
788.61	.05	803.32	.05	840.28	.05	941.81	.05		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
500.57	788.61	42.15	43.12	43.34	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 7648.27*

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	222.9	5.07	221.88	7.71	221.38	15.55	219.94	25.5	218.09
29.97	217.67	53.24	215.45	66.53	214.23	70.39	214.11	89.36	213.36
116.71	212.29	137.37	211.44	140.06	211.31	145.23	211.07	151.88	210.75
168.93	209.92	180.91	209.1	184.42	208.81	201.16	207.63	214.3	206.71
226.46	205.86	227.98	205.8	243.56	205.18	258.47	205.5	273.34	205.92
274.47	205.99	282.28	206.35	298.72	206.81	319.41	207.07	320.16	207.07
346.64	206.42	347.05	206.41	365.69	205.89	382.17	205.35	391.09	205.1
469.58	202.67	480.46	202.28	488.47	201.87	491.49	201.79	509.63	201.37
517.04	201.17	541.89	200.51	548.09	200.34	575.46	199.58	601.61	198.94
611.52	198.76	619.87	198.6	633.07	198.36	647.41	198.44	658.21	198.49
671.96	198.56	679.94	198.6	687.28	198.66	732.75	198.66	736.37	198.66
773.23	198.62	773.24	198.62	773.87	198.62	783.5	198.59	786.27	198.6
791.02	198.8	800.37	199.23	809.35	199.7	824.16	200.9	830.76	201.43
843.47	200.24	849.7	199.57	861.38	198.51	862.07	198.45	882.35	198.32
884.26	198.31	890.01	198.37	894.74	200.45	895.8	200.92	897.02	201.45
898.97	202.54	900.79	203.62	901.54	204.13	906.84	207.74	906.86	207.75
907.62	208.36	912.33	211.37	917.53	214.2	918.17	214.53	921.61	216.24
924.41	217.6	929.01	219.42	929.76	219.71	931.21	220.01	932.03	220.14
935.82	220.94	938.32	221.71	943.05	222.91	950.24	224.56	960.61	226.67
963.59	227.34								

Manning's n Values num= 14

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	151.33	.038	157.96	.047	508.77	.038	541.89	.047
549.25	.05	578.89	.047	617.13	.05	663	.038	716.53	.035
809.35	.05	824.16	.05	861.38	.05	963.59	.05		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
541.89	809.35	42.15	43.12	43.34	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 7605.154

INPUT

Description: Manual Modification of Manning's N Values
Station Elevation Data num= 44

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	222.71	28.54	217.12	59.59	214.23	74.47	212.9	78.79	212.8
130.63	211.2	156.77	210.34	170	209.94	189.08	209.36	202.49	208.66
253.47	205.15	272.62	204.41	299.08	204.95	338.21	204.76	416.58	203.38
547.56	200.64	555.75	200.43	583.21	199.75	590	199.58	648.6	198.08
683.04	197.44	695	197.45	715.48	197.46	799.96	197.51	810.84	197.57
830.09	198.74	845	200.1	851.65	200.71	870.72	198.31	883.17	196.99
903.59	196.97	905.51	196.97	911.3	197.09	917.13	200.31	918.36	200.99
920.32	202.37	929.03	208.84	933.77	211.42	939	213.65	951.32	218.45
957.42	219.49	971.94	223.63	982.38	226.27	985.38	227.11		

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	170	.05	547.56	.035	590	.05	695	.035
845	.05								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
583.21	830.09	34.01	45.05	44.87	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 7560.10*

INPUT
Description:
Station Elevation Data num= 89

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	222.65	2.95	222.07	28.15	217.12	33.9	216.5	56.48	214.42
58.77	214.22	70.02	213.24	73.45	212.95	77.71	212.84	119.72	211.48
128.84	211.21	133.84	211.06	144.11	210.74	154.62	210.42	167.67	210.04
169.54	209.99	186.48	209.3	187.63	209.23	199.71	208.44	202	208.26
221.15	206.63	234.91	205.71	249.99	204.67	258.25	204.32	268.88	203.91
294.97	204.26	303.41	204.18	333.56	204.01	388.81	203.1	410.86	202.73
525.48	200.52	540.04	200.23	548.12	200.04	575.2	199.43	583.14	199.25
600.18	198.87	651.64	197.86	672.67	197.55	675.79	197.51	691.91	197.27
703.7	197.29	723.91	197.31	740.85	197.32	774.55	197.36	776.26	197.36
793.18	197.39	807.24	197.42	817.97	197.48	828.06	198.03	836.96	198.51
841.94	198.87	845.41	199.11	849.08	199.38	852.99	199.65	855.87	199.85
860.14	200.15	876.81	198.44	880.64	198.05	894.02	196.89	894.63	196.89
907.37	196.85	915.98	196.82	918.04	196.81	918.77	196.82	924.26	196.91
925.21	197.32	926.71	198.02	930.53	199.8	931.85	200.41	933.96	201.64
934.21	201.79	940.21	205.91	943.33	208.01	943.4	208.05	943.72	208.21
947.24	209.91	948.42	210.48	954.04	212.68	954.97	213.02	967.29	217.15
971.12	217.76	973.85	218.24	980.09	219.91	987.25	222.03	989.46	222.67
994.66	224.03	1000.36	225.66	1000.68	225.75	1003.91	226.71		

Manning's n Values num= 16

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	133.84	.037	167.67	.05	540.04	.037	575.2	.048
582.4	.048	693.73	.035	715.29	.035	771.22	.037	807.01	.048
830.87	.037	836.96	.048	852.99	.048	855.87	.035	894.63	.037
1003.91	.05								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
575.2	836.96	34.01	45.05	44.87	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 7515.04*

INPUT
Description:
Station Elevation Data num= 89

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	222.59	2.91	222.01	27.76	217.11	33.43	216.42	55.69	214.4
57.95	214.2	69.05	213.26	72.42	213	76.63	212.88	118.06	211.47
127.04	211.23	131.98	211.08	142.1	210.79	152.46	210.49	165.33	210.15
167.17	210.1	183.89	209.24	185.01	209.16	196.93	208.23	199.18	208.03
218.07	206.11	231.64	205.22	246.51	204.19	254.65	203.81	265.13	203.42
290.86	203.56	299.19	203.45	328.92	203.27	383.39	202.42	405.14	202.09
518.16	200.08	532.52	199.83	540.48	199.66	567.19	199.11	576.28	198.93
595.79	198.53	654.69	197.64	678.75	197.36	682.32	197.32	700.77	197.11
712.41	197.13	732.33	197.15	749.04	197.18	782.28	197.23	783.96	197.23
800.65	197.28	814.51	197.32	825.1	197.39	835.05	197.86	843.82	198.27
849.15	198.58	852.86	198.77	856.79	198.98	860.97	199.2	864.06	199.36
868.62	199.6	886.46	198.12	890.56	197.78	904.88	196.79	905.52	196.79
919.16	196.73	928.36	196.67	930.57	196.65	931.35	196.66	937.23	196.72
938.24	197.07	939.85	197.7	943.94	199.28	945.35	199.83	947.6	200.92
947.86	201.05	954.29	205.14	957.62	207.18	957.7	207.22	958.04	207.39
961.81	209	963.07	209.55	969.09	211.72	970.07	212.05	983.26	215.84
987.35	216.46	990.28	216.99	996.95	218.68	1004.61	221.03	1006.98	221.71
1012.54	223.21	1018.63	225.13	1018.98	225.23	1022.43	226.32		

Manning's n Values num= 16

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	131.98	.039	165.33	.05	532.52	.039	567.19	.046
574.8	.046	692.45	.035	715.24	.035	774.35	.039	812.17	.046
837.39	.039	843.82	.046	860.97	.046	864.06	.035	905.52	.039
1022.43	.05								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
567.19	843.82	34.01	45.05	44.87	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 7469.99*

INPUT
Description:
Station Elevation Data num= 89

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	222.53	2.86	221.95	27.36	217.11	32.96	216.35	54.91	214.38
57.13	214.19	68.07	213.29	71.4	213.05	75.54	212.92	116.39	211.47
125.25	211.24	130.12	211.11	140.1	210.84	150.31	210.57	163	210.25
164.81	210.2	181.29	209.17	182.4	209.09	194.15	208.01	196.37	207.79
214.99	205.58	228.36	204.73	243.03	203.72	251.05	203.31	261.39	202.92
286.76	202.87	294.96	202.73	324.27	202.52	377.98	201.74	399.42	201.44
510.84	199.65	525	199.42	532.85	199.27	559.18	198.79	569.41	198.6
591.39	198.2	657.73	197.41	684.84	197.16	688.86	197.13	709.64	196.94
721.11	196.96	740.76	197	757.23	197.03	790.01	197.1	791.66	197.1
808.12	197.17	821.79	197.23	832.23	197.3	842.04	197.69	850.69	198.04
856.37	198.3	860.32	198.43	864.51	198.59	868.96	198.75	872.25	198.87
877.11	199.04	896.11	197.8	900.47	197.52	915.73	196.69	916.42	196.69
930.94	196.6	940.75	196.52	943.1	196.5	943.94	196.5	950.19	196.54
951.28	196.81	952.99	197.37	957.34	198.77	958.84	199.25	961.25	200.19
961.52	200.3	968.37	204.37	971.92	206.35	972	206.39	972.37	206.56
976.38	208.09	977.73	208.61	984.13	210.75	985.18	211.09	999.23	214.54
1003.59	215.17	1006.7	215.74	1013.82	217.44	1021.98	220.02	1024.49	220.75
1030.42	222.39	1036.91	224.6	1037.29	224.71	1040.96	225.92		

Manning's n Values num= 16

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	130.12	.041	163	.05	525	.041	559.18	.044
567.2	.044	691.18	.035	715.19	.035	777.48	.041	817.34	.044
843.91	.041	850.69	.044	868.96	.044	872.25	.035	916.42	.041
1040.96	.05								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
559.18	850.69	34.01	45.05	44.87	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 7424.94*

INPUT
Description:
Station Elevation Data num= 89

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	222.48	2.82	221.89	26.97	217.11	32.49	216.27	54.12	214.36
56.32	214.18	67.1	213.31	70.38	213.1	74.46	212.96	114.72	211.46
123.45	211.25	128.25	211.13	138.09	210.89	148.16	210.64	160.66	210.35
162.45	210.31	178.69	209.11	179.79	209.02	191.37	207.8	193.56	207.55
211.91	205.05	225.09	204.24	239.55	203.24	247.46	202.8	257.64	202.43
282.65	202.17	290.74	202	319.63	201.78	372.56	201.06	393.69	200.79
503.52	199.22	517.48	199.02	525.22	198.89	551.17	198.47	562.55	198.28
586.99	197.86	660.78	197.19	690.92	196.97	695.39	196.94	718.51	196.77
729.82	196.8	749.18	196.85	765.42	196.89	797.74	196.96	799.37	196.97
815.59	197.06	829.07	197.13	839.36	197.21	849.03	197.53	857.56	197.81
863.58	198.01	867.78	198.09	872.22	198.2	876.95	198.3	880.44	198.38
885.59	198.49	905.76	197.48	910.39	197.26	926.58	196.59	927.31	196.58
942.73	196.48	953.13	196.37	955.63	196.34	956.52	196.34	963.16	196.35
964.31	196.56	966.12	197.05	970.74	198.25	972.34	198.67	974.89	199.46
975.18	199.56	982.44	203.59	986.21	205.52	986.31	205.56	986.69	205.74
990.95	207.18	992.38	207.68	999.18	209.79	1000.29	210.12	1015.2	213.24
1019.83	213.87	1023.13	214.49	1030.68	216.21	1039.34	219.01	1042.01	219.79
1048.31	221.57	1055.19	224.07	1055.59	224.2	1059.49	225.52		

Manning's n Values num= 16

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	128.25	.044	160.66	.05	517.48	.044	551.17	.041
559.6	.041	689.91	.035	715.14	.035	780.61	.044	822.5	.041
850.44	.044	857.56	.041	876.95	.041	880.44	.035	927.31	.044
1059.49	.05								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
551.17	857.56	34.01	45.05	44.87	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 7379.88*

INPUT
Description:
Station Elevation Data num= 89

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	222.42	2.78	221.83	26.58	217.1	32.01	216.19	53.33	214.33
55.5	214.16	66.12	213.34	69.36	213.15	73.38	213.01	113.05	211.45
121.66	211.27	126.39	211.16	136.08	210.94	146	210.72	158.33	210.45
160.09	210.42	176.1	209.05	177.18	208.95	188.58	207.58	190.75	207.31
208.83	204.52	221.82	203.74	236.06	202.76	243.86	202.29	253.9	201.93
278.54	201.48	286.51	201.27	314.98	201.03	367.15	200.39	387.97	200.14
496.21	198.79	509.96	198.61	517.59	198.5	543.16	198.15	555.69	197.95
582.59	197.52	663.82	196.97	697.01	196.78	701.93	196.75	727.38	196.6
738.52	196.64	757.61	196.69	773.62	196.74	805.46	196.83	807.07	196.84

823.06	196.95	836.34	197.04	846.48	197.12	856.02	197.36	864.43	197.58
870.8	197.72	875.24	197.74	879.93	197.81	884.93	197.85	888.62	197.88
894.08	197.93	915.41	197.16	920.31	196.99	937.43	196.49	938.21	196.48
954.51	196.35	965.52	196.21	968.16	196.18	969.1	196.17	976.12	196.17
977.34	196.3	979.26	196.72	984.14	197.74	985.83	198.09	988.53	198.73
988.84	198.81	996.52	202.82	1000.51	204.69	1000.61	204.73	1001.01	204.91
1005.52	206.27	1007.03	206.74	1014.22	208.82	1015.4	209.15	1031.17	211.93
1036.07	212.57	1039.56	213.24	1047.54	214.97	1056.7	218	1059.53	218.83
1066.19	220.75	1073.47	223.53	1073.89	223.68	1078.02	225.12		

Manning's n Values num= 16

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	126.39	.046	158.33	.05	509.96	.046	543.16	.039
552	.039	688.63	.035	715.1	.035	783.74	.046	827.67	.039
856.96	.046	864.43	.039	884.93	.039	888.62	.035	938.21	.046
1078.02	.05								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
543.16	864.43	34.01	45.05	44.87	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 7334.83*

INPUT
Description:
Station Elevation Data num= 89

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	222.36	2.74	221.77	26.19	217.1	31.54	216.12	52.55	214.31
54.68	214.15	65.15	213.36	68.33	213.2	72.3	213.05	111.39	211.45
119.87	211.28	124.52	211.18	134.08	210.99	143.85	210.79	155.99	210.56
157.73	210.52	173.5	208.99	174.56	208.88	185.8	207.37	187.93	207.08
205.75	203.99	218.55	203.25	232.58	202.28	240.27	201.79	250.15	201.43
274.43	200.79	282.29	200.55	310.34	200.29	361.73	199.71	382.25	199.5
488.89	198.35	502.44	198.21	509.95	198.12	535.15	197.83	548.83	197.63
578.2	197.19	666.87	196.75	703.09	196.58	708.46	196.56	736.24	196.44
747.23	196.48	766.04	196.54	781.81	196.6	813.19	196.7	814.78	196.71
830.53	196.84	843.62	196.95	853.61	197.03	863.01	197.2	871.29	197.34
878.01	197.43	882.69	197.4	887.65	197.41	892.92	197.4	896.81	197.39
902.57	197.38	925.06	196.84	930.23	196.73	948.29	196.39	949.1	196.38
966.3	196.23	977.91	196.06	980.69	196.02	981.68	196.01	989.09	195.98
990.37	196.05	992.39	196.4	997.55	197.22	999.33	197.51	1002.17	198.01
1002.5	198.07	1010.6	202.04	1014.81	203.86	1014.91	203.9	1015.34	204.09
1020.09	205.36	1021.68	205.81	1029.27	207.86	1030.51	208.19	1047.14	210.63
1052.3	211.28	1055.99	212	1064.41	213.74	1074.07	216.99	1077.05	217.87
1084.07	219.93	1091.75	223	1092.19	223.16	1096.54	224.73		

Manning's n Values num= 16

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	124.52	.048	155.99	.05	502.44	.048	535.15	.037
544.4	.037	687.36	.035	715.05	.035	786.87	.048	832.83	.037
863.48	.048	871.29	.037	892.92	.037	896.81	.035	949.1	.048
1096.54	.05								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
535.15	871.29	34.01	45.05	44.87	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 7289.783

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 50

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	222.3	2.7	221.71	31.07	216.04	51.76	214.29	64.17	213.39
109.72	211.44	122.66	211.21	132.07	211.04	155.37	210.63	171.95	208.81
185.12	206.84	202.67	203.46	215.28	202.76	236.67	201.28	278.06	199.82
356.32	199.03	481.57	197.92	527.14	197.51	573.8	196.85	709.18	196.39
715	196.37	745.11	196.27	790	196.45	820.92	196.57	822.48	196.58
838	196.73	870	197.03	878.16	197.11	885.23	197.14	890.15	197.06
895.36	197.02	905	196.9	934.71	196.52	960	196.28	978.08	196.1
994.26	195.85	1003.4	195.79	1005.53	196.07	1016.16	197.32	1024.68	201.27
1029.21	203.07	1029.66	203.26	1034.66	204.45	1045.62	207.22	1068.54	209.98
1081.27	212.5	1091.43	215.98	1101.95	219.11	1110.03	222.47	1115.07	224.33

Manning's n Values num= 8

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	122.66	.05	715	.035	790	.05	838	.035
870	.05	905	.035	960	.05				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
527.14	878.16	31.39	37.9	42.85	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 7251.88*

INPUT
Description:
Station Elevation Data num= 76

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev

0	221.43	2.73	220.88	31.41	215.54	46.49	214.16	52.33	213.64
59.28	213.08	64.88	212.5	71.1	212	81.54	211.27	95.37	210.6
110.93	209.86	119.23	209.64	124.01	209.52	133.52	209.28	134.69	209.25
157.08	208.86	173.84	207.3	187.15	205.62	204.9	202.76	217.65	202.14
239.27	200.85	247.62	200.58	281.12	199.54	360.23	198.73	397.59	198.39
463.38	197.94	486.86	197.78	532.93	197.46	577.25	196.85	583.83	196.82
705.82	196.41	711.35	196.39	731.37	196.32	739.95	196.29	783.46	196.52
784.3	196.52	794.69	196.58	814.85	196.67	816.39	196.68	831.72	196.83
863.34	197.13	871.4	197.2	878.61	197.21	883.52	197.13	883.63	197.13
888.94	197.08	898.77	196.95	914.62	196.73	929.07	196.54	954.85	196.25
973.29	196.04	989.79	195.78	999.11	195.7	1001.28	195.93	1007.74	196.53
1012.12	196.97	1020.81	200.3	1022.76	200.95	1025.43	201.83	1025.89	201.99
1030.99	203.01	1042.16	205.38	1051.65	206.36	1055.47	206.76	1065.53	207.76
1073.8	209.11	1078.51	210.55	1080.18	211.26	1083.19	212.5	1088.87	214.66
1091.53	215.57	1099.6	218.31	1100.36	218.64	1105.75	220.96	1107.84	221.79
1112.98	223.65								

Manning's n Values num= 16

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	46.49	.038	124.01	.05	532.93	.035	712.07	.035
714.08	.035	769.99	.038	786.39	.05	832.68	.038	863.53	.05
871.4	.035	898.77	.035	914.62	.035	954.85	.047	1007.74	.038
1112.98	.05								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
532.93	871.4	31.39	37.9	42.85	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 7213.99*

INPUT
Description:
Station Elevation Data num= 76

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	220.57	2.76	220.06	31.75	215.04	47	213.55	52.9	212.99
59.92	212.37	65.58	211.61	71.87	210.88	82.43	209.86	96.4	209.11
112.13	208.29	120.53	207.98	125.36	207.83	134.97	207.51	136.15	207.47
158.78	207.09	175.73	205.79	189.19	204.4	207.12	202.05	220.01	201.52
241.87	200.42	250.31	200.18	284.17	199.27	364.15	198.43	401.91	198.07
468.42	197.76	492.15	197.64	538.72	197.42	580.69	196.85	586.93	196.81
702.46	196.42	707.7	196.41	726.66	196.34	734.78	196.32	777.77	196.59
778.6	196.6	788.86	196.66	808.78	196.77	810.3	196.79	825.45	196.93
856.68	197.22	864.64	197.3	871.99	197.28	877	197.2	877.11	197.2
882.52	197.14	892.54	197	908.69	196.76	923.42	196.55	949.71	196.23
968.5	195.99	985.32	195.72	994.82	195.62	997.03	195.79	1003.61	196.25
1008.08	196.62	1016.94	199.34	1018.92	199.86	1021.65	200.59	1022.11	200.72
1027.31	201.57	1038.7	203.53	1048.37	204.38	1052.27	204.73	1062.53	205.55
1070.95	206.64	1075.76	208.61	1077.46	209.46	1080.52	210.92	1086.32	213.33
1089.03	214.38	1097.25	217.5	1098.03	217.86	1103.52	220.3	1105.65	221.12
1110.89	222.96								

Manning's n Values num= 16

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	47	.04	125.36	.05	538.72	.035	711.22	.035
713.15	.035	766.99	.04	782.79	.05	827.36	.04	857.07	.05
864.64	.035	892.54	.035	908.69	.035	949.71	.045	1003.61	.04
1110.89	.05								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
538.72	864.64	31.39	37.9	42.85	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 7176.09*

INPUT
Description:
Station Elevation Data num= 76

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	219.7	2.79	219.23	32.09	214.54	47.5	212.93	53.47	212.34
60.57	211.67	66.29	210.72	72.64	209.75	83.31	208.44	97.44	207.61
113.34	206.71	121.82	206.33	126.7	206.13	136.42	205.75	137.62	205.7
160.49	205.32	177.62	204.28	191.22	203.18	209.35	201.35	222.38	200.9
244.47	199.98	253	199.77	287.23	198.99	368.06	198.14	406.23	197.76
473.45	197.57	497.44	197.51	544.52	197.37	584.14	196.84	590.03	196.8
699.11	196.44	704.05	196.42	721.95	196.36	729.62	196.34	772.07	196.67
772.9	196.67	783.03	196.75	802.7	196.88	804.21	196.89	819.17	197.03
850.02	197.32	857.89	197.39	865.37	197.35	870.47	197.27	870.58	197.27
876.1	197.2	886.31	197.05	902.77	196.8	917.78	196.57	944.56	196.2
963.71	195.93	980.85	195.65	990.53	195.53	992.78	195.65	999.49	195.96
1004.04	196.28	1013.07	198.37	1015.09	198.78	1017.86	199.34	1018.34	199.45
1023.64	200.12	1035.24	201.69	1045.1	202.41	1049.06	202.7	1059.52	203.33
1068.1	204.16	1073	206.66	1074.73	207.66	1077.86	209.35	1083.76	212.01
1086.52	213.19	1094.9	216.7	1095.69	217.07	1101.29	219.65	1103.46	220.44
1108.8	222.27								

Manning's n Values num= 16

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	47.5	.043	126.7	.05	544.52	.035	710.37	.035
712.23	.035	763.99	.043	779.18	.05	822.03	.043	850.6	.05
857.89	.035	886.31	.035	902.77	.035	944.56	.043	999.49	.043
1108.8	.05								

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Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
        544.52  857.89             31.39    37.9   42.85              .1       .3
Ineffective Flow     num=        1
   Sta L   Sta R    Elev  Permanent
888        F

CROSS SECTION          RIVER: San Juan
REACH: Upper              RS: 7138.19*

INPUT
Description:
Station Elevation Data    num=       76
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  218.83    2.82   218.4   32.44  214.04   48.01  212.32   54.03  211.69
   61.21  210.96   66.99  209.83   73.41  208.63    84.2  207.03   98.48  206.12
  114.54  205.13  123.12  204.67  128.05  204.44  137.87  203.98  139.08  203.93
   162.2  203.55  179.51  202.77  193.26  201.97  211.58  200.65  224.74  200.28
  247.07  199.55  255.69  199.36  290.28  198.71  371.98  197.84  410.55  197.44
  478.49  197.39  502.73  197.37  550.31  197.32  587.59  196.84  593.12   196.8
  695.75  196.46   700.4  196.44  717.24  196.39  724.46  196.36  766.38  196.74
  767.19  196.75  777.21  196.84  796.63  196.98  798.12  196.99  812.89  197.13
  843.36  197.41  851.13  197.48  858.75  197.42  863.95  197.34  864.06  197.34
  869.68  197.26  880.08  197.09  896.85  196.83  912.13  196.58  939.42  196.17
  958.92  195.88  976.38  195.59  986.24  195.45  988.54  195.51  995.37  195.68
    1000  195.93  1009.2  197.41 1011.26   197.7 1014.08   198.1 1014.57  198.17
 1019.96  198.68 1031.79  199.85 1041.82  200.43 1045.86  200.66 1056.51  201.11
 1065.25  201.69 1070.25  204.71 1072.01  205.86 1075.19  207.77 1081.21  210.68
 1084.02  212.01 1092.56   215.9 1093.36  216.29 1099.06  218.99 1101.27  219.77
 1106.71  221.59

Manning's n Values        num=       16
     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val
       0    .035   48.01    .045  128.05     .05  550.31    .035  709.52    .035
   711.3    .035     761    .045  775.57     .05  816.71    .045  844.13     .05
  851.13    .035  880.08    .035  896.85    .035  939.42     .04  995.37    .045
 1106.71     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
        550.31  851.13             31.39    37.9   42.85              .1       .3
Ineffective Flow     num=        1
   Sta L   Sta R    Elev  Permanent
888        F

CROSS SECTION          RIVER: San Juan
REACH: Upper              RS: 7100.30*

INPUT
Description:
Station Elevation Data    num=       76
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  217.97    2.85  217.57   32.78  213.54   48.51   211.7   54.6  211.03
   61.86  210.25    67.7  208.93   74.19   207.5   85.08  205.61  99.51  204.62
  115.75  203.55  124.41  203.02   129.4  202.75  139.33  202.22  140.55  202.15
  163.91  201.79   181.4  201.26  195.29  200.75   213.8  199.95  227.11  199.66
  249.67  199.12  258.38  198.96  293.34  198.44  375.89  197.54  414.87  197.13
  483.52   197.2  508.02  197.23   556.1  197.28  591.03  196.84  596.22  196.79
  692.39  196.47  696.75  196.46  712.53  196.41  719.29  196.39  760.69  196.82
  761.49  196.82  771.38  196.92  790.56  197.08  792.03  197.09  806.62  197.23
   836.7  197.51  844.37  197.58  852.13  197.49  857.42  197.41  857.54  197.41
  863.26  197.32  873.85  197.14  890.92  196.86  906.49   196.6  934.27  196.15
  954.13  195.82  971.91  195.52  981.95  195.36  984.29  195.37  991.24  195.39
  995.96  195.58 1005.32  196.44 1007.42  196.61  1010.3  196.86  1010.8   196.9
 1016.29  197.24 1028.33     198 1038.55  198.45 1042.66  198.63 1053.51  198.89
 1062.41  199.21 1067.49  202.77 1069.28  204.06 1072.53   206.2 1078.65  209.36
 1081.51  210.82 1090.21   215.1 1091.02  215.51 1096.83  218.34 1099.08  219.09
 1104.62   220.9

Manning's n Values        num=       16
     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val
       0    .035   48.51    .047   129.4     .05   556.1    .035  708.67    .035
  710.38    .035     758    .047  771.97     .05  811.39    .047  837.67     .05
  844.37    .035  873.85    .035  890.92    .035  934.27    .038  991.24    .047
 1104.62     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
          556.1  844.37             31.38    37.9   42.85              .1       .3
Ineffective Flow     num=        1
   Sta L   Sta R    Elev  Permanent
888        F

CROSS SECTION          RIVER: San Juan
REACH: Upper              RS: 7062.404

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data    num=       31
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0   217.1   49.02  211.09    62.5  209.54   74.96  206.38   85.97  204.2
  100.55  203.13  125.71  201.36  142.01  200.38  261.07  198.55  419.19  196.81
  488.56  197.02  561.89  197.23  599.32  196.78  707.82  196.43  714.13  196.41
     755  196.89  765.55  197.01  837.61  197.67   850.9  197.48     885  196.89
  987.12  195.11 1003.59  195.53 1035.27  196.47 1039.46   196.6 1059.56  196.74
 1066.56  202.26 1069.86  204.62 1079.01  209.63 1088.69  214.73  1094.6  217.68
 1102.53  220.22

Manning's n Values        num=        6
     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val
       0    .035   49.02     .05  707.82    .035     755     .05     885    .035
```

987.12 .05

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
561.89 837.61 45.82 41.96 42.85 .1 .3
Ineffective Flow num= 1
Sta L Sta R Elev Permanent
888 F

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 7020.44*

INPUT
Description:
Station Elevation Data num= 71

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	216.93	6.78	216.13	39.98	212.16	43.64	211.64	51.94	210.08
56.86	209.19	60.67	208.48	63.56	208.16	66.23	207.87	76.93	205.64
79.43	205.1	81.7	204.71	91.1	203.34	106.55	202.47	133.21	201.01
150.48	200.19	213.17	199.21	263.74	198.43	276.64	198.24	300.48	197.97
444.18	197	467.19	197.07	517.69	197.16	519.88	197.17	576.49	197.31
584.28	197.38	595.39	197.02	607.6	196.84	624.67	196.31	666.68	195.35
667.9	195.32	683.08	194.99	693.71	194.92	709.54	194.76	714.47	194.71
740.55	195.12	746.36	195.2	749.89	195.27	750.16	195.28	759.37	195.54
822.29	197.15	830.62	197.21	836.95	197.18	874.57	196.94	894.74	196.8
907.14	196.82	915.56	196.82	943.93	196.49	987.23	195.57	1005.4	195.72
1016.58	195.84	1026.62	195.96	1027.98	195.99	1032.79	196.11	1035.98	196.2
1040.35	196.31	1044.98	196.43	1058.22	196.57	1059.91	196.67	1065.47	197.22
1067.15	197.47	1074.87	202.71	1077.38	204.29	1078.51	205.01	1085.03	208.38
1088.47	209.84	1088.61	209.9	1099.23	214.62	1099.29	214.65	1105.81	217.08
1114.56	219.29								

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.039	51.94	.05	595.39	.035	715.48	.035	754.31	.046
822.29	.039	874.57	.039	907.14	.046	987.23	.046	1035.98	.039
1114.56	.05								

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
595.39 822.29 45.82 41.96 42.85 .1 .3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 6978.47*

INPUT
Description:
Station Elevation Data num= 71

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	216.75	7.16	215.94	42.23	211.84	46.1	211.23	54.87	209.08
60.06	207.82	64.08	206.82	67.14	206.49	69.95	206.2	81.26	204.29
83.9	203.82	86.3	203.46	96.22	202.49	112.54	201.8	140.7	200.66
158.94	200	225.16	198.94	278.58	198.11	292.2	197.93	317.38	197.65
469.18	197.18	493.48	197.26	546.82	197.31	549.13	197.31	608.93	197.44
617.16	197.56	628.9	196.81	637.7	196.64	650.02	195.84	680.34	194.09
681.21	194.04	692.17	193.45	699.83	193.35	711.26	193.1	714.82	193.02
737.1	193.47	742.07	193.55	745.09	193.66	745.32	193.67	753.2	194.06
806.97	196.62	816.09	196.85	823.01	196.88	864.15	196.98	886.2	197.04
899.76	197.26	908.96	197.41	939.99	197.19	987.35	196.04	1007.22	195.91
1019.44	195.85	1030.42	195.82	1031.91	195.85	1037.17	195.96	1040.65	196.04
1045.44	196.15	1050.49	196.26	1064.97	196.45	1066.82	196.65	1072.9	197.72
1074.74	198.2	1083.19	203.17	1085.93	204.69	1087.17	205.39	1094.29	208.91
1098.05	210.12	1098.2	210.18	1109.82	214.55	1109.88	214.56	1117.01	216.49
1126.58	218.36								

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.043	54.87	.05	628.9	.035	723.15	.035	753.62	.043
806.97	.043	864.15	.043	899.76	.043	987.35	.043	1040.65	.043
1126.58	.05								

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
628.9 806.97 45.82 41.96 42.85 .1 .3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 6936.51*

INPUT
Description:
Station Elevation Data num= 71

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	216.57	7.54	215.76	44.48	211.53	48.55	210.82	57.79	208.07
63.26	206.46	67.5	205.16	70.71	204.83	73.68	204.52	85.59	202.95
88.37	202.55	90.89	202.21	101.35	201.63	118.54	201.14	148.2	200.31
167.41	199.81	237.16	198.68	293.42	197.8	307.77	197.62	334.29	197.32
494.17	197.37	519.77	197.45	575.95	197.45	578.39	197.45	641.37	197.57
650.03	197.74	662.4	196.6	667.81	196.44	675.37	195.36	693.99	192.83
694.53	192.75	701.25	191.9	705.96	191.77	712.98	191.43	715.17	191.33
733.66	191.83	737.79	191.91	740.29	192.05	740.48	192.07	747.02	192.59
791.66	196.1	801.55	196.5	809.06	196.58	853.72	197.03	877.66	197.27
892.38	197.7	902.37	197.99	936.06	197.89	987.46	196.5	1009.03	196.09
1022.3	195.85	1034.22	195.67	1035.83	195.7	1041.54	195.81	1045.33	195.89
1050.52	195.99	1056.01	196.09	1071.73	196.33	1073.74	196.62	1080.34	198.21
1082.33	198.94	1091.5	203.62	1094.47	205.1	1095.82	205.78	1103.56	209.43
1107.64	210.4	1107.8	210.45	1120.41	214.47	1120.48	214.48	1128.22	215.89
1138.6	217.42								

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.046	57.79	.05	662.4	.035	730.81	.035	752.93	.039

791.66	.046	853.72	.046	892.38	.039	987.46	.039	1045.33	.046
1138.6	.05								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
662.4	791.66	45.82	41.96	42.85	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 6894.555

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 45

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	216.4	7.92	215.57	46.73	211.21	51.01	210.41	66.46	205.09
70.91	203.5	74.29	203.16	89.92	201.61	95.49	200.96	249.15	198.41
308.26	197.49	351.2	196.99	546.06	197.64	607.64	197.59	673.81	197.7
682.91	197.92	695.9	196.39	697.91	196.24	707.64	191.57	707.84	191.47
710.34	190.36	712.09	190.2	715.51	189.63	730.22	190.18	733.5	190.27
735.49	190.44	776.34	195.57	787.01	196.14	869.12	197.5	885	198.14
895.78	198.57	932.12	198.59	1025.16	195.86	1038.02	195.53	1039.76	195.56
1045.92	195.66	1050	195.73	1078.48	196.21	1080.65	196.6	1087.77	198.71
1103.02	205.5	1112.82	209.96	1117.22	210.68	1131	214.39	1150.63	216.49

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	695.9	.035	776.34	.05	885	.035	1050	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
695.9	776.34	30.23	37.87	37.36	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 6856.68*

INPUT
Description:
Station Elevation Data num= 82

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	215.08	3.48	214.72	7.87	214.22	11.93	213.75	44.79	209.95
46.45	209.76	50.71	209.02	65.86	204.47	65.89	204.46	65.96	204.44
66.06	204.41	70.49	203.1	73.85	202.8	89.38	201.42	94.92	200.85
120.58	200.29	131.98	200.15	162.95	199.65	247.66	198.19	247.99	198.19
306.42	197.39	327.07	197.17	349.1	197	403.66	197.25	536.88	197.51
542.8	197.52	604.01	197.44	613.69	197.45	669.78	197.1	678.83	197.21
691.74	195.88	694.79	195.69	695.21	195.67	695.53	195.65	701.46	194.25
707.84	192.68	710.51	192.04	713.86	191.35	714.24	191.27	718.95	190.37
719.36	190.36	720.26	190.32	722.25	190.24	728.69	189.77	744.59	190.36
748.13	190.46	750.28	190.62	777.68	193.43	794.41	195.15	804.97	195.69
810.61	195.81	814.03	195.87	826.01	196.06	886.21	197	901.93	197.55
912.59	197.92	941.78	198	948.55	198.02	979.76	197.33	1034.62	196.02
1040.6	195.87	1048.56	195.7	1053.33	195.6	1055.05	195.63	1057.41	195.66
1061.14	195.82	1065.18	195.99	1078.81	196.58	1080.43	196.61	1084.3	196.69
1093.36	197.14	1095.51	197.53	1102.55	199.48	1106.01	200.84	1107.46	201.41
1108.96	202.01	1117.64	205.33	1127.34	209.13	1131.69	209.81	1145.33	213.1
1148.94	213.5	1164.75	215.34						

Manning's n Values num= 10

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	691.74	.035	696.44	.035	735.7	.038	782.78	.047
794.41	.05	901.93	.038	1048.56	.05	1065.18	.05	1164.75	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
691.74	794.41	30.23	37.87	37.36	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 6818.81*

INPUT
Description:
Station Elevation Data num= 82

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	213.76	3.46	213.4	7.83	212.88	11.86	212.38	44.52	208.5
46.17	208.31	50.4	207.63	65.47	203.78	65.5	203.77	65.56	203.75
65.67	203.73	70.06	202.7	73.4	202.43	88.85	201.23	94.35	200.75
119.85	200.04	131.19	199.95	161.97	199.47	246.17	197.97	246.5	197.97
304.58	197.29	325.11	197.09	347	197.02	401.23	197.32	533.65	197.4
539.53	197.41	600.38	197.3	610	197.29	665.76	196.5	674.75	196.49
687.58	195.38	692.06	195.11	692.69	195.08	693.15	195.05	701.86	193.77
711.24	192.25	715.15	191.65	720.09	191.13	720.64	191.07	727.56	190.39
728.17	190.38	729.48	190.35	732.41	190.28	741.88	189.91	758.95	190.54
762.76	190.66	765.07	190.8	794.51	193.24	812.49	194.72	822.93	195.23
828.51	195.38	831.9	195.46	843.75	195.62	903.31	196.5	918.85	196.96
929.4	197.27	958.28	197.42	964.97	197.44	995.86	197	1050.13	195.99
1056.05	195.88	1063.92	195.76	1068.64	195.68	1070.34	195.7	1072.68	195.72
1076.37	195.98	1080.36	196.26	1093.84	197.21	1095.44	197.23	1099.28	197.33
1108.24	198.08	1110.37	198.47	1117.33	200.24	1120.75	201.42	1122.19	201.91
1123.68	202.42	1132.26	205.17	1141.86	208.3	1146.16	208.94	1159.65	211.81
1163.23	212.22	1178.87	214.2						

Manning's n Values num= 10

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	687.58	.035	693.3	.035	741.07	.041	798.34	.044
812.49	.05	918.85	.041	1063.92	.05	1080.36	.05	1178.87	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
687.58	812.49	30.23	37.87	37.36	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 6780.94*

INPUT
Description:
Station Elevation Data num= 82

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	212.44	3.44	212.08	7.78	211.53	11.78	211.01	44.25	207.05
45.89	206.86	50.1	206.24	65.07	203.08	65.1	203.07	65.16	203.06
65.27	203.05	69.64	202.3	72.96	202.07	88.31	201.04	93.78	200.64
119.13	199.79	130.4	199.76	160.99	199.29	244.68	197.75	245.01	197.75
302.73	197.18	323.14	197.02	344.9	197.03	398.8	197.4	530.42	197.3
536.27	197.29	596.75	197.15	606.31	197.13	661.73	195.9	670.67	195.78
683.43	194.87	689.34	194.54	690.16	194.49	690.77	194.46	702.26	193.3
714.64	191.83	719.8	191.26	726.31	190.9	727.04	190.86	736.18	190.4
736.97	190.39	738.7	190.37	742.57	190.32	755.06	190.04	773.32	190.72
777.39	190.85	779.86	190.98	811.34	193.04	830.56	194.3	840.89	194.78
846.41	194.95	849.76	195.04	861.49	195.18	920.4	196.01	935.78	196.37
946.21	196.62	974.78	196.83	981.4	196.87	1011.95	196.67	1065.63	195.97
1071.49	195.9	1079.28	195.81	1083.94	195.75	1085.63	195.77	1087.94	195.78
1091.59	196.14	1095.54	196.52	1108.88	197.83	1110.46	197.86	1114.26	197.97
1123.12	199.01	1125.22	199.4	1132.12	201.01	1135.5	202	1136.92	202.41
1138.39	202.83	1146.88	205	1156.37	207.48	1160.63	208.07	1173.98	210.52
1177.52	210.93	1192.98	213.05						

Manning's n Values num= 10

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	683.43	.035	690.16	.035	746.43	.044	813.89	.041
830.56	.05	935.78	.044	1079.28	.05	1095.54	.05	1192.98	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
683.43	830.56	30.23	37.87	37.36	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 6743.07*

INPUT
Description:
Station Elevation Data num= 82

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	211.12	3.42	210.77	7.73	210.19	11.71	209.65	43.98	205.6
45.61	205.41	49.79	204.85	64.68	202.39	64.71	202.38	64.77	202.38
64.87	202.37	69.22	201.89	72.51	201.71	87.77	200.85	93.21	200.53
118.4	199.55	129.6	199.56	160.01	199.12	243.2	197.54	243.52	197.53
300.89	197.08	321.18	196.94	342.81	197.04	396.38	197.47	527.2	197.19
533.01	197.18	593.12	197	602.62	196.98	657.71	195.29	666.59	195.06
679.27	194.37	686.61	193.96	687.63	193.91	688.39	193.86	702.67	192.82
718.03	191.4	724.45	190.87	732.54	190.68	733.44	190.66	744.79	190.42
745.78	190.41	747.93	190.4	752.73	190.36	768.25	190.18	787.69	190.9
792.02	191.05	794.65	191.17	828.17	192.85	848.64	193.87	858.85	194.32
864.31	194.52	867.63	194.62	879.22	194.75	937.49	195.51	952.7	195.78
963.03	195.97	991.28	196.25	997.83	196.3	1028.05	196.34	1081.14	195.95
1086.94	195.91	1094.64	195.86	1099.25	195.83	1100.92	195.83	1103.21	195.84
1106.82	196.29	1110.73	196.79	1123.91	198.45	1125.48	198.48	1129.23	198.61
1138	199.95	1140.08	200.33	1146.9	201.77	1150.24	202.58	1151.65	202.9
1153.11	203.24	1161.5	204.84	1170.89	206.65	1175.1	207.2	1188.3	209.23
1191.8	209.65	1207.1	211.91						

Manning's n Values num= 10

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	679.27	.035	687.02	.035	751.79	.047	829.45	.038
848.64	.05	952.7	.047	1094.64	.05	1110.73	.05	1207.1	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
679.27	848.64	30.23	37.87	37.36	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 6705.202

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 42

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	209.8	3.4	209.45	11.64	208.28	43.71	204.15	64.28	201.7
64.31	201.69	64.37	201.69	117.68	199.3	128.81	199.37	159.03	198.94
242.03	197.31	319.21	196.86	393.95	197.55	523.97	197.08	598.93	196.82
675.11	193.86	683.88	193.38	685.1	193.32	703.07	192.34	721.43	190.98
729.1	190.48	754.58	190.43	757.15	190.42	781.43	190.32	845	192.65
866.71	193.45	882.21	194.09	885.49	194.2	896.96	194.31	1007.78	195.66
1044.14	196.01	1096.65	195.93	1110	195.91	1118.47	195.9	1138.95	199.07
1140.5	199.1	1144.21	199.25	1164.99	203.16	1166.38	203.4	1167.82	203.65
1206.09	208.37	1221.22	210.76						

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	683.88	.035	757.15	.05	845	.035	1110	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
675.11	866.71	35.92	40.06	40.02	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 6665.14*

INPUT
Description:
Station Elevation Data num= 82

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	209.96	.13	209.93	.52	209.89	2.7	209.67	3.4	209.6
7.33	209.09	11.65	208.52	43.75	204.62	64.34	202.27	64.37	202.26
64.43	202.26	70.43	201.91	82.97	200.15	84.96	199.87	90.46	199.49

92.96	199.32	93.83	199.29	117.79	198.54	126.47	198.61	128.93	198.64
159.18	198.57	160.94	198.56	193.74	198.01	242.25	197.23	271.51	197.06
314.58	196.82	319.5	196.8	347.56	197.01	380.94	197.24	392.99	197.35
394.31	197.37	524.45	197.38	530.27	197.38	542.42	197.38	546.89	197.37
599.48	196.85	613.37	196.35	651.48	194.76	675.73	193.51	683.04	193.08
684.06	193.03	699.03	192.15	714.34	190.99	720.73	190.55	720.95	190.55
741.96	190.44	744.11	190.42	758.2	190.32	764.34	190.28	810.38	191.43
822.35	191.74	845.66	192.24	847.29	192.27	853.13	192.48	873.43	193.21
889.94	193.73	893.44	193.82	905.66	193.94	1023.72	195.28	1062.46	195.65
1081.5	195.68	1087.71	195.68	1088.56	195.69	1089.93	195.7	1091.77	195.74
1118.4	196.12	1132.62	196.33	1141.65	196.46	1148.07	197.26	1159.46	198.68
1163.47	199.24	1165.12	199.32	1168.75	199.53	1169.07	199.55	1191.21	202.85
1192.69	203.06	1194.22	203.27	1225.37	206.5	1229.22	206.88	1235	207.39
1236.31	207.54	1251.11	209.49						

Manning's n Values num= 10

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	675.73	.035	684.78	.035	760.38	.046	842.69	.035
851.03	.035	873.43	.05	1132.62	.05	1159.46	.05	1251.11	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
675.73	873.43	35.92	40.06	40.02	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 6625.07*

INPUT
Description:
Station Elevation Data num= 82

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	210.11	.13	210.08	.52	210.03	2.71	209.83	3.41	209.76
7.34	209.28	11.66	208.76	43.79	205.09	64.4	202.84	64.43	202.83
64.49	202.83	70.49	202.4	83.05	199.43	85.03	198.98	90.54	198.45
93.05	198.24	93.92	198.2	117.9	197.79	126.59	197.86	129.05	197.91
159.32	198.2	161.08	198.21	193.91	197.76	242.47	197.14	271.76	196.97
314.87	196.75	319.8	196.74	347.88	196.89	381.29	197.05	393.35	197.17
394.67	197.18	524.93	197.69	530.76	197.71	542.91	197.75	547.4	197.73
600.03	196.88	613.93	196.42	652.07	194.71	676.35	193.15	682.2	192.78
683.01	192.73	695	191.96	707.24	191	712.36	190.63	712.53	190.62
729.35	190.45	731.06	190.43	742.34	190.29	747.26	190.23	803.33	191.23
817.92	191.49	846.31	191.82	848.3	191.85	855.42	192.1	880.15	192.96
897.67	193.37	901.38	193.45	914.35	193.57	1039.66	194.89	1080.78	195.28
1100.99	195.37	1107.58	195.38	1108.48	195.41	1109.93	195.44	1111.89	195.51
1140.15	196.32	1155.25	196.75	1164.82	197.02	1171.64	197.69	1183.73	198.87
1187.98	199.41	1189.74	199.53	1193.59	199.83	1193.93	199.85	1217.43	202.55
1219	202.72	1220.63	202.89	1253.68	205.74	1257.78	206.07	1263.9	206.42
1265.3	206.52	1281.01	208.23						

Manning's n Values num= 10

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	676.35	.035	685.68	.035	763.61	.043	848.46	.035
857.05	.035	880.15	.05	1155.25	.05	1183.73	.05	1281.01	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
676.35	880.15	35.92	40.06	40.02	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 6585.01*

INPUT
Description:
Station Elevation Data num= 82

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	210.26	.13	210.23	.52	210.17	2.71	209.98	3.41	209.91
7.34	209.48	11.67	209	43.83	205.56	64.46	203.41	64.49	203.4
64.55	203.4	70.56	202.88	83.12	198.72	85.11	198.08	90.63	197.42
93.13	197.15	94	197.12	118	197.03	126.7	197.12	129.16	197.18
159.47	197.83	161.23	197.87	194.09	197.5	242.7	197.06	272.01	196.89
315.16	196.68	320.09	196.68	348.2	196.78	381.64	196.86	393.71	196.98
395.04	197	525.41	197.99	531.24	198.03	543.41	198.11	547.9	198.1
600.58	196.92	614.5	196.48	652.67	194.67	676.97	192.8	681.36	192.48
681.97	192.44	690.96	191.77	700.15	191.01	703.98	190.7	704.12	190.7
716.73	190.46	718.02	190.43	726.48	190.26	730.17	190.18	796.29	191.02
813.49	191.25	846.97	191.41	849.32	191.42	857.71	191.71	886.86	192.71
905.4	193.01	909.33	193.07	923.05	193.2	1055.6	194.51	1099.09	194.92
1120.47	195.07	1127.44	195.08	1128.4	195.13	1129.94	195.17	1132	195.29
1161.9	196.51	1177.87	197.17	1188	197.58	1195.21	198.11	1208	199.06
1212.5	199.58	1214.35	199.75	1218.43	200.12	1218.79	200.14	1243.65	202.24
1245.31	202.37	1247.03	202.51	1282	204.99	1286.33	205.25	1292.81	205.44
1294.28	205.49	1310.91	206.96						

Manning's n Values num= 10

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	676.97	.035	686.58	.035	766.84	.039	854.23	.035
863.08	.035	886.86	.05	1177.87	.05	1208	.05	1310.91	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
676.97	886.86	35.92	40.06	40.02	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 6544.956

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 45

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	210.42	.13	210.38	.52	210.31	2.71	210.13	7.35	209.67
70.62	203.37	83.2	198.01	85.19	197.18	90.71	196.38	93.22	196.06

94.09	196.03	126.82	196.37	161.38	197.52	194.27	197.25	272.26	196.81
315.45	196.61	348.52	196.67	381.99	196.67	394.07	196.8	531.73	198.36
543.91	198.48	548.4	198.46	615.06	196.55	653.27	194.62	677.59	192.45
695.7	190.77	710.62	190.23	713.08	190.14	789.25	190.82	809.06	191
850.33	191	860	191.33	893.58	192.47	1139.96	194.76	1147.31	194.78
1148.32	194.85	1149.94	194.9	1152.12	195.06	1218.78	198.54	1232.27	199.25
1243.27	200.42	1310.31	204.23	1314.88	204.43	1323.27	204.47	1340.8	205.69

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.05	860	.035	1232.27	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
677.59	893.58	14.9	43.68	14.96	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 6501.27*

INPUT
Description:
Station Elevation Data num= 95

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	210.4	.13	210.36	.51	210.3	2.68	210.1	5.86	209.77
7.27	209.62	14.63	208.86	39.9	206.41	61.33	204.33	69.83	203.52
72.08	202.64	76.41	200.87	82.27	198.36	84.24	197.54	89.7	196.58
91.07	196.36	92.18	196.18	92.46	196.16	93.04	196.14	103.67	196.12
112.3	196.12	125.4	196.27	127.83	196.35	159.58	197.4	185.44	197.28
192.1	197.23	213.24	197.11	269.22	196.79	300.18	196.65	311.92	196.6
344.62	196.66	377.72	196.67	389.66	196.79	454.96	197.46	519.58	198.12
525.78	198.17	537.83	198.24	542.21	198.21	542.27	198.21	587.12	196.88
608.18	196.25	645.97	194.36	654.38	193.65	670.01	192.33	672.56	192.17
674.9	192.03	680.84	191.84	686.76	191.65	695.7	191.35	705.32	191.02
707.48	190.94	713.01	190.73	713.49	190.72	729.14	190.49	730.89	190.46
749.31	190.2	755.21	190.12	825.14	190.76	843.33	190.93	858.43	190.94
881.22	190.98	890.1	191.28	920.93	192.35	931.98	192.55	980.2	193.42
992.25	193.53	1024.38	193.88	1044.11	193.96	1053.75	193.93	1089.28	193.77
1120.22	193.9	1125.18	193.94	1136.29	194.09	1152.28	194.3	1159.18	194.35
1160.13	194.42	1161.65	194.47	1163.7	194.62	1172.86	195.11	1206.86	196.99
1226.3	198.05	1237.73	198.67	1238.96	198.74	1249.29	199.81	1253.84	200.07
1263.04	200.67	1296.11	202.73	1312.24	203.99	1314.03	204.1	1316.54	204.23
1324.41	204.33	1328.57	204.65	1338.09	206.12	1339.65	206.33	1340.87	206.49

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	670.01	.035	738.91	.035	881.92	.035	920.93	.048
1238.96	.048	1340.87	.048						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
670.01	920.93	14.9	43.68	14.96	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 6457.60*

INPUT
Description:
Station Elevation Data num= 95

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	210.38	.13	210.35	.51	210.28	2.65	210.08	5.79	209.73
7.19	209.58	14.47	208.78	39.45	206.43	60.63	204.44	69.04	203.66
71.27	202.88	75.55	201.21	81.34	198.71	83.28	197.89	88.68	196.78
90.04	196.51	91.14	196.3	91.42	196.27	91.99	196.24	102.5	196.11
111.03	196	123.98	196.18	126.39	196.25	157.77	197.27	183.34	197.26
189.93	197.21	210.83	197.08	266.17	196.78	296.78	196.64	308.4	196.6
340.73	196.66	373.45	196.67	385.26	196.77	449.81	197.38	513.71	197.96
519.84	197.98	531.75	198	536.08	197.96	536.14	197.96	580.49	196.6
601.31	195.94	638.66	194.11	646.98	193.45	662.44	192.21	666.47	192
670.17	191.8	679.57	191.65	688.96	191.5	703.12	191.24	718.35	190.96
721.76	190.89	730.53	190.68	731.28	190.66	756.06	190.45	758.83	190.42
788	190.18	797.35	190.1	861.04	190.7	877.6	190.86	891.35	190.88
912.11	190.95	920.19	191.24	948.27	192.23	958.6	192.53	1003.7	193.78
1014.96	193.88	1045.01	194.27	1063.46	194.23	1072.47	194.07	1105.69	193.41
1134.63	193.36	1139.26	193.4	1149.65	193.59	1164.6	193.85	1171.06	193.92
1171.94	193.98	1173.37	194.03	1175.28	194.18	1183.84	194.65	1215.64	196.52
1233.81	197.55	1244.5	198.17	1245.66	198.23	1255.31	199.2	1259.56	199.45
1268.17	200.08	1299.09	202.21	1314.18	203.74	1315.84	203.89	1318.19	204.03
1325.56	204.2	1329.45	204.51	1338.34	206.76	1339.8	207.06	1340.95	207.28

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	662.44	.035	740.92	.035	903.83	.035	948.27	.047
1245.66	.047	1340.95	.047						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
662.44	948.27	14.9	43.68	14.96	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 6413.92*

INPUT
Description:
Station Elevation Data num= 95

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	210.37	.13	210.33	.5	210.27	2.62	210.05	5.73	209.69
7.1	209.53	14.3	208.71	39	206.46	59.94	204.55	68.25	203.81
70.45	203.12	74.68	201.54	80.41	199.07	82.33	198.25	87.67	196.97
89.01	196.67	90.09	196.42	90.37	196.38	90.93	196.35	101.32	196.09
109.76	195.89	122.57	196.08	124.94	196.15	155.97	197.15	181.24	197.23
187.75	197.18	208.42	197.06	263.13	196.76	293.39	196.62	304.87	196.59

336.83	196.65	369.18	196.67	380.85	196.76	444.67	197.3	507.83	197.79
513.89	197.79	525.66	197.77	529.95	197.72	530	197.72	573.85	196.32
594.43	195.64	631.36	193.85	639.58	193.24	654.86	192.08	660.37	191.82
665.44	191.57	678.31	191.46	691.16	191.35	710.53	191.13	731.37	190.9
736.04	190.83	748.04	190.62	749.07	190.61	782.99	190.41	786.77	190.38
826.68	190.15	839.48	190.08	896.93	190.65	911.87	190.79	924.27	190.82
943	190.93	950.29	191.19	975.62	192.11	985.23	192.5	1027.19	194.14
1037.68	194.23	1065.64	194.66	1082.8	194.51	1091.19	194.21	1122.1	193.05
1149.03	192.81	1153.34	192.85	1163.01	193.08	1176.92	193.39	1182.93	193.49
1183.76	193.55	1185.08	193.6	1186.86	193.73	1194.83	194.19	1224.42	196.05
1241.33	197.06	1251.27	197.66	1252.35	197.72	1261.34	198.6	1265.29	198.82
1273.3	199.5	1302.07	201.69	1316.11	203.5	1317.66	203.68	1319.85	203.83
1326.7	204.06	1330.32	204.38	1338.6	207.4	1339.95	207.79	1341.02	208.08

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	654.86	.035	742.93	.035	925.75	.035	975.62	.045
1252.35	.045	1341.02	.045						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
654.86	975.62	14.9	43.68	14.96	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 6370.25*

INPUT
Description:
Station Elevation Data num= 95

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	210.35	.12	210.32	.5	210.26	2.59	210.02	5.66	209.65
7.02	209.49	14.14	208.64	38.55	206.48	59.25	204.65	67.46	203.95
69.64	203.36	73.82	201.88	79.48	199.42	81.38	198.6	86.65	197.17
87.98	196.82	89.05	196.54	89.33	196.49	89.88	196.45	100.15	196.07
108.49	195.77	121.15	195.98	123.5	196.05	154.16	197.02	179.14	197.21
185.58	197.16	206.01	197.04	260.08	196.75	289.99	196.61	301.34	196.58
332.93	196.64	364.9	196.67	376.44	196.75	439.52	197.21	501.96	197.62
507.95	197.59	519.58	197.53	523.82	197.47	523.87	197.47	567.21	196.04
587.55	195.33	624.05	193.6	632.18	193.03	647.28	191.96	654.28	191.64
660.71	191.35	677.05	191.27	693.36	191.2	717.94	191.03	744.4	190.84
750.32	190.77	765.55	190.57	766.86	190.55	809.91	190.36	814.71	190.33
865.37	190.13	881.61	190.06	932.82	190.59	946.14	190.72	957.2	190.76
973.89	190.91	980.39	191.15	1002.96	191.99	1011.86	192.47	1050.69	194.51
1060.39	194.58	1086.26	195.05	1102.15	194.78	1109.91	194.35	1138.51	192.68
1163.43	192.27	1167.42	192.3	1176.37	192.57	1189.25	192.93	1194.8	193.06
1195.57	193.12	1196.79	193.17	1198.44	193.29	1205.81	193.73	1233.2	195.58
1248.84	196.56	1258.05	197.15	1259.04	197.2	1267.36	197.99	1271.02	198.2
1278.42	198.91	1305.05	201.17	1318.04	203.25	1319.48	203.47	1321.5	203.63
1327.84	203.93	1331.19	204.25	1338.85	208.04	1340.11	208.52	1341.1	208.87

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	647.28	.035	744.94	.035	947.66	.035	1002.96	.043
1259.04	.043	1341.1	.043						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
647.28	1002.96	14.9	43.68	14.96	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 6326.57*

INPUT
Description:
Station Elevation Data num= 95

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	210.33	.12	210.3	.49	210.24	2.56	209.99	5.6	209.6
6.94	209.44	13.97	208.57	38.09	206.5	58.55	204.76	66.67	204.1
68.82	203.59	72.96	202.21	78.55	199.77	80.43	198.96	85.64	197.37
86.95	196.98	88.01	196.66	88.28	196.59	88.83	196.56	98.98	196.05
107.22	195.66	119.73	195.88	122.05	195.95	152.36	196.9	177.05	197.19
183.41	197.14	203.6	197.01	257.04	196.73	286.6	196.59	297.81	196.58
329.03	196.63	360.63	196.66	372.04	196.73	434.38	197.13	496.08	197.46
502	197.4	513.5	197.29	517.69	197.22	517.74	197.22	560.57	195.76
580.67	195.03	616.75	193.34	624.78	192.82	639.71	191.84	648.19	191.47
655.98	191.12	675.79	191.08	695.55	191.05	725.35	190.92	757.42	190.78
764.6	190.71	783.06	190.51	784.65	190.5	836.83	190.32	842.65	190.29
904.06	190.1	923.75	190.05	968.71	190.53	980.41	190.66	990.12	190.69
1004.77	190.88	1010.48	191.1	1030.31	191.86	1038.49	192.45	1074.18	194.87
1083.1	194.93	1106.89	195.44	1121.5	195.05	1128.63	194.49	1154.93	192.32
1177.84	191.72	1181.5	191.75	1189.73	192.07	1201.57	192.48	1206.68	192.63
1207.38	192.68	1208.5	192.74	1210.02	192.85	1216.8	193.27	1241.97	195.1
1256.36	196.07	1264.82	196.64	1265.73	196.69	1273.38	197.38	1276.74	197.58
1283.55	198.33	1308.03	200.65	1319.98	203.01	1321.3	203.26	1323.16	203.42
1328.99	203.79	1332.07	204.11	1339.11	208.68	1340.26	209.25	1341.17	209.67

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	639.71	.035	746.95	.035	969.58	.035	1030.31	.042
1265.73	.042	1341.17	.042						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
639.71	1030.31	14.9	43.68	14.96	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 6282.89*

INPUT
Description:
Station Elevation Data num= 95

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	210.31	.12	210.29	.49	210.23	2.53	209.97	5.53	209.56
6.86	209.39	13.81	208.5	37.64	206.53	57.86	204.87	65.88	204.25
68.01	203.83	72.09	202.55	77.62	200.12	79.47	199.31	84.62	197.57
85.92	197.13	86.97	196.78	87.24	196.7	87.78	196.66	97.81	196.03
105.95	195.54	118.31	195.79	120.61	195.85	150.55	196.77	174.95	197.16
181.24	197.12	201.18	196.99	253.99	196.72	283.2	196.57	294.29	196.57
325.14	196.63	356.36	196.66	367.63	196.72	429.23	197.04	490.21	197.29
496.06	197.21	507.42	197.05	511.55	196.97	511.61	196.97	553.93	195.48
573.8	194.72	609.44	193.09	617.38	192.61	632.13	191.72	642.1	191.29
651.25	190.89	674.53	190.89	697.75	190.89	732.76	190.81	770.45	190.72
778.88	190.65	800.57	190.46	802.44	190.45	863.75	190.28	870.6	190.24
942.75	190.08	965.88	190.03	1004.61	190.47	1014.68	190.59	1023.04	190.63
1035.66	190.86	1040.58	191.06	1057.65	191.74	1065.12	192.42	1097.68	195. 23
1105.82	195.29	1127.52	195.82	1140.84	195.32	1147.35	194.63	1171.34	191.96
1192.24	191.18	1195.58	191.2	1203.09	191.56	1213.89	192.02	1218.55	192.2
1219.19	192.25	1220.22	192.3	1221.6	192.41	1227.78	192.81	1250.75	194.63
1263.87	195.58	1271.59	196.13	1272.43	196.18	1279.4	196.77	1282.47	196.95
1288.68	197.74	1311.02	200.12	1321.91	202.77	1323.12	203.05	1324.81	203.22
1330.13	203.66	1332.94	203.98	1339.36	209.32	1340.42	209.98	1341.25	210.46

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	632.13	.035	748.96	.035	991.5	.035	1057.65	.04
1272.43	.04	1341.25	.04						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
632.13	1057.65	14.9	43.68	14.96	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 6239.22*

INPUT
Description:
Station Elevation Data num= 95

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	210.3	.12	210.27	.48	210.22	2.5	209.94	5.46	209.52
6.77	209.35	13.64	208.42	37.19	206.55	57.17	204.98	65.09	204.39
67.19	204.07	71.23	202.89	76.69	200.47	78.52	199.67	83.61	197.76
84.89	197.29	85.92	196.91	86.19	196.81	86.73	196.77	96.63	196.02
104.68	195.43	116.89	195.69	119.16	195.75	148.75	196.65	172.85	197.14
179.06	197.09	198.77	196.97	250.95	196.7	279.81	196.56	290.76	196.56
321.24	196.62	352.09	196.66	363.23	196.71	424.09	196.96	484.33	197.12
490.11	197.02	501.34	196.81	505.42	196.73	505.48	196.72	547.29	195.2
566.92	194.42	602.14	192.83	609.98	192.41	624.55	191.59	636	191.11
646.53	190.66	673.26	190.7	69[illegible].95	190.74	740.18	190.7	783.47	190.66
793.16	190.6	818.09	190.4	820.23	190.39	890.68	190.24	898.54	190.2
981.43	190.05	1008.01	190.01	1040.5	190.41	1048.95	190.52	1055.96	190.57
1066.55	190.84	1070.68	191.01	1085	191.62	1091.74	192.39	1121.18	195.59
1128.53	195.64	1148.15	196.21	1160.19	195.6	1166.07	194.78	1187.75	191.6
1206.64	190.64	1209.67	190.66	1216.45	191.05	1226.21	191.56	1230.42	191.77
1231	191.81	1231.93	191.87	1233.18	191.97	1238.77	192.35	1259.53	194.16
1271.39	195.08	1278.36	195.63	1279.12	195.67	1285.42	196.16	1288.2	196.33
1293.81	197.16	1314	199.6	1323.85	202.52	1324.93	202.84	1326.47	203.02
1331.27	203.52	1333.81	203.85	1339.62	209.96	1340.57	210.71	1341.32	211.26

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	624.55	.035	750.98	.035	1013.41	.035	1085	.038
1279.12	.038	1341.32	.038						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
624.55	1085	14.9	43.68	14.96	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 6195.54*

INPUT
Description:
Station Elevation Data num= 95

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	210.28	.12	210.26	.47	210.2	2.47	209.91	5.4	209.48
6.69	209.3	13.48	208.35	36.74	206.58	56.47	205.08	64.3	204.54
66.38	204.31	70.36	203.22	75.76	200.83	77.57	200.02	82.6	197.96
83.86	197.44	84.88	197.03	85.15	196.92	85.67	196.87	95.46	196
103.41	195.31	115.48	195.59	117.72	195.65	146.94	196.52	170.76	197.11
176.89	197.07	196.36	196.94	247.91	196.68	276.41	196.54	287.23	196.56
317.34	196.61	347.82	196.66	358.82	196.69	418.94	196.87	478.46	196.96
484.16	196.83	495.25	196.58	499.29	196.48	499.34	196.48	540.65	194.92
560.04	194.11	594.83	192.58	602.58	192.2	616.98	191.47	629.91	190.94
641.8	190.43	672	190.51	702.14	190.59	747.59	190.6	796.5	190.6
807.44	190.54	835.6	190.35	838.02	190.34	917.6	190.19	926.48	190.15
1020.12	190.03	1050.15	189.99	1076.39	190.35	1083.22	190.45	1088.89	190.51
1097.44	190.81	1100.77	190.97	1112.34	191.5	1118.37	192.37	1144.67	195.96
1151.25	195.99	1168.77	196.6	1179.53	195.87	1184.79	194.92	1204.17	191.23
1221.05	190.09	1223.75	190.11	1229.81	190.55	1238.53	191.1	1242.3	191.34
1242.81	191.38	1243.64	191.44	1244.76	191.52	1249.75	191.89	1268.3	193.69
1278.9	194.59	1285.14	195.12	1285.81	195.16	1291.44	195.56	1293.92	195.7
1298.94	196.57	1316.98	199.08	1325.78	202.28	1326.75	202.63	1328.12	202.82
1332.42	203.38	1334.69	203.71	1339.87	210.6	1340.73	211.44	1341.4	212.05

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	616.98	.035	752.99	.035	1035.33	.035	1112.34	.037
1285.81	.037	1341.4	.037						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
616.98	1112.34	14.9	43.68	14.96	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 6151.870

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 55

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	210.26	5.33	209.44	13.31	208.28	36.29	206.6	55.78	205.19
65.56	204.55	69.5	203.56	82.83	197.6	84.1	197.03	94.29	195.98
102.14	195.2	116.27	195.55	168.66	197.09	193.95	196.92	273.02	196.53
413.8	196.79	472.58	196.79	493.16	196.23	534.01	194.64	595.18	191.99
609.4	191.35	623.82	190.76	637.07	190.2	670.74	190.32	704.34	190.44
755	190.49	809.52	190.54	821.72	190.48	853.11	190.29	944.52	190.15
954.42	190.11	1092.28	189.97	1121.81	190.45	1139.69	191.38	1145	192.34
1168.17	196.32	1173.96	196.34	1189.4	196.99	1198.88	196.14	1203.51	195.06
1220.58	190.87	1235.45	189.55	1237.83	189.56	1243.17	190.04	1260.74	191.43
1277.08	193.22	1291.91	194.61	1299.65	195.08	1304.07	195.99	1319.96	198.56
1328.57	202.42	1335.56	203.58	1340.13	211.24	1340.88	212.17	1341.47	212.85

Manning's n Values num= 2

Sta	n Val	Sta	n Val
0	.05	755	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
609.4	1139.69	162.9	173.01	158.07	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 5978.856

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 50

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	210.11	4.59	209.45	7.39	209.03	36.89	207.17	39.32	207.01
62.22	205.02	71.39	203.83	82.12	198.91	85.52	197.45	87.11	197.28
109.32	195.18	172.51	197.01	172.84	197.02	172.91	197.02	173.21	197.02
214.62	195.89	258.41	195.9	271.12	195.47	424.63	194.69	491.91	192.94
520.46	191.9	589.97	189.76	600.38	189.64	601.23	189.63	661.34	188.48
703.05	188.74	755	188.35	766.28	188.26	813.22	188.44	823.84	188.21
860.44	188.08	952.43	187.97	966.99	187.9	997.98	189.59	1044.05	189.55
1101.22	190.77	1118.35	191.4	1144.21	193	1151.44	193.14	1165.05	193.42
1171.72	193.71	1206.89	195.27	1207.66	195.3	1207.91	195.35	1218.48	196.31
1219.51	196.75	1225.3	199.19	1225.56	199.41	1227.01	201.14	1229.5	203.84

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.035	36.89	.05	755	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
601.23	1044.05	197.39	190.73	235.69	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 5788.123

INPUT
Description:
Station Elevation Data num= 49

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	207.07	1.51	206.99	20.99	205.72	51	203.78	74.18	197.86
75.94	197.55	77.92	196.89	81.59	196.61	110	194.55	145.81	194.13
153.71	194.01	215.72	193.06	270.53	192.21	282.75	192.22	316.2	191.13
343.31	188.76	353.1	188.56	363.39	188.86	398.77	187.9	430.5	187.05
440.75	187.07	492.55	187.14	517.12	186.11	629.64	185.94	672.25	185.91
742.36	186.48	766.07	187.3	821.83	189.22	825.37	189.07	857.76	188.73
891.41	186.26	895.9	185.83	897.63	185.59	939.13	184.68	954.05	184.42
955.71	184.49	957.59	184.36	983.57	184.32	998.21	184.82	1003.23	185.06
1013.8	185.57	1024.53	187.88	1028.42	188.79	1028.93	188.91	1034.85	191.94
1041.83	198.73	1043.79	200.18	1047.69	203.43	1049.41	204.71		

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	20.99	.05	440.75	.035	629.64	.05	766.07	.035
1028.42	.05								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
492.55	1024.53	66.98	101.35	103.25	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 5686.773

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 49

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	206.16	28.01	204.67	35.04	204.27	45.47	202.77	46.63	202.42
50.68	201.05	63.15	196.89	98.34	194.23	100.52	194.07	105.69	193.69
194.58	192.71	226.32	192.36	229.62	192.02	235.83	191.61	256.98	190.25
274.8	187.43	299.49	183.68	322.22	184.63	328.62	184.88	338.04	185.24
355.37	187.45	364.15	187.38	421.15	187.46	451.15	186.26	470.47	185.4
590	185.23	658.52	185.13	678.18	185.1	682.42	185.11	693.45	186.03
699.97	186.26	803.82	191.43	812.9	190.83	824.14	189.77	846.63	185.46
851.78	184.15	854.81	184.03	872.48	183.41	872.82	183.42	873.3	183.44
910.58	184.33	913.38	184.35	920.86	184.41	932.08	186.07	936.98	187.29
944.81	189.91	948.92	192	953.35	195.84	966.54	207.31		

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val

0	.05	355.37	.035	590	.05	803.82	.035

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
451.15 932.08 59.9 92.96 76.35 .1 .3
Ineffective Flow num= 1
Sta L Sta R Elev Permanent
888 F

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 5593.814

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 50

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	205.85	36.85	203.74	41.08	203.13	57.44	198.12	60.97	196.92
70.24	195.76	71.69	195.47	74.47	194.94	108.91	190.51	112.36	190.27
119.95	190.51	193.48	191.97	196.14	191.81	197.28	191.59	208.62	190.15
209.1	189.93	210.3	189.54	223.64	185.02	225.74	184.98	237.21	183.52
248.16	184.04	290	185.66	296.1	185.9	296.45	185.91	349.11	188.04
366.67	187.2	385.69	186.77	436.22	184.7	531.5	184.6	565	184.55
577.61	184.53	661.26	183.92	713.89	183.82	730.46	184.89	744.92	184.8
778.7	184.34	787.22	183.76	815.45	184	832.31	183.73	849.08	184.29
855.93	184.86	880.21	186.7	892.02	187.67	901.17	188.39	909.48	189.31
917.59	193.76	917.71	193.78	918.13	194.29	930.1	209.14	931.13	210.22

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.05	290	.035	565	.05

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
436.22 855.93 56.58 91.06 69.13 .1 .3
Ineffective Flow num= 1
Sta L Sta R Elev Permanent
888 F

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 5502.751

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 43

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	204.86	23.16	203.6	25.75	203.38	31.88	201.52	68.63	191.81
73.08	191.15	77.5	190.87	89.97	190.12	94.16	190.24	142.37	191.72
148.12	191.28	157.99	190.92	162.57	190.33	167.45	188.16	175.3	183.74
176.57	183.43	220.71	185	235.75	185.43	243.46	185.65	247.54	185.85
282.35	187.55	333.43	185.37	372.21	184.06	425.72	184.01	459.6	183.62
478.95	183.58	516.84	183.34	625.42	182.66	629.53	182.66	667.96	183.04
689.12	183.06	691.69	183.07	791.93	183.77	795.32	183.81	826.73	185.25
837.26	185.9	851.15	187.78	855.96	188.36	871.31	190.21	873.39	190.54
888.49	195.1	890.57	195.44	906.74	203.24				

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	235.75	.035	516.84	.05	689.12	.035	826.73	.05

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
333.43 826.73 78.34 115.61 55.34 .1 .3
Ineffective Flow num= 1
Sta L Sta R Elev Permanent
888 F

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 5387.141

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 44

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	202.52	11.98	198.33	21.92	193.9	28.17	191.06	35.4	189.79
41.93	188.74	42.2	188.69	48.79	188.43	61.58	187.98	81.89	185.97
89.61	185.8	92.55	184.87	93.21	184.86	110.32	183.43	154.59	184.33
163.18	184.5	180.85	184.86	181.81	184.89	194.88	185.29	226.86	184.68
243.43	184.05	325.46	183.97	403.65	183.83	459.42	183.74	519.66	183.68
531.37	183.79	592.59	183.51	606.02	183.45	648.82	182.7	737.13	183.32
774.24	184.57	782.14	184.96	795	187.72	800.24	188.85	805.38	189.57
805.58	189.59	815.6	190.63	831.72	192.36	841	194.25	845.27	196.03
851.06	199.99	852.27	200.98	857.27	205.71	858.83	207.18		

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	154.59	.035	403.65	.05	592.59	.035	795	.05

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
226.86 774.24 129.7 137.48 67.44 .1 .3
Ineffective Flow num= 1
Sta L Sta R Elev Permanent
888 F

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 5249.660

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 36

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	202.7	.52	202.6	1.51	201.66	4.92	198.49	13.56	189.72

14.07	189.49	22.09	185.24	27.89	183.66	37.64	182.92	59.97	181.47
84.69	182.09	93.23	182.16	120	182.49	134.32	182.66	137.33	182.7
173.64	183.5	182.5	183.61	184.05	183.55	285	183.48	424.26	183.39
468.95	183.81	510	183.62	700.25	182.76	700.34	182.76	700.55	182.76
700.74	182.77	743.86	184.17	750.42	184.62	777.35	187.16	792.49	188.58
821.57	189.96	825.28	190.27	828.14	192.34	831.62	194.54	838.72	202.81
839.47	203.7								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	120	.035	285	.05	510	.035	750.42	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
27.89	743.86	141.78	155.8	79.91	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 5093.864

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 38

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	203.51	2.37	203.35	24.51	198.72	28.54	198.21	35.45	196.19
38.92	195.17	41.19	194.5	41.52	194.36	63.35	184.5	69.97	182.66
74.4	182.44	83.85	181.79	99.5	180.73	134.04	181.4	155.14	182.12
166.6	182.38	175.47	182.57	255	183.57	269.15	183.75	283.83	183.12
365.41	183.11	393.38	183.09	473.08	183.82	505	183.68	620.62	183.17
713.73	183.03	771.51	184.47	782.35	184.79	801.73	186.68	817.92	187.32
830.9	187.84	859.17	189.33	865.1	191.19	867.36	191.45	869.67	192.85
873.58	197.08	875.2	198.71	886.16	210.29				

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	35.45	.05	166.6	.035	255	.05	505	.035
782.35	.05								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
63.35	771.51	102.03	146.85	97.36	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 4947.016

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 39

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	203.11	9.94	202.69	18.28	202.26	60.7	198.07	85.14	195.88
95.51	193.74	105.31	190.47	115.7	187.38	120.69	186.24	126.13	185.04
128.34	184.68	130.58	184.32	134.88	183.63	142.97	183.3	164.22	183.14
167.76	183.16	174.18	183.19	188.89	183.26	224.49	183.02	268.68	181.99
302.23	181.85	319.19	182.15	354.59	182.69	388.04	183.27	451.56	183.85
475	183.75	485.44	183.7	665	183.4	701.57	183.34	750.45	184.55
770.04	184.86	785.05	185.1	866.36	188.88	886.57	189.58	891.62	191.63
907.53	202.02	907.69	202.13	908.09	202.44	916.71	209.1		

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.07	128.34	.05	174.18	.035	302.23	.05	475	.035
665	.05								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
128.34	750.45	101.25	101.15	96.58	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 4845.863

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 37

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	203.27	2.7	203.05	22.2	200.57	39.38	198.64	45.86	197.73
65.32	192.84	72.69	191.29	89.71	187.69	101.01	186.43	106.56	185.79
138.3	185.07	139.26	185.08	156.93	183.8	157.18	183.78	230.93	181.97
244.77	181.1	278.92	180.95	320	181.42	406.46	182.41	526.28	183.4
575.56	183.75	663.99	183.6	676.22	183.91	690	184.13	700.75	184.3
717.86	184.58	759.74	185.63	773.79	185.8	845.65	187.78	868.49	188.52
871.5	189.01	874.3	189.1	881.19	189.68	885.07	191.8	889.09	194.41
895.93	200.48	901.87	204.71						

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.07	106.56	.05	156.93	.035	320	.05	575.56	.035
690	.05								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
156.93	663.99	113.15	117.68	124.47	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 4728.187

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 45

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	203.37	9.53	202.76	20.4	202.06	36.42	201.09	50.8	199.14
71.17	195.99	100.99	189.01	102.85	188.51	113.07	187.21	123.91	185.57
136.12	183.73	139.59	183.33	145.56	183.36	163.61	182.2	176.37	181.39
182.05	181.29	203.03	180.94	215.67	180.8	238.29	180.69	305	180.39

370	180.09	380.93	180.04	397.55	180.08	568.85	182.24	649.68	183.55
671.96	184.11	733.05	185.63	801.23	188.49	804.55	188.63	808.66	188.57
852.92	188.6	857.61	189.59	864.28	190.59	866.35	192.27	881.76	203.91
882.65	204.4	886.3	206.66	890.93	209.34	894.01	210.39	927.95	221.47
945.35	228.82	946.78	229.36	946.92	229.4	947.13	229.45	953.14	231.35

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	9.53	.07	123.91	.05	238.29	.035	305	.05
370	.035	671.96	.05						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
163.61	568.85	103.68	96.65	85.93	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 4631.533

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 37

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	203.7	8.12	203.31	18.46	202.36	18.67	202.33	56.14	197.09
56.6	197.04	81.62	192.05	85.3	191.27	93.91	189.44	98.45	188.91
133.04	183.77	161.9	182.23	167.16	182.29	183.87	181.93	192.69	181.74
259.21	180.6	301.66	180.12	332.65	179.99	340	180.01	411.37	180.19
460.04	180.8	504.03	181.5	624.71	183.42	646.81	183.96	660	184.28
781.7	187.28	816.45	188.73	842.43	189.84	843.6	189.82	844.06	189.93
846.04	191.24	875.7	208.82	878.23	210.1	883.52	211.31	904.2	215.08
916.56	216.32	933.35	218.99						

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	18.67	.07	133.04	.05	340	.035	660	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
183.87	504.03	83.04	106.65	96.62	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 4524.879

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 42

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	203.49	8.73	202.84	36.07	200.83	53.14	199.51	70.23	197.68
83.18	196.14	121.15	189.14	127.15	187.91	127.61	187.81	157.72	184.03
165.37	183.73	172.29	183.81	190.55	183.45	198.19	183.31	273.27	181.93
283.53	181.72	286.23	181.62	291.78	181.48	305.84	180.44	314.99	180.99
321.12	180.85	329.3	180.71	350	178.47	356.33	177.79	364.66	177.19
379.38	177.67	394.96	177.76	425.04	178.51	471.14	180.69	491.33	181.67
592.54	183.25	618.14	183.87	640	184.4	809.52	188.49	831.63	188.9
834.06	189.26	838.59	189.88	841.25	191.07	849.43	194.04	864.99	201.64
869.63	203.45	873.08	204.07						

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	8.73	.07	165.37	.05	350	.035	640	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
286.23	491.33	102.46	90.4	106.95	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 4434.483

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 40

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	202.71	1.83	202.52	3.78	201.81	10.5	199.86	34.89	192.51
40.24	190.96	61.14	187.34	74.08	185.22	75.83	184.93	92.5	183.31
99.46	182.63	102.1	182.37	106.69	182.4	157.49	181.58	159.14	181.53
176.66	180.96	252.87	179.64	305.4	177.68	309.44	177.31	311.99	177.43
313.89	177.33	317.76	177.33	384.57	177.21	404.39	177.39	469.88	180.38
500.79	181.91	519.99	183.3	550.36	183.77	560	183.92	600.21	184.54
626.85	184.93	777.58	187.81	794.64	190.22	801.18	190.33	806.42	191.35
808.69	192.2	812.94	194.2	818	196.77	825.03	198.57	828.85	199.46

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.07	99.46	.05	317.76	.035	560	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
252.87	469.88	229.37	220.73	203.25	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 4213.757

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 40

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	200.81	5.26	198.89	8.08	197.81	12.49	196.17	28.49	190.98
37.55	187.18	44.54	184.77	53.68	182.73	67.4	182.76	93.9	181.55
134.36	179.7	143.82	179.39	152.85	179.17	215.97	177.58	217.28	177.55
238.51	177.6	290.3	177.71	365.47	177.34	390	177.26	413.09	177.18
445.34	176.41	472.97	177.11	483.44	177.6	497.22	179.2	517.55	181.23
537.8	183.7	537.88	183.71	547.73	183.71	567.09	184.07	625.37	184.51
700.46	185.13	733.35	186.02	760	186.68	792.43	187.48	806.68	187.89

811.25	188.05	812.52	188.39	827.71	190.67	831.02	192.4	853.65	202.22

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.07	93.9	.05	390	.035	537.8	.05	760	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
152.85	497.22	211.8	205.08	199.31	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 4008.681

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 45

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	201.88	6.03	199.17	12.95	196.64	35.87	186.57	36.93	186.03
45.91	183.57	49.77	182.45	50.49	182.24	50.74	182.17	51.67	181.92
52.26	181.86	119.93	178.37	132.49	177.84	136.23	177.87	153.26	177.82
257.16	177.53	349.61	177.27	391.37	176.26	410	176.09	474.15	175.49
481.6	175.85	495.72	176.02	498.86	175.98	499.79	176.12	504.54	177.37
507.19	177.88	511.21	180.96	513.35	182.9	513.95	183.14	519.28	184.66
520.13	184.65	527.43	184.55	542.2	184.47	588.47	185.67	660.87	185.2
708.48	184.85	754	185.73	764.5	185.9	789.79	189.86	794.92	190.26
796.59	190.68	801.16	193.59	805.97	196.28	824.38	203.17	829.56	203.83

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.07	49.77	.05	410	.035	519.28	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
119.93	507.19	243.81	216.85	190.05	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 3791.835

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 47

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	200.41	4.26	198.05	4.8	197.85	7.66	197.43	26.58	194.7
59.61	193.56	68.97	193.43	77.7	193.24	96.01	192.43	103.34	192.15
118.37	191.47	125.11	190.83	133.18	189.67	136.17	189.03	137.21	188.63
152.36	181.67	166.58	177.95	206.03	176.05	221.16	175.47	236.77	175.37
251.29	175.28	260.54	175.36	302.78	175.62	355	176.19	420.2	176.91
442.45	177.08	453.3	177.93	470	178.6	477.38	178.9	481.37	179.06
485.68	179.63	513.63	180.39	558.62	182.24	560.18	182.26	588.4	182.65
655.35	182.02	712	181.92	715.03	182.41	722.35	183.13	726.37	185.78
730.07	187.58	736.14	192.28	742.74	196.34	747.69	198.5	755.83	201.84
757.73	202.43	766.25	203.95						

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.07	7.66	.05	236.77	.035	260.54	.05	355	.035
470	.05								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
166.58	442.45	193.71	199.59	229.82	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 3592.245

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 51

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	205.95	.94	205.38	7.17	200.58	12.98	196.61	19.25	194.43
32.77	190.88	50.87	187.88	58.77	184.86	62.36	184.42	90.6	181.99
93.31	181.83	131.73	177.51	135.33	177.11	139.48	176.94	143.89	176.42
146.78	176.29	147.51	176.26	157.53	175.84	198.67	173.2	221.15	173.48
255	175.11	294.51	177.02	315	177.05	386.09	177.15	423.18	176.91
440.34	177.3	482.38	178.27	500.4	178.99	515.32	179.79	550.44	180.6
601.16	182.67	606.88	183.09	610.77	184.52	613.61	185.24	615.56	186.63
616.08	186.89	630.19	196.8	634.73	197.83	639.33	198.25	655	198.33
660.56	198.36	681.87	198.8	765.96	201.31	793.36	202.21	799.31	202.32
804.12	202.27	817.85	202.17	913.94	202.09	920.78	202.14	925.92	202.73
940.9	203.52								

Manning's n Values num= 8

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.07	131.73	.035	198.67	.05	255	.035	315	.05
386.09	.035	440.34	.05	655	.02				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
135.33	423.18	227.98	216.09	205.8	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 3376.157

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 48

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	201.07	3.37	197.95	19.05	184.4	24.22	179.7	25.55	178.3
28.52	177.22	29.4	177.16	29.83	176.92	30.03	176.89	31.14	176.95
33.89	177.33	45.71	179.18	53.46	178.96	58.29	178.68	60.79	178.53
80.26	177.38	114.81	175.93	135	175.61	170	175.06	175.76	174.97
277.41	173.7	290	173.69	297.62	173.68	301.92	173.67	368.9	173.8

370	173.8	380.43	173.82	381.68	173.85	441.58	175.45	450.44	176.6
456.37	177.34	461.78	178.92	482.65	187.5	485.35	188.63	487.9	189.38
496.63	191.83	501.76	192.43	517.34	194.82	521.03	196	530	196.14
577.96	196.9	581.86	197.01	667.6	198.92	692.21	199.27	729.61	200.36
787.24	202.45	809.84	202.7	832.73	203.46				

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.07	58.29	.05	135	.035	170	.05	290	.035
370	.05	530	.02						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
114.81	441.58	213.06	206.59	170.09	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 3169.567

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 37

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	202.81	17.39	187.19	20.1	184.41	26.49	176.65	30.73	174.19
36.31	170.12	63.45	169.65	68.1	169.36	68.33	169.37	70.89	169.5
71.77	169.54	79.63	169.57	102.49	170.28	128.59	171.1	198.45	171.16
267.13	172.44	325	173.69	343.3	174.08	368.86	174.3	385	174.45
392.02	174.51	428.46	174.85	457.13	175.24	466.29	175.91	474.08	176.34
491.45	177.44	514.47	185.13	530.01	190.11	540.37	191.17	560.21	193.29
605.9	194.1	663.72	196.08	731.34	198.35	771.14	200.95	809.16	202.81
836.92	203.19	854.08	203.45						

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.07	68.33	.035	102.49	.05	325	.035	385	.05
540.37	.02								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
30.73	392.02	233.08	206.98	127.76	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 2962.583

INPUT
Description:
Station Elevation Data num= 48

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	196.65	1.21	194.95	2.74	193.19	7.39	187.41	9.04	185.53
9.93	184.66	15.36	180.15	18.49	177.74	21.12	176.24	27.45	172.63
29.96	170.67	32.82	170.12	40.32	169.22	42.53	169.14	53.73	169.83
66.24	170.54	73.41	170.96	88.51	172.01	95.45	172.5	112.8	173.7
119.62	174.18	151.76	174.34	174.26	174.29	181.79	174.04	238.12	172.4
298.06	170.72	355.76	171.99	382.05	172.57	393.11	173.1	418.99	174.35
421.7	174.38	425.17	174.42	502.17	175.22	524.26	175.57	529.87	175.94
555.35	177.47	582.7	184.53	590.04	186.21	602.82	189.14	610.81	190.23
628.44	192.16	664.5	193.75	706.88	195.82	743.83	197.24	795.3	198.69
826.88	201.82	849.91	203.31	867.7	203.18				

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.07	95.45	.035	112.8	.05	355.76	.035	425.17	.05
590.04	.02								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
27.45	355.76	219.26	216.54	187.47	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 2746.045

INPUT
Description:
Station Elevation Data num= 66

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	193.09	5.87	190.32	7.53	189.61	20.08	187.13	45.88	181.4
62.08	178.42	67.85	177.35	74.88	176.01	104.52	170.55	124.17	168.6
129.19	168.21	136.57	168.15	140.31	168.12	148.42	167.83	155.03	167.55
165.53	167.39	174.64	167.25	203.55	167.33	227.61	167.69	284.63	168.54
329.45	170.32	372.93	171.35	382.8	171.81	395.64	172.41	432.46	174.56
434.53	174.68	472.25	176.88	496.43	177.65	499.58	177.7	523.92	178.02
572.77	177.97	598.51	179.61	628.03	179.17	637.73	179.28	649.82	179.89
657.53	180.45	662.14	181.22	668.87	182.36	699.31	186.2	702.46	186.74
710.77	187.33	730.98	189.45	737.08	190.23	771.86	191.33	773.38	191.38
807.73	193.38	812.26	193.29	819.59	194.04	832.36	194.19	838.02	194.76
852.47	196.21	862.83	196.32	880.74	196.32	921.34	198.05	924.11	198.18
925.18	198.36	926.23	198.45	927.97	198.45	954.06	199.83	960.65	200.47
967.55	200.25	976.45	200.54	993.9	201.7	1015.04	203.9	1021.08	203.93
1034.59	204.46								

Manning's n Values num= 8

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.02	62.08	.07	165.53	.035	227.61	.05	382.8	.035
434.53	.05	662.14	.02	838.02	.035				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
104.52	329.45	139.12	137.72	142.04	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 2608.338

INPUT

Description:
Station Elevation Data num= 45

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	197.52	1.98	197.16	8.23	195.57	20.39	192.61	44.27	186.73
50.9	185.94	53.04	185.69	92.16	177.69	96	176.91	110.52	172.48
114.02	171.41	116.04	171.24	130.76	168.57	130.88	168.57	145.73	167.82
173.95	167.14	181.17	167.34	235.62	168.88	271.89	169.71	309.03	171.22
322.92	171.78	327.21	172.04	403.24	176.68	403.38	176.68	404.98	176.75
407.11	176.87	411.05	176.99	505.74	180.17	543.27	182.79	619.05	185.86
621.92	185.99	623.65	186.15	625.34	186.23	646.06	187.2	651.27	187.46
659.44	187.68	684.52	188.97	684.6	188.97	684.63	188.98	684.81	189.01
697.48	191.28	697.49	191.28	714.77	198.08	718.68	199.93	727.14	204.25

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.02	50.9	.07	130.88	.035	327.21	.05	625.34	.02

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
116.04	309.03	157.33	164.71	180.94	.3	.5

BRIDGE RIVER: San Juan
REACH: Upper RS: 2580

INPUT
Description:
Distance from Upstream XS = 30
Deck/Roadway Width = 62.99
Weir Coefficient = 2.6
Upstream Deck/Roadway Coordinates
num= 4

Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord
-47.6437	208.06	0	-47.6437	208.06	200.56	728.35	235.94	228.44
728.35	235.94	0						

Upstream Bridge Cross Section Data
Station Elevation Data num= 45

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	197.52	1.98	197.16	8.23	195.57	20.39	192.61	44.27	186.73
50.9	185.94	53.04	185.69	92.16	177.69	96	176.91	110.52	172.48
114.02	171.41	116.04	171.24	130.76	168.57	130.88	168.57	145.73	167.82
173.95	167.14	181.17	167.34	235.62	168.88	271.89	169.71	309.03	171.22
322.92	171.78	327.21	172.04	403.24	176.68	403.38	176.68	404.98	176.75
407.11	176.87	411.05	176.99	505.74	180.17	543.27	182.79	619.05	185.86
621.92	185.99	623.65	186.15	625.34	186.23	646.06	187.2	651.27	187.46
659.44	187.68	684.52	188.97	684.6	188.97	684.63	188.98	684.81	189.01
697.48	191.28	697.49	191.28	714.77	198.08	718.68	199.93	727.14	204.25

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.02	50.9	.07	130.88	.035	327.21	.05	625.34	.02

Bank Sta: Left	Right	Coeff Contr.	Expan.
116.04	309.03	.3	.5

Downstream Deck/Roadway Coordinates
num= 4

Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord
-47.6437	208.06	0	-47.6437	208.06	200.56	728.35	235.94	228.44
728.35	235.94	0						

Downstream Bridge Cross Section Data
Station Elevation Data num= 41

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	195.62	.85	195.36	3.42	194.45	20.23	187.93	21.53	187.55
26.44	186.13	33.57	183.63	45.92	178.05	46.63	177.78	47.28	177.54
60.9	176.79	78.94	173.17	79.06	173.15	84.86	172.18	86.84	171.91
97.13	170.5	130.03	170.2	155.46	168.82	187	168.81	204.75	168.82
216.73	168.71	237.91	168.51	281.75	169.76	349.25	171.27	381.38	173.34
461.47	177.12	476.01	177.84	496.32	178.63	524.44	180.28	609.93	186.01
645.4	187.24	655.65	189.33	672.2	190.78	674.49	190.75	687.77	190.65
697.57	195.15	697.71	195.19	701.59	196.97	714.78	202.98	715.19	203.14
717.65	204.28								

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	21.53	.07	78.94	.035	204.75	.05

Bank Sta: Left	Right	Coeff Contr.	Expan.
130.03	281.75	.3	.5

Upstream Embankment side slope = 0 horiz. to 1.0 vertical
Downstream Embankment side slope = 0 horiz. to 1.0 vertical
Maximum allowable submergence for weir flow = .95
Elevation at which weir flow begins = 210
Energy head used in spillway design =
Spillway height used in design =
Weir crest shape = Broad Crested

Number of Piers = 4

Pier Data
Pier Station Upstream= 79.36 Downstream= 79.36
Upstream num= 2

Width	Elev	Width	Elev
10.56	0	10.56	336

Downstream num= 2

Width	Elev	Width	Elev
10.56	0	10.56	336

Pier Data
Pier Station Upstream= 253.36 Downstream= 253.36
Upstream num= 2

Width	Elev	Width	Elev
10.56	0	10.56	336

Downstream num= 2

Width	Elev	Width	Elev
10.56	0	10.56	336

Pier Data
Pier Station Upstream= 427.36 Downstream= 427.36
Upstream num= 2

Width	Elev	Width	Elev
10.562	0	10.562	336

Downstream num= 2

Width	Elev	Width	Elev
10.562	0	10.562	336

Pier Data
Pier Station Upstream= 601.36 Downstream= 601.36
Upstream num= 2

Width	Elev	Width	Elev
10.562	0	10.562	336

Downstream num= 2

Width	Elev	Width	Elev
10.562	0	10.562	336

Number of Bridge Coefficient Sets = 1

Low Flow Methods and Data
Energy
Selected Low Flow Methods = Energy

High Flow Method
Energy Only

Additional Bridge Parameters
Add Friction component to Momentum
Do not add Weight component to Momentum
Class B flow critical depth computations use critical depth
inside the bridge at the upstream end
Criteria to check for pressure flow = Upstream energy grade line

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 2443.625

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 41

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	195.62	.85	195.36	3.42	194.45	20.23	187.93	21.53	187.55
26.44	186.13	33.57	183.63	45.92	178.05	46.63	177.78	47.28	177.54
60.9	176.79	78.94	173.17	79.06	173.15	84.86	172.18	86.84	171.91
97.13	170.5	130.03	170.2	155.46	168.82	187	168.81	204.75	168.82
216.73	168.71	237.91	168.51	281.75	169.76	349.25	171.27	381.38	173.34
461.47	177.12	476.01	177.84	496.32	178.63	524.44	180.28	609.93	186.01
645.4	187.24	655.65	189.33	672.2	190.78	674.49	190.75	687.77	190.65
697.57	195.15	697.71	195.19	701.59	196.97	714.78	202.98	715.19	203.14
717.65	204.28								

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	21.53	.07	78.94	.035	204.75	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
130.03	281.75	22.78	37.03	49.81	.3	.5

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 2406.59*

INPUT
Description:
Station Elevation Data num= 67

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	193.29	.14	193.25	.83	193.06	3.34	192.24	6.67	191.07
19.78	186.6	21.05	186.26	25.85	185.02	32.82	182.85	44.9	178.1
45.59	177.87	46.23	177.66	48.13	177.53	50.54	177.39	51.48	177.34
59.55	176.79	77.18	173.51	77.3	173.49	82.97	172.59	84.91	172.33
86.5	172.11	89.49	171.67	94.97	170.92	127.14	169.88	128.48	169.8
141.12	169.04	144.5	168.86	149.33	168.57	176.86	168.26	184.65	168.18
192.35	168.11	202.81	167.91	202.85	167.91	217.15	167.64	221.29	167.6
243.49	168.45	257.95	169	268.3	169.45	287.61	169.8	338.33	170.72
371.66	172.4	375.12	172.53	375.76	172.55	419.15	174.17	454.75	175.6
469.84	176.24	483.9	176.72	490.91	176.96	510.21	177.91	520.08	178.4
551.88	180.17	603.28	183.67	608.18	183.97	608.78	184.01	632.92	185.04
645.58	185.57	656.21	187.4	673.38	188.81	675.75	188.82	689.53	188.94
698.57	192.27	699.7	192.68	699.84	192.72	703.87	194.18	717.55	199.11
717.98	199.24	720.53	200.18						

Manning's n Values num= 9

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	21.05	.066	77.18	.038	127.14	.047	196.66	.047
223.37	.035	268.3	.05	375.12	.05	720.53	.05		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
127.14	268.3	22.78	37.03	49.81	.3	.5

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 2369.55*

INPUT
Description:
Station Elevation Data num= 67

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	190.96	.14	190.93	.81	190.75	3.27	190.03	6.51	189.01
19.33	185.27	20.57	184.98	25.26	183.9	32.08	182.07	43.88	178.15
44.56	177.96	45.18	177.79	47.03	177.63	49.39	177.48	50.31	177.43
58.19	176.8	75.43	173.84	75.54	173.83	81.09	172.99	82.98	172.74
84.53	172.54	87.46	172.08	92.81	171.35	124.25	169.56	125.39	169.48
136.19	168.75	139.08	168.6	143.21	168.32	166.72	167.71	173.37	167.55
179.95	167.39	188.89	167.11	188.92	167.11	201.13	166.72	204.68	166.68
228.37	167.79	243.8	168.51	254.85	169.15	274.86	169.43	327.41	170.17
361.95	171.46	365.53	171.56	366.19	171.58	411.15	172.84	448.04	174.09
463.67	174.64	478.23	175.06	485.5	175.28	505.49	176.1	515.73	176.51
548.68	178	601.93	181.68	607.01	181.96	607.62	182	632.64	183.27
645.75	183.89	656.77	185.46	674.56	186.83	677.02	186.89	691.29	187.23
700.66	189.9	701.83	190.21	701.98	190.24	706.15	191.38	720.33	195.24
720.77	195.34	723.41	196.07						

Manning's n Values num= 9

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	20.57	.062	75.43	.041	124.25	.044	188.57	.044
213.28	.035	254.85	.05	365.53	.05	723.41	.05		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
124.25	254.85	22.78	37.03	49.81	.3	.5

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 2332.52*

INPUT
Description:
Station Elevation Data num= 67

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	188.63	.14	188.61	.79	188.45	3.19	187.82	6.36	186.94
18.88	183.94	20.09	183.69	24.68	182.79	31.33	181.29	42.86	178.21
43.52	178.05	44.13	177.91	45.94	177.73	48.24	177.57	49.14	177.52
56.84	176.8	73.67	174.18	73.78	174.16	79.2	173.4	81.05	173.16
82.57	172.97	85.42	172.49	90.65	171.77	121.35	169.24	122.31	169.16
131.26	168.46	133.66	168.34	137.08	168.06	156.58	167.16	162.1	166.91
167.56	166.68	174.97	166.31	175	166.31	185.12	165.81	188.06	165.77
213.25	167.14	229.65	168.02	241.4	168.84	262.11	169.06	316.49	169.62
352.23	170.52	355.93	170.59	356.62	170.61	403.14	171.5	441.32	172.57
457.5	173.04	472.57	173.41	480.09	173.61	500.78	174.28	511.37	174.63
545.47	175.84	600.57	179.69	605.83	179.95	606.47	180	632.35	181.5
645.92	182.22	657.33	183.53	675.74	184.86	678.28	184.95	693.06	185.52
702.75	187.52	703.96	187.75	704.11	187.77	708.43	188.59	723.1	191.37
723.56	191.44	726.3	191.97						

Manning's n Values num= 9

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	20.09	.058	73.67	.044	121.35	.041	180.47	.041
203.19	.035	241.4	.05	355.93	.05	726.3	.05		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
121.35	241.4	22.78	37.03	49.81	.3	.5

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 2295.48*

INPUT
Description:
Station Elevation Data num= 67

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	186.3	.13	186.28	.77	186.14	3.12	185.61	6.21	184.88
18.43	182.6	19.61	182.41	24.09	181.67	30.58	180.51	41.83	178.26
42.48	178.14	43.07	178.03	44.84	177.83	47.09	177.67	47.97	177.61
55.48	176.8	71.92	174.52	72.03	174.5	77.31	173.8	79.11	173.58
80.6	173.39	83.39	172.89	88.49	172.19	118.46	168.92	119.22	168.84
126.33	168.17	128.23	168.08	130.95	167.81	146.44	166.61	150.82	166.28
155.16	165.96	161.04	165.51	161.07	165.51	169.11	164.89	171.45	164.85
198.13	166.48	215.51	167.54	227.95	168.54	249.35	168.68	305.57	169.06
342.51	169.58	346.34	169.63	347.05	169.63	395.14	170.17	434.6	171.05
451.32	171.44	466.9	171.76	474.68	171.93	496.06	172.47	507.01	172.75
542.26	173.67	599.22	177.7	604.66	177.95	605.31	177.99	632.07	179.72
646.1	180.55	657.89	181.59	676.92	182.89	679.55	183.02	694.82	183.81
704.84	185.14	706.09	185.28	706.25	185.29	710.71	185.79	725.88	187.5
726.35	187.54	729.18	187.86						

Manning's n Values num= 9

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	19.61	.054	71.92	.047	118.46	.038	172.38	.038
193.1	.035	227.95	.05	346.34	.05	729.18	.05		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
118.46	227.95	22.78	37.03	49.81	.3	.5

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 2258.454

INPUT
Description:
Station Elevation Data num= 31

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	183.97	.13	183.96	6.06	182.82	43.75	177.93	45.94	177.76

46.8	177.7	78.63	173.82	81.35	173.3	115.57	168.6	116.13	168.52
121.4	167.88	122.81	167.82	139.55	165.64	147.14	164.71	153.1	163.98
154.83	163.94	183.01	165.83	201.36	167.05	214.5	168.23	236.6	168.31
336.75	168.66	337.48	168.66	387.14	168.84	461.24	170.11	491.35	170.66
539.05	171.51	597.87	175.71	603.48	175.94	631.79	177.95	706.93	182.76
732.06	183.76								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.05	183.01	.035	336.75	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
115.57	214.5	37.15	40.69	38.12	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 2217.76*

INPUT
Description:
Station Elevation Data num= 72

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	184.18	.17	184.16	3.03	183.69	4.81	183.4	5	183.35
5.55	183.24	5.92	183.16	8.13	182.68	17.8	180.92	27.6	179.98
45.33	178.12	58.67	177.02	61.6	176.87	62.76	176.81	62.96	176.79
67.27	176.38	68.2	176.29	78.67	175.34	89.94	174.13	105.02	173.02
105.44	172.98	109.09	172.53	117.49	171.76	148.36	168.94	154.98	168.31
155.52	168.24	160.65	167.64	162.02	167.57	168.49	166.77	178.31	165.56
185.7	164.7	191.12	164.07	191.5	164.02	193.18	163.95	225.26	165.56
227.4	165.67	246.15	166.83	261.11	167.99	283.96	168.1	354.64	168.42
380.78	168.5	387.48	168.52	388.23	168.52	394.07	168.54	408.98	168.7
417.08	168.8	437.69	169.03	439.56	169.04	492.08	169.93	499.67	170.03
516.16	170.25	547.28	170.71	565.05	170.96	571.43	171.11	580.09	171.37
596.59	171.68	633.84	173.81	637.12	174.04	651.71	174.72	657.38	175.02
659.26	175.07	663.18	175.39	672.23	176.32	676.03	176.78	683.59	177.16
687.85	177.6	692.45	178.03	700.99	178.79	735.99	180.99	753.41	181.97
770.11	182.84	796.09	183.74						

Manning's n Values num= 10

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.046	67.27	.039	154.98	.035	182.51	.035	227.33	.035
261.11	.05	354.64	.05	387.48	.05	408.98	.05	796.09	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
154.98	261.11	37.15	40.69	38.12	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 2177.07*

INPUT
Description:
Station Elevation Data num= 72

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	184.39	.22	184.37	3.81	183.83	6.03	183.5	6.28	183.43
6.97	183.29	7.42	183.18	10.19	182.54	22.32	179.95	34.62	179.03
56.86	177.01	73.59	176.11	77.27	175.97	78.72	175.92	78.97	175.91
84.37	175.48	85.54	175.38	98.68	174.42	112.81	173.04	131.72	172.17
132.25	172.14	136.83	171.77	147.36	171.07	186.08	168.6	194.39	168.02
194.91	167.96	199.9	167.4	201.23	167.31	207.52	166.59	217.07	165.49
224.25	164.69	229.53	164.1	229.89	164.06	231.53	163.96	267.52	165.3
269.91	165.39	290.95	166.62	307.73	167.76	331.32	167.89	404.3	168.28
431.29	168.36	438.21	168.38	438.99	168.38	445.01	168.4	460.41	168.68
468.78	168.83	490.05	169.22	491.99	169.24	546.21	170.15	554.05	170.22
571.07	170.4	603.21	170.75	621.56	170.95	628.15	171.14	637.09	171.52
654.12	171.84	692.58	173.54	695.97	173.78	711.04	174.13	716.9	174.32
718.84	174.36	722.89	174.84	732.22	176.07	736.15	176.75	743.95	176.99
748.36	177.56	753.1	178.11	761.92	179.1	798.06	181.33	816.05	182.22
833.3	182.93	860.12	183.71						

Manning's n Values num= 10

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.043	84.37	.043	194.39	.035	223.79	.035	271.65	.035
307.73	.05	404.3	.05	438.21	.05	460.41	.05	860.12	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
194.39	307.73	37.15	40.69	38.12	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 2136.38*

INPUT
Description:
Station Elevation Data num= 72

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	184.6	.26	184.57	4.58	183.98	7.26	183.6	7.55	183.51
8.38	183.34	8.93	183.21	12.26	182.4	26.85	178.99	41.63	178.07
68.38	175.91	88.5	175.2	92.93	175.08	94.67	175.03	94.98	175.02
101.48	174.57	102.88	174.47	118.68	173.51	135.68	171.94	158.43	171.33
159.06	171.3	164.57	171	177.24	170.39	223.81	168.26	233.79	167.73
234.31	167.67	239.15	167.17	240.45	167.06	246.56	166.4	255.83	165.41
262.81	164.68	267.93	164.14	268.29	164.1	269.88	163.98	309.77	165.03
312.43	165.1	335.74	166.4	354.35	167.52	378.68	167.67	453.96	168.15
481.8	168.23	488.94	168.24	489.74	168.25	495.96	168.26	511.84	168.65
520.47	168.87	542.42	169.41	544.41	169.44	600.35	170.36	608.43	170.41
625.99	170.54	659.14	170.8	678.07	170.94	684.86	171.17	694.09	171.66
711.66	172.01	751.33	173.26	754.83	173.51	770.37	173.53	776.41	173.63
778.41	173.64	782.59	174.28	792.22	175.83	796.27	176.71	804.32	176.81
808.86	177.52	813.76	178.19	822.86	179.42	860.14	181.67	878.69	182.47
896.48	183.01	924.15	183.69						

Manning's n Values num= 10

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.039	101.48	.046	233.79	.035	265.06	.035	315.97	.035
354.35	.05	453.96	.05	488.94	.05	511.84	.05	924.15	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
233.79	354.35	37.15	40.69	38.12	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 2095.690

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 47

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	184.81	5.35	184.12	8.48	183.7	8.82	183.59	9.79	183.39
10.43	183.23	31.37	178.02	48.65	177.12	79.91	174.8	110.99	174.13
118.58	173.66	120.22	173.56	138.69	172.59	158.55	170.85	185.13	170.49
207.11	169.71	261.53	167.92	273.2	167.44	285.59	166.22	306.34	164.18
308.23	163.99	354.94	164.82	400.96	167.28	490	167.92	503.62	168.02
532.31	168.09	546.9	168.12	563.27	168.62	572.16	168.9	594.78	169.6
654.48	170.58	662.81	170.6	734.58	170.93	741.58	171.2	751.09	171.81
810.08	172.99	813.68	173.25	829.7	172.94	837.99	172.93	852.22	175.58
856.39	176.67	864.69	176.63	869.37	177.48	883.79	179.73	922.21	182.01
941.33	182.72	988.18	183.67						

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	118.58	.05	306.34	.035	490	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
273.2	400.96	97.79	280.21	315.49	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 1815.468

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 45

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	179.36	2.08	178.85	6.28	177.56	30.14	175.76	32.7	175.46
86.02	175.1	87.39	175.09	87.62	175.08	87.99	175.06	132	173.2
202.5	170.23	250.96	169.57	285	167.82	293.94	167.36	330.88	165.46
377.12	164.1	414.9	163.81	477.77	163.14	573.83	163.32	603.6	163.51
604.68	163.38	620.57	162.55	631.33	160.3	637.44	158.18	641.68	157.71
646.53	157.13	649.75	156.78	654.61	156.93	665.23	158.28	666.56	158.49
667.62	158.75	684.92	162.64	695.21	164.31	700.31	164.76	703.34	166.78
707.45	170.49	710	170.97	714.12	171.75	723.72	172.17	724.25	172.17
738.75	172.16	744.8	172.26	867.33	173.98	923.67	175.76	1010.11	177.35

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	202.5	.05	285	.035	620.57	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
620.57	684.92	157.35	199.5	221.7	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 1615.906

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 44

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	177.11	44.42	176.08	68.41	175.81	81.79	175.66	117.53	174.86
132.29	174.76	186.79	173.08	192.24	172.93	218.39	172.08	239.31	171.94
334.71	169.35	345	169	437.24	165.85	443.29	165.68	452	165.43
477.2	164.71	492.81	164.25	648.25	163.06	676.88	162.9	682.45	162.6
714.81	162.27	768.99	161.61	800.23	159.03	822.19	157.53	838.02	157.67
860.36	161.95	866.99	162.84	882.33	164.88	894.26	166.49	902.99	167.17
918.58	168.4	947.9	170.66	948.47	170.67	962.33	171	1035.59	171.38
1115.66	171.7	1141.92	171.77	1192.22	172.45	1201.31	172.59	1223.41	173.39
1257.31	174.05	1310.92	176.14	1344.33	176.54	1368.17	177.12		

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	68.41	.02	345	.05	452	.035	918.58	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
768.99	860.36	158.82	235.44	273.12	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 1380.475

INPUT
Description:
Station Elevation Data num= 56

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	177.79	4.62	176.59	9.63	176.35	32.39	175.14	35.77	175.09
50.4	174.87	115.45	172.82	173.47	171.49	228.38	171	243.14	170.89
324.6	170.78	396.47	170.44	439.48	170.52	447.14	170.26	481.59	169.11
527.7	167.7	542.55	166.99	599.17	164.47	608.12	164.07	622.33	163.44
643.38	163.09	679.46	162.19	699.01	161.78	722.2	161.31	812.09	159.88
879.06	158.93	921.4	158.33	927.64	157.96	929.02	157.63	934.75	154.08
936.57	153.2	940.51	151.34	942.47	151.04	948.13	151.76	963.53	159.99
969.15	161.85	971.84	163.3	973.16	163.99	993.78	165.11	1004.59	165.98
1006.97	165.96	1019.49	165.84	1075.03	165.33	1155.65	164.57	1190.39	164.24

1195.11	164.23	1197.13	164.29	1211.81	164.25	1356.61	165.58	1581	171
1619.13	172.04	1626.05	172.09	1637.76	172.47	1694.72	174.38	1695.02	174.4
1788.58	177.19								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	35.77	.02	447.14	.05	608.12	.035	1019.49	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
812.09	963.53	32.45	39.81	46.27	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 1340.66*

INPUT
Description:
Station Elevation Data num= 107

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	177.75	2.11	177.22	4.63	176.64	9.65	176.37	32.46	175.03
35.31	174.96	35.85	174.94	50.51	174.55	77.39	173.46	78.91	173.4
79.6	173.37	80.14	173.35	115.69	172.25	141.34	171.64	164.14	171.19
173.84	171.01	216.56	170.7	228.86	170.64	229.15	170.64	243.65	170.55
321.39	170.47	325.29	170.46	397.31	170.11	422.04	170.13	440.41	170.12
448.09	169.89	482.61	168.85	521.41	167.79	528.82	167.57	543.7	166.91
595.64	164.77	600.21	164.59	600.44	164.58	609.41	164.23	623.65	163.68
644.74	163.35	680.9	162.53	694.93	162.26	700.49	162.15	703.66	162.09
709.06	161.97	723.73	161.63	812.05	159.9	813.81	159.87	843.79	159.24
856.66	159.09	885.23	158.81	891.63	158.75	908.82	158.58	930.35	158.37
940.82	158.18	948.07	157.82	949.68	157.53	956.33	154.52	958.45	153.77
960.01	153.23	963.03	152.18	965.3	151.92	967.71	152.17	969.69	152.4
971.52	152.6	981.67	156.83	988.43	159.88	992.97	161.34	993.87	161.62
996.48	162.91	997.76	163.52	999.78	163.68	1012.74	164.59	1017.74	164.85
1024.41	165.34	1028.21	165.59	1030.52	165.57	1041.9	165.46	1042.65	165.45
1042.72	165.45	1065.27	165.27	1074.9	165.2	1094.86	165.04	1096.46	165.03
1118.91	164.86	1131.34	164.81	1165.59	164.52	1174.57	164.44	1208.23	164.14
1212.8	164.13	1214.76	164.18	1228.98	164.14	1247.45	164.27	1291.01	164.49
1369.28	164.87	1383.75	165.12	1495.01	167.42	1510.91	167.78	1529.97	168.26
1586.69	169.66	1623.63	170.68	1630.34	170.75	1641.68	171.11	1646.71	171.27
1696.87	173.03	1697.16	173.05	1698.34	173.09	1728.51	174.05	1730.35	174.14
1759.03	175.15	1787.81	176.24						

Manning's n Values num= 12

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	35.31	.032	35.85	.02	448.09	.045	600.21	.025
609.41	.038	812.05	.047	813.81	.05	988.43	.05	1042.65	.05
1035.27	.05	1787.81	.05						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
813.81	988.43	32.45	39.81	46.27	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 1300.86*

INPUT
Description:
Station Elevation Data num= 107

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	177.72	2.11	177.2	4.64	176.69	9.67	176.39	32.53	174.93
35.38	174.82	35.92	174.79	50.61	174.23	77.56	172.89	79.07	172.81
79.77	172.78	80.31	172.77	115.94	171.68	141.64	171.05	164.48	170.66
174.2	170.52	217.02	170.3	229.35	170.28	229.63	170.28	244.17	170.21
322.07	170.16	325.98	170.15	398.15	169.79	422.93	169.77	441.34	169.72
449.03	169.51	483.63	168.6	522.51	167.65	529.94	167.43	544.85	166.84
596.89	164.86	601.48	164.71	601.71	164.7	610.7	164.4	624.97	163.93
646.11	163.61	682.34	162.88	696.4	162.63	701.97	162.52	705.15	162.46
710.56	162.34	725.26	161.96	813.76	159.9	815.53	159.86	849.69	158.97
864.36	158.82	896.91	158.61	904.19	158.56	923.78	158.44	948.32	158.29
960.25	158.04	968.51	157.68	970.33	157.43	977.92	154.96	980.33	154.34
982.11	153.89	985.55	153.03	988.14	152.8	990.76	153.02	992.92	153.25
994.91	153.43	1005.96	156.96	1013.32	159.77	1017.72	161.13	1018.59	161.39
1021.12	162.52	1022.35	163.06	1024.31	163.25	1036.86	164.35	1041.69	164.58
1048.15	165.01	1051.83	165.21	1054.06	165.19	1065.08	165.07	1065.8	165.06
1065.88	165.06	1087.7	164.92	1097.02	164.86	1116.34	164.73	1117.89	164.72
1139.62	164.6	1151.65	164.64	1184.79	164.38	1193.49	164.31	1226.07	164.05
1230.5	164.04	1232.39	164.07	1246.16	164.03	1264.03	164.12	1306.19	164.14
1381.95	164.15	1395.95	164.3	1503.64	166.12	1519.03	166.46	1537.48	166.93
1592.38	168.33	1628.14	169.32	1634.63	169.4	1645.61	169.75	1650.47	169.9
1699.02	171.68	1699.3	171.7	1700.44	171.74	1729.65	172.73	1731.42	172.85
1759.19	173.99	1787.04	175.29						

Manning's n Values num= 12

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	35.38	.03	35.92	.02	449.03	.04	601.48	.03
610.7	.04	813.76	.045	815.53	.05	1013.32	.05	1065.8	.05
1087.7	.05	1787.04	.05						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
815.53	1013.32	32.45	39.81	46.27	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 1261.05*

INPUT
Description:
Station Elevation Data num= 107

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	177.68	2.12	177.18	4.65	176.75	9.69	176.41	32.6	174.82
35.46	174.67	36	174.65	50.72	173.9	77.72	172.32	79.24	172.23

79.94	172.2	80.48	172.18	116.18	171.11	141.93	170.45	164.83	170.14
174.57	170.04	217.48	169.89	229.83	169.92	230.12	169.92	244.68	169.87
322.75	169.85	326.66	169.83	398.99	169.46	423.82	169.41	442.27	169.31
449.98	169.14	484.65	168.34	523.61	167.51	531.05	167.3	546	166.76
598.15	164.95	602.74	164.82	602.98	164.81	611.98	164.56	626.28	164.17
647.47	163.88	683.78	163.22	697.86	163	703.45	162.89	706.64	162.83
712.05	162.71	726.79	162.28	815.48	159.89	817.25	159.85	855.59	158.7
872.05	158.55	908.58	158.41	916.76	158.38	938.74	158.3	966.28	158.2
979.67	157.89	988.94	157.53	990.99	157.33	999.5	155.4	1002.21	154.91
1004.21	154.55	1008.06	153.87	1010.97	153.68	1013.81	153.87	1016.14	154.1
1018.3	154.27	1030.26	157.1	1038.22	159.65	1042.47	160.93	1043.32	161.17
1045.75	162.13	1046.95	162.59	1048.84	162.83	1060.97	164.11	1065.65	164.32
1071.9	164.69	1075.45	164.82	1077.61	164.8	1088.26	164.68	1088.96	164.68
1089.03	164.67	1110.13	164.57	1119.14	164.52	1137.82	164.43	1139.31	164.42
1160.33	164.35	1171.95	164.46	1204	164.25	1212.41	164.19	1243.91	163.95
1248.19	163.94	1250.02	163.97	1263.33	163.92	1280.61	163.97	1321.37	163.78
1394.62	163.44	1408.16	163.49	1512.27	164.82	1527.15	165.13	1544.99	165.6
1598.07	166.99	1632.64	167.95	1638.91	168.06	1649.53	168.38	1654.23	168.53
1701.17	170.33	1701.45	170.35	1702.55	170.39	1730.78	171.41	1732.5	171.57
1759.34	172.84	1786.27	174.33						

Manning's n Values num= 12

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	35.46	.027	36	.02	449.98	.035	602.74	.035
611.98	.043	815.48	.043	817.25	.05	1038.22	.05	1088.96	.05
1110.13	.05	1786.27	.05						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
817.25	1038.22	32.45	39.81	46.27	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 1221.24*

INPUT
Description:
Station Elevation Data num= 107

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	177.65	2.12	177.16	4.66	176.8	9.71	176.43	32.66	174.71
35.53	174.53	36.07	174.5	50.83	173.58	77.88	171.75	79.41	171.65
80.1	171.61	80.65	171.59	116.43	170.54	142.23	169.86	165.18	169.61
174.94	169.55	217.93	169.49	230.31	169.56	230.6	169.56	245.2	169.53
323.43	169.54	327.35	169.52	399.83	169.13	424.72	169.06	443.2	168.91
450.93	168.76	485.67	168.09	524.72	167.37	532.17	167.17	547.15	166.68
599.41	165.03	604.01	164.93	604.25	164.93	613.27	164.73	627.6	164.41
648.83	164.14	685.22	163.57	699.33	163.37	704.93	163.26	708.13	163.21
713.55	163.08	728.32	162.6	817.2	159.89	818.97	159.83	861.48	158.43
879.74	158.28	920.26	158.21	929.32	158.2	953.71	158.16	984.24	158.12
999.09	157.74	1009.37	157.39	1011.65	157.23	1021.09	155.84	1024.09	155.48
1026.31	155.21	1030.58	154.72	1033.81	154.55	1036.86	154.73	1039.37	154.95
1041.69	155.11	1054.55	157.23	1063.12	159.54	1067.22	160.73	1068.04	160.94
1070.39	161.74	1071.55	162.12	1073.38	162.4	1085.09	163.87	1089.6	164.05
1095.64	164.36	1099.07	164.44	1101.15	164.42	1111.44	164.3	1112.11	164.29
1112.18	164.29	1132.56	164.22	1141.26	164.18	1159.3	164.12	1160.74	164.12
1181.04	164.09	1192.26	164.28	1223.21	164.11	1231.33	164.06	1261.75	163.86
1265.88	163.84	1267.65	163.86	1280.5	163.81	1297.19	163.82	1336.56	163.43
1407.29	162.72	1420.36	162.67	1520.91	163.52	1535.28	163.8	1552.5	164.28
1603.76	165.65	1637.14	166.59	1643.2	166.71	1653.45	167.02	1658	167.16
1703.33	168.98	1703.59	169	1704.65	169.04	1731.92	170.09	1733.58	170.29
1759.5	171.68	1785.51	173.38						

Manning's n Values num= 12

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	35.53	.025	36.07	.02	450.93	.03	604.01	.04
613.27	.045	817.2	.04	818.97	.05	1063.12	.05	1112.11	.05
1132.56	.05	1785.51	.05						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
818.97	1063.12	32.45	39.81	46.27	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 1181.44*

INPUT
Description:
Station Elevation Data num= 107

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	177.62	2.13	177.14	4.67	176.85	9.73	176.45	32.73	174.6
35.61	174.39	36.15	174.35	50.93	173.26	78.05	171.19	79.57	171.07
80.27	171.03	80.82	171.01	116.67	169.97	142.53	169.26	165.52	169.09
175.31	169.07	218.39	169.08	230.8	169.2	231.09	169.2	245.71	169.19
324.11	169.22	328.04	169.2	400.67	168.81	425.61	168.7	444.13	168.51
451.88	168.39	486.69	167.83	525.82	167.23	533.29	167.04	548.3	166.6
600.67	165.12	605.28	165.05	605.52	165.04	614.56	164.89	628.92	164.65
650.19	164.4	686.66	163.91	700.8	163.73	706.41	163.63	709.61	163.58
715.05	163.44	729.85	162.93	818.91	159.88	820.69	159.82	867.38	158.16
887.44	158.01	931.93	158.01	941.89	158.01	968.67	158.02	1002.21	158.03
1018.51	157.6	1029.81	157.25	1032.3	157.13	1042.67	156.28	1045.97	156.05
1048.4	155.88	1053.1	155.56	1056.65	155.43	1059.91	155.58	1062.59	155.8
1065.08	155.94	1078.85	157.36	1088.01	159.43	1091.97	160.52	1092.76	160.71
1095.03	161.35	1096.15	161.65	1097.91	161.98	1109.2	163.63	1113.56	163.79
1119.38	164.04	1122.69	164.05	1124.7	164.03	1134.62	163.91	1135.27	163.9
1135.34	163.9	1154.99	163.86	1163.38	163.85	1180.78	163.82	1182.17	163.82
1201.74	163.84	1212.57	164.11	1242.42	163.98	1250.25	163.93	1279.59	163.76
1283.57	163.75	1285.28	163.75	1297.68	163.7	1313.77	163.66	1351.74	163.08
1419.96	162.01	1432.57	161.85	1529.54	162.23	1543.4	162.48	1560.01	162.95
1609.44	164.32	1641.64	165.23	1647.49	165.37	1657.38	165.66	1661.76	165.79
1705.48	167.63	1705.73	167.65	1706.76	167.69	1733.05	168.78	1734.65	169
1759.65	170.53	1784.74	172.43						

Manning's n Values num= 12

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	35.61	.022	36.15	.02	451.88	.025	605.28	.045
614.56	.047	818.91	.038	820.69	.05	1088.01	.05	1135.27	.05
1154.99	.05	1784.74	.05						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
820.69	1088.01	32.45	39.81	46.27	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 1141.636

INPUT
Description:
Station Elevation Data num= 56

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	177.58	2.13	177.12	35.68	174.25	78.21	170.62	79.74	170.49
80.44	170.44	80.99	170.42	142.83	168.67	165.87	168.56	218.85	168.68
231.57	168.84	324.79	168.91	426.5	168.34	526.92	167.09	601.93	165.21
606.55	165.16	702.27	164.1	711.1	163.95	716.55	163.81	820.63	159.88
822.41	159.81	873.28	157.89	895.13	157.74	943.61	157.81	983.63	157.88
1020.17	157.95	1070.5	156.54	1079.48	156.31	1082.96	156.43	1085.82	156.65
1103.14	157.49	1112.91	159.32	1116.72	160.32	1122.44	161.55	1133.32	163.39
1143.12	163.71	1157.8	163.52	1158.49	163.51	1177.42	163.51	1185.5	163.51
1202.26	163.51	1222.45	163.58	1232.88	163.93	1261.63	163.84	1330.35	163.51
1366.92	162.73	1444.77	161.03	1538.17	160.93	1551.52	161.15	1567.52	161.62
1665.52	164.42	1708.86	166.34	1734.19	167.46	1735.73	167.72	1759.81	169.37
1783.97	171.48								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	35.68	.02	606.55	.05	820.63	.035	1177.42	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
822.41	1112.91	36.67	37.86	38.56	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 1103.77*

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	176.41	2.12	175.99	4.72	175.77	12.67	175.24	32.9	173.68
35.47	173.49	76.05	170.35	77.76	170.23	79.28	170.12	72.97	170.08
80.52	170.06	136.97	168.64	142	168.51	164.7	168.38	164.91	168.37
188.19	168.42	217.58	168.48	230.23	168.61	269.28	168.64	322.9	168.67
338.09	168.6	424.02	167.99	479.79	167.27	523.86	166.71	541.47	166.3
598.44	165.13	603.03	165.09	606.34	165.06	698.19	164.09	699.55	164.07
706.97	163.91	711.7	163.78	712.39	163.76	815.87	159.79	817.64	159.72
863.44	158	883.11	157.82	915.15	157.78	926.77	157.78	962.8	157.8
992.19	157.83	995.71	157.83	1041.02	156.62	1049.11	156.42	1053.57	156.48
1057.53	156.53	1058.55	156.56	1060.84	156.62	1064.46	156.72	1069.38	156.8
1071.93	156.86	1095.33	157.39	1106.39	157.51	1118.1	158.2	1118.63	158.23
1130.04	159.28	1133.62	160.13	1139	161.18	1149.22	162.76	1156.63	163.01
1158.44	163.07	1172.24	162.98	1172.88	162.98	1181.59	163.02	1190.68	163.04
1198.27	163.05	1214.03	163.09	1222.78	163.14	1233	163.19	1234.23	163.23
1242.81	163.54	1269.83	163.63	1274.69	163.64	1334.43	163.52	1364.16	163.03
1367.14	162.98	1368.8	162.94	1441.98	161.19	1485.11	160.95	1495.64	160.92
1529.77	160.92	1542.32	161.12	1557.36	161.52	1561.09	161.62	1572.95	161.94
1574.45	161.98	1649.48	164.39	1673.86	165.51	1689.46	166.26	1690.22	166.29
1701.82	166.88	1703.73	166.97	1714.02	167.49	1715.47	167.72	1738.11	169.34
1760.82	171.35								

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.032	35.47	.02	603.03	.045	711.7	.025	815.87	.038
817.64	.047	960.74	.035	1130.04	.05	1156.63	.05	1190.68	.05
1760.82	.05								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
817.64	1130.04	36.67	37.86	38.56	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 1065.90*

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	175.24	2.11	174.87	4.69	174.63	12.6	174.26	32.71	172.9
35.27	172.72	75.61	169.94	77.3	169.84	78.81	169.75	79.51	169.71
80.05	169.7	136.17	168.46	141.17	168.35	163.74	168.19	163.94	168.19
187.09	168.22	216.31	168.27	228.88	168.38	267.71	168.41	321.02	168.44
336.12	168.38	421.55	167.64	476.99	166.9	520.8	166.33	538.31	165.95
594.94	165.05	599.51	165.02	602.79	165	694.12	164.07	695.46	164.05
702.84	163.87	707.55	163.73	708.23	163.71	811.1	159.71	812.86	159.64
853.6	158.11	871.1	157.9	899.59	157.76	909.93	157.75	941.98	157.73
968.12	157.71	971.24	157.71	1011.55	156.7	1018.74	156.54	1025.81	156.59
1032.11	156.63	1033.72	156.65	1037.36	156.7	1043.1	156.78	1050.9	156.86
1054.95	156.92	1092.08	157.51	1109.64	157.53	1128.22	158	1129.06	158.02
1147.17	159.24	1150.52	159.94	1155.56	160.81	1165.13	162.14	1172.06	162.38
1173.75	162.44	1186.67	162.44	1187.28	162.44	1195.43	162.52	1203.94	162.56
1211.04	162.6	1225.79	162.67	1233.99	162.73	1243.56	162.8	1244.71	162.84
1252.74	163.15	1278.03	163.43	1282.58	163.47	1338.5	163.54	1366.34	163.22
1369.13	163.19	1370.68	163.15	1439.19	161.35	1479.56	160.93	1489.42	160.87
1521.37	160.91	1533.12	161.08	1547.2	161.43	1550.69	161.51	1561.79	161.78

1563.19	161.82	1633.43	164.36	1656.26	165.45	1670.87	166.21	1671.57	166.25
1682.43	166.87	1684.22	166.97	1693.86	167.52	1695.21	167.73	1716.4	169.32
1737.66	171.22								

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.03	35.27	.02	599.51	.04	707.55	.03	811.1	.04
812.86	.045	965.99	.035	1147.17	.05	1172.06	.05	1203.94	.05
1737.66	.05								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
812.86	1147.17	36.67	37.86	38.56	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 1028.04*

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	174.08	2.09	173.74	4.66	173.5	12.52	173.28	32.52	172.11
35.06	171.96	75.16	169.53	76.85	169.45	78.35	169.38	79.04	169.35
79.58	169.34	135.37	168.29	140.34	168.19	162.78	168.01	162.98	168
185.99	168.03	215.04	168.07	227.54	168.15	266.14	168.17	319.13	168.2
334.14	168.16	419.07	167.28	474.19	166.53	517.74	165.95	535.15	165.6
591.45	164.97	595.98	164.95	599.25	164.94	690.04	164.06	691.38	164.04
698.71	163.83	703.39	163.68	704.07	163.66	806.34	159.62	808.08	159.55
843.76	158.22	859.08	157.98	884.03	157.75	893.08	157.72	921.15	157.65
944.04	157.59	946.78	157.59	982.07	156.78	988.37	156.65	998.06	156.69
1006.68	156.73	1008.88	156.75	1013.87	156.79	1021.73	156.85	1032.43	156.91
1037.97	156.98	1088.84	157.62	1112.88	157.55	1138.34	157.8	1139.49	157.81
1164.3	159.2	1167.42	159.75	1172.11	160.44	1181.03	161.51	1187.49	161.74
1189.07	161.8	1201.11	161.9	1201.67	161.91	1209.27	162.03	1217.19	162.09
1223.82	162.14	1237.56	162.25	1245.2	162.32	1254.11	162.42	1255.18	162.45
1262.66	162.76	1286.24	163.22	1290.47	163.3	1342.58	163.55	1368.51	163.41
1371.12	163.4	1372.57	163.36	1436.4	161.51	1474.02	160.9	1483.21	160.81
1512.98	160.9	1523.92	161.05	1537.04	161.33	1540.29	161.4	1550.64	161.62
1551.94	161.65	1617.39	164.32	1638.66	165.39	1652.27	166.16	1652.93	166.2
1663.05	166.86	1664.71	166.97	1673.69	167.55	1674.96	167.73	1694.7	169.29
1714.51	171.09								

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.027	35.06	.02	595.98	.035	703.39	.035	806.34	.043
808.08	.043	971.25	.035	1164.3	.05	1187.49	.05	1217.19	.05
1714.51	.05								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
808.08	1164.3	36.67	37.86	38.56	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 990.179*

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	172.91	2.08	172.62	4.64	172.37	12.45	172.3	32.32	171.32
34.85	171.19	74.72	169.12	76.39	169.06	77.89	169	78.57	168.98
79.11	168.97	134.57	168.11	139.51	168.03	161.81	167.82	162.02	167.82
184.89	167.83	213.77	167.86	226.19	167.92	264.57	167.94	317.25	167.96
332.17	167.93	416.59	166.93	471.38	166.15	514.68	165.57	531.98	165.26
587.95	164.89	592.46	164.89	595.71	164.88	685.96	164.05	687.29	164.03
694.59	163.79	699.23	163.63	699.91	163.6	801.57	159.53	803.31	159.46
833.92	158.33	847.07	158.07	868.47	157.74	876.24	157.7	900.32	157.57
919.96	157.47	922.31	157.47	952.6	156.86	958	156.76	970.31	156.8
981.26	156.83	984.05	156.84	990.39	156.87	1000.37	156.92	1013.96	156.96
1020.99	157.04	1085.59	157.74	1116.13	157.56	1148.46	157.6	1149.93	157.61
1181.43	159.16	1184.33	159.56	1188.67	160.07	1196.94	160.88	1202.93	161.11
1204.39	161.16	1215.54	161.36	1216.07	161.37	1223.1	161.54	1230.45	161.62
1236.59	161.69	1249.33	161.83	1256.41	161.91	1264.67	162.03	1265.66	162.05
1272.59	162.37	1294.44	163.02	1298.37	163.13	1346.66	163.56	1370.69	163.61
1373.1	163.61	1374.45	163.57	1433.6	161.67	1468.47	160.87	1476.99	160.76
1504.58	160.89	1514.72	161.02	1526.88	161.24	1529.9	161.29	1539.48	161.46
1540.69	161.49	1601.35	164.29	1621.06	165.34	1633.67	166.11	1634.28	166.16
1643.66	166.85	1645.2	166.97	1653.53	167.58	1654.7	167.73	1673	169.27
1691.36	170.96								

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.025	34.85	.02	592.46	.03	699.23	.04	801.57	.045
803.31	.04	976.51	.035	1181.43	.05	1202.93	.05	1230.45	.05
1691.36	.05								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
803.31	1181.43	36.67	37.86	38.56	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 952.315*

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	171.74	2.07	171.49	4.61	171.24	12.37	171.33	32.13	170.54
34.64	170.43	74.27	168.7	75.94	168.67	77.43	168.63	78.1	168.62
78.64	168.61	133.77	167.94	138.68	167.86	160.85	167.64	161.05	167.63
183.79	167.64	212.5	167.66	224.85	167.69	262.99	167.71	315.36	167.72

330.19	167.71	414.12	166.58	468.58	165.78	511.62	165.18	528.82	164.91
584.46	164.81	588.94	164.82	592.17	164.82	681.88	164.03	683.21	164.02
690.46	163.76	695.08	163.58	695.75	163.55	796.81	159.45	798.53	159.38
824.08	158.44	835.05	158.15	852.92	157.72	859.4	157.67	879.5	157.5
895.89	157.36	897.85	157.35	923.12	156.94	927.63	156.88	942.55	156.9
955.83	156.93	959.22	156.94	966.9	156.96	979.01	156.99	995.48	157.02
1004.01	157.1	1082.34	157.86	1119.38	157.58	1158.58	157.4	1160.36	157.4
1198.56	159.12	1201.23	159.37	1205.23	159.71	1212.84	160.26	1218.36	160.47
1219.7	160.53	1229.98	160.82	1230.46	160.84	1236.94	161.04	1243.71	161.14
1249.36	161.23	1261.09	161.4	1267.61	161.51	1275.22	161.64	1276.13	161.66
1282.52	161.98	1302.64	162.81	1306.26	162.96	1350.74	163.58	1372.87	163.8
1375.09	163.82	1376.33	163.78	1430.81	161.83	1462.93	160.85	1470.77	160.71
1496.18	160.88	1505.52	160.99	1516.72	161.14	1519.5	161.18	1528.33	161.31
1529.44	161.33	1585.31	164.26	1603.46	165.28	1615.08	166.07	1615.64	166.11
1624.28	166.84	1625.7	166.97	1633.36	167.61	1634.44	167.73	1651.29	169.24
1668.2	170.83								

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.022	34.64	.02	588.94	.025	695.08	.045	796.81	.047
798.53	.038	981.77	.035	1198.56	.05	1218.36	.05	1243.71	.05
1668.2	.05								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
798.53	1198.56	36.67	37.86	38.56	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 914.451

INPUT
Description:
Station Elevation Data num= 45

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	170.57	4.58	170.11	12.3	170.35	31.94	169.75	73.83	168.29
132.97	167.76	159.89	167.45	182.69	167.44	261.42	167.48	328.22	167.49
465.78	165.41	525.66	164.56	588.63	164.76	679.12	164.01	690.92	163.53
793.76	159.29	837.36	157.71	871.81	157.24	897.26	156.99	914.8	157.01
934.39	157.03	943.42	157.04	977.01	157.07	987.03	157.16	1079.1	157.98
1168.7	157.2	1170.79	157.19	1215.69	159.08	1233.79	159.84	1250.78	160.55
1278.82	161.1	1286.61	161.27	1314.15	162.79	1375.05	163.99	1377.08	164.03
1457.38	160.82	1464.55	160.66	1509.1	161.07	1517.17	161.15	1518.19	161.17
1585.86	165.22	1596.48	166.02	1604.89	166.83	1606.19	166.97	1645.05	170.7

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.02	690.92	.05	987.03	.035	1233.79	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
793.76	1215.69	48.05	43.73	44.13	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 870.723*

INPUT
Description:
Station Elevation Data num= 83

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	170.8	4.75	170.19	6.57	170.14	9.82	170.12	12.76	170.19
33.13	169.67	64.92	168.77	75.34	168.46	76.59	168.43	84.47	168.42
90.66	168.37	99.45	168.32	137.94	167.98	165.87	167.68	179.14	167.65
189.52	167.58	199.11	167.53	239.93	167.38	271.19	167.29	307.05	167.17
340.49	167.05	377.37	166.48	429.35	165.86	483.19	165.2	524.55	164.73
545.31	164.49	606.72	164.61	610.63	164.61	620.18	164.55	704.51	163.9
706.98	163.82	716.75	163.51	726.45	163.21	728.18	163.14	778.76	161.12
788.35	160.54	811.13	159.49	823.43	158.98	842.16	158.28	865.18	157.51
886.65	157.19	892.83	157.12	898.17	157.06	922.54	156.85	939.94	156.91
959.38	156.97	968.34	157	985.73	157.05	1001.67	157.1	1006.2	157.15
1011.61	157.18	1102.96	157.76	1113.05	157.68	1167.02	157.33	1191.86	157.17
1193.93	157.16	1225.77	158.26	1226.21	158.28	1238.48	158.81	1253.79	159.48
1268.15	160.09	1283.58	160.43	1291.86	160.61	1298.45	160.77	1321.74	162.06
1324.34	162.11	1357.38	162.79	1373.23	163.18	1374.95	163.22	1393.32	162.62
1441.94	161.27	1442.84	161.24	1448.91	161.16	1486.58	161.78	1493.4	161.9
1494.26	161.92	1546.44	165.29	1551.48	165.68	1560.46	166.5	1567.57	167.29
1568.67	167.43	1576.92	168.34	1601.53	170.87				

Manning's n Values num= 9

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.02	716.75	.044	823.43	.038	976.31	.047	1013.55	.035
1238.48	.05	1253.79	.05	1283.58	.05	1601.53	.05		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
823.43	1238.48	48.05	43.73	44.13	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 826.996*

INPUT
Description:
Station Elevation Data num= 83

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	171.02	4.92	170.26	6.81	170.11	10.18	169.98	13.22	170.02
34.33	169.6	67.26	168.85	78.06	168.59	79.35	168.57	87.52	168.61
93.93	168.58	103.04	168.54	142.91	168.2	171.84	167.9	185.59	167.85
196.35	167.73	206.29	167.62	248.57	167.29	280.96	167.09	318.12	166.85
352.76	166.6	390.97	166	444.82	165.53	500.6	165	543.45	164.61
564.96	164.42	628.58	164.46	632.64	164.47	642.53	164.41	729.89	163.79
732.45	163.72	742.58	163.5	752.63	163.27	754.42	163.21	806.82	161.17
816.76	160.4	840.36	159.2	853.1	158.66	871	157.98	893	157.3

913.52	156.98	919.43	156.93	924.53	156.88	947.82	156.71	965.09	156.8
984.37	156.91	993.26	156.96	1010.51	157.05	1026.32	157.14	1030.82	157.19
1036.19	157.21	1126.82	157.53	1136.83	157.46	1190.38	157.24	1215.02	157.14
1217.08	157.13	1248.66	157.98	1249.09	158	1261.27	158.55	1273.78	159.11
1285.53	159.64	1298.14	159.96	1304.9	160.13	1310.29	160.27	1329.32	161.33
1331.45	161.38	1358.46	161.97	1371.41	162.36	1372.81	162.4	1387.83	162.08
1427.57	161.67	1428.31	161.66	1433.26	161.66	1464.05	162.5	1469.63	162.65
1470.34	162.68	1512.98	165.72	1517.1	166.14	1524.44	166.98	1530.25	167.75
1531.15	167.88	1537.89	168.78	1558.01	171.04				

Manning's n Values num= 9

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.02	742.58	.038	853.1	.041	1003.45	.044	1040.07	.035
1261.27	.05	1273.78	.05	1298.14	.05	1558.01	.05		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
853.1	1261.27	48.05	43.73	44.13	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 783.268*

INPUT
Description:
Station Elevation Data num= 83

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	171.25	5.09	170.34	7.05	170.08	10.53	169.83	13.68	169.86
35.52	169.52	69.6	168.94	80.77	168.71	82.11	168.72	90.56	168.81
97.2	168.78	106.62	168.76	147.88	168.41	177.82	168.13	192.05	168.05
203.18	167.87	213.46	167.71	257.22	167.21	290.74	166.9	329.18	166.53
365.03	166.16	404.56	165.52	460.29	165.2	518.01	164.79	562.36	164.5
584.61	164.35	650.44	164.32	654.64	164.32	664.87	164.28	755.28	163.68
757.93	163.63	768.4	163.48	778.81	163.33	780.66	163.27	834.89	161.22
845.16	160.26	869.59	158.9	882.78	158.35	899.85	157.67	920.83	157.1
940.39	156.77	946.03	156.73	950.89	156.69	973.1	156.56	990.23	156.7
1009.36	156.85	1018.18	156.92	1035.3	157.05	1050.98	157.17	1055.44	157.22
1060.77	157.23	1150.68	157.31	1160.61	157.24	1213.73	157.15	1238.18	157.11
1240.22	157.1	1271.56	157.7	1271.98	157.72	1284.07	158.28	1293.78	158.75
1302.9	159.18	1312.69	159.49	1317.95	159.64	1322.13	159.77	1336.91	160.59
1338.56	160.64	1359.53	161.14	1369.59	161.55	1370.68	161.59	1382.34	161.54
1413.2	162.07	1413.77	162.08	1417.62	162.16	1441.53	163.21	1445.86	163.41
1446.41	163.43	1479.53	166.15	1482.72	166.59	1488.42	167.46	1492.94	168.22
1493.64	168.34	1498.87	169.22	1514.49	171.21				

Manning's n Values num= 9

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.02	768.4	.032	882.78	.044	1030.58	.041	1066.59	.035
1284.07	.05	1293.78	.05	1312.69	.05	1514.49	.05		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
882.78	1284.07	48.05	43.73	44.13	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 739.541*

INPUT
Description:
Station Elevation Data num= 83

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	171.47	5.26	170.42	7.28	170.06	10.89	169.69	14.14	169.69
36.72	169.44	71.94	169.02	83.49	168.84	84.87	168.86	93.61	169
100.46	168.99	110.21	168.99	152.85	168.63	183.8	168.36	198.5	168.26
210.01	168.01	220.64	167.79	265.86	167.12	300.51	166.7	340.25	166.22
377.3	165.71	418.16	165.05	475.76	164.86	535.43	164.59	581.26	164.38
604.26	164.28	672.31	164.18	676.65	164.18	687.22	164.14	780.67	163.57
783.4	163.53	794.23	163.47	804.98	163.4	806.9	163.34	862.95	161.28
873.57	160.11	898.82	158.61	912.45	158.03	928.69	157.37	948.65	156.9
967.26	156.56	972.62	156.54	977.25	156.51	998.38	156.42	1015.37	156.6
1034.35	156.79	1043.1	156.88	1060.08	157.05	1075.64	157.21	1080.06	157.26
1085.34	157.25	1174.54	157.08	1184.39	157.03	1237.09	157.06	1261.34	157.07
1263.36	157.08	1294.45	157.42	1294.87	157.44	1306.86	158.02	1313.78	158.38
1320.27	158.73	1327.25	159.01	1330.99	159.15	1333.97	159.27	1344.49	159.86
1345.67	159.91	1360.61	160.32	1367.77	160.73	1368.55	160.78	1376.85	161
1398.83	162.48	1399.24	162.5	1401.98	162.66	1419.01	163.93	1422.09	164.16
1422.48	164.19	1446.07	166.57	1448.35	167.05	1452.41	167.94	1455.62	168.68
1456.12	168.8	1459.84	169.65	1470.97	171.38				

Manning's n Values num= 9

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.02	794.23	.026	912.45	.047	1057.72	.038	1093.11	.035
1306.86	.05	1313.78	.05	1327.25	.05	1470.97	.05		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
912.45	1306.86	48.05	43.73	44.13	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 695.814

INPUT
Description:
Station Elevation Data num= 43

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	171.7	7.52	170.03	11.24	169.55	74.28	169.11	86.2	168.97
96.65	169.2	103.73	169.19	113.79	169.21	204.96	168.46	227.81	167.88
274.51	167.04	351.31	165.9	431.76	164.57	491.23	164.53	600.16	164.27
694.17	164.04	709.57	164.01	808.88	163.44	831.16	163.46	833.14	163.4
891.01	161.33	901.98	159.97	928.05	158.32	942.12	157.72	957.53	157.07
994.13	156.35	999.22	156.34	1023.66	156.28	1084.86	157.05	1104.68	157.3
1208.17	156.81	1260.44	156.97	1317.34	157.14	1317.76	157.16	1329.65	157.75

1341.8	158.54	1352.78	159.17	1361.68	159.49	1371.36	160.46	1384.46	162.88
1412.61	167	1420.82	170.09	1427.45	171.55				

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.02	942.12	.05	1084.86	.035	1341.8	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
942.12	1329.65	43.52	42.21	40.09	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 653.607*

INPUT
Description:
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	171.53	7.23	170.12	10.8	169.69	20.97	169.52	46.91	169.41
71.4	169.13	82.85	168.96	92.9	169.08	99.7	169.04	101.99	169.03
102.8	169.03	109.37	168.96	112.88	168.89	166.05	167.92	169.03	167.88
183.88	167.7	197	167.64	218.97	167.22	236.86	167	254.12	166.66
263.85	166.52	337.67	165.67	415	164.67	472.16	164.69	532.21	164.62
576.86	164.55	589.17	164.53	597.73	164.57	607.87	164.59	659.13	164.59
667.22	164.59	682.02	164.58	682.32	164.58	723.74	163.83	726.03	163.81
745.64	162.62	748.18	162.47	754.74	162.39	768.78	162.18	777.48	162.14
778.65	162.15	781.93	162.15	787.34	162.15	798.89	162.13	799.62	162.11
800.79	162.08	855.44	160.33	856.42	160.29	866.92	159.17	866.96	159.17
892.02	157.37	892.41	157.35	905.54	156.66	919.29	155.96	919.59	155.95
951.94	155.26	956.48	155.23	960.33	155.21	978.29	155.16	1004.26	155.48
1033.05	155.84	1050.79	156.06	1143.4	155.78	1162.12	155.85	1190.17	155.92
1216.15	155.99	1241.09	156.15	1241.47	156.17	1252.11	156.68	1255.27	156.84
1269.22	157.55	1276.94	157.91	1284.68	158.39	1292.51	158.79	1297.21	159.02
1299.65	159.23	1310.85	159.87	1321.05	160.94	1323.84	161.24	1329.3	161.82
1342.24	162.91	1352.87	163.74	1356.63	164.02	1361.24	164.22	1367.29	164.84
1368.94	165.04	1372.09	165.82	1375.03	166.76	1378.36	168.18	1378.48	168.23
1380.5	168.87	1382.19	169.25	1382.68	169.38	1383.69	169.62	1388.94	171.17
1389.48	171.31	1389.84	171.4						

Manning's n Values num= 8

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.02	905.54	.05	976.78	.05	1033.19	.038	1252.11	.047
1269.22	.047	1378.36	.038	1389.84	.05				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
905.54	1252.11	43.52	42.21	40.09	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 611.400*

INPUT
Description:
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	171.36	6.94	170.2	10.37	169.84	20.12	169.57	45.01	169.54
68.51	169.15	79.51	168.94	89.15	168.97	95.68	168.88	97.87	168.86
98.65	168.85	104.95	168.71	108.32	168.6	159.34	167.11	162.2	167.07
176.45	166.82	189.05	166.82	210.12	166.57	227.29	166.45	243.85	166.09
253.2	166	324.03	165.44	398.24	164.78	453.09	164.85	510.71	164.86
553.56	164.84	565.37	164.83	573.59	164.91	583.32	164.99	632.51	165.13
640.27	165.14	654.47	165.16	654.76	165.16	694.51	163.9	696.71	163.88
715.52	161.6	717.96	161.33	724.25	161.2	737.73	160.86	746.07	160.85
747.2	160.85	750.35	160.85	755.53	160.84	766.62	160.8	767.32	160.79
768.45	160.76	820.89	159.28	821.83	159.26	831.91	158.37	831.94	158.37
855.99	156.42	856.37	156.4	868.97	155.59	881.05	154.85	881.31	154.84
909.75	154.16	913.75	154.12	917.13	154.09	932.91	154.03	955.84	154.31
981.24	154.62	996.9	154.82	1078.63	154.74	1095.14	154.83	1119.9	154.88
1142.83	154.92	1164.84	155.16	1165.17	155.17	1174.56	155.61	1178.65	155.79
1196.63	156.57	1206.59	156.97	1216.58	157.62	1226.67	158.2	1232.75	158.55
1235.89	158.79	1250.33	159.28	1263.5	160.09	1267.1	160.31	1274.13	160.75
1290.83	161.59	1304.54	162.16	1309.38	162.31	1315.34	162.24	1323.14	162.85
1325.27	163.07	1329.33	163.8	1333.12	164.9	1337.42	166.84	1337.58	166.91
1340.18	167.64	1342.36	168.14	1343	168.33	1344.3	168.66	1351.07	170.93
1351.76	171.13	1352.23	171.24						

Manning's n Values num= 8

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.02	868.97	.05	931.78	.05	981.53	.041	1174.56	.044
1196.63	.044	1337.42	.041	1352.23	.05				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
868.97	1174.56	43.52	42.21	40.09	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 569.194*

INPUT
Description:
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	171.19	6.64	170.29	9.93	169.98	19.27	169.62	43.12	169.66
65.63	169.18	76.16	168.93	85.39	168.85	91.65	168.73	93.75	168.69
94.49	168.68	100.54	168.45	103.76	168.32	152.63	166.31	155.37	166.25
169.02	165.95	181.09	165.99	201.28	165.91	217.72	165.9	233.59	165.53
242.54	165.48	310.39	165.21	381.47	164.88	434.02	165.01	489.21	165.11
530.26	165.12	541.57	165.12	549.45	165.26	558.77	165.4	605.89	165.66
613.32	165.69	626.93	165.73	627.2	165.73	665.28	163.96	667.38	163.94
685.4	160.59	687.74	160.19	693.77	160.01	706.67	159.54	714.67	159.55
715.75	159.56	718.77	159.56	723.73	159.54	734.36	159.47	735.03	159.46

736.1	159.44	786.33	158.24	787.23	158.22	796.89	157.57	796.93	157.57
819.96	155.47	820.32	155.45	832.39	154.53	842.81	153.74	843.04	153.73
867.57	153.07	871.01	153.01	873.92	152.96	887.54	152.91	907.41	153.14
929.44	153.41	943	153.57	1013.85	153.71	1028.17	153.81	1049.64	153.83
1069.51	153.85	1088.59	154.17	1088.88	154.18	1097.02	154.53	1102.02	154.74
1124.05	155.58	1136.25	156.03	1148.48	156.84	1160.84	157.62	1168.28	158.08
1172.13	158.36	1189.82	158.69	1205.94	159.23	1210.35	159.39	1218.97	159.69
1239.42	160.27	1256.21	160.57	1262.14	160.61	1269.44	160.26	1279	160.87
1281.6	161.11	1286.57	161.79	1291.21	163.04	1296.48	165.5	1296.68	165.59
1299.86	166.42	1302.54	167.03	1303.31	167.27	1304.91	167.69	1313.19	170.69
1314.04	170.95	1314.61	171.09						

Manning's n Values num= 8

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.02	832.39	.05	886.78	.05	929.86	.044	1097.02	.041
1124.05	.041	1296.48	.044	1314.61	.05				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
832.39	1097.02	43.52	42.21	40.09	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 526.987*

INPUT
Description:
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	171.02	6.35	170.37	9.49	170.12	18.43	169.67	41.22	169.79
62.74	169.2	72.81	168.91	81.64	168.73	87.62	168.58	89.63	168.53
90.34	168.51	96.12	168.2	99.2	168.03	145.93	165.5	148.55	165.44
161.6	165.07	173.13	165.17	192.43	165.25	208.16	165.35	223.32	164.96
231.88	164.96	296.75	164.99	364.71	164.98	414.95	165.17	467.72	165.35
506.96	165.4	517.78	165.42	525.3	165.61	534.21	165.8	579.26	166.2
586.37	166.23	599.38	166.3	599.64	166.31	636.04	164.03	638.06	164.01
655.29	159.57	657.52	159.04	663.28	158.83	675.62	158.23	683.27	158.26
684.3	158.26	687.18	158.26	691.93	158.23	702.09	158.15	702.73	158.14
703.76	158.12	751.78	157.2	752.64	157.18	761.88	156.77	761.91	156.77
783.93	154.53	784.28	154.49	795.82	153.46	804.58	152.63	804.76	152.61
825.38	151.97	828.27	151.9	830.72	151.84	842.16	151.78	858.99	151.98
877.63	152.2	889.11	152.33	949.08	152.68	961.2	152.78	979.37	152.78
996.19	152.78	1012.34	153.17	1012.58	153.18	1019.47	153.46	1025.4	153.69
1051.47	154.6	1065.9	155.09	1080.38	156.07	1095.01	157.03	1103.82	157.61
1108.37	157.92	1129.31	158.1	1148.39	158.38	1153.61	158.46	1163.8	158.63
1188.01	158.95	1207.88	158.99	1214.9	158.9	1223.53	158.28	1234.85	158.88
1237.93	159.15	1243.81	159.77	1249.31	161.17	1255.54	164.16	1255.77	164.27
1259.54	165.19	1252.71	165.93	1263.63	166.22	1265.51	166.73	1275.32	170.45
1276.33	170.77	1277	170.93						

Manning's n Values num= 8

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.02	795.82	.05	841.79	.05	878.2	.047	1019.47	.038
1051.47	.038	1255.54	.047	1277	.05				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
795.82	1019.47	43.52	42.21	40.09	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 484.781

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 59

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	170.85	17.58	169.72	39.33	169.91	85.51	168.36	86.19	168.34
94.64	167.74	139.22	164.7	141.72	164.62	154.17	164.2	198.59	164.8
213.06	164.4	446.22	165.59	493.98	165.71	501.16	165.96	509.66	166.2
552.64	166.73	572.08	166.88	606.81	164.1	608.73	164.07	625.17	158.56
627.3	157.9	632.8	157.64	644.57	156.91	652.85	156.97	655.6	156.97
660.13	156.93	670.43	156.81	717.23	156.16	726.86	155.97	748.23	153.54
759.24	152.4	766.49	151.5	787.52	150.72	796.79	150.66	810.56	150.81
894.23	151.76	922.87	151.71	941.93	152.39	948.77	152.64	995.56	154.15
1029.18	156.45	1044.61	157.49	1090.83	157.52	1096.86	157.54	1136.6	157.63
1159.55	157.4	1167.66	157.2	1177.63	156.3	1190.7	156.89	1201.05	157.75
1207.4	159.31	1214.6	162.82	1214.87	162.95	1222.88	164.82	1223.94	165.17
1226.12	165.76	1237.45	170.21	1238.61	170.59	1239.39	170.78		

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.02	796.79	.05	941.93	.035	1214.6	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
759.24	941.93	43.18	43.96	42.55	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 440.825*

INPUT
Description:
Station Elevation Data num= 92

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	170.09	14.82	169.21	30.72	169.37	33.15	169.38	72.07	168.1
72.64	168.09	79.76	167.6	117.33	165.13	119.44	165.06	129.93	164.71
167.37	165.15	171.54	165.04	179.57	164.81	338.08	165.09	340.44	165.08
343.52	165.05	376.07	164.85	416.32	164.51	422.37	164.64	423.36	164.66
429.54	164.76	458.18	164.8	465.76	164.84	482.14	164.85	511.42	162.42
513.03	162.38	526.89	157.88	528.68	157.34	533.32	157.1	543.24	156.45
550.22	156.45	552.53	156.43	556.35	156.37	565.03	156.22	604.48	155.42
612.59	155.21	630.6	153.15	639.88	152.17	642.02	151.91	642.1	151.9

647.52	151.36	669.66	150.57	673.21	150.53	678.18	150.44	679.12	150.43
679.42	150.42	683.89	150.49	694.92	150.66	722.98	151.08	730.16	151.13
738.72	151.22	768.78	151.45	789.11	151.61	821.35	151.56	835.49	151.92
842.81	152.17	848.92	152.42	890.71	153.94	890.94	153.95	920.74	156
926.58	156.39	934.52	156.94	968.46	157.24	975.8	157.29	981.19	157.33
984.95	157.36	987.02	157.37	1005.18	157.05	1006.37	157.1	1016.68	157.37
1018.77	157.4	1037.18	157.68	1044.42	157.7	1050.52	157.35	1053.33	157.28
1065	158.39	1074.24	159.58	1079.92	161.13	1082.78	162.53	1086.35	164.05
1086.59	164.15	1087.28	164.29	1091.44	165.02	1093.74	165.53	1094.69	165.82
1095.28	165.97	1096.64	166.3	1101.41	168	1106.76	170.08	1106.82	170.1
1107.79	170.43	1108.49	170.61						

Manning's n Values num= 8

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.026	639.88	.047	681.59	.047	766.25	.035	842.81	.038
1018.77	.05	1086.35	.05	1108.49	.05				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
639.88	842.81	43.18	43.96	42.55	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 396.869*

INPUT
Description:
Station Elevation Data num= 92

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	169.34	12.05	168.7	24.99	168.85	26.96	168.86	58.62	167.85
59.09	167.83	64.88	167.46	95.45	165.55	97.16	165.5	105.7	165.23
136.15	165.51	139.54	165.42	146.07	165.21	275.02	164.82	276.94	164.78
279.44	164.71	305.92	164.12	338.67	163.3	343.59	163.32	344.39	163.32
349.42	163.32	372.71	162.99	378.88	162.95	392.21	162.81	416.02	160.74
417.34	160.7	428.61	157.2	430.07	156.78	433.84	156.56	441.91	155.98
447.58	155.92	449.47	155.89	452.58	155.81	459.64	155.62	491.72	154.69
498.32	154.46	512.98	152.75	520.52	151.94	522.77	151.68	522.86	151.67
528.54	151.21	551.8	150.43	555.53	150.36	560.75	150.22	561.74	150.19
562.05	150.19	567.02	150.28	579.29	150.5	610.47	151.08	618.46	151.1
627.98	151.18	661.4	151.34	683.99	151.46	719.83	151.42	735.55	151.68
743.69	151.96	749.06	152.2	785.86	153.72	786.06	153.74	812.29	155.55
817.44	155.9	824.43	156.39	854.31	156.96	860.77	157.05	865.51	157.13
868.82	157.18	870.65	157.19	886.63	156.5	887.68	156.59	896.76	157.11
898.6	157.2	914.81	157.97	921.18	158.2	926.56	158.13	929.02	158.26
939.3	159.88	947.44	161.4	952.43	162.95	954.95	164.2	958.09	165.28
958.31	165.35	958.92	165.44	962.58	165.81	964.6	166.23	965.44	166.47
965.96	166.59	967.15	166.84	971.36	168.14	976.06	169.95	976.12	169.96
976.97	170.27	977.59	170.44						

Manning's n Values num= 8

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.032	520.52	.044	566.39	.044	659.5	.035	743.69	.041
898.6	.05	958.09	.05	977.59	.05				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
520.52	743.69	43.18	43.96	42.55	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 352.914*

INPUT
Description:
Station Elevation Data num= 92

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	168.58	9.29	168.19	19.26	168.33	20.78	168.33	45.18	167.59
45.54	167.58	50.01	167.32	73.56	165.98	74.88	165.94	81.46	165.74
104.93	165.86	107.55	165.8	112.58	165.62	211.95	164.55	213.44	164.48
215.36	164.37	235.77	163.38	261.01	162.1	264.8	162	265.42	161.98
269.29	161.88	287.25	161.17	292	161.06	302.27	160.78	320.63	159.06
321.64	159.01	330.33	156.52	331.45	156.22	334.36	156.02	340.58	155.52
344.95	155.4	346.4	155.35	348.8	155.26	354.24	155.03	378.97	153.95
384.06	153.7	395.35	152.36	401.17	151.71	403.52	151.44	403.61	151.44
409.57	151.07	433.94	150.28	437.85	150.2	443.32	149.99	444.36	149.96
444.69	149.95	450.15	150.07	463.65	150.35	497.97	151.07	506.75	151.07
517.23	151.14	554.01	151.24	578.87	151.31	618.32	151.27	635.61	151.44
644.56	151.74	649.21	151.98	681	153.51	681.18	153.52	703.85	155.1
708.3	155.4	714.33	155.84	740.15	156.68	745.74	156.82	749.84	156.92
752.7	156.99	754.27	157.01	768.09	155.94	768.99	156.08	776.84	156.85
778.43	156.99	792.43	158.25	797.94	158.7	802.59	158.9	804.72	159.24
813.6	161.38	820.63	163.23	824.95	164.77	827.12	165.86	829.84	166.5
830.02	166.55	830.55	166.59	833.72	166.61	835.47	166.94	836.19	167.11
836.63	167.21	837.67	167.39	841.3	168.27	845.37	169.81	845.41	169.83
846.15	170.1	846.68	170.28						

Manning's n Values num= 8

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.038	401.17	.041	451.19	.041	552.74	.035	644.56	.044
778.43	.05	829.84	.05	846.68	.05				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
401.17	644.56	43.18	43.96	42.55	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 308.958*

INPUT
Description:
Station Elevation Data num= 92

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	167.83	6.53	167.68	13.53	167.81	14.6	167.8	31.74	167.33

31.99	167.32	35.13	167.17	51.67	166.41	52.6	166.38	57.22	166.25
73.71	166.22	75.55	166.17	79.08	166.02	148.89	164.28	149.93	164.18
151.29	164.03	165.62	162.64	183.35	160.9	186.02	160.68	186.45	160.65
189.17	160.44	201.78	159.36	205.12	159.17	212.34	158.74	225.23	157.38
225.94	157.33	232.05	155.84	232.84	155.66	234.88	155.48	239.25	155.06
242.32	154.88	243.34	154.81	245.02	154.7	248.84	154.43	266.22	153.21
269.79	152.95	277.72	151.96	281.81	151.48	284.27	151.21	284.37	151.2
290.59	150.92	316.08	150.13	320.17	150.03	325.89	149.77	326.97	149.72
327.32	149.72	333.28	149.85	348.01	150.19	385.46	151.06	395.05	151.03
406.49	151.11	446.62	151.13	473.76	151.16	516.8	151.12	535.67	151.2
545.44	151.53	549.36	151.76	576.15	153.3	576.3	153.31	595.41	154.64
599.15	154.91	604.24	155.29	626	156.41	630.71	156.58	634.16	156.71
636.57	156.81	637.9	156.83	649.54	155.39	650.31	155.58	656.92	156.59
658.26	156.79	670.06	158.53	674.71	159.2	678.62	159.67	680.42	160.22
687.9	162.87	693.83	165.05	697.46	166.59	699.3	167.53	701.59	167.73
701.74	167.75	702.19	167.75	704.85	167.4	706.33	167.64	706.93	167.76
707.31	167.83	708.18	167.93	711.25	168.41	714.67	169.68	714.71	169.69
715.34	169.94	715.78	170.11						

Manning's n Values num= 8

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.044	281.81	.038	336	.038	445.99	.035	545.44	.047
658.26	.05	701.59	.05	715.78	.05				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
281.81	545.44	43.18	43.96	42.55	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 265.003

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 38

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	167.07	7.8	167.29	43.55	166.55	85.83	164.01	86.43	163.88
87.21	163.69	107.48	159.31	116.32	157.54	162.45	151.25	165.02	150.97
165.12	150.97	202.49	149.86	208.46	149.54	209.59	149.49	209.95	149.48
216.41	149.64	272.96	151.05	283.35	151	295.74	151.07	339.23	151.03
435.73	150.96	446.32	151.31	471.42	153.09	490.01	154.41	511.85	156.13
520.45	156.62	521.53	156.65	531	154.84	531.62	155.07	538.09	156.58
554.65	160.44	571.47	169.19	573.82	168.9	575.99	168.2	577.99	168.45
581.19	168.55	584.01	169.56	584.88	169.94				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.05	339.23	.035	538.09	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
162.45	446.32	122.99	265	54.95	.1	.3

Profile Output Table - Standard Table 1

Reach	River Sta	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
		(cfs)	(ft)	(ft)	(ft)	(ft)	(ft/ft)	(ft/s)	(sq ft)	(ft)	
Upper	11261.86	33597.00	214.32	227.99	225.42	228.83	0.003306	8.58	5227.69	962.44	0.45
Upper	11118.79	33597.00	216.23	225.59	225.59	227.91	0.011038	13.46	3132.41	678.46	0.79
Upper	10987.74	33597.00	215.95	224.01	223.37	225.51	0.009764	11.27	3773.23	830.55	0.72
Upper	10747.97	33597.00	215.06	222.96		223.88	0.004135	7.75	4406.45	661.49	0.51
Upper	10546.27	33597.00	213.13	221.46		222.78	0.006853	9.84	3790.08	681.41	0.69
Upper	10064.73	33597.00	207.79	220.89		221.51	0.001218	6.89	6061.01	889.69	0.38
Upper	9828.565	33597.00	207.84	220.64		221.19	0.001307	6.51	6293.82	876.98	0.35
Upper	9710.010	33597.00	207.81	220.38		221.02	0.001581	7.09	5993.58	872.89	0.39
Upper	9587.161	33597.00	208.82	220.01		220.79	0.002116	7.95	5551.20	881.22	0.44
Upper	9469.136	33597.00	209.82	219.90		220.50	0.001954	6.77	5894.56	899.09	0.39
Upper	9350.632	33597.00	209.90	219.58		220.25	0.002247	7.13	5578.63	834.77	0.41
Upper	9256.219	33597.00	209.51	218.92		219.96	0.003508	8.83	4580.26	753.55	0.52
Upper	9137.316	33597.00	207.79	218.57		219.56	0.003062	8.51	4750.10	799.74	0.49
Upper	9018.948	33597.00	208.76	217.58	215.28	219.07	0.004826	10.94	4063.51	801.88	0.67
Upper	8877.807	33597.00	204.51	217.07	215.29	218.43	0.004517	13.10	4227.33	842.89	0.68
Upper	8785.928	33597.00	202.85	216.46	216.46	217.98	0.004832	13.86	4069.57	855.09	0.69
Upper	8699.415	33597.00	202.95	215.07	212.84	216.25	0.002853	10.82	4191.19	591.93	0.56
Upper	8488.931	33597.00	202.72	215.05		215.76	0.001111	6.86	5049.03	461.70	0.36
Upper	8287.319	33597.00	203.83	212.95	212.12	214.98	0.007450	11.95	3017.57	474.47	0.76
Upper	8012.155	33597.00	202.47	211.29	209.27	212.67	0.004070	9.91	3686.20	510.63	0.63
Upper	7820.775	33597.00	202.05	208.76	208.76	211.36	0.013233	13.43	2661.86	536.49	0.98

Upper	7605.154	33597.00	197.44	204.99	204.99	207.36	0.009642	13.56	2976.25	666.24
0.90										
Upper	7289.783	33597.00	196.27	203.86	201.50	204.60	0.003429	7.37	5083.44	831.62
0.48										
Upper	7062.404	33597.00	196.41	203.24	200.89	203.85	0.003224	6.26	5604.10	968.87
0.44										
Upper	6894.555	33597.00	189.63	201.46	201.46	203.16	0.006833	15.27	4175.56	1002.78
0.88										
Upper	6705.202	33597.00	190.32	200.37		201.40	0.004008	9.67	4805.99	1056.31
0.58										
Upper	6544.956	33597.00	190.14	199.55		200.39	0.003776	8.08	5138.66	1155.48
0.49										
Upper	6151.870	34722.00	189.97	196.29		197.59	0.005392	9.47	3969.79	836.34
0.68										
Upper	5978.856	34722.00	187.90	193.99	193.99	196.21	0.011163	12.53	3076.86	726.31
0.95										
Upper	5788.123	34722.00	184.32	192.51	191.05	193.69	0.004840	9.11	4118.73	784.37
0.65										
Upper	5686.773	34722.00	183.41	191.82	190.63	193.15	0.006376	9.68	3794.29	715.92
0.72										
Upper	5593.814	34722.00	183.73	191.75	189.40	192.60	0.003753	7.78	4742.41	800.41
0.50										
Upper	5502.751	34722.00	182.66	191.59	188.59	192.33	0.002311	7.25	5211.86	800.92
0.45										
Upper	5387.141	34722.00	182.70	191.45	188.13	192.06	0.001918	6.57	5604.24	795.87
0.41										
Upper	5249.660	34722.00	181.47	191.29		191.80	0.001542	5.81	6155.71	814.67
0.36										
Upper	5093.864	34722.00	180.73	191.01		191.54	0.001732	5.94	6017.90	815.59
0.37										
Upper	4947.016	34722.00	181.85	190.40		191.20	0.002956	7.34	5015.85	783.02
0.48										
Upper	4845.863	34722.00	180.95	190.04		190.88	0.003173	7.77	4951.61	803.26
0.50										
Upper	4728.187	34722.00	180.04	189.80		190.56	0.002076	7.47	5191.21	761.37
0.44										
Upper	4631.533	34722.00	179.99	189.47		190.33	0.002665	8.04	4848.44	740.06
0.48										
Upper	4524.879	34722.00	177.19	187.95		189.84	0.005867	12.64	3480.01	659.98
0.76										
Upper	4434.483	34722.00	177.21	187.91		189.23	0.003558	10.62	4249.26	720.46
0.60										
Upper	4213.757	34722.00	176.41	187.55		188.43	0.002647	8.10	4989.56	758.10
0.45										
Upper	4008.681	34722.00	175.49	186.97		187.88	0.002642	7.98	4861.23	736.33
0.45										
Upper	3791.835	34722.00	175.28	185.83		187.14	0.004038	10.01	4054.79	583.15
0.57										
Upper	3592.245	34722.00	173.20	184.48		186.16	0.005240	11.20	3619.51	548.79
0.67										
Upper	3376.157	34722.00	173.67	183.55		185.05	0.004612	10.23	3694.76	453.06
0.60										
Upper	3169.567	34722.00	169.36	183.48		184.24	0.001971	7.24	5105.97	488.65
0.37										
Upper	2962.583	34722.00	169.14	183.17		183.81	0.002094	6.33	5458.22	565.72
0.34										
Upper	2746.045	34722.00	167.25	182.85		183.45	0.001369	6.93	5919.97	633.43
0.32										
Upper	2608.338	34722.00	167.14	180.96	178.50	183.02	0.003248	12.37	3463.68	440.96
0.63										
Upper	2580	Bridge								
Upper	2443.625	34722.00	168.51	177.83	177.83	181.01	0.010746	15.91	2641.71	429.27
0.94										
Upper	2258.454	34722.00	163.94	176.63		177.99	0.004737	11.00	3846.27	557.62
0.60										
Upper	2095.690	34722.00	163.99	172.89	173.87	176.36	0.014965	18.56	2725.84	672.40
1.19										
Upper	1815.468	34722.00	156.78	168.41	169.40	172.59	0.019454	18.01	2144.62	431.70
1.04										
Upper	1615.906	34722.00	157.53	168.80	168.80	171.27	0.006807	15.72	2975.69	572.84
0.90										
Upper	1380.475	34722.00	151.04	166.42	167.17	169.61	0.009068	16.50	2923.05	836.25
1.00										
Upper	1141.636	34722.00	156.31	166.06		167.28	0.003493	10.24	4978.76	1134.66
0.63										
Upper	914.451	34722.00	156.99	165.77		166.52	0.002666	7.65	5553.93	1151.44
0.47										
Upper	695.814	34722.00	156.28	162.92	162.92	165.48	0.010878	12.92	2736.83	538.33
0.93										
Upper	484.781	34722.00	150.66	161.05		162.59	0.003296	10.22	3702.83	593.22
0.58										
Upper	265.003	34722.00	149.48	159.56	158.03	161.42	0.006001	11.34	3251.85	444.56
0.67										

HEC-RAS Version 3.0.1 Mar 2001
U.S. Army Corp of Engineers
Hydrologic Engineering Center
609 Second Street, Suite D
Davis, California 95616-4687
(916) 756-1104

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X     X  XXXXXX    XXXX        XXXX        XX      XXXX
X     X  X        X    X       X   X     X  X    X
X     X  X        X            X   X    X    X   X
XXXXXXX  XXXX     X       XXX  XXXX     XXXXXX    XXXX
X     X  X        X            X  X     X    X        X
X     X  X        X    X       X   X    X    X        X
X     X  XXXXXX    XXXX        X    X   X    X   XXXXX
```

PROJECT DATA
Project Title: Project Model - D3
Project File : PMD3.prj
Run Date and Time: 11/14/02 10:08:26 AM

Project in English units

Project Description:
CC Alternative - San Juan Creek Crossing

PLAN DATA

Plan Title: Existing Flow/Proposed-Ultimate Geometry
Plan File : p:\2PDA0104\Hydr\LHS\Modeling\Model D\HecRas D\PMD3.p03

Geometry Title: Proposed Conditions - Ultimate
Geometry File : p:\2PDA0104\Hydr\LHS\Modeling\Model D\HecRas D\PMD3.g03

Flow Title : Existing Conditions
Flow File : p:\2PDA0104\Hydr\LHS\Modeling\Model D\HecRas D\PMD3.f01

Plan Summary Information:
Number of: Cross Sections = 138 Mulitple Openings = 0
Culverts = 0 Inline Weirs = 0
Bridges = 1

Computational Information
Water surface calculation tolerance = 0.01
Critical depth calculaton tolerance = 0.01
Maximum number of interations = 20
Maximum difference tolerance = 0.3
Flow tolerance factor = 0.001

Computation Options
Critical depth computed only where necessary
Conveyance Calculation Method: At breaks in n values only
Friction Slope Method: Average Conveyance
Computational Flow Regime: Mixed Flow

FLOW DATA

Flow Title: Existing Conditions
Flow File : p:\2PDA0104\Hydr\LHS\Modeling\Model D\HecRas D\PMD3.f01

Flow Data (cfs)

River	Reach	RS	Q2	Q5	Q10	Q25	Q50	Q100	Q100HC
San Juan	Upper	11261.86	399	2710	5235	13333	21312	33597	84230
San Juan	Upper	6151.870	422	2755	5241	13703	22162	34722	86997

Boundary Conditions

River	Reach	Profile	Upstream	Downstream
San Juan	Upper	Q2	Normal S = .007	Normal S = .006
San Juan	Upper	Q5	Normal S = .007	Normal S = .006
San Juan	Upper	Q10	Normal S = .007	Normal S = .006
San Juan	Upper	Q25	Normal S = .007	Normal S = .006
San Juan	Upper	Q50	Normal S = .007	Normal S = .006
San Juan	Upper	Q100	Normal S = .007	Normal S = .006
San Juan	Upper	Q100HC	Normal S = .007	Normal S = .006

GEOMETRY DATA

Geometry Title: Proposed Conditions - Ultimate

Geometry File : p:\2PDA0104\Hydr\LHS\Modeling\Model D\HecRas D\PMD3.g03

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 11261.86

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 77

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	242.54	4.3	242.24	17.83	241.34	54.62	239.7	59.18	239.5
123.46	236.63	252.74	235.97	254.58	235.92	258.01	235.88	345.45	235.75
381	235.91	416.15	236.08	421.47	236.09	444.76	236.48	616.89	237.54
635.95	236.85	686.17	237.78	686.35	237.78	686.66	237.76	705.96	236.3
708.32	235.71	712.55	234.41	719.34	230.57	733.27	223.18	741.67	221.95
761.26	220.33	764.68	220.33	795.12	220.3	799.34	220.3	801.34	220.35
818.73	221.46	873.43	224.78	896.84	225.07	943.86	225.66	963.45	225.9
1024.79	223.71	1034.82	223.73	1056.83	223.25	1126.76	222.61	1155.33	223.03
1185.38	223.52	1191.02	222.57	1192.05	222.48	1202.64	218.02	1206.6	216.44
1218.59	215.06	1223.77	214.46	1227.31	214.32	1282.3	216.37	1294.49	216.87
1330.81	218.33	1349.69	217.75	1364.3	217.74	1409.65	216.8	1415.9	217.4
1418.57	217.99	1426.08	219.58	1427.14	219.78	1440.15	223.77	1449.59	224.59
1452.99	224.9	1460.48	225.02	1497.36	225.89	1543.03	226.26	1544	226.23
1544.51	226.23	1545.71	226.27	1661.88	227.31	1687.17	228	1726.31	230.17
1731.68	230.61	1760.22	235.86	1764.18	236.51	1779.94	238.34	1809.73	240.73
1820.32	241.62	1820.66	241.64						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.07	54.62	.035	764.68	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
1202.64	1418.57	130.03	143.07	149.61	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 11118.79

INPUT
Description:
Station Elevation Data num= 73

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	236.28	6.22	236.08	23.39	235.63	72.28	235.01	95.7	234.71
116.39	234.76	145.25	235.39	253.54	235.79	296.34	235.95	305.3	236
306.56	236.01	307.67	236.01	517.86	235.46	582.18	235.91	651.6	235.74
682.29	234.27	691.5	233.97	727.73	228.91	734.54	228.53	741.74	227.01
761.35	223.21	771.59	222.64	772.91	222.56	777.01	222.33	793.57	221.41
795.23	221.26	799.6	221.41	818.65	222.32	835.77	223.06	838.02	223.54
858.58	230	868.91	230.97	873.43	231.61	877.11	231.89	921.97	231.07
922.09	231.07	922.12	231.07	969.56	227.62	975.21	226.75	1009.04	223.72
1016.91	223.3	1063.95	222.15	1075.79	222.76	1092.71	222.9	1162.63	223.35
1187.76	222.47	1242.01	217.99	1252.71	216.77	1255.07	216.57	1255.52	216.54
1317.4	216.46	1319.11	216.45	1372.17	216.23	1398.59	217.3	1421.05	217
1440.94	216.26	1453.06	216.41	1456.68	217.54	1457.61	217.97	1465.34	221.17
1469.74	223.55	1476.75	224.23	1483.58	225.18	1489.7	224.96	1548.76	224.65
1611.98	227.28	1707.68	229.93	1716.91	230.38	1728.83	231.47	1773.15	235.81
1777.73	236.17	1778.68	236.35	1807.01	237.16				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.07	72.28	.035	777.01	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
1242.01	1457.61	113.3	131.05	129.24	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 10987.74

INPUT
Description:
Station Elevation Data num= 86

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	236.29	4.65	236.1	17.71	235.99	40.01	235.81	61.33	235.71
108.51	235.52	135.11	236.1	160.74	235.99	218.01	234.83	278.02	233.69
285.21	233.54	392.39	233.47	443.26	233.45	562.6	232.91	589.54	232.87
600.16	232.54	647.72	231.1	683.46	231.18	692.86	230.59	705.84	229.38
708.6	228.65	713.49	226.92	723.65	223.34	726.23	222.95	734.77	221.65
736.86	221.37	742.25	220.66	781.95	221.62	787.48	221.88	789.8	222.37
802.82	224.27	805.64	225.65	808.72	227.16	812.84	229.18	814.74	230.22
815.95	230.46	827.13	232.22	835.58	232.69	842.86	232.81	865.03	230.7
874.42	229.56	880.31	228.4	884.46	227.12	897.57	223.21	899.81	222.46
900.69	222.26	920.38	221.07	924.94	220.81	935.4	220.22	943.09	220.04
1006.44	218.49	1014.33	219.06	1040.71	222.3	1049.72	223.1	1065.02	223
1092.15	221.8	1106.38	221.42	1157.88	218.22	1200.31	216.53	1236.43	216.46
1266.17	216.4	1271.79	216.38	1382.69	215.95	1401.69	216.34	1412.06	217.68
1439.71	217.96	1447.39	218.97	1452.82	219.2	1467.43	218.38	1501.43	219.15
1519.8	219.56	1548.43	221.03	1558.95	221.44	1589.62	222.71	1603.43	223.49
1604.51	223.52	1605.84	223.54	1625.44	223.62	1645.18	223.96	1647.53	224.07
1649.57	224.32	1723.55	231.37	1734.13	232.95	1747.54	235.46	1759.85	236.07
1771.3	236.43								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.07	17.71	.035	726.23	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
1157.88	1412.06	237.19	239.78	243.42	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 10747.97

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 48

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	236.04	2.48	235.82	22.5	235.29	61.52	234.89	88.93	234.64
109.76	234.6	183.4	233.36	265.76	230.92	366.1	230.11	416.67	229.73
448.27	229.72	483.41	229.02	550.09	226.85	628.93	225.02	650.44	224.67
700.42	222.47	706	222.26	708.53	221.48	728.5	217.27	732.25	216.48
748.15	216.28	752.69	216.01	770.01	216.56	815.29	216.82	856.16	216.23
885	216.05	924.46	215.81	989.32	216.22	1025	215.84	1088.35	215.17
1100.74	215.11	1106.09	215.22	1106.35	215.22	1167.83	215.55	1185.06	215.41
1227.01	215.06	1328.48	216.48	1329.47	216.54	1346.04	221.53	1349.24	222.67
1362.65	225.06	1406.84	228.93	1410.82	229.21	1412.05	229.37	1417.98	230.91
1425.04	234.92	1427.99	236.1	1431.23	236.75				

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	61.52	.035	728.5	.05	885	.035	1025	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
732.25	1328.48	153.99	201.69	181.38	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 10546.27

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 49

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	236.22	15.31	236.1	82.15	233.76	145.91	232.57	204.39	230.63
237.53	229.94	279.43	229.37	322	228.82	357.76	228.36	467.04	225.64
498.68	225.16	542.5	225.53	555.23	225.12	584.32	224.17	590.62	223.73
603.48	222.96	611.71	223	624.09	219.15	633.77	216.5	636.62	216.16
639.41	216.26	650.3	215.4	651.87	215.27	680	214.57	731.07	213.3
734.14	213.24	736.27	213.13	738.91	213.14	785	213.22	794.25	213.24
855.69	215.03	860.69	215.18	900.15	215.88	949.77	216.48	1078.71	216.09
1087.61	216.06	1206.66	216.79	1213.61	217.18	1253.05	218.16	1274.66	219.45
1285.16	219.95	1314.1	223.32	1332.02	224.38	1339.94	224.86	1345.91	225.6
1361.48	227.69	1371.08	228.8	1373.43	229.44	1395.49	235.75		

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	322	.035	603.48	.05	680	.035	785	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
651.87	1078.71	193.88	481.55	278.86	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 10064.73

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 55

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	236.69	2.25	235.52	3.44	235.23	39.26	231	45.72	230.22
46.1	230.2	54.9	229.94	80	229.2	108.21	228.37	136.39	227.57
139.49	227.54	140.5	227.54	144.18	227.6	241.56	229.75	270.67	229.52
308.9	228.27	350.32	225.72	352.38	225.51	357.79	224.93	392.41	221.01
412.12	217.68	417.62	217.01	425.14	213.21	427.78	212	431.1	210.34
431.53	210.31	449.01	207.79	470.75	208.63	515.87	210.35	524.74	210.61
530.85	210.6	630	211.13	685.58	211.43	715.69	211.75	740.32	211.98
814.18	212.46	842.43	212.85	853.67	213.13	909.6	214.49	967.31	216.31
1043.73	216.78	1139.17	217.15	1168.86	217.63	1227.2	218.61	1249.1	218.99
1297.47	221.72	1310.51	222.39	1317.8	222.77	1323.48	223.09	1327.81	224.11
1341.36	226.67	1347.21	228.87	1363.43	234.6	1371.97	237.09	1372.46	237.17

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.07	54.9	.05	80	.035	270.67	.035	630	.035
853.67	.05								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
427.78	814.18	211.89	236.17	217.43	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 9828.565

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 61

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	236.98	1.55	236.3	7.74	234.46	13.66	232.4	19.63	230.85
48.1	227.01	55.82	225.9	61.58	225.47	89.19	224.43	90.37	224.38
102.46	224.18	103.69	224.17	208.98	223.05	239.58	223.07	242.07	223
253.69	222.62	275.8	223.24	279.3	223.44	284.47	221.81	285.5	221.47
288.04	219.66	289.78	218.35	299.1	212	299.55	211.26	305.25	209.37
310.18	208.19	314.04	208.02	316.25	207.91	317.91	207.84	329.99	208.42
340.14	208.91	355.77	209.46	366.15	209.81	377.03	210.22	433.19	210.2
507.35	210.17	548.46	210.16	566.82	210.11	595.74	210.14	686.65	212
715	212.59	721.13	212.72	803.83	214.42	873.18	215.71	887.08	216.05
902.38	216.51	983.81	216.5	1063.49	217.85	1084.26	218.24	1108.83	218.43
1118.78	218.6	1127.28	219.01	1142.48	219.66	1182	221.49	1216.79	222.99
1218.55	223.27	1225.94	226.07	1235.89	227.79	1243.42	229.53	1268.71	234.66
1274.08	235.96								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val

0	.07	89.19	.035	242.07	.05	433.19	.035	715	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
299.1	686.65	118.07	118.56	92.16	.1	.3

CROSS SECTION
REACH: Upper

RIVER: San Juan
RS: 9710.010

INPUT
Description:
Station Elevation Data num= 49

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	237.56	9.65	233.67	16.71	230.9	24.72	229.13	28.53	228.26
47.4	226.46	73.88	223.9	78.37	223.7	81.58	223.63	105.5	223.15
122.06	222.81	128.27	222.82	178.12	222.64	188.98	222.6	240.96	219.54
286.21	216.75	293.2	216.54	298.11	213.76	302.07	212.02	304.78	210.35
306	209.73	310.33	208.75	319.5	207.93	327.69	207.81	340.97	208.4
381.78	209.58	396.96	210.19	422.01	210.14	445.07	210.09	486.21	210.12
570.66	210.19	637.15	211.58	656.46	211.95	802.19	214.72	833.25	215.49
866.72	216.5	916.71	216.49	1038.3	216.49	1044.5	216.6	1052.62	216.99
1075.97	218.25	1080.92	218.83	1086.83	219.53	1132.21	222.55	1137.29	223.24
1138.13	223.4	1140.89	224.99	1144.53	226.44	1172.25	237.73		

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	105.5	.05	422.01	.035	656.46	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
302.07	656.46	105.82	122.85	111.7	.1	.3

CROSS SECTION
REACH: Upper

RIVER: San Juan
RS: 9587.161

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 51

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	235.13	.85	234.8	16.38	229.87	27.38	227.87	29.69	227.46
31.73	227.22	57.78	224.46	97.35	223.56	128.59	222.34	148.19	221.51
180	220.22	212.56	218.9	281.1	216.65	294.01	216.15	309.99	214.06
312.35	213.75	326.78	212.04	334.41	212.32	338.81	212.32	344.29	212.59
353.29	213.96	362.45	212.15	366.12	211.09	370.15	209.41	372.66	209.12
404.96	208.82	425	208.86	448.67	208.91	545.27	210.01	585	210.6
626.43	211.21	626.55	211.21	642.39	211.44	675.79	212.15	741.69	213.41
753.28	213.48	771.95	214.16	797.84	214.81	853.17	216.48	884.32	216.48
909.54	216.85	996.87	216.79	1043.26	216.64	1056.32	216.22	1058.79	216.57
1065.87	219.78	1069.48	221.22	1074.99	224.9	1086.45	230.37	1093.15	234.08
1095.36	235.39								

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	180	.05	425	.035	545.27	.05	585	.035
642.39	.05								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
362.45	675.79	123.08	118.02	93.39	.1	.3

CROSS SECTION
REACH: Upper

RIVER: San Juan
RS: 9469.136

INPUT
Description:
Station Elevation Data num= 53

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	237.57	12.94	234.3	17.91	232.7	24.18	230.54	59.34	225.73
76.13	223.7	81.78	223.42	135.85	220.64	169.07	219.04	180.99	218.57
187.82	218.35	215.48	217.65	221.82	217.49	328.29	215	340.74	214.75
358	213.99	370.63	212.99	378.86	212.34	395.08	211.79	399.54	212.37
404.97	212.66	409.25	212.27	415.36	211.65	421.14	211.09	444.15	210.57
463.29	210.43	540.01	209.9	570.3	209.82	614.13	210.4	660.46	211
713.27	211.7	714.02	211.69	724.7	211.51	773.82	210.74	774.7	210.73
786.16	210.77	789.96	210.35	813.58	210.1	816.39	210.42	837.61	211.74
855.43	212.89	859.2	213.18	886.42	214.6	922.31	216.41	926.97	216.6
947.26	216.63	1039.24	216.13	1044.89	216.74	1052.81	221.3	1054.77	222
1061.39	227.39	1073.18	236.6	1077.41	239.66				

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	215.48	.05	463.29	.035	614.13	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
415.36	837.61	89.26	118.5	115.68	.1	.3

CROSS SECTION
REACH: Upper

RIVER: San Juan
RS: 9350.632

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 41

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	235.55	12.28	233.13	24.99	230.02	52.05	227.19	66.18	225.45
90.05	224.42	117.19	223.07	181.12	219.9	202.42	218.92	220.15	218.12
262.29	217.13	319.13	215.8	384.17	214.49	421.88	212.86	466.73	210.99
480.59	210.33	480.81	210.31	481.1	210.3	481.5	210.29	482.43	210.29
543.33	210.13	639.13	209.9	680	210.42	694.61	210.61	718.93	210.93
772.78	210.62	777.09	210.59	809.31	210.02	871.62	211.73	895.72	212.94
932.8	214.27	978.37	215.79	983.34	215.94	1006.1	216.52	1007.14	216.55
1013.04	217.67	1021.96	219.37	1024.06	219.91	1061.51	230.84	1065.28	232.96

1065.35 233.03

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.07	117.19	.035	202.42	.05	543.33	.035	680	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
466.73	871.62	84.67	94.41	83.86	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 9256.219

INPUT
Description:
Station Elevation Data num= 47

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	235.56	11.33	233.02	23.65	230.11	36.67	228.78	56.57	226.31
63.88	226	149.59	222.37	170.35	221.36	171.49	221.31	219.79	219.17
253.31	217.64	300.03	216.55	413.44	214.26	454.77	212.48	458.88	212.3
495.1	210.77	580.72	209.51	585.58	209.57	628.06	210.1	686.73	209.96
716.31	210.34	716.54	210.34	723.99	210.3	788.11	209.93	818.2	209.76
822.23	209.68	830.02	209.9	836.38	210.22	845.79	210.84	862.11	212.09
871.59	212.66	876.13	212.99	884.78	213.94	909.99	216.15	920.78	216.71
948.86	217.91	978.02	218.84	988.49	219.84	1001.47	220.78	1017.4	221.96
1024.33	222.37	1030.22	223.76	1038.84	226.09	1044.05	229.23	1047.45	230.51
1063.67	234.43	1064.7	234.9						

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.07	63.88	.035	170.35	.05	585.58	.035	723.99	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
495.1	845.79	101.89	118.9	108.87	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 9137.316

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 45

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	235.18	22.33	230.75	42.24	228.2	63.9	225.84	101.49	224.61
150.55	222.89	167.63	221.32	180	220.74	235.15	218.14	244.78	218.25
309.54	217.04	325.48	217.26	379.62	216.78	417.92	216.26	427.16	216.09
488.07	212.8	495.35	212.5	507.55	211.99	537.37	210.2	581.23	209.62
613.53	209.59	642	209.07	682.73	208.32	704.34	208.03	723.51	207.79
727.77	208.32	756.83	209.99	773.79	209.62	780.18	209.47	835.8	209.21
899.08	210.85	912.49	211.72	931.6	212.97	954.81	214.4	955.14	214.42
991.54	215.27	999.52	215.73	1014.81	216.69	1035.94	220.35	1049.41	224.63
1055.27	226.59	1067.37	231.66	1070.65	233.33	1074.77	235.81	1079.2	237.67

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	180	.05	642	.035	773.79	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
537.37	899.08	68.43	118.37	170.91	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 9018.948

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 48

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	236.19	5.61	234.34	19.05	230.7	22.32	229.92	34.98	228.26
58.81	225.12	71.59	224.56	125.23	222.86	136.34	221.54	175.03	217.95
186.19	216.91	194.69	216.65	239.64	216.66	295.33	217.21	331.31	216.54
349.96	216.78	393.11	217.37	395.15	217.35	434.37	217.01	456.94	215.29
464.98	214.87	479.59	211.99	496.75	209.99	501.41	209.82	519.32	209.15
581.79	209.78	592.3	209.97	596.43	209.99	600.8	209.99	617.29	209.94
675	209.57	799.23	208.76	846.63	209.31	856.61	209.49	865.04	209.64
867.03	209.63	887.36	209.5	899.78	209.99	949.51	212.86	954.98	213.65
966.37	215.05	971.53	215.74	976.9	216.45	994.13	221.26	1007.41	226.4
1013.51	229.18	1026.11	234.49	1029.58	236.16				

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	175.03	.05	675	.035	865.04	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
617.29	899.78	103.94	141.14	196.85	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 8877.807

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 50

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	235.47	16	230.13	23.53	228.82	43.04	226.02	53.75	225.26
97.11	223.1	121.98	220.27	148.33	216.92	149.86	216.85	175.44	216.02
182.43	215.79	264.01	215.76	359.16	215.66	400.91	215.23	404.49	215.19
423.94	214.49	448.47	213.08	478.83	211.44	485.24	211.18	487.34	210.83
536.77	209.27	566.36	209.8	576.89	209.87	666.14	210.47	670.81	210.46

763.6	210.34	781.64	210.19	791.65	210.67	805.26	211.21	820.04	212.02
844.24	213.88	847.94	213.98	871.25	211.93	872.2	211.87	873.1	211.78
885.93	208.92	895.03	204.91	901.36	204.51	923.65	204.73	925.5	204.75
935.26	204.92	948.14	206.25	961.4	208.7	974.67	211.59	982.85	214.28
989.46	216.85	1012.58	226.37	1021.32	230.5	1028.34	234.21	1032.01	235.71

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	175.44	.05	670.81	.035	935.26	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
885.93	961.4	90.38	91.88	97.21	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 8785.928

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 53

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	231.65	17.24	226.79	22.09	226.18	61.29	222.04	91.45	220.2
113.91	217.61	126.85	216.97	154.25	215.99	184.6	215.82	324.44	215.06
367.24	214.93	375.23	214.64	387.3	214.03	407.3	213.48	467.14	211.83
486.18	211.6	514.54	211.07	559.35	209.79	569.19	209.86	616.65	210.18
656.85	209.7	700.89	209.71	776.42	209.15	803.51	210.94	846.49	216.22
850.58	216.45	866.12	214.61	866.92	214.48	867.87	214.26	870.7	213.58
883.15	210.23	900.95	205.79	910.93	204.24	934.29	203.03	935.91	202.95
939.77	202.85	944.19	203.03	960.1	203.43	965.34	204.3	969.91	205.78
976.64	208.01	978.76	208.86	981.84	211.21	984.92	212.46	987.05	211.72
989.84	212.14	992.8	214.24	994.96	215.3	996.84	216.96	998.25	217.71
1017.83	230.92	1023.32	233.95	1025.57	235.44				

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	184.6	.05	656.85	.035	939.77	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
900.95	969.91	89.24	86.51	114.83	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 8699.415

INPUT
Description:
Station Elevation Data num= 57

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	228.96	16.5	224.59	22.67	223.16	25.71	222.88	70.95	218.8
120.94	217.13	132.52	216.5	138.16	216.41	177.33	216.52	226.62	216.35
389.19	215.81	440.44	213.92	516.4	210.08	516.93	210.07	518.16	210.05
540.65	210.23	543.99	209.34	546.05	209.12	554.09	204.61	556.71	203.68
559.84	203.47	564.63	203.29	567.58	203.49	568.92	203.58	576.85	204.46
593.65	206.31	607.75	206.8	611.61	206.94	626.8	207.98	653.38	208
669.55	207.98	689.74	207.95	741.83	207.88	759.1	207.73	776.74	208.88
800.07	211.05	801.37	211.01	843.83	207.44	844.58	207.28	855.43	205.99
872.29	203.81	875.46	203.48	931.18	202.95	944.59	203.18	947.68	203.23
958.4	203.41	961.9	203.6	965.82	204.69	971.93	205.96	986	208.87
993.13	209.98	997.35	212.14	1012.4	223.31	1013.12	223.91	1013.28	224.02
1027.96	234.99	1030.08	236.14						

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	226.62	.05	576.85	.035	607.75	.05	669.55	.035
947.68	.05								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
855.43	971.93	196.8	210.5	198	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 8488.931

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 44

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	223.53	5.06	222.86	50.35	218.19	100.15	216.85	181.75	215.37
191.02	215.13	194.19	215.09	206.53	215.12	333.22	216.49	363.57	216.83
444.57	216.12	466.47	216.8	497.41	217.45	499.38	217.37	501.77	216.86
505	216.26	509.57	215.4	520.92	209.41	521.52	209.1	521.65	209.03
521.85	209	546.91	205.67	556.86	204.35	582	203.55	590.02	203.36
645	203.5	711.54	203.67	715	203.66	770.23	203.53	837.91	203.44
850.34	203.93	869.98	203.3	929.34	202.79	937.43	202.72	946.04	202.93
953.2	203.42	954.83	203.48	957.04	204.49	959.37	205.75	971.52	214.75
979.71	220.55	984.84	223.89	990.63	227.51	990.77	227.61		

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	505	.05	546.91	.035	645	.05	715	.035
971.52	.05								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
546.91	959.37	41.88	40.32	46.55	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 8448.60*

INPUT
Description:
Station Elevation Data num= 91

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	223.41	4.94	222.8	5.82	222.71	22.26	220.92	41.42	218.8
42.88	218.64	48.31	218.02	49.19	217.94	62.64	217.57	89.34	216.92
95.9	216.76	97.85	216.72	129.23	216.27	141.07	216.11	177.58	215.53
186.64	215.33	189.73	215.29	201.79	215.31	218.68	215.44	248.55	215.82
254.46	215.89	325.57	216.49	336.54	216.58	355.23	216.73	377.59	216.54
434.37	216.35	452.5	216.88	455.77	216.98	469.69	217.27	469.74	217.27
469.79	217.27	469.84	217.27	470.11	217.27	481.32	217.28	486	217
487.92	216.78	490.26	216.19	493.41	215.47	494.34	215.25	496.74	214.71
497.88	214.48	501.63	212.72	508.97	209.26	509.55	208.99	509.68	208.92
509.88	208.89	513.05	208.42	534.36	206.02	537.29	205.68	543.57	204.94
550.35	204.73	566.83	204.23	574.25	204.05	607.9	204.02	625.13	203.98
629.18	203.97	655.59	204.05	686.7	203.93	689.9	203.9	694.22	203.86
741.01	203.72	742.29	203.72	803.64	203.59	815.14	203.97	833.31	203.45
882.59	203.04	888.24	203	895.73	202.94	906.93	203.39	914.47	203.9
916.24	204.02	918.36	204.12	921.23	205	924.26	206.08	932.98	209.28
945.94	213.93	951.7	215.91	954.89	216.88	958.92	217.85	960.55	218.32
961.45	218.55	966.14	219.18	967.69	219.41	969.06	219.61	969.7	219.83
969.89	219.9	970.76	220.53	971.27	220.81	975.12	224.05	980.03	228.35
980.28	228.58								

Manning's n Values num= 14

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	41.42	.038	248.55	.047	452.5	.038	493.41	.05
534.36	.035	548.45	.035	627.09	.047	693.26	.035	717.6	.038
899.75	.047	924.26	.047	945.94	.047	980.28	.047		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
534.36	924.26	41.88	40.32	46.55	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 8408.28*

INPUT
Description:
Station Elevation Data num= 91

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	223.29	4.83	222.73	5.68	222.65	21.74	220.82	40.45	218.59
41.87	218.42	47.17	217.77	48.04	217.7	61.17	217.32	87.24	216.76
93.65	216.61	95.55	216.58	126.19	216.28	137.76	216.16	173.41	215.69
182.25	215.53	185.28	215.5	197.05	215.5	213.55	215.58	242.71	216
248.49	216.08	317.93	216.49	328.64	216.55	346.89	216.63	368.72	216.45
424.17	216.58	441.88	217.07	445.07	217.15	458.66	217.44	458.71	217.44
458.75	217.44	458.81	217.44	459.07	217.44	470.02	217.21	474.59	216.54
476.47	216.2	478.75	215.53	481.83	214.67	482.73	214.42	485.07	213.79
486.19	213.57	489.85	212.06	497.02	209.1	497.59	208.87	497.71	208.82
497.9	208.78	501	208.28	521.81	206.37	524.5	206.1	530.28	205.52
536.51	205.34	551.66	204.9	558.49	204.74	589.42	204.59	605.26	204.45
608.98	204.42	633.27	204.52	661.86	204.18	664.81	204.13	668.77	204.07
711.79	203.92	712.97	203.91	769.37	203.75	779.94	204.02	796.65	203.61
841.95	203.24	847.14	203.21	854.03	203.16	867.81	203.85	877.11	204.47
879.28	204.61	881.89	204.76	885.43	205.51	889.16	206.41	901.71	209.18
920.36	213.1	928.65	214.78	933.24	215.46	939.05	215.8	941.39	216.09
942.68	216.23	949.44	215.77	951.67	215.67	953.65	215.57	954.56	215.78
954.84	215.84	956.09	216.8	956.81	217.17	962.36	222.31	969.43	229.19
969.79	229.55								

Manning's n Values num= 14

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	40.45	.041	242.71	.044	441.88	.041	481.83	.05
521.81	.035	535.09	.035	609.17	.044	671.52	.035	694.45	.041
866.06	.044	889.16	.044	920.36	.044	969.79	.044		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
521.81	889.16	41.88	40.32	46.55	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 8367.96*

INPUT
Description:
Station Elevation Data num= 91

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	223.17	4.71	222.67	5.54	222.59	21.22	220.71	39.48	218.37
40.86	218.2	46.04	217.51	46.88	217.45	59.7	217.06	85.15	216.6
91.39	216.47	93.26	216.45	123.16	216.29	134.45	216.22	169.24	215.85
177.87	215.73	180.82	215.7	192.31	215.68	208.41	215.71	236.87	216.18
242.51	216.27	310.28	216.49	320.74	216.52	338.55	216.53	359.85	216.36
413.97	216.81	431.25	217.25	434.36	217.33	447.63	217.61	447.68	217.61
447.72	217.61	447.78	217.61	448.03	217.6	458.71	217.15	463.17	216.09
465.01	215.61	467.23	214.86	470.24	213.88	471.13	213.59	473.41	212.88
474.5	212.65	478.07	211.4	485.06	208.95	485.62	208.76	485.74	208.71
485.93	208.68	488.96	208.13	509.27	206.73	511.72	206.53	516.99	206.11
522.68	205.95	536.5	205.58	542.72	205.43	570.94	205.16	585.39	204.93
588.79	204.88	610.94	204.99	637.02	204.44	639.71	204.37	643.33	204.29
682.57	204.11	683.65	204.11	735.09	203.9	744.74	204.06	759.98	203.76
801.3	203.44	806.05	203.42	812.32	203.39	828.7	204.31	839.74	205.04
842.32	205.21	845.42	205.39	849.62	206.01	854.05	206.75	870.43	209.09
894.78	212.28	905.6	213.65	911.6	214.04	919.17	213.75	922.23	213.86

923.91	213.91	932.74	212.37	935.65	211.92	938.23	211.52	939.42	211.72
939.78	211.78	941.42	213.07	942.36	213.54	949.6	220.57	958.83	230.03
959.3	230.52								

Manning's n Values num= 14

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	39.48	.044	236.87	.041	431.25	.044	470.24	.05
509.27	.035	521.73	.035	591.26	.041	649.78	.035	671.3	.044
832.38	.041	854.05	.041	894.78	.041	959.3	.041		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
509.27	854.05	41.88	40.32	46.55	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 8327.64*

INPUT
Description:
Station Elevation Data num= 91

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	223.05	4.6	222.6	5.41	222.53	20.69	220.6	38.5	218.16
39.86	217.98	44.9	217.25	45.73	217.21	58.23	216.81	83.05	216.43
89.14	216.32	90.96	216.32	120.12	216.29	131.13	216.28	165.07	216.01
173.49	215.93	176.37	215.91	187.58	215.87	203.28	215.85	231.04	216.36
236.54	216.46	302.64	216.49	312.83	216.49	330.2	216.43	350.99	216.27
403.77	217.04	420.63	217.44	423.66	217.51	436.6	217.78	436.65	217.78
436.69	217.78	436.74	217.77	436.99	217.77	447.41	217.08	451.76	215.64
453.55	215.02	455.72	214.19	458.65	213.09	459.52	212.76	461.74	211.96
462.8	211.74	466.29	210.74	473.11	208.79	473.66	208.64	473.78	208.61
473.96	208.57	476.91	207.99	496.72	207.08	498.93	206.95	503.7	206.7
508.84	206.57	521.33	206.25	526.95	206.12	552.46	205.72	565.52	205.41
568.59	205.33	588.61	205.46	612.19	204.69	614.61	204.61	617.88	204.5
653.35	204.3	654.32	204.3	700.82	204.05	709.54	204.11	723.31	203.91
760.66	203.64	764.95	203.63	770.62	203.61	789.59	204.77	802.37	205.61
805.36	205.81	808.95	206.03	813.81	206.52	818.95	207.08	839.16	208.99
869.2	211.45	882.55	212.53	889.95	212.61	899.3	211.7	903.07	211.63
905.15	211.58	916.03	208.96	919.62	208.18	922.81	207.48	924.28	207.67
924.73	207.73	926.74	209.34	927.91	209.91	936.84	218.83	948.23	230.88
948.81	231.49								

Manning's n Values num= 14

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	38.5	.047	231.04	.038	420.63	.047	458.65	.05
496.72	.035	508.36	.035	573.35	.038	628.04	.035	648.15	.047
798.69	.038	818.95	.038	869.2	.038	948.81	.038		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
496.72	818.95	41.88	40.32	46.55	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 8287.319

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 52

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	222.93	5.27	222.47	20.17	220.49	37.53	217.95	38.85	217.76
43.77	216.99	56.76	216.56	80.95	216.27	86.89	216.18	117.09	216.3
127.82	216.34	198.14	215.98	225.2	216.54	230.56	216.65	304.93	216.46
342.12	216.18	410	217.62	425.57	217.95	425.62	217.95	425.66	217.95
425.71	217.94	425.95	217.93	436.11	217.01	447.91	211.93	450.08	211.05
454.51	210.08	464.86	207.84	484.17	207.43	486.15	207.38	495	207.18
533.98	206.29	548.39	205.79	566.28	205.93	592.44	204.71	625	204.49
720.02	203.84	728.92	203.83	765	206.18	783.84	207.41	807.88	208.9
859.5	211.4	868.3	211.19	879.42	209.65	886.38	209.26	899.33	205.55
903.6	204.43	907.39	203.43	909.67	203.67	912.07	205.61	913.46	206.28
924.08	217.09	938.32	232.46						

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	37.53	.05	225.2	.035	410	.05	495	.035
625	.05	765	.035						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
484.17	783.84	21.4	39.31	35.65	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 8248.00*

INPUT
Description:
Station Elevation Data num= 88

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	222.94	3.21	222.53	5.13	222.35	19.63	220.44	32.04	218.66
36.53	218	37.82	217.81	42.6	217.07	50.62	216.69	55.25	216.55
65.26	216.42	65.4	216.42	78.79	216.25	84.58	216.17	105.83	216.2
113.97	216.23	116.25	216.24	124.42	216.27	176.31	216.08	192.86	215.99
210.35	216.3	219.2	216.52	221.16	216.57	224.42	216.64	272.46	216.59
296.81	216.58	333.01	216.4	359.7	216.95	374.41	217.22	378.9	217.27
399.08	217.5	405.58	217.57	414.24	217.05	414.29	217.04	414.33	217.04
414.38	217.03	414.61	217	416.51	216.7	416.87	216.64	424.5	215.84
426.98	214.84	430.84	213.26	435.99	211.26	438.1	210.49	442.41	209.61
445.12	209.07	452.48	207.58	471.28	207.02	473.02	206.97	480.82	206.79
515.15	205.99	527.85	205.55	543.61	205.66	564.77	204.68	566.65	204.59
595.33	204.35	596.25	204.34	679.03	203.66	686.87	203.64	690.04	203.82

701.81	204.23	718.23	204.8	747.72	205.81	762.14	206.3	779.5	207.04
802.03	208.32	803.14	208.37	848.25	210.07	853.92	210.29	862.57	210.08
868.11	209.39	873.51	208.73	874.24	208.69	880.35	208.44	881.83	208.08
882.11	208.03	893.09	206.21	897.29	205.6	898.85	205.37	901.02	205.15
903.26	205.64	905.62	207.61	906.99	208.36	907.47	208.85	914.24	215.48
917.43	218.65	924.94	226.52	931.44	232.92				

Manning's n Values num= 15

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	36.53	.048	50.62	.037	219.2	.037	399.08	.05
471.28	.035	482.42	.035	491.46	.035	550.2	.037	598.66	.048
616.13	.048	760.12	.035	779.5	.037	802.03	.05	931.44	.037

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
471.28	779.5	21.4	39.31	35.65	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888		F	

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 8208.70*

INPUT
Description:
Station Elevation Data num= 88

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	222.95	3.12	222.42	4.99	222.24	19.1	220.39	31.16	218.69
35.53	218.05	36.78	217.86	41.44	217.14	49.23	216.66	53.74	216.53
63.47	216.41	63.61	216.41	76.64	216.24	82.26	216.15	102.93	216.13
110.86	216.16	113.07	216.17	121.01	216.21	171.49	216.09	187.59	216
204.6	216.24	213.21	216.51	215.12	216.57	218.28	216.62	265.01	216.66
288.69	216.7	323.9	216.63	349.86	217.14	364.17	217.36	368.54	217.36
388.17	217.37	394.48	217.38	402.91	216.14	402.96	216.14	403	216.13
403.04	216.11	403.27	216.07	405.12	215.64	405.47	215.57	412.89	214.68
415.3	213.77	419.06	212.33	424.06	210.6	426.12	209.93	430.31	209.15
432.94	208.66	440.11	207.32	458.39	206.6	459.9	206.56	466.64	206.4
496.33	205.7	507.31	205.32	520.93	205.39	539.23	204.54	540.86	204.47
565.66	204.21	566.45	204.2	638.04	203.47	644.81	203.44	649.29	203.68
665.84	204.05	688.94	204.56	730.45	205.43	750.73	205.86	775.16	206.66
797.31	207.8	798.41	207.84	842.76	209.01	848.33	209.18	856.84	208.97
862.29	208.38	867.6	207.8	868.31	207.77	874.33	207.61	875.78	207.33
876.05	207.32	886.85	206.87	890.98	206.77	892.51	206.73	894.64	206.87
896.85	207.62	899.17	209.61	900.52	210.44	900.99	210.92	907.65	217.16
910.79	220.21	918.16	227.71	924.56	233.37				

Manning's n Values num= 15

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	35.53	.046	49.23	.039	213.21	.039	388.17	.05
458.39	.035	469.84	.035	479.13	.035	539.5	.039	589.3	.046
607.26	.046	755.24	.035	775.16	.039	797.31	.05	924.56	.039

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
458.39	775.16	21.4	39.31	35.65	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888		F	

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 8169.39*

INPUT
Description:
Station Elevation Data num= 88

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	222.96	3.03	222.3	4.85	222.12	18.56	220.34	30.29	218.72
34.53	218.09	35.75	217.92	40.27	217.22	47.85	216.63	52.23	216.52
61.69	216.4	61.83	216.39	74.48	216.22	79.95	216.14	100.04	216.07
107.74	216.1	109.89	216.1	117.61	216.14	166.67	216.11	182.31	216.02
198.84	216.18	207.21	216.49	209.07	216.56	212.15	216.61	257.56	216.73
280.58	216.82	314.8	216.85	340.02	217.33	353.93	217.49	358.17	217.45
377.25	217.25	383.39	217.18	391.58	215.24	391.63	215.23	391.66	215.22
391.71	215.2	391.93	215.14	393.73	214.59	394.07	214.49	401.28	213.51
403.62	212.7	407.28	211.39	412.14	209.93	414.13	209.36	418.21	208.68
420.77	208.25	427.73	207.06	445.5	206.19	446.77	206.15	452.46	206.02
477.5	205.4	486.76	205.08	498.26	205.11	513.69	204.41	515.07	204.34
535.99	204.07	536.66	204.07	597.04	203.29	602.76	203.25	608.53	203.55
629.87	203.87	659.66	204.32	713.17	205.06	739.33	205.41	770.82	206.29
792.6	207.29	793.67	207.32	837.27	207.96	842.75	208.06	851.11	207.86
856.47	207.36	861.68	206.88	862.39	206.84	868.3	206.79	869.73	206.58
870	206.6	880.61	207.52	884.67	207.94	886.18	208.09	888.27	208.59
890.44	209.59	892.72	211.61	894.04	212.52	894.51	213	901.06	218.85
904.14	221.77	911.39	228.91	917.68	233.83				

Manning's n Values num= 15

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	34.53	.044	47.85	.041	207.21	.041	377.25	.05
445.5	.035	457.26	.035	466.8	.035	528.8	.041	579.95	.044
598.38	.044	750.37	.035	770.82	.041	792.6	.05	917.68	.041

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
445.5	770.82	21.4	39.31	35.65	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888		F	

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 8130.08*

INPUT
Description:
Station Elevation Data num= 88

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	222.98	2.94	222.19	4.71	222	18.02	220.29	29.41	218.75
33.53	218.14	34.71	217.97	39.11	217.3	46.46	216.6	50.72	216.5
59.9	216.38	60.04	216.38	72.33	216.21	77.64	216.13	97.14	216
104.62	216.03	106.71	216.04	114.21	216.07	161.85	216.12	177.04	216.03
193.09	216.13	201.22	216.48	203.02	216.55	206.01	216.6	250.11	216.8
272.46	216.94	305.69	217.08	330.18	217.51	343.69	217.63	347.81	217.53
366.34	217.12	372.3	216.99	380.25	214.34	380.3	214.32	380.33	214.31
380.38	214.29	380.59	214.21	382.34	213.53	382.67	213.41	389.67	212.35
391.95	211.63	395.49	210.45	400.21	209.26	402.15	208.8	406.11	208.21
408.59	207.84	415.36	206.81	432.61	205.77	433.65	205.74	438.28	205.63
458.68	205.11	466.22	204.85	475.59	204.84	488.16	204.28	489.28	204.22
506.32	203.94	506.86	203.93	556.05	203.11	560.71	203.05	567.77	203.41
593.91	203.69	630.37	204.09	695.89	204.68	727.92	204.97	766.48	205.91
787.88	206.78	788.94	206.79	831.78	206.9	837.16	206.95	845.38	206.75
850.65	206.35	855.77	205.95	856.46	205.92	862.27	205.97	863.67	205.83
863.94	205.89	874.37	208.18	878.36	209.1	879.84	209.45	881.9	210.31
884.03	211.57	886.27	213.61	887.57	214.6	888.03	215.07	894.46	220.54
897.49	223.33	904.62	230.1	910.79	234.29				

Manning's n Values num= 15

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	33.53	.041	46.46	.044	201.22	.044	366.34	.05
432.61	.035	444.68	.035	454.47	.035	518.1	.044	570.59	.041
589.51	.041	745.49	.035	766.48	.044	787.88	.05	910.79	.044

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
432.61	766.48	21.4	39.31	35.65	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 8090.77*

INPUT
Description:
Station Elevation Data num= 88

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	222.99	2.86	222.08	4.57	221.88	17.49	220.24	28.53	218.79
32.53	218.19	33.68	218.02	37.94	217.37	45.08	216.58	49.2	216.49
58.12	216.37	58.25	216.37	70.17	216.19	75.32	216.11	94.25	215.93
101.5	215.96	103.53	215.97	110.81	216.01	157.02	216.13	171.76	216.04
187.34	216.07	195.22	216.46	196.97	216.54	199.87	216.59	242.65	216.86
264.34	217.06	296.58	217.3	320.35	217.7	333.45	217.77	337.45	217.62
355.42	217	361.21	216.8	368.92	213.43	368.96	213.41	369	213.4
369.04	213.38	369.25	213.28	370.94	212.48	371.26	212.33	378.06	211.18
380.27	210.56	383.71	209.51	388.29	208.6	390.17	208.24	394.01	207.75
396.42	207.44	402.98	206.55	419.72	205.36	420.52	205.34	424.1	205.24
439.85	204.81	445.68	204.61	452.91	204.57	462.62	204.15	463.49	204.1
476.65	203.8	477.07	203.79	515.06	202.93	518.66	202.86	527.01	203.28
557.94	203.52	601.09	203.85	678.61	204.31	716.51	204.53	762.14	205.54
783.16	206.27	784.2	206.26	826.29	205.85	831.58	205.84	839.65	205.64
844.82	205.33	849.86	205.03	850.54	205	856.25	205.14	857.62	205.08
857.88	205.17	868.13	208.84	872.05	210.27	873.5	210.8	875.53	212.03
877.62	213.54	879.82	215.61	881.1	216.68	881.55	217.14	887.87	222.23
890.84	224.89	897.85	231.29	903.91	234.75				

Manning's n Values num= 15

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	32.53	.039	45.08	.046	195.22	.046	355.42	.05
419.72	.035	432.09	.035	442.14	.035	507.4	.046	561.23	.039
580.64	.039	740.61	.035	762.14	.046	783.16	.05	903.91	.046

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
419.72	762.14	21.4	39.31	35.65	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 8051.46*

INPUT
Description:
Station Elevation Data num= 88

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	223	2.77	221.96	4.43	221.77	16.95	220.19	27.66	218.82
31.54	218.24	32.64	218.07	36.78	217.45	43.69	216.55	47.69	216.48
56.33	216.35	56.46	216.35	68.02	216.18	73.01	216.1	91.35	215.87
98.39	215.89	100.35	215.9	107.4	215.94	152.2	216.15	166.49	216.05
181.58	216.02	189.23	216.44	190.92	216.54	193.73	216.57	235.2	216.93
256.22	217.18	287.47	217.53	310.51	217.89	323.21	217.9	327.08	217.71
344.51	216.87	350.11	216.6	357.59	212.53	357.63	212.51	357.67	212.49
357.71	212.46	357.91	212.35	359.55	211.42	359.86	211.26	366.45	210.02
368.59	209.49	371.92	208.57	376.36	207.93	378.19	207.68	381.91	207.28
384.24	207.03	390.6	206.29	406.83	204.94	407.39	204.93	409.92	204.85
421.03	204.52	425.14	204.37	430.24	204.3	437.09	204.01	437.7	203.98
446.98	203.66	447.27	203.65	474.07	202.74	476.6	202.66	486.25	203.14
521.97	203.34	571.8	203.61	661.34	203.93	705.11	204.09	757.8	205.16
778.45	205.75	779.47	205.73	820.8	204.79	825.99	204.73	833.92	204.53
839	204.32	843.95	204.1	844.61	204.08	850.22	204.32	851.57	204.33
851.83	204.46	861.89	209.5	865.74	211.44	867.17	212.16	869.15	213.75
871.21	215.52	873.37	217.61	874.63	218.76	875.07	219.21	881.27	223.91
884.2	226.45	891.07	232.49	897.03	235.2				

Manning's n Values num= 15

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	31.54	.037	43.69	.048	189.23	.048	344.51	.05
406.83	.035	419.51	.035	429.81	.035	496.7	.048	551.88	.037
571.77	.037	735.73	.035	757.8	.048	778.45	.05	897.03	.048

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
406.83	757.8	21.4	39.31	35.65	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888			F

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 8012.155

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 41

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	223.01	2.68	221.85	26.78	218.85	42.31	216.52	54.55	216.34
54.67	216.34	88.46	215.8	97.17	215.83	147.38	216.16	175.83	215.96
184.87	216.53	227.75	217	300.67	218.08	312.97	218.04	316.72	217.8
339.02	216.41	348.16	210.37	348.46	210.18	356.91	208.42	360.14	207.63
372.07	206.62	393.94	204.53	411.55	203.88	417.48	203.51	434.55	202.47
445.49	203.01	486	203.16	542.52	203.37	693.7	203.65	753.46	204.79
773.73	205.24	815.31	203.74	833.18	203.3	838.69	203.16	845.52	203.58
845.77	203.74	860.83	213.52	868.59	221.28	874.68	225.6	884.3	233.68
890.15	235.66								

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	42.31	.05	417.48	.035	486	.05	542.52	.035
773.73	.05								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
393.94	753.46	39.95	38.28	37.37	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888			F

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 7973.87*

INPUT
Description:
Station Elevation Data num= 95

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	223.14	2.66	222.09	2.75	222.07	4.18	221.89	8.43	221.4
16.25	220.46	26.54	219.2	41.94	217	48.44	216.79	54.07	216.6
54.19	216.6	74.46	215.9	78.73	215.69	87.68	215.22	96.32	214.9
99.97	214.78	109.04	214.68	116.16	214.61	123.58	214.54	132.03	214.51
146.08	214.64	156.36	214.63	174.28	214.69	180.64	215.07	183.24	215.28
195.25	215.74	222.09	216.5	225.75	216.57	255.87	217.22	257.11	217.23
273.03	217.19	273.28	217.19	284.49	217.09	294.4	216.92	298.02	216.89
310.22	216.61	313.93	216.34	336.04	214.78	345.1	209.76	345.39	209.6
346.98	209.3	353.52	208	353.77	207.95	356.97	207.14	358.34	206.97
360.16	206.83	368.8	206.18	390.47	204.34	406.6	203.72	409.47	203.63
415.87	203.3	423.93	202.9	427.94	202.7	434.28	202.39	445.04	202.85
479.02	203.04	484.9	203.07	517.71	203.26	530.78	203.36	540.51	203.38
611.7	203.47	618.15	203.47	683.78	203.53	684.89	203.52	689.25	203.51
702.04	203.66	715.42	203.88	732.07	204.19	748.04	204.54	768.71	205.07
778.88	204.86	795.05	204.31	811.1	203.75	825.2	203.4	829.32	203.29
830.67	203.25	831.35	203.29	834.94	203.55	836.13	203.72	836.15	203.72
841.91	205.28	842.16	205.47	846.37	208.55	849.47	210.76	852.01	212.53
856.16	215.02	857.52	215.82	858.15	216.37	858.89	216.96	864.57	221.9
865.43	222.59	868.85	224.59	871.64	226.14	881.45	232.6	887.41	234.18

Manning's n Values num= 14

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	41.94	.047	109.04	.038	390.47	.035	413.89	.035
439.94	.035	482.03	.047	491.06	.038	538.25	.038	623.96	.047
748.04	.05	768.71	.05	795.05	.05	887.41	.05		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
390.47	748.04	39.95	38.28	37.37	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888			F

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 7935.60*

INPUT
Description:
Station Elevation Data num= 95

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	223.28	2.63	222.33	2.72	222.31	4.14	222.13	8.35	221.68
16.1	220.77	26.31	219.55	41.57	217.49	48.01	217.15	53.59	216.86
53.71	216.85	73.8	215.78	78.03	215.44	86.9	214.64	95.46	213.98
99.08	213.7	108.07	213.45	115.13	213.26	122.48	213.07	130.86	212.94
144.79	213.12	154.97	213.17	172.74	213.42	179.04	213.78	181.62	214.03
193.52	214.83	220.11	216.04	223.74	216.14	253.6	216.99	254.83	217
270.61	216.67	270.86	216.66	281.97	216.3	291.79	215.82	295.38	215.71
307.46	215.18	311.15	214.88	333.05	213.14	342.03	209.14	342.33	209.02
343.9	208.75	350.38	207.53	350.63	207.47	353.8	206.65	355.16	206.43
356.96	206.31	365.52	205.73	387.01	204.15	404.31	203.45	407.39	203.37
414.25	203.09	422.9	202.74	427.2	202.57	434.01	202.3	444.59	202.68

478.02	202.94	483.8	202.99	516.07	203.23	528.92	203.38	538.49	203.4
608.52	203.43	614.86	203.43	679.42	203.42	680.51	203.41	684.8	203.38
697.38	203.43	710.54	203.59	726.91	203.89	742.63	204.3	763.69	204.9
774.05	204.84	790.54	204.3	806.9	203.77	821.26	203.39	825.47	203.27
826.84	203.23	827.53	203.34	831.2	203.95	832.4	204.21	832.42	204.22
838.29	206.98	838.55	207.19	842.84	210.67	846.01	213.11	848.59	215.05
852.82	217.39	854.2	218.12	854.85	218.59	855.6	219.05	861.4	223.35
862.27	223.9	865.75	225.51	868.59	226.68	878.59	231.52	884.67	232.71

Manning's n Values num= 14

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	41.57	.044	108.07	.041	387.01	.035	410.29	.035
436.21	.035	478.07	.044	487.04	.041	533.98	.041	619.22	.044
742.63	.05	763.69	.05	790.54	.05	884.67	.05		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
387.01	742.63	39.95	38.28	37.37	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 7897.32*

INPUT
Description:
Station Elevation Data num= 95

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	223.41	2.61	222.57	2.7	222.55	4.1	222.36	8.28	221.95
15.96	221.08	26.07	219.9	41.19	217.97	47.58	217.51	53.11	217.12
53.23	217.11	73.14	215.66	77.33	215.19	86.13	214.07	94.61	213.05
98.19	212.62	107.11	212.22	114.1	211.91	121.38	211.59	129.68	211.38
143.49	211.61	153.59	211.71	171.19	212.15	177.44	212.49	179.99	212.78
191.79	213.91	218.14	215.58	221.74	215.7	251.33	216.76	252.54	216.77
268.19	216.15	268.43	216.14	279.44	215.51	289.18	214.72	292.73	214.52
304.71	213.75	308.36	213.43	330.07	211.51	338.97	208.53	339.26	208.44
340.82	208.2	347.25	207.06	347.49	207	350.63	206.16	351.98	205.89
353.76	205.78	362.25	205.29	383.54	203.95	402.02	203.19	405.31	203.12
412.64	202.88	421.87	202.59	426.47	202.45	433.73	202.22	444.14	202.52
477.01	202.85	482.69	202.9	514.43	203.21	527.07	203.4	536.48	203.41
605.34	203.4	611.57	203.39	675.05	203.3	676.13	203.29	680.34	203.24
692.71	203.19	705.66	203.31	721.76	203.6	737.21	204.05	758.67	204.73
769.23	204.83	786.03	204.3	802.69	203.78	817.33	203.39	821.61	203.26
823.01	203.21	823.71	203.38	827.45	204.34	828.68	204.7	828.7	204.71
834.68	208.69	834.94	208.92	839.32	212.8	842.54	215.47	845.17	217.56
849.48	219.76	850.89	220.42	851.54	220.82	852.32	221.15	858.22	224.8
859.1	225.21	862.65	226.44	865.55	227.22	875.74	230.44	881.93	231.23

Manning's n Values num= 14

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	41.19	.041	107.11	.044	383.54	.035	406.7	.035
432.47	.035	474.1	.041	483.03	.044	529.7	.044	614.48	.041
737.21	.05	758.67	.05	786.03	.05	881.93	.05		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
383.54	737.21	39.95	38.28	37.37	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 7859.05*

INPUT
Description:
Station Elevation Data num= 95

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	223.55	2.59	222.8	2.67	222.78	4.07	222.6	8.2	222.23
15.81	221.4	25.84	220.25	40.82	218.46	47.15	217.88	52.63	217.37
52.75	217.36	72.48	215.55	76.63	214.94	85.35	213.49	93.75	212.12
97.31	211.55	106.14	210.99	113.07	210.56	120.29	210.12	128.51	209.82
142.19	210.09	152.2	210.26	169.64	210.88	175.83	211.19	178.36	211.53
190.05	212.99	216.17	215.12	219.73	215.27	249.06	216.53	250.26	216.53
265.76	215.63	266.01	215.61	276.92	214.72	286.56	213.62	290.09	213.33
301.96	212.32	305.57	211.97	327.09	209.87	335.91	207.92	336.2	207.85
337.74	207.66	344.11	206.59	344.35	206.53	347.47	205.67	348.8	205.35
350.57	205.26	358.98	204.84	380.08	203.76	399.73	202.93	403.23	202.86
411.02	202.67	420.85	202.43	425.73	202.32	433.46	202.13	443.7	202.36
476.01	202.75	481.59	202.81	512.79	203.18	525.21	203.43	534.47	203.42
602.16	203.36	608.29	203.35	670.69	203.19	671.75	203.17	675.89	203.1
688.05	202.96	700.78	203.03	716.6	203.3	731.8	203.81	753.65	204.56
764.4	204.81	781.51	204.3	798.49	203.8	813.39	203.38	817.76	203.24
819.18	203.2	819.9	203.43	823.7	204.74	824.95	205.19	824.97	205.2
831.07	210.39	831.33	210.65	835.79	214.92	839.07	217.83	841.75	220.08
846.14	222.12	847.57	222.72	848.24	223.04	849.03	223.24	855.04	226.26
855.94	226.52	859.56	227.37	862.51	227.76	872.88	229.37	879.19	229.76

Manning's n Values num= 14

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	40.82	.038	106.14	.047	380.08	.035	403.11	.035
428.74	.035	470.14	.038	479.01	.047	525.43	.047	609.74	.038
731.8	.05	753.65	.05	781.51	.05	879.19	.05		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
380.08	731.8	39.95	38.28	37.37	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 7820.775

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 59

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	223.68	2.65	223.02	4.03	222.83	8.13	222.5	15.67	221.71
46.72	218.24	71.82	215.43	75.93	214.69	96.42	210.47	105.17	209.76
112.04	209.21	119.19	208.65	127.34	208.26	150.81	208.8	174.23	209.9
188.32	212.07	214.2	214.66	246.79	216.3	247.98	216.3	263.34	215.11
263.58	215.09	274.39	213.93	283.95	212.52	334.66	207.11	340.97	206.12
345.62	204.81	347.37	204.73	376.61	203.57	397.44	202.67	419.82	202.28
425	202.19	433.19	202.05	475	202.65	511.15	203.16	523.36	203.45
598.98	203.33	605	203.31	666.33	203.08	667.37	203.05	683.39	202.72
695.9	202.75	711.45	203.01	726.38	203.56	759.58	204.79	777	204.3
809.46	203.38	815.35	203.18	816.08	203.47	821.23	205.68	821.25	205.69
832.26	217.05	835.6	220.19	838.33	222.6	842.8	224.49	844.94	225.27
845.74	225.33	851.86	227.71	856.46	228.3	876.45	228.28		

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	105.17	.05	425	.035	475	.05	605	.035
777	.05								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
376.61	726.38	42.15	43.12	43.34	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 7777.65*

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	223.49	3.25	222.74	4.95	222.47	9.99	221.86	16.37	220.99
19.25	220.7	34.19	219.13	42.72	218.24	45.2	218.04	57.38	217.02
74.94	215.55	88.21	214.43	89.94	214.21	93.26	213.79	97.53	213.17
108.47	211.58	116.16	210.41	118.42	210.05	129.17	209.23	137.6	208.59
145.41	208	146.39	207.94	156.4	207.49	177.72	207.97	199.01	208.91
200.62	209.13	211.81	210.64	235.33	212.7	264.94	213.99	266.03	213.99
284.17	212.94	284.45	212.92	297.21	211.92	308.5	210.73	314.62	210.25
368.39	206	375.84	205.16	381.33	204.07	383.4	204	395.83	203.58
400.9	203.4	417.93	202.81	422.37	202.64	441.94	201.9	460.66	201.53
467.75	201.4	473.72	201.29	483.16	201.13	504.63	201.4	520.8	201.61
541.39	201.87	553.35	202.02	564.34	202.25	632.42	202.16	637.84	202.15
693.04	201.97	693.06	201.97	693.99	201.94	708.42	201.69	712.57	201.7
719.68	201.76	733.68	202.06	747.12	202.6	761.63	203.3	768.1	203.61
780.55	203.65	786.66	203.36	798.09	202.85	798.77	202.82	818.65	202.37
820.51	202.33	826.15	202.23	830.78	202.65	831.82	202.74	833.02	202.84
834.93	203.07	836.71	203.29	837.45	203.63	842.63	206.19	842.65	206.21
843.4	206.93	848.01	211.23	853.1	215.85	853.74	216.42	857.1	219.2
859.85	221.35	864.35	223.22	865.09	223.5	866.51	223.96	867.31	224.03
871.03	225.31	873.47	226.21	878.11	226.95	885.16	227.36	895.32	227.88
898.24	228.05								

Manning's n Values num= 14

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	116.71	.047	121.82	.038	392.38	.047	417.93	.038
426.98	.05	463.47	.038	510.53	.05	566.99	.047	632.88	.035
747.12	.05	761.63	.05	798.09	.05	898.24	.05		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
417.93	747.12	42.15	43.12	43.34	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 7734.52*

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	223.29	3.86	222.45	5.87	222.11	11.84	221.22	19.41	220.02
22.82	219.69	40.54	217.9	50.66	216.9	53.6	216.73	68.04	215.8
88.86	214.46	104.6	213.43	106.64	213.24	110.58	212.88	115.64	212.36
128.62	211.03	137.75	209.97	140.42	209.64	153.16	208.7	163.17	207.96
172.43	207.29	173.58	207.22	185.45	206.72	204.64	207.15	223.78	207.91
225.24	208.08	235.3	209.21	256.46	210.74	283.1	211.69	284.07	211.68
304.99	210.76	305.32	210.75	320.04	209.91	333.06	208.93	340.11	208.53
402.12	204.89	410.71	204.2	417.05	203.34	419.43	203.26	433.76	202.84
439.62	202.66	459.25	202.04	464.27	201.87	486.45	201.13	507.64	200.66
515.67	200.52	522.44	200.4	533.13	200.21	552.22	200.42	566.6	200.57
584.91	200.77	595.55	200.88	605.32	201.06	665.86	200.99	670.68	200.98
719.77	200.85	719.79	200.85	720.62	200.84	733.45	200.65	737.14	200.67
743.46	200.77	755.91	201.12	767.86	201.63	782.47	202.5	788.99	202.88
801.53	202.51	807.67	202.1	819.19	201.41	819.87	201.36	839.88	201.02
841.76	200.99	847.44	200.94	852.1	201.92	853.15	202.13	854.35	202.38
856.27	202.89	858.07	203.4	858.81	203.8	864.03	206.71	864.05	206.72
864.81	207.41	869.45	211.28	874.58	215.3	875.22	215.79	878.6	218.21
881.37	220.1	885.9	221.96	886.65	222.23	888.07	222.64	888.88	222.73
892.63	223.85	895.09	224.71	899.75	225.61	906.85	226.43	917.08	227.48

920.02 227.81

Manning's n Values num= 14

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	128.25	.044	133.87	.041	431.18	.044	459.25	.041
467.74	.05	501.95	.041	546.06	.05	598.99	.044	660.77	.035
767.86	.05	782.47	.05	819.19	.05	920.02	.05		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
459.25	767.86	42.15	43.12	43.34	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 7691.40*

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	223.1	4.46	222.17	6.79	221.74	13.7	220.58	22.46	219.05
26.4	218.68	46.89	216.68	58.6	215.57	62	215.42	78.7	214.58
102.78	213.38	120.98	212.44	123.35	212.27	127.91	211.98	133.76	211.55
148.78	210.47	159.33	209.54	162.42	209.22	177.16	208.16	188.73	207.34
199.44	206.57	200.78	206.51	214.51	205.95	231.55	206.32	248.56	206.92
249.85	207.04	258.79	207.78	277.59	208.77	301.25	209.38	302.12	209.38
325.82	208.59	326.19	208.58	342.86	207.9	357.61	207.14	365.6	206.82
435.85	203.78	445.58	203.24	452.76	202.6	455.46	202.53	471.69	202.11
478.33	201.91	500.57	201.28	506.18	201.11	530.95	200.36	554.63	199.8
563.6	199.64	571.15	199.5	583.1	199.28	599.81	199.43	612.41	199.53
628.44	199.67	637.74	199.74	646.3	199.86	699.31	199.83	703.53	199.82
746.5	199.74	746.52	199.74	747.24	199.73	758.47	199.62	761.7	199.63
767.24	199.79	778.14	200.17	788.61	200.67	803.32	201.7	809.88	202.16
822.5	201.38	828.69	200.83	840.28	199.96	840.97	199.91	861.12	199.67
863.01	199.65	868.72	199.66	873.42	201.18	874.48	201.52	875.69	201.92
877.62	202.72	879.43	203.51	880.18	203.96	885.44	207.22	885.46	207.24
886.22	207.89	890.89	211.33	896.05	214.75	896.7	215.16	900.11	217.23
902.89	218.85	907.46	220.69	908.21	220.97	909.64	221.33	910.46	221.44
914.22	222.4	916.7	223.21	921.4	224.26	928.55	225.5	938.85	227.08
941.81	227.58								

Manning's n Values num= 14

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	139.79	.041	145.91	.044	469.97	.041	500.57	.044
508.49	.05	540.42	.044	581.59	.05	631	.041	688.65	.035
788.61	.05	803.32	.05	840.28	.05	941.81	.05		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
500.57	788.61	42.15	43.12	43.34	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 7648.27*

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	222.9	5.07	221.88	7.71	221.38	15.55	219.94	25.5	218.09
29.97	217.67	53.24	215.45	66.53	214.23	70.39	214.11	89.36	213.36
116.71	212.29	137.37	211.44	140.06	211.31	145.23	211.07	151.88	210.75
168.93	209.92	180.91	209.1	184.42	208.81	201.16	207.63	214.3	206.71
226.46	205.86	227.98	205.8	243.56	205.18	258.47	205.5	273.34	205.92
274.47	205.99	282.28	206.35	298.72	206.81	319.41	207.07	320.16	207.07
346.64	206.42	347.05	206.41	365.69	205.89	382.17	205.35	391.09	205.1
469.58	202.67	480.46	202.28	488.47	201.87	491.49	201.79	509.63	201.37
517.04	201.17	541.89	200.51	548.09	200.34	575.46	199.58	601.61	198.94
611.52	198.76	619.87	198.6	633.07	198.36	647.41	198.44	658.21	198.49
671.96	198.56	679.94	198.6	687.28	198.66	732.75	198.66	736.37	198.66
773.23	198.62	773.24	198.62	773.87	198.62	783.5	198.59	786.27	198.6
791.02	198.8	800.37	199.23	809.35	199.7	824.16	200.9	830.76	201.43
843.47	200.24	849.7	199.57	861.38	198.51	862.07	198.45	882.35	198.32
884.26	198.31	890.01	198.37	894.74	200.45	895.8	200.92	897.02	201.45
898.97	202.54	900.79	203.62	901.54	204.13	906.84	207.74	906.86	207.75
907.62	208.36	912.33	211.37	917.53	214.2	918.17	214.53	921.61	216.24
924.41	217.6	929.01	219.42	929.76	219.71	931.21	220.01	932.03	220.14
935.82	220.94	938.32	221.71	943.05	222.91	950.24	224.56	960.61	226.67
963.59	227.34								

Manning's n Values num= 14

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	151.33	.038	157.96	.047	508.77	.038	541.89	.047
549.25	.05	578.89	.047	617.13	.05	663	.038	716.53	.035
809.35	.05	824.16	.05	861.38	.05	963.59	.05		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
541.89	809.35	42.15	43.12	43.34	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 7605.154

INPUT

Description: Manual Modification of Manning's N Values

Station Elevation Data num= 44

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	222.71	28.54	217.12	59.59	214.23	74.47	212.9	78.79	212.8
130.63	211.2	156.77	210.34	170	209.94	189.08	209.36	202.49	208.66
253.47	205.15	272.62	204.41	299.08	204.95	338.21	204.76	416.58	203.38
547.56	200.64	555.75	200.43	583.21	199.75	590	199.58	648.6	198.08
683.04	197.44	695	197.45	715.48	197.46	799.96	197.51	810.84	197.57
830.09	198.74	845	200.1	851.65	200.71	870.72	198.31	883.17	196.99
903.59	196.97	905.51	196.97	911.3	197.09	917.13	200.31	918.36	200.99
920.32	202.37	929.03	208.84	933.77	211.42	939	213.65	951.32	218.45
957.42	219.49	971.94	223.63	982.38	226.27	985.38	227.11		

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	170	.05	547.56	.035	590	.05	695	.035
845	.05								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
583.21	830.09	34.01	45.05	44.87	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 7560.10*

INPUT
Description:

Station Elevation Data num= 89

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	222.65	2.95	222.07	28.15	217.12	33.9	216.5	56.48	214.42
58.77	214.22	70.02	213.24	73.45	212.95	77.71	212.84	119.72	211.48
128.84	211.21	133.84	211.06	144.11	210.74	154.62	210.42	167.67	210.04
169.54	209.99	186.48	209.3	187.63	209.23	199.71	208.44	202	208.26
221.15	206.63	234.91	205.71	249.99	204.67	258.25	204.32	268.88	203.91
294.97	204.26	303.41	204.18	333.56	204.01	388.81	203.1	410.86	202.73
525.48	200.52	540.04	200.23	548.12	200.04	575.2	199.43	583.14	199.25
600.18	198.87	651.64	197.86	672.67	197.55	675.79	197.51	691.91	197.27
703.7	197.29	723.91	197.31	740.85	197.32	774.55	197.36	776.26	197.36
793.18	197.39	807.24	197.42	817.97	197.48	828.06	198.03	836.96	198.51
841.94	198.87	845.41	199.11	849.08	199.38	852.99	199.65	855.87	199.85
860.14	200.15	876.81	198.44	880.64	198.05	894.02	196.89	894.63	196.89
907.37	196.85	915.98	196.82	918.04	196.81	918.77	196.82	924.26	196.91
925.21	197.32	926.71	198.02	930.53	199.8	931.85	200.41	933.96	201.64
934.21	201.79	940.21	205.91	943.33	208.01	943.4	208.05	943.72	208.21
947.24	209.91	948.42	210.48	954.04	212.68	954.97	213.02	967.29	217.15
971.12	217.76	973.85	218.24	980.09	219.91	987.25	222.03	989.46	222.67
994.66	224.03	1000.36	225.66	1000.68	225.75	1003.91	226.71		

Manning's n Values num= 16

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	133.84	.037	167.67	.05	540.04	.037	575.2	.048
582.4	.048	693.73	.035	715.29	.035	771.22	.037	807.01	.048
830.87	.037	836.96	.048	852.99	.048	855.87	.035	894.63	.037
1003.91	.05								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
575.2	836.96	34.01	45.05	44.87	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 7515.04*

INPUT
Description:

Station Elevation Data num= 89

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	222.59	2.91	222.01	27.76	217.11	33.43	216.42	55.69	214.4
57.95	214.2	69.05	213.26	72.42	213	76.63	212.88	118.06	211.47
127.04	211.23	131.98	211.08	142.1	210.79	152.46	210.49	165.33	210.15
167.17	210.1	183.89	209.24	185.01	209.16	196.93	208.23	199.18	208.03
218.07	206.11	231.64	205.22	246.51	204.19	254.65	203.81	265.13	203.42
290.86	203.56	299.19	203.45	328.92	203.27	383.39	202.42	405.14	202.09
518.16	200.08	532.52	199.83	540.48	199.66	567.19	199.11	576.28	198.93
595.79	198.53	654.69	197.64	678.75	197.36	682.32	197.32	700.77	197.11
712.41	197.13	732.33	197.15	749.04	197.18	782.28	197.23	783.96	197.23
800.65	197.28	814.51	197.32	825.1	197.39	835.05	197.86	843.82	198.27
849.15	198.58	852.86	198.77	856.79	198.98	860.97	199.2	864.06	199.36
868.62	199.6	886.46	198.12	890.56	197.78	904.88	196.79	905.52	196.79
919.16	196.73	928.36	196.67	930.57	196.65	931.35	196.66	937.23	196.72
938.24	197.07	939.85	197.7	943.94	199.28	945.35	199.83	947.6	200.92
947.86	201.05	954.29	205.14	957.62	207.18	957.7	207.22	958.04	207.39
961.81	209	963.07	209.55	969.09	211.72	970.07	212.05	983.26	215.84
987.35	216.46	990.28	216.99	996.95	218.68	1004.61	221.03	1006.98	221.71
1012.54	223.21	1018.63	225.13	1018.98	225.23	1022.43	226.32		

Manning's n Values num= 16

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	131.98	.039	165.33	.05	532.52	.039	567.19	.046
574.8	.046	692.45	.035	715.24	.035	774.35	.039	812.17	.046
837.39	.039	843.82	.046	860.97	.046	864.06	.035	905.52	.039
1022.43	.05								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
567.19	843.82	34.01	45.05	44.87	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888		F	

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 7469.99*

INPUT
Description:
Station Elevation Data num= 89

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	222.53	2.86	221.95	27.36	217.11	32.96	216.35	54.91	214.38
57.13	214.19	68.07	213.29	71.4	213.05	75.54	212.92	116.39	211.47
125.25	211.24	130.12	211.11	140.1	210.84	150.31	210.57	163	210.25
164.81	210.2	181.29	209.17	182.4	209.09	194.15	208.01	196.37	207.79
214.99	205.58	228.36	204.73	243.03	203.72	251.05	203.31	261.39	202.92
286.76	202.87	294.96	202.73	324.27	202.52	377.98	201.74	399.42	201.44
510.84	199.65	525	199.42	532.85	199.27	559.18	198.79	569.41	198.6
591.39	198.2	657.73	197.41	684.84	197.16	688.86	197.13	709.64	196.94
721.11	196.96	740.76	197	757.23	197.03	790.01	197.1	791.66	197.1
808.12	197.17	821.79	197.23	832.23	197.3	842.04	197.69	850.69	198.04
856.37	198.3	860.32	198.43	864.51	198.59	868.96	198.75	872.25	198.87
877.11	199.04	896.11	197.8	900.47	197.52	915.73	196.69	916.42	196.69
930.94	196.6	940.75	196.52	943.1	196.5	943.94	196.5	950.19	196.54
951.28	196.81	952.99	197.37	957.34	198.77	958.84	199.25	961.25	200.19
961.52	200.3	968.37	204.37	971.92	206.35	972	206.39	972.37	206.56
976.38	208.09	977.73	208.61	984.13	210.75	985.18	211.09	999.23	214.54
1003.59	215.17	1006.7	215.74	1013.82	217.44	1021.98	220.02	1024.49	220.75
1030.42	222.39	1036.91	224.6	1037.29	224.71	1040.96	225.92		

Manning's n Values num= 16

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	130.12	.041	163	.05	525	.041	559.18	.044
567.2	.044	691.18	.035	715.19	.035	777.48	.041	817.34	.044
843.91	.041	850.69	.044	868.96	.044	872.25	.035	916.42	.041
1040.96	.05								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
559.18	850.69	34.01	45.05	44.87	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888		F	

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 7424.94*

INPUT
Description:
Station Elevation Data num= 89

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	222.48	2.82	221.89	26.97	217.11	32.49	216.27	54.12	214.36
56.32	214.18	67.1	213.31	70.38	213.1	74.46	212.96	114.72	211.46
123.45	211.25	128.25	211.13	138.09	210.89	148.16	210.64	160.66	210.35
162.45	210.31	178.69	209.11	179.79	209.02	191.37	207.8	193.56	207.55
211.91	205.05	225.09	204.24	239.55	203.24	247.46	202.8	257.64	202.43
282.65	202.17	290.74	202	319.63	201.78	372.56	201.06	393.69	200.79
503.52	199.22	517.48	199.02	525.22	198.89	551.17	198.47	562.55	198.28
586.99	197.86	660.78	197.19	690.92	196.97	695.39	196.94	718.51	196.77
729.82	196.8	749.18	196.85	765.42	196.89	797.74	196.96	799.37	196.97
815.59	197.06	829.07	197.13	839.36	197.21	849.03	197.53	857.56	197.81
863.58	198.01	867.78	198.09	872.22	198.2	876.95	198.3	880.44	198.38
885.59	198.49	905.76	197.48	910.39	197.26	926.58	196.59	927.31	196.58
942.73	196.48	953.13	196.37	955.63	196.34	956.52	196.34	963.16	196.35
964.31	196.56	966.12	197.05	970.74	198.25	972.34	198.67	974.89	199.46
975.18	199.56	982.44	203.59	986.21	205.52	986.31	205.56	986.69	205.74
990.95	207.18	992.38	207.68	999.18	209.79	1000.29	210.12	1015.2	213.24
1019.83	213.87	1023.13	214.49	1030.68	216.21	1039.34	219.01	1042.01	219.79
1048.31	221.57	1055.19	224.07	1055.59	224.2	1059.49	225.52		

Manning's n Values num= 16

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	128.25	.044	160.66	.05	517.48	.044	551.17	.041
559.6	.041	689.91	.035	715.14	.035	780.61	.044	822.5	.041
850.44	.044	857.56	.041	876.95	.041	880.44	.035	927.31	.044
1059.49	.05								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
551.17	857.56	34.01	45.05	44.87	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888		F	

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 7379.88*

INPUT
Description:
Station Elevation Data num= 89

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	222.42	2.78	221.83	26.58	217.1	32.01	216.19	53.33	214.33
55.5	214.16	66.12	213.34	69.36	213.15	73.38	213.01	113.05	211.45
121.66	211.27	126.39	211.16	136.08	210.94	146	210.72	158.33	210.45
160.09	210.42	176.1	209.05	177.18	208.95	188.58	207.58	190.75	207.31
208.83	204.52	221.82	203.74	236.06	202.76	243.86	202.29	253.9	201.93
278.54	201.48	286.51	201.27	314.98	201.03	367.15	200.39	387.97	200.14
496.21	198.79	509.96	198.61	517.59	198.5	543.16	198.15	555.69	197.95
582.59	197.52	663.82	196.97	697.01	196.78	701.93	196.75	727.38	196.6
738.52	196.64	757.61	196.69	773.62	196.74	805.46	196.83	807.07	196.84

823.06	196.95	836.34	197.04	846.48	197.12	856.02	197.36	864.43	197.58
870.8	197.72	875.24	197.74	879.93	197.81	884.93	197.85	888.62	197.88
894.08	197.93	915.41	197.16	920.31	196.99	937.43	196.49	938.21	196.48
954.51	196.35	965.52	196.21	968.16	196.18	969.1	196.17	976.12	196.17
977.34	196.3	979.26	196.72	984.14	197.74	985.83	198.09	988.53	198.73
988.84	198.81	996.52	202.82	1000.51	204.69	1000.61	204.73	1001.01	204.91
1005.52	206.27	1007.03	206.74	1014.22	208.82	1015.4	209.15	1031.17	211.93
1036.07	212.57	1039.56	213.24	1047.54	214.97	1056.7	218	1059.53	218.83
1066.19	220.75	1073.47	223.53	1073.89	223.68	1078.02	225.12		

Manning's n Values num= 16

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	126.39	.046	158.33	.05	509.96	.046	543.16	.039
552	.039	688.63	.035	715.1	.035	783.74	.046	827.67	.039
856.96	.046	864.43	.039	884.93	.039	888.62	.035	938.21	.046
1078.02	.05								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
543.16	864.43	34.01	45.05	44.87	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888		F	

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 7334.83*

INPUT
Description:
Station Elevation Data num= 89

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	222.36	2.74	221.77	26.19	217.1	31.54	216.12	52.55	214.31
54.68	214.15	65.15	213.36	68.33	213.2	72.3	213.05	111.39	211.45
119.87	211.28	124.52	211.18	134.08	210.99	143.85	210.79	155.99	210.56
157.73	210.52	173.5	208.99	174.56	208.88	185.8	207.37	187.93	207.08
205.75	203.99	218.55	203.25	232.58	202.28	240.27	201.79	250.15	201.43
274.43	200.79	282.29	200.55	310.34	200.29	361.73	199.71	382.25	199.5
488.89	198.35	502.44	198.21	509.95	198.12	535.15	197.83	548.83	197.63
578.2	197.19	666.87	196.75	703.09	196.58	708.46	196.56	736.24	196.44
747.23	196.48	766.04	196.54	781.81	196.6	813.19	196.7	814.78	196.71
830.53	196.84	843.62	196.95	853.61	197.03	863.01	197.2	871.29	197.34
878.01	197.43	882.69	197.4	887.65	197.41	892.92	197.4	896.81	197.39
902.57	197.38	925.06	196.84	930.23	196.73	948.29	196.39	949.1	196.38
966.3	196.23	977.91	196.06	980.69	196.02	981.68	196.01	989.09	195.98
990.37	196.05	992.39	196.4	997.55	197.22	999.33	197.51	1002.17	198.01
1002.5	198.07	1010.6	202.04	1014.81	203.86	1014.91	203.9	1015.34	204.09
1020.09	205.36	1021.68	205.81	1029.27	207.86	1030.51	208.19	1047.14	210.63
1052.3	211.28	1055.99	212	1064.41	213.74	1074.07	216.99	1077.05	217.87
1084.07	219.93	1091.75	223	1092.19	223.16	1096.54	224.73		

Manning's n Values num= 16

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	124.52	.048	155.99	.05	502.44	.048	535.15	.037
544.4	.037	687.36	.035	715.05	.035	786.87	.048	832.83	.037
863.48	.048	871.29	.037	892.92	.037	896.81	.035	949.1	.048
1096.54	.05								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
535.15	871.29	34.01	45.05	44.87	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888		F	

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 7289.783

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 50

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	222.3	2.7	221.71	31.07	216.04	51.76	214.29	64.17	213.39
109.72	211.44	122.66	211.21	132.07	211.04	155.37	210.63	171.95	208.81
185.12	206.84	202.67	203.46	215.28	202.76	236.67	201.28	278.06	199. 82
356.32	199.03	481.57	197.92	527.14	197.51	573.8	196.85	709.18	196.39
715	196.37	745.11	196.27	790	196.45	820.92	196.57	822.48	196.58
838	196.73	870	197.03	878.16	197.11	885.23	197.14	890.15	197.06
895.36	197.02	905	196.9	934.71	196.52	960	196.28	978.08	196.1
994.26	195.85	1003.4	195.79	1005.53	196.07	1016.16	197.32	1024.68	201.27
1029.21	203.07	1029.66	203.26	1034.66	204.45	1045.62	207.22	1068.54	209.98
1081.27	212.5	1091.43	215.98	1101.95	219.11	1110.03	222.47	1115.07	224.33

Manning's n Values num= 8

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	122.66	.05	715	.035	790	.05	838	.035
870	.05	905	.035	960	.05				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
527.14	878.16	31.39	37.9	42.85	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888		F	

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 7251.88*

INPUT
Description:
Station Elevation Data num= 76

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev

0	221.43	2.73	220.88	31.41	215.54	46.49	214.16	52.33	213.64
59.28	213.08	64.88	212.5	71.1	212	81.54	211.27	95.37	210.6
110.93	209.86	119.23	209.64	124.01	209.52	133.52	209.28	134.69	209.25
157.08	208.86	173.84	207.3	187.15	205.62	204.9	202.76	217.65	202.14
239.27	200.85	247.62	200.58	281.12	199.54	360.23	198.73	397.59	198.39
463.38	197.94	486.86	197.78	532.93	197.46	577.25	196.85	583.83	196.82
705.82	196.41	711.35	196.39	731.37	196.32	739.95	196.29	783.46	196.52
784.3	196.52	794.69	196.58	814.85	196.67	816.39	196.68	831.72	196.83
863.34	197.13	871.4	197.2	878.61	197.21	883.52	197.13	883.63	197.13
888.94	197.08	898.77	196.95	914.62	196.73	929.07	196.54	954.85	196.25
973.29	196.04	989.79	195.78	999.11	195.7	1001.28	195.93	1007.74	196.53
1012.12	196.97	1020.81	200.3	1022.76	200.95	1025.43	201.83	1025.89	201.99
1030.99	203.01	1042.16	205.38	1051.65	206.36	1055.47	206.76	1065.53	207.76
1073.8	209.11	1078.51	210.55	1080.18	211.26	1083.19	212.5	1088.87	214.66
1091.53	215.57	1099.6	218.31	1100.36	218.64	1105.75	220.96	1107.84	221.79
1112.98	223.65								

Manning's n Values num= 16

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	46.49	.038	124.01	.05	532.93	.035	712.07	.035
714.08	.035	769.99	.038	786.39	.05	832.68	.038	863.53	.05
871.4	.035	898.77	.035	914.62	.035	954.85	.047	1007.74	.038
1112.98	.05								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
532.93	871.4	31.39	37.9	42.85	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 7213.99*

INPUT
Description:
Station Elevation Data num= 76

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	220.57	2.76	220.06	31.75	215.04	47	213.55	52.9	212.99
59.92	212.37	65.58	211.61	71.87	210.88	82.43	209.86	96.4	209.11
112.13	208.29	120.53	207.98	125.36	207.83	134.97	207.51	136.15	207.47
158.78	207.09	175.73	205.79	189.19	204.4	207.12	202.05	220.01	201.52
241.87	200.42	250.31	200.18	284.17	199.27	364.15	198.43	401.91	198.07
468.42	197.76	492.15	197.64	538.72	197.42	580.69	196.85	586.93	196.81
702.46	196.42	707.7	196.41	726.66	196.34	734.78	196.32	777.77	196.59
778.6	196.6	788.86	196.66	808.78	196.77	810.3	196.79	825.45	196.93
856.68	197.22	864.6[illegible]	197.3	871.99	197.28	877	197.2	877.11	197.2
882.52	197.14	892.54	197	908.69	196.76	923.42	196.55	949.71	196.23
968.5	195.99	985.32	195.72	994.82	195.62	997.03	195.79	1003.61	196.25
1008.08	196.62	1016.94	199.34	1018.92	199.86	1021.65	200.59	1022.11	200.72
1027.31	201.57	1038.7	203.53	1048.37	204.38	1052.27	204.73	1062.53	205.55
1070.95	206.64	1075.76	208.61	1077.46	209.46	1080.52	210.92	1086.32	213.33
1089.03	214.38	1097.25	217.5	1098.03	217.86	1103.52	220.3	1105.65	221.12
1110.89	222.96								

Manning's n Values num= 16

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	47	.04	125.36	.05	538.72	.035	711.22	.035
713.15	.035	766.99	.04	782.79	.05	827.36	.04	857.07	.05
864.64	.035	892.54	.035	908.69	.035	949.71	.045	1003.61	.04
1110.89	.05								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
538.72	864.64	31.39	37.9	42.85	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 7176.09*

INPUT
Description:
Station Elevation Data num= 76

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	219.7	2.79	219.23	32.09	214.54	47.5	212.93	53.47	212.34
60.57	211.67	66.29	210.72	72.64	209.75	83.31	208.44	97.44	207.61
113.34	206.71	121.82	206.33	126.7	206.13	136.42	205.75	137.62	205.7
160.49	205.32	177.62	204.28	191.22	203.18	209.35	201.35	222.38	200.9
244.47	199.98	253	199.77	287.23	198.99	368.06	198.14	406.23	197.76
473.45	197.57	497.44	197.51	544.52	197.37	584.14	196.84	590.03	196.8
699.11	196.44	704.05	196.42	721.95	196.36	729.62	196.34	772.07	196.67
772.9	196.67	783.03	196.75	802.7	196.88	804.21	196.89	819.17	197.03
850.02	197.32	857.89	197.39	865.37	197.35	870.47	197.27	870.58	197.27
876.1	197.2	886.31	197.05	902.77	196.8	917.78	196.57	944.56	196.2
963.71	195.93	980.85	195.65	990.53	195.53	992.78	195.65	999.49	195.96
1004.04	196.28	1013.07	198.37	1015.09	198.78	1017.86	199.34	1018.34	199.45
1023.64	200.12	1035.24	201.69	1045.1	202.41	1049.06	202.7	1059.52	203.33
1068.1	204.16	1073	206.66	1074.73	207.66	1077.86	209.35	1083.76	212.01
1086.52	213.19	1094.9	216.7	1095.69	217.07	1101.29	219.65	1103.46	220.44
1108.8	222.27								

Manning's n Values num= 16

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	47.5	.043	126.7	.05	544.52	.035	710.37	.035
712.23	.035	763.99	.043	779.18	.05	822.03	.043	850.6	.05
857.89	.035	886.31	.035	902.77	.035	944.56	.043	999.49	.043
1108.8	.05								

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Bank Sta: Left   Right     Lengths: Left Channel   Right      Coeff Contr.   Expan.
        544.52  857.89              31.39    37.9   42.85              .1        .3
Ineffective Flow      num=        1
   Sta L   Sta R    Elev  Permanent
888        F

CROSS SECTION           RIVER: San Juan
REACH: Upper               RS: 7138.19*

INPUT
Description:
Station Elevation Data     num=       76
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  218.83    2.82   218.4   32.44  214.04   48.01  212.32   54.03  211.69
   61.21  210.96   66.99  209.83   73.41  208.63    84.2  207.03   98.48  206.12
  114.54  205.13  123.12  204.67  128.05  204.44  137.87  203.98  139.08  203.93
   162.2  203.55  179.51  202.77  193.26  201.97  211.58  200.65  224.74  200.28
  247.07  199.55  255.69  199.36  290.28  198.71  371.98  197.84  410.55  197.44
  478.49  197.39  502.73  197.37  550.31  197.32  587.59  196.84  593.12   196.8
  695.75  196.46   700.4  196.44  717.24  196.39  724.46  196.36  766.38  196.74
  767.19  196.75  777.21  196.84  796.63  196.98  798.12  196.99  812.89  197.13
  843.36  197.41  851.13  197.48  858.75  197.42  863.95  197.34  864.06  197.34
  869.68  197.26  880.08  197.09  896.85  196.83  912.13  196.58  939.42  196.17
  958.92  195.88  976.38  195.59  986.24  195.45  988.54  195.51  995.37  195.68
    1000  195.93  1009.2  197.41 1011.26   197.7 1014.08   198.1 1014.57  198.17
 1019.96  198.68 1031.79  199.85 1041.82  200.43 1045.86  200.66 1056.51  201.11
 1065.25  201.69 1070.25  204.71 1072.01  205.86 1075.19  207.77 1081.21  210.68
 1084.02  212.01 1092.56   215.9 1093.36  216.29 1099.06  218.99 1101.27  219.77
 1106.71  221.59

Manning's n Values         num=       16
     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val
       0    .035   48.01    .045  128.05     .05  550.31    .035  709.52    .035
   711.3    .035     761    .045  775.57     .05  816.71    .045  844.13     .05
  851.13    .035  880.08    .035  896.85    .035  939.42     .04  995.37    .045
 1106.71     .05

Bank Sta: Left   Right     Lengths: Left Channel   Right      Coeff Contr.   Expan.
        550.31  851.13              31.39    37.9   42.85              .1        .3
Ineffective Flow      num=        1
   Sta L   Sta R    Elev  Permanent
888        F

CROSS SECTION           RIVER: San Juan
REACH: Upper               RS: 7100.30*

INPUT
Description:
Station Elevation Data     num=       76
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  217.97    2.85  217.57   32.78  213.54   48.51   211.7    54.6  211.03
   61.86  210.25    67.7  208.93   74.19   207.5   85.08  205.61   99.51  204.62
  115.75  203.55  124.41  203.02   129.4  202.75  139.33  202.22  140.55  202.15
  163.91  201.79   181.4  201.26  195.29  200.75   213.8  199.95  227.11  199.66
  249.67  199.12  258.38  198.96  293.34  198.44  375.89  197.54  414.87  197.13
  483.52   197.2  508.02  197.23   556.1  197.28  591.03  196.84  596.22  196.79
  692.39  196.47  696.75  196.46  712.53  196.41  719.29  196.39  760.69  196.82
  761.49  196.82  771.38  196.92  790.56  197.08  792.03  197.09  806.62  197.23
   836.7  197.51  844.37  197.58  852.13  197.49  857.42  197.41  857.54  197.41
  863.26  197.32  873.85  197.14  890.92  196.86  906.49   196.6  934.27  196.15
  954.13  195.82  971.91  195.52  981.95  195.36  984.29  195.37  991.24  195.39
  995.96  195.58 1005.32  196.44 1007.42  196.61  1010.3  196.86  1010.8   196.9
 1016.29  197.24 1028.33     198 1038.55  198.45 1042.66  198.63 1053.51  198.89
 1062.41  199.21 1067.49  202.77 1069.28  204.06 1072.53   206.2 1078.65  209.36
 1081.51  210.82 1090.21   215.1 1091.02  215.51 1096.83  218.34 1099.08  219.09
 1104.62   220.9

Manning's n Values         num=       16
     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val
       0    .035   48.51    .047   129.4     .05   556.1    .035  708.67    .035
  710.38    .035     758    .047  771.97     .05  811.39    .047  837.67     .05
  844.37    .035  873.85    .035  890.92    .035  934.27    .038  991.24    .047
 1104.62     .05

Bank Sta: Left   Right     Lengths: Left Channel   Right      Coeff Contr.   Expan.
        556.1  844.37              31.38    37.9   42.85              .1        .3
Ineffective Flow      num=        1
   Sta L   Sta R    Elev  Permanent
888        F

CROSS SECTION           RIVER: San Juan
REACH: Upper               RS: 7062.404

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data     num=       31
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0   217.1   49.02  211.09    62.5  209.54   74.96  206.38   85.97   204.2
  100.55  203.13  125.71  201.36  142.01  200.38  261.07  198.55  419.19  196.81
  488.56  197.02  561.89  197.23  599.32  196.78  707.82  196.43  714.13  196.41
     755  196.89  765.55  197.01  837.61  197.67   850.9  197.48     885  196.89
  987.12  195.11 1003.59  195.53 1035.27  196.47 1039.46   196.6 1059.56  196.74
 1066.56  202.26 1069.86  204.62 1079.01  209.63 1088.69  214.73  1094.6  217.68
 1102.53  220.22

Manning's n Values         num=        6
     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val
       0    .035   49.02     .05  707.82    .035     755     .05     885    .035
```

987.12 .05

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
561.89 837.61 45.82 41.96 42.85 .1 .3
Ineffective Flow num= 1
Sta L Sta R Elev Permanent
888 F

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 7020.44*

INPUT
Description:
Station Elevation Data num= 71

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	216.93	6.78	216.13	39.98	212.16	43.64	211.64	51.94	210.08
56.86	209.19	60.67	208.48	63.56	208.16	66.23	207.87	76.93	205.64
79.43	205.1	81.7	204.71	91.1	203.34	106.55	202.47	133.21	201.01
150.48	200.19	213.17	199.21	263.74	198.43	276.64	198.24	300.48	197.97
444.18	197	467.19	197.07	517.69	197.16	519.88	197.17	576.49	197.31
584.28	197.38	595.39	197.02	607.6	196.84	624.67	196.31	666.68	195.35
667.9	195.32	683.08	194.99	693.71	194.92	709.54	194.76	714.47	194.71
740.55	195.12	746.36	195.2	749.89	195.27	750.16	195.28	759.37	195.54
822.29	197.15	830.62	197.21	836.95	197.18	874.57	196.94	894.74	196.8
907.14	196.82	915.56	196.82	943.93	196.49	987.23	195.57	1005.4	195.72
1016.58	195.84	1026.62	195.96	1027.98	195.99	1032.79	196.11	1035.98	196.2
1040.35	196.31	1044.98	196.43	1058.22	196.57	1059.91	196.67	1065.47	197.22
1067.15	197.47	1074.87	202.71	1077.38	204.29	1078.51	205.01	1085.03	208.38
1088.47	209.84	1088.61	209.9	1099.23	214.62	1099.29	214.65	1105.81	217.08
1114.56	219.29								

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.039	51.94	.05	595.39	.035	715.48	.035	754.31	.046
822.29	.039	874.57	.039	907.14	.046	987.23	.046	1035.98	.039
1114.56	.05								

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
595.39 822.29 45.82 41.96 42.85 .1 .3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 6978.47*

INPUT
Description:
Station Elevation Data num= 71

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	216.75	7.16	215.94	42.23	211.84	46.1	211.23	54.87	209.08
60.06	207.82	64.08	206.82	67.14	206.49	69.95	206.2	81.26	204.29
83.9	203.82	86.3	203.46	96.22	202.49	112.54	201.8	140.7	200.66
158.94	200	225.16	198.94	278.58	198.11	292.2	197.93	317.38	197.65
469.18	197.18	493.48	197.26	546.82	197.31	549.13	197.31	608.93	197.44
617.16	197.56	628.9	196.81	637.7	196.64	650.02	195.84	680.34	194.09
681.21	194.04	692.17	193.45	699.83	193.35	711.26	193.1	714.82	193.02
737.1	193.47	742.07	193.55	745.09	193.66	745.32	193.67	753.2	194.06
806.97	196.62	816.09	196.85	823.01	196.88	864.15	196.98	886.2	197.04
899.76	197.26	908.96	197.41	939.99	197.19	987.35	196.04	1007.22	195.91
1019.44	195.85	1030.42	195.82	1031.91	195.85	1037.17	195.96	1040.65	196.04
1045.44	196.15	1050.49	196.26	1064.97	196.45	1066.82	196.65	1072.9	197.72
1074.74	198.2	1083.19	203.17	1085.93	204.69	1087.17	205.39	1094.29	208.91
1098.05	210.12	1098.2	210.18	1109.82	214.55	1109.88	214.56	1117.01	216.49
1126.58	218.36								

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.043	54.87	.05	628.9	.035	723.15	.035	753.62	.043
806.97	.043	864.15	.043	899.76	.043	987.35	.043	1040.65	.043
1126.58	.05								

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
628.9 806.97 45.82 41.96 42.85 .1 .3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 6936.51*

INPUT
Description:
Station Elevation Data num= 71

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	216.57	7.54	215.76	44.48	211.53	48.55	210.82	57.79	208.07
63.26	206.46	67.5	205.16	70.71	204.83	73.68	204.52	85.59	202.95
88.37	202.55	90.89	202.21	101.35	201.63	118.54	201.14	148.2	200.31
167.41	199.81	237.16	198.68	293.42	197.8	307.77	197.62	334.29	197.32
494.17	197.37	519.77	197.45	575.95	197.45	578.39	197.45	641.37	197.57
650.03	197.74	662.4	196.6	667.81	196.44	675.37	195.36	693.99	192.83
694.53	192.75	701.25	191.9	705.96	191.77	712.98	191.43	715.17	191.33
733.66	191.83	737.79	191.91	740.29	192.05	740.48	192.07	747.02	192.59
791.66	196.1	801.55	196.5	809.06	196.58	853.72	197.03	877.66	197.27
892.38	197.7	902.37	197.99	936.06	197.89	987.46	196.5	1009.03	196.09
1022.3	195.85	1034.22	195.67	1035.83	195.7	1041.54	195.81	1045.33	195.89
1050.52	195.99	1056.01	196.09	1071.73	196.33	1073.74	196.62	1080.34	198.21
1082.33	198.94	1091.5	203.62	1094.47	205.1	1095.82	205.78	1103.56	209.43
1107.64	210.4	1107.8	210.45	1120.41	214.47	1120.48	214.48	1128.22	215.89
1138.6	217.42								

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.046	57.79	.05	662.4	.035	730.81	.035	752.93	.039

791.66	.046	853.72	.046	892.38	.039	987.46	.039	1045.33	.046
1138.6	.05								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
662.4	791.66	45.82	41.96	42.85	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 6894.555

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 45

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	216.4	7.92	215.57	46.73	211.21	51.01	210.41	66.46	205.09
70.91	203.5	74.29	203.16	89.92	201.61	95.49	200.96	249.15	198.41
308.26	197.49	351.2	196.99	546.06	197.64	607.64	197.59	673.81	197.7
682.91	197.92	695.9	196.39	697.91	196.24	707.64	191.57	707.84	191.47
710.34	190.36	712.09	190.2	715.51	189.63	730.22	190.18	733.5	190.27
735.49	190.44	776.34	195.57	787.01	196.14	869.12	197.5	885	198.14
895.78	198.57	932.12	198.59	1025.16	195.86	1038.02	195.53	1039.76	195.56
1045.92	195.66	1050	195.73	1078.48	196.21	1080.65	196.6	1087.77	198.71
1103.02	205.5	1112.82	209.96	1117.22	210.68	1131	214.39	1150.63	216.49

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	695.9	.035	776.34	.05	885	.035	1050	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
695.9	776.34	30.23	37.87	37.36	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 6856.68*

INPUT
Description:
Station Elevation Data num= 82

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	215.08	3.48	214.72	7.87	214.22	11.93	213.75	44.79	209.95
46.45	209.76	50.71	209.02	65.86	204.47	65.89	204.46	65.96	204.44
66.06	204.41	70.49	203.1	73.85	202.8	89.38	201.42	94.92	200.85
120.58	200.29	131.98	200.15	162.95	199.65	247.66	198.19	247.99	198.19
306.42	197.39	327.07	197.17	349.1	197	403.66	197.25	536.88	197.51
542.8	197.52	604.01	197.44	613.69	197.45	669.78	197.1	678.83	197.21
691.74	195.88	694.79	195.69	695.21	195.67	695.53	195.65	701.46	194.25
707.84	192.68	710.51	192.04	713.86	191.35	714.24	191.27	718.95	190.37
719.36	190.36	720.26	190.32	722.25	190.24	728.69	189.77	744.59	190.36
748.13	190.46	750.28	190.62	777.68	193.43	794.41	195.15	804.97	195.69
810.61	195.81	814.03	195.87	826.01	196.06	886.21	197	901.93	197.55
912.59	197.92	941.78	198	948.55	198.02	979.76	197.33	1034.62	196.02
1040.6	195.87	1048.56	195.7	1053.33	195.6	1055.05	195.63	1057.41	195.66
1061.14	195.82	1065.18	195.99	1078.81	196.58	1080.43	196.61	1084.3	196.69
1093.36	197.14	1095.51	197.53	1102.55	199.48	1106.01	200.84	1107.46	201.41
1108.96	202.01	1117.64	205.33	1127.34	209.13	1131.69	209.81	1145.33	213.1
1148.94	213.5	1164.75	215.34						

Manning's n Values num= 10

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	691.74	.035	696.44	.035	735.7	.038	782.78	.047
794.41	.05	901.93	.038	1048.56	.05	1065.18	.05	1164.75	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
691.74	794.41	30.23	37.87	37.36	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 6818.81*

INPUT
Description:
Station Elevation Data num= 82

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	213.76	3.46	213.4	7.83	212.88	11.86	212.38	44.52	208.5
46.17	208.31	50.4	207.63	65.47	203.78	65.5	203.77	65.56	203.75
65.67	203.73	70.06	202.7	73.4	202.43	88.85	201.23	94.35	200.75
119.85	200.04	131.19	199.95	161.97	199.47	246.17	197.97	246.5	197.97
304.58	197.29	325.11	197.09	347	197.02	401.23	197.32	533.65	197.4
539.53	197.41	600.38	197.3	610	197.29	665.76	196.5	674.75	196.49
687.58	195.38	692.06	195.11	692.69	195.08	693.15	195.05	701.86	193.77
711.24	192.25	715.15	191.65	720.09	191.13	720.64	191.07	727.56	190.39
728.17	190.38	729.48	190.35	732.41	190.28	741.88	189.91	758.95	190.54
762.76	190.66	765.07	190.8	794.51	193.24	812.49	194.72	822.93	195.23
828.51	195.38	831.9	195.46	843.75	195.62	903.31	196.5	918.85	196.96
929.4	197.27	958.28	197.42	964.97	197.44	995.86	197	1050.13	195.99
1056.05	195.88	1063.92	195.76	1068.64	195.68	1070.34	195.7	1072.68	195.72
1076.37	195.98	1080.36	196.26	1093.84	197.21	1095.44	197.23	1099.28	197.33
1108.24	198.08	1110.37	198.47	1117.33	200.24	1120.75	201.42	1122.19	201.91
1123.68	202.42	1132.26	205.17	1141.86	208.3	1146.16	208.94	1159.65	211.81
1163.23	212.22	1178.87	214.2						

Manning's n Values num= 10

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	687.58	.035	693.3	.035	741.07	.041	798.34	.044
812.49	.05	918.85	.041	1063.92	.05	1080.36	.05	1178.87	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
687.58	812.49	30.23	37.87	37.36	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 6780.94*

INPUT
Description:
Station Elevation Data num= 82

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	212.44	3.44	212.08	7.78	211.53	11.78	211.01	44.25	207.05
45.89	206.86	50.1	206.24	65.07	203.08	65.1	203.07	65.16	203.06
65.27	203.05	69.64	202.3	72.96	202.07	88.31	201.04	93.78	200.64
119.13	199.79	130.4	199.76	160.99	199.29	244.68	197.75	245.01	197.75
302.73	197.18	323.14	197.02	344.9	197.03	398.8	197.4	530.42	197.3
536.27	197.29	596.75	197.15	606.31	197.13	661.73	195.9	670.67	195.78
683.43	194.87	689.34	194.54	690.16	194.49	690.77	194.46	702.26	193.3
714.64	191.83	719.8	191.26	726.31	190.9	727.04	190.86	736.18	190.4
736.97	190.39	738.7	190.37	742.57	190.32	755.06	190.04	773.32	190.72
777.39	190.85	779.86	190.98	811.34	193.04	830.56	194.3	840.89	194.78
846.41	194.95	849.76	195.04	861.49	195.18	920.4	196.01	935.78	196.37
946.21	196.62	974.78	196.83	981.4	196.87	1011.95	196.67	1065.63	195.97
1071.49	195.9	1079.28	195.81	1083.94	195.75	1085.63	195.77	1087.94	195.78
1091.59	196.14	1095.54	196.52	1108.88	197.83	1110.46	197.86	1114.26	197.97
1123.12	199.01	1125.22	199.4	1132.12	201.01	1135.5	202	1136.92	202.41
1138.39	202.83	1146.88	205	1156.37	207.48	1160.63	208.07	1173.98	210.52
1177.52	210.93	1192.98	213.05						

Manning's n Values num= 10

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	683.43	.035	690.16	.035	746.43	.044	813.89	.041
830.56	.05	935.78	.044	1079.28	.05	1095.54	.05	1192.98	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
683.43	830.56	30.23	37.87	37.36	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 6743.07*

INPUT
Description:
Station Elevation Data num= 82

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	211.12	3.42	210.77	7.73	210.19	11.71	209.65	43.98	205.6
45.61	205.41	49.79	204.85	64.68	202.39	64.71	202.38	64.77	202.38
64.87	202.37	69.22	201.89	72.51	201.71	87.77	200.85	93.21	200.53
118.4	199.55	129.6	199.56	160.01	199.12	243.2	197.54	243.52	197.53
300.89	197.08	321.18	196.94	342.81	197.04	396.38	197.47	527.2	197.19
533.01	197.18	593.12	197	602.62	196.98	657.71	195.29	666.59	195.06
679.27	194.37	686.61	193.96	687.63	193.91	688.39	193.86	702.67	192.82
718.03	191.4	724.45	190.87	732.54	190.68	733.44	190.66	744.79	190.42
745.78	190.41	747.93	190.4	752.73	190.36	768.25	190.18	787.69	190.9
792.02	191.05	794.65	191.17	828.17	192.85	848.64	193.87	858.85	194.32
864.31	194.52	867.63	194.62	879.22	194.75	937.49	195.51	952.7	195.78
963.03	195.97	991.28	196.25	997.83	196.3	1028.05	196.34	1081.14	195.95
1086.94	195.91	1094.64	195.86	1099.25	195.83	1100.92	195.83	1103.21	195.84
1106.82	196.29	1110.73	196.79	1123.91	198.45	1125.48	198.48	1129.23	198.61
1138	199.95	1140.08	200.33	1146.9	201.77	1150.24	202.58	1151.65	202.9
1153.11	203.24	1161.5	204.84	1170.89	206.65	1175.1	207.2	1188.3	209.23
1191.8	209.65	1207.1	211.91						

Manning's n Values num= 10

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	679.27	.035	687.02	.035	751.79	.047	829.45	.038
848.64	.05	952.7	.047	1094.64	.05	1110.73	.05	1207.1	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
679.27	848.64	30.23	37.87	37.36	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 6705.202

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 42

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	209.8	3.4	209.45	11.64	208.28	43.71	204.15	64.28	201.7
64.31	201.69	64.37	201.69	117.68	199.3	128.81	199.37	159.03	198.94
242.03	197.31	319.21	196.86	393.95	197.55	523.97	197.08	598.93	196.82
675.11	193.86	683.88	193.38	685.1	193.32	703.07	192.34	721.43	190.98
729.1	190.48	754.58	190.43	757.15	190.42	781.43	190.32	845	192.65
866.71	193.45	882.21	194.09	885.49	194.2	896.96	194.31	1007.78	195.66
1044.14	196.01	1096.65	195.93	1110	195.91	1118.47	195.9	1138.95	199.07
1140.5	199.1	1144.21	199.25	1164.99	203.16	1166.38	203.4	1167.82	203.65
1206.09	208.37	1221.22	210.76						

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	683.88	.035	757.15	.05	845	.035	1110	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
675.11	866.71	35.92	40.06	40.02	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 6665.14*

INPUT
Description:
Station Elevation Data num= 82

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	209.96	.13	209.93	.52	209.89	2.7	209.67	3.4	209.6
7.33	209.09	11.65	208.52	43.75	204.62	64.34	202.27	64.37	202.26
64.43	202.26	70.43	201.91	82.97	200.15	84.96	199.87	90.46	199.49

92.96	199.32	93.83	199.29	117.79	198.54	126.47	198.61	128.93	198.64
159.18	198.57	160.94	198.56	193.74	198.01	242.25	197.23	271.51	197.06
314.58	196.82	319.5	196.8	347.56	197.01	380.94	197.24	392.99	197.35
394.31	197.37	524.45	197.38	530.27	197.38	542.42	197.38	546.89	197.37
599.48	196.85	613.37	196.35	651.48	194.76	675.73	193.51	683.04	193.08
684.06	193.03	699.03	192.15	714.34	190.99	720.73	190.55	720.95	190.55
741.96	190.44	744.11	190.42	758.2	190.32	764.34	190.28	810.38	191.43
822.35	191.74	845.66	192.24	847.29	192.27	853.13	192.48	873.43	193.21
889.94	193.73	893.44	193.82	905.66	193.94	1023.72	195.28	1062.46	195.65
1081.5	195.68	1087.71	195.68	1088.56	195.69	1089.93	195.7	1091.77	195.74
1118.4	196.12	1132.62	196.33	1141.65	196.46	1148.07	197.26	1159.46	198.68
1163.47	199.24	1165.12	199.32	1168.75	199.53	1169.07	199.55	1191.21	202.85
1192.69	203.06	1194.22	203.27	1225.37	206.5	1229.22	206.88	1235	207.39
1236.31	207.54	1251.11	209.49						

Manning's n Values num= 10

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	675.73	.035	684.78	.035	760.38	.046	842.69	.035
851.03	.035	873.43	.05	1132.62	.05	1159.46	.05	1251.11	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
675.73	873.43	35.92	40.06	40.02	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 6625.07*

INPUT
Description:
Station Elevation Data num= 82

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	210.11	.13	210.08	.52	210.03	2.71	209.83	3.41	209.76
7.34	209.28	11.66	208.76	43.79	205.09	64.4	202.84	64.43	202.83
64.49	202.83	70.49	202.4	83.05	199.43	85.03	198.98	90.54	198.45
93.05	198.24	93.92	198.2	117.9	197.79	126.59	197.86	129.05	197.91
159.32	198.2	161.08	198.21	193.91	197.76	242.47	197.14	271.76	196.97
314.87	196.75	319.8	196.74	347.88	196.89	381.29	197.05	393.35	197.17
394.67	197.18	524.93	197.69	530.76	197.71	542.91	197.75	547.4	197.73
600.03	196.88	613.93	196.42	652.07	194.71	676.35	193.15	682.2	192.78
683.01	192.73	695	191.96	707.24	191	712.36	190.63	712.53	190.62
729.35	190.45	731.06	190.43	742.34	190.29	747.26	190.23	803.33	191.23
817.92	191.49	846.31	191.82	848.3	191.85	855.42	192.1	880.15	192.96
897.67	193.37	901.38	193.45	914.35	193.57	1039.66	194.89	1080.78	195.28
1100.99	195.37	1107.58	195.38	1108.48	195.41	1109.93	195.44	1111.89	195.51
1140.15	196.32	1155.25	196.75	1164.82	197.02	1171.64	197.69	1183.73	198.87
1187.98	199.41	1189.74	199.53	1193.59	199.83	1193.93	199.85	1217.43	202.55
1219	202.72	1220.63	202.89	1253.68	205.74	1257.78	206.07	1263.9	206.42
1265.3	206.52	1281.01	208.23						

Manning's n Values num= 10

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	676.35	.035	685.68	.035	763.61	.043	848.46	.035
857.05	.035	880.15	.05	1155.25	.05	1183.73	.05	1281.01	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
676.35	880.15	35.92	40.06	40.02	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 6585.01*

INPUT
Description:
Station Elevation Data num= 82

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	210.26	.13	210.23	.52	210.17	2.71	209.98	3.41	209.91
7.34	209.48	11.67	209	43.83	205.56	64.46	203.41	64.49	203.4
64.55	203.4	70.56	202.88	83.12	198.72	85.11	198.08	90.63	197.42
93.13	197.15	94	197.12	118	197.03	126.7	197.12	129.16	197.18
159.47	197.83	161.23	197.87	194.09	197.5	242.7	197.06	272.01	196.89
315.16	196.68	320.09	196.68	348.2	196.78	381.64	196.86	393.71	196.98
395.04	197	525.41	197.99	531.24	198.03	543.41	198.11	547.9	198.1
600.58	196.92	614.5	196.48	652.67	194.67	676.97	192.8	681.36	192.48
681.97	192.44	690.96	191.77	700.15	191.01	703.98	190.7	704.12	190.7
716.73	190.46	718.02	190.43	726.48	190.26	730.17	190.18	796.29	191.02
813.49	191.25	846.97	191.41	849.32	191.42	857.71	191.71	886.86	192.71
905.4	193.01	909.33	193.07	923.05	193.2	1055.6	194.51	1099.09	194.92
1120.47	195.07	1127.44	195.08	1128.4	195.13	1129.94	195.17	1132	195.29
1161.9	196.51	1177.87	197.17	1188	197.58	1195.21	198.11	1208	199.06
1212.5	199.58	1214.35	199.75	1218.43	200.12	1218.79	200.14	1243.65	202.24
1245.31	202.37	1247.03	202.51	1282	204.99	1286.33	205.25	1292.81	205.44
1294.28	205.49	1310.91	206.96						

Manning's n Values num= 10

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	676.97	.035	686.58	.035	766.84	.039	854.23	.035
863.08	.035	886.86	.05	1177.87	.05	1208	.05	1310.91	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
676.97	886.86	35.92	40.06	40.02	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 6544.956

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 45

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	210.42	.13	210.38	.52	210.31	2.71	210.13	7.35	209.67
70.62	203.37	83.2	198.01	85.19	197.18	90.71	196.38	93.22	196.06

94.09	196.03	126.82	196.37	161.38	197.52	194.27	197.25	272.26	196.81
315.45	196.61	348.52	196.67	381.99	196.67	394.07	196.8	531.73	198.36
543.91	198.48	548.4	198.46	615.06	196.55	653.27	194.62	677.59	192.45
695.7	190.77	710.62	190.23	713.08	190.14	789.25	190.82	809.06	191
850.33	191	860	191.33	893.58	192.47	1139.96	194.76	1147.31	194.78
1148.32	194.85	1149.94	194.9	1152.12	195.06	1218.78	198.54	1232.27	199.25
1243.27	200.42	1310.31	204.23	1314.88	204.43	1323.27	204.47	1340.8	205.69

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.05	860	.035	1232.27	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
677.59	893.58	14.9	43.68	14.96	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 6501.27*

INPUT
Description:
Station Elevation Data num= 95

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	210.4	.13	210.36	.51	210.3	2.68	210.1	5.86	209.77
7.27	209.62	14.63	208.86	39.9	206.41	61.33	204.33	69.83	203.52
72.08	202.64	76.41	200.87	82.27	198.36	84.24	197.54	89.7	196.58
91.07	196.36	92.18	196.18	92.46	196.16	93.04	196.14	103.67	196.12
112.3	196.12	125.4	196.27	127.83	196.35	159.58	197.4	185.44	197.28
192.1	197.23	213.24	197.11	269.22	196.79	300.18	196.65	311.92	196.6
344.62	196.66	377.72	196.67	389.66	196.79	454.96	197.46	519.58	198.12
525.78	198.17	537.83	198.24	542.21	198.21	542.27	198.21	587.12	196.88
608.18	196.25	645.97	194.36	654.38	193.65	670.01	192.33	672.56	192.17
674.9	192.03	680.84	191.84	686.76	191.65	695.7	191.35	705.32	191.02
707.48	190.94	713.01	190.73	713.49	190.72	729.14	190.49	730.89	190.46
749.31	190.2	755.21	190.12	825.14	190.76	843.33	190.93	858.43	190.94
881.22	190.98	890.1	191.28	920.93	192.35	931.98	192.55	980.2	193.42
992.25	193.53	1024.38	193.88	1044.11	193.96	1053.75	193.93	1089.28	193.77
1120.22	193.9	1125.18	193.94	1136.29	194.09	1152.28	194.3	1159.18	194.35
1160.13	194.42	1161.65	194.47	1163.7	194.62	1172.86	195.11	1206.86	196.99
1226.3	198.05	1237.73	198.67	1238.96	198.74	1249.29	199.81	1253.84	200.07
1263.04	200.67	1296.11	202.73	1312.24	203.99	1314.03	204.1	1316.54	204.23
1324.41	204.33	1328.57	204.65	1338.09	206.12	1339.65	206.33	1340.87	206.49

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	670.01	.035	738.91	.035	881.92	.035	920.93	.048
1238.96	.048	1340.87	.048						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
670.01	920.93	14.9	43.68	14.96	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 6457.60*

INPUT
Description:
Station Elevation Data num= 95

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	210.38	.13	210.35	.51	210.28	2.65	210.08	5.79	209.73
7.19	209.58	14.47	208.78	39.45	206.43	60.63	204.44	69.04	203.66
71.27	202.88	75.55	201.21	81.34	198.71	83.28	197.89	88.68	196.78
90.04	196.51	91.14	196.3	91.42	196.27	91.99	196.24	102.5	196.11
111.03	196	123.98	196.18	126.39	196.25	157.77	197.27	183.34	197.26
189.93	197.21	210.83	197.08	266.17	196.78	296.78	196.64	308.4	196.6
340.73	196.66	373.45	196.67	385.26	196.77	449.81	197.38	513.71	197.96
519.84	197.98	531.75	198	536.08	197.96	536.14	197.96	580.49	196.6
601.31	195.94	638.66	194.11	646.98	193.45	662.44	192.21	666.47	192
670.17	191.8	679.57	191.65	688.96	191.5	703.12	191.24	718.35	190.96
721.76	190.89	730.53	190.68	731.28	190.66	756.06	190.45	758.83	190.42
788	190.18	797.35	190.1	861.04	190.7	877.6	190.86	891.35	190.88
912.11	190.95	920.19	191.24	948.27	192.23	958.6	192.53	1003.7	193.78
1014.96	193.88	1045.01	194.27	1063.46	194.23	1072.47	194.07	1105.69	193.41
1134.63	193.36	1139.26	193.4	1149.65	193.59	1164.6	193.85	1171.06	193.92
1171.94	193.98	1173.37	194.03	1175.28	194.18	1183.84	194.65	1215.64	196.52
1233.81	197.55	1244.5	198.17	1245.66	198.23	1255.31	199.2	1259.56	199.45
1268.17	200.08	1299.09	202.21	1314.18	203.74	1315.84	203.89	1318.19	204.03
1325.56	204.2	1329.45	204.51	1338.34	206.76	1339.8	207.06	1340.95	207.28

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	662.44	.035	740.92	.035	903.83	.035	948.27	.047
1245.66	.047	1340.95	.047						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
662.44	948.27	14.9	43.68	14.96	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 6413.92*

INPUT
Description:
Station Elevation Data num= 95

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	210.37	.13	210.33	.5	210.27	2.62	210.05	5.73	209.69
7.1	209.53	14.3	208.71	39	206.46	59.94	204.55	68.25	203.81
70.45	203.12	74.68	201.54	80.41	199.07	82.33	198.25	87.67	196.97
89.01	196.67	90.09	196.42	90.37	196.38	90.93	196.35	101.32	196.09
109.76	195.89	122.57	196.08	124.94	196.15	155.97	197.15	181.24	197.23
187.75	197.18	208.42	197.06	263.13	196.76	293.39	196.62	304.87	196.59

336.83	196.65	369.18	196.67	380.85	196.76	444.67	197.3	507.83	197.79
513.89	197.79	525.66	197.77	529.95	197.72	530	197.72	573.85	196.32
594.43	195.64	631.36	193.85	639.58	193.24	654.86	192.08	660.37	191.82
665.44	191.57	678.31	191.46	691.16	191.35	710.53	191.13	731.37	190.9
736.04	190.83	748.04	190.62	749.07	190.61	782.99	190.41	786.77	190.38
826.68	190.15	839.48	190.08	896.93	190.65	911.87	190.79	924.27	190.82
943	190.93	950.29	191.19	975.62	192.11	985.23	192.5	1027.19	194.14
1037.68	194.23	1065.64	194.66	1082.8	194.51	1091.19	194.21	1122.1	193.05
1149.03	192.81	1153.34	192.85	1163.01	193.08	1176.92	193.39	1182.93	193.49
1183.76	193.55	1185.08	193.6	1186.86	193.73	1194.83	194.19	1224.42	196.05
1241.33	197.06	1251.27	197.66	1252.35	197.72	1261.34	198.6	1265.29	198.82
1273.3	199.5	1302.07	201.69	1316.11	203.5	1317.66	203.68	1319.85	203.83
1326.7	204.06	1330.32	204.38	1338.6	207.4	1339.95	207.79	1341.02	208.08

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	654.86	.035	742.93	.035	925.75	.035	975.62	.045
1252.35	.045	1341.02	.045						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
654.86	975.62	14.9	43.68	14.96	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 6370.25*

INPUT
Description:
Station Elevation Data num= 95

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	210.35	.12	210.32	.5	210.26	2.59	210.02	5.66	209.65
7.02	209.49	14.14	208.64	38.55	206.48	59.25	204.65	67.46	203.95
69.64	203.36	73.82	201.88	79.48	199.42	81.38	198.6	86.65	197.17
87.98	196.82	89.05	196.54	89.33	196.49	89.88	196.45	100.15	196.07
108.49	195.77	121.15	195.98	123.5	196.05	154.16	197.02	179.14	197.21
185.58	197.16	206.01	197.04	260.08	196.75	289.99	196.61	301.34	196.58
332.93	196.64	364.9	196.67	376.44	196.75	439.52	197.21	501.96	197.62
507.95	197.59	519.58	197.53	523.82	197.47	523.87	197.47	567.21	196.04
587.55	195.33	624.05	193.6	632.18	193.03	647.28	191.96	654.28	191.64
660.71	191.35	677.05	191.27	693.36	191.2	717.94	191.03	744.4	190.84
750.32	190.77	765.55	190.57	766.86	190.55	809.91	190.36	814.71	190.33
865.37	190.13	881.61	190.06	932.82	190.59	946.14	190.72	957.2	190.76
973.89	190.91	980.39	191.15	1002.96	191.99	1011.86	192.47	1050.69	194.51
1060.39	194.58	1086.26	195.05	1102.15	194.78	1109.91	194.35	1138.51	192.68
1163.43	192.27	1167.42	192.3	1176.37	192.57	1189.25	192.93	1194.8	193.06
1195.57	193.12	1196.79	193.17	1198.44	193.29	1205.81	193.73	1233.2	195.58
1248.84	196.56	1258.05	197.15	1259.04	197.2	1267.36	197.99	1271.02	198.2
1278.42	198.91	1305.05	201.17	1318.04	203.25	1319.48	203.47	1321.5	203.63
1327.84	203.93	1331.19	204.25	1338.85	208.04	1340.11	208.52	1341.1	208.87

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	647.28	.035	744.94	.035	947.66	.035	1002.96	.043
1259.04	.043	1341.1	.043						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
647.28	1002.96	14.9	43.68	14.96	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 6326.57*

INPUT
Description:
Station Elevation Data num= 95

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	210.33	.12	210.3	.49	210.24	2.56	209.99	5.6	209.6
6.94	209.44	13.97	208.57	38.09	206.5	58.55	204.76	66.67	204.1
68.82	203.59	72.96	202.21	78.55	199.77	80.43	198.96	85.64	197.37
86.95	196.98	88.01	196.66	88.28	196.59	88.83	196.56	98.98	196.05
107.22	195.66	119.73	195.88	122.05	195.95	152.36	196.9	177.05	197.19
183.41	197.14	203.6	197.01	257.04	196.73	286.6	196.59	297.81	196.58
329.03	196.63	360.63	196.66	372.04	196.73	434.38	197.13	496.08	197.46
502	197.4	513.5	197.29	517.69	197.22	517.74	197.22	560.57	195.76
580.67	195.03	616.75	193.34	624.78	192.82	639.71	191.84	648.19	191.47
655.98	191.12	675.79	191.08	695.55	191.05	725.35	190.92	757.42	190.78
764.6	190.71	783.06	190.51	784.65	190.5	836.83	190.32	842.65	190.29
904.06	190.1	923.75	190.05	968.71	190.53	980.41	190.66	990.12	190.69
1004.77	190.88	1010.48	191.1	1030.31	191.86	1038.49	192.45	1074.18	194.87
1083.1	194.93	1106.89	195.44	1121.5	195.05	1128.63	194.49	1154.93	192.32
1177.84	191.72	1181.5	191.75	1189.73	192.07	1201.57	192.48	1206.68	192.63
1207.38	192.68	1208.5	192.74	1210.02	192.85	1216.8	193.27	1241.97	195.1
1256.36	196.07	1264.82	196.64	1265.73	196.69	1273.38	197.38	1276.74	197.58
1283.55	198.33	1308.03	200.65	1319.98	203.01	1321.3	203.26	1323.16	203.42
1328.99	203.79	1332.07	204.11	1339.11	208.68	1340.26	209.25	1341.17	209.67

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	639.71	.035	746.95	.035	969.58	.035	1030.31	.042
1265.73	.042	1341.17	.042						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
639.71	1030.31	14.9	43.68	14.96	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 6282.89*

INPUT
Description:
Station Elevation Data num= 95

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	210.31	.12	210.29	.49	210.23	2.53	209.97	5.53	209.56
6.86	209.39	13.81	208.5	37.64	206.53	57.86	204.87	65.88	204.25
68.01	203.83	72.09	202.55	77.62	200.12	79.47	199.31	84.62	197.57
85.92	197.13	86.97	196.78	87.24	196.7	87.78	196.66	97.81	196.03
105.95	195.54	118.31	195.79	120.61	195.85	150.55	196.77	174.95	197.16
181.24	197.12	201.18	196.99	253.99	196.72	283.2	196.57	294.29	196.57
325.14	196.63	356.36	196.66	367.63	196.72	429.23	197.04	490.21	197.29
496.06	197.21	507.42	197.05	511.55	196.97	511.61	196.97	553.93	195.48
573.8	194.72	609.44	193.09	617.38	192.61	632.13	191.72	642.1	191.29
651.25	190.89	674.53	190.89	697.75	190.89	732.76	190.81	770.45	190.72
778.88	190.65	800.57	190.46	802.44	190.45	863.75	190.28	870.6	190.24
942.75	190.08	965.88	190.03	1004.61	190.47	1014.68	190.59	1023.04	190.63
1035.66	190.86	1040.58	191.06	1057.65	191.74	1065.12	192.42	1097.68	195.23
1105.82	195.29	1127.52	195.82	1140.84	195.32	1147.35	194.63	1171.34	191.96
1192.24	191.18	1195.58	191.2	1203.09	191.56	1213.89	192.02	1218.55	192.2
1219.19	192.25	1220.22	192.3	1221.6	192.41	1227.78	192.81	1250.75	194.63
1263.87	195.58	1271.59	196.13	1272.43	196.18	1279.4	196.77	1282.47	196.95
1288.68	197.74	1311.02	200.12	1321.91	202.77	1323.12	203.05	1324.81	203.22
1330.13	203.66	1332.94	203.98	1339.36	209.32	1340.42	209.98	1341.25	210.46

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	632.13	.035	748.96	.035	991.5	.035	1057.65	.04
1272.43	.04	1341.25	.04						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
632.13	1057.65	14.9	43.68	14.96	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 6239.22*

INPUT
Description:
Station Elevation Data num= 95

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	210.3	.12	210.27	.48	210.22	2.5	209.94	5.46	209.52
6.77	209.35	13.64	208.42	37.19	206.55	57.17	204.98	65.09	204.39
67.19	204.07	71.23	202.89	76.69	200.47	78.52	199.67	83.61	197.76
84.89	197.29	85.92	196.91	86.19	196.81	86.73	196.77	96.63	196.02
104.68	195.43	116.89	195.69	119.16	195.75	148.75	196.65	172.85	197.14
179.06	197.09	198.77	196.97	250.95	196.7	279.81	196.56	290.76	196.56
321.24	196.62	352.09	196.66	363.23	196.71	424.09	196.96	484.33	197.12
490.11	197.02	501.34	196.81	505.42	196.73	505.48	196.72	547.29	195.2
566.92	194.42	602.14	192.83	609.98	192.41	624.55	191.59	636	191.11
646.53	190.66	673.26	190.7	699.95	190.74	740.18	190.7	783.47	190.66
793.16	190.6	818.09	190.4	820.23	190.39	890.68	190.24	898.54	190.2
981.43	190.05	1008.01	190.01	1040.5	190.41	1048.95	190.52	1055.96	190.57
1066.55	190.84	1070.68	191.01	1085	191.62	1091.74	192.39	1121.18	195.59
1128.53	195.64	1148.15	196.21	1160.19	195.6	1166.07	194.78	1187.75	191.6
1206.64	190.64	1209.67	190.66	1216.45	191.05	1226.21	191.56	1230.42	191.77
1231	191.81	1231.93	191.87	1233.18	191.97	1238.77	192.35	1259.53	194.16
1271.39	195.08	1278.36	195.63	1279.12	195.67	1285.42	196.16	1288.2	196.33
1293.81	197.16	1314	199.6	1323.85	202.52	1324.93	202.84	1326.47	203.02
1331.27	203.52	1333.81	203.85	1339.62	209.96	1340.57	210.71	1341.32	211.26

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	624.55	.035	750.98	.035	1013.41	.035	1085	.038
1279.12	.038	1341.32	.038						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
624.55	1085	14.9	43.68	14.96	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 6195.54*

INPUT
Description:
Station Elevation Data num= 95

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	210.28	.12	210.26	.47	210.2	2.47	209.91	5.4	209.48
6.69	209.3	13.48	208.35	36.74	206.58	56.47	205.08	64.3	204.54
66.38	204.31	70.36	203.22	75.76	200.83	77.57	200.02	82.6	197.96
83.86	197.44	84.88	197.03	85.15	196.92	85.67	196.87	95.46	196
103.41	195.31	115.48	195.59	117.72	195.65	146.94	196.52	170.76	197.11
176.89	197.07	196.36	196.94	247.91	196.68	276.41	196.54	287.23	196.56
317.34	196.61	347.82	196.66	358.82	196.69	418.94	196.87	478.46	196.96
484.16	196.83	495.25	196.58	499.29	196.48	499.34	196.48	540.65	194.92
560.04	194.11	594.83	192.58	602.58	192.2	616.98	191.47	629.91	190.94
641.8	190.43	672	190.51	702.14	190.59	747.59	190.6	796.5	190.6
807.44	190.54	835.6	190.35	838.02	190.34	917.6	190.19	926.48	190.15
1020.12	190.03	1050.15	189.99	1076.39	190.35	1083.22	190.45	1088.89	190.51
1097.44	190.81	1100.77	190.97	1112.34	191.5	1118.37	192.37	1144.67	195.96
1151.25	195.99	1168.77	196.6	1179.53	195.87	1184.79	194.92	1204.17	191.23
1221.05	190.09	1223.75	190.11	1229.81	190.55	1238.53	191.1	1242.3	191.34
1242.81	191.38	1243.64	191.44	1244.76	191.52	1249.75	191.89	1268.3	193.69
1278.9	194.59	1285.14	195.12	1285.81	195.16	1291.44	195.56	1293.92	195.7
1298.94	196.57	1316.98	199.08	1325.78	202.28	1326.75	202.63	1328.12	202.82
1332.42	203.38	1334.69	203.71	1339.87	210.6	1340.73	211.44	1341.4	212.05

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	616.98	.035	752.99	.035	1035.33	.035	1112.34	.037
1285.81	.037	1341.4	.037						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
616.98	1112.34	14.9	43.68	14.96	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 6151.870

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 55

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	210.26	5.33	209.44	13.31	208.28	36.29	206.6	55.78	205.19
65.56	204.55	69.5	203.56	82.83	197.6	84.1	197.03	94.29	195.98
102.14	195.2	116.27	195.55	168.66	197.09	193.95	196.92	273.02	196.53
413.8	196.79	472.58	196.79	493.16	196.23	534.01	194.64	595.18	191.99
609.4	191.35	623.82	190.76	637.07	190.2	670.74	190.32	704.34	190.44
755	190.49	809.52	190.54	821.72	190.48	853.11	190.29	944.52	190.15
954.42	190.11	1092.28	189.97	1121.81	190.45	1139.69	191.38	1145	192.34
1168.17	196.32	1173.96	196.34	1189.4	196.99	1198.88	196.14	1203.51	195.06
1220.58	190.87	1235.45	189.55	1237.83	189.56	1243.17	190.04	1260.74	191.43
1277.08	193.22	1291.91	194.61	1299.65	195.08	1304.07	195.99	1319.96	198.56
1328.57	202.42	1335.56	203.58	1340.13	211.24	1340.88	212.17	1341.47	212.85

Manning's n Values num= 2

Sta	n Val	Sta	n Val
0	.05	755	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
609.4	1139.69	162.9	173.01	158.07	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 5978.856

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 50

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	210.11	4.59	209.45	7.39	209.03	36.89	207.17	39.32	207.01
62.22	205.02	71.39	203.83	82.12	198.91	85.52	197.45	87.11	197.28
109.32	195.18	172.51	197.01	172.84	197.02	172.91	197.02	173.21	197.02
214.62	195.89	258.41	195.9	271.12	195.47	424.63	194.69	491.91	192.94
520.46	191.9	589.97	189.76	600.38	189.64	601.23	189.63	661.34	188.48
703.05	188.74	755	188.35	766.28	188.26	813.22	188.44	823.84	188.21
860.44	188.08	952.43	187.97	966.99	187.9	997.98	189.59	1044.05	189.55
1101.22	190.77	1118.35	191.4	1144.21	193	1151.44	193.14	1165.05	193.42
1171.72	193.71	1206.89	195.27	1207.66	195.3	1207.91	195.35	1218.48	196.31
1219.51	196.75	1225.3	199.19	1225.56	199.41	1227.01	201.14	1229.5	203.84

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.035	36.89	.05	755	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
601.23	1044.05	197.39	190.73	235.69	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 5788.123

INPUT
Description:
Station Elevation Data num= 49

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	207.07	1.51	206.99	20.99	205.72	51	203.78	74.18	197.86
75.94	197.55	77.92	196.89	81.59	196.61	110	194.55	145.81	194.13
153.71	194.01	215.72	193.06	270.53	192.21	282.75	192.22	316.2	191.13
343.31	188.76	353.1	188.56	363.39	188.86	398.77	187.9	430.5	187.05
440.75	187.07	492.55	187.14	517.12	186.11	629.64	185.94	672.25	185.91
742.36	186.48	766.07	187.3	821.83	189.22	825.37	189.07	857.76	188.73
891.41	186.26	895.9	185.83	897.63	185.59	939.13	184.68	954.05	184.42
955.71	184.49	957.59	184.36	983.57	184.32	998.21	184.82	1003.23	185.06
1013.8	185.57	1024.53	187.88	1028.42	188.79	1028.93	188.91	1034.85	191.94
1041.83	198.73	1043.79	200.18	1047.69	203.43	1049.41	204.71		

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	20.99	.05	440.75	.035	629.64	.05	766.07	.035
1028.42	.05								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
492.55	1024.53	66.98	101.35	103.25	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 5686.773

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 49

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	206.16	28.01	204.67	35.04	204.27	45.47	202.77	46.63	202.42
50.68	201.05	63.15	196.89	98.34	194.23	100.52	194.07	105.69	193.69
194.58	192.71	226.32	192.36	229.62	192.02	235.83	191.61	256.98	190.25
274.8	187.43	299.49	183.68	322.22	184.63	328.62	184.88	338.04	185.24
355.37	187.45	364.15	187.38	421.15	187.46	451.15	186.26	470.47	185.4
590	185.23	658.52	185.13	678.18	185.1	682.42	185.11	693.45	186.03
699.97	186.26	803.82	191.43	812.9	190.83	824.14	189.77	846.63	185.46
851.78	184.15	854.81	184.03	872.48	183.41	872.82	183.42	873.3	183.44
910.58	184.33	913.38	184.35	920.86	184.41	932.08	186.07	936.98	187.29
944.81	189.91	948.92	192	953.35	195.84	966.54	207.31		

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val

```
        0      .05  355.37     .035      590      .05  803.82     .035

 Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         451.15  932.08              59.9   92.96   76.35              .1       .3
 Ineffective Flow     num=        1
    Sta L   Sta R    Elev  Permanent
 888       F

 CROSS SECTION          RIVER: San Juan
 REACH: Upper              RS: 5593.814

 INPUT
 Description: Manual Modification of Manning's N Values
 Station Elevation Data    num=      50
      Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
        0  205.85   36.85  203.74   41.08  203.13   57.44  198.12   60.97  196.92
    70.24  195.76   71.69  195.47   74.47  194.94  108.91  190.51  112.36  190.27
   119.95  190.51  193.48  191.97  196.14  191.81  197.28  191.59  208.62  190.15
    209.1  189.93   210.3  189.54  223.64  185.02  225.74  184.98  237.21  183.52
   248.16  184.04     290  185.66   296.1   185.9  296.45  185.91  349.11  188.04
   366.67   187.2  385.69  186.77  436.22   184.7   531.5   184.6     565  184.55
   577.61  184.53  661.26  183.92  713.89  183.82  730.46  184.89  744.92   184.8
    778.7  184.34  787.22  183.76  815.45     184  832.31  183.73  849.08  184.29
   855.93  184.86  880.21   186.7  892.02  187.67  901.17  188.39  909.48  189.31
   917.59  193.76  917.71  193.78  918.13  194.29   930.1  209.14  931.13  210.22

 Manning's n Values        num=       3
      Sta   n Val     Sta   n Val     Sta   n Val
        0     .05     290    .035     565     .05

 Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         436.22  855.93              56.58   91.06   69.13              .1       .3
 Ineffective Flow     num=        1
    Sta L   Sta R    Elev  Permanent
 888       F

 CROSS SECTION          RIVER: San Juan
 REACH: Upper              RS: 5502.751

 INPUT
 Description: Manual Modification of Manning's N Values
 Station Elevation Data    num=      43
      Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
        0  204.86   23.16   203.6   25.75  203.38   31.88  201.52   68.63  191.81
    73.08  191.15    77.5  190.87   89.97  190.12   94.16  190.24  142.37  191.72
   148.12  191.28  157.99  190.92  162.57  190.33  167.45  188.16   175.3  183.74
   176.57  183.43  220.71     185  235.75  185.43  243.46  185.65  247.54  185.85
   282.35  187.55  333.43  185.37  372.21  184.06  425.72  184.01   459.6  183.62
   478.95  183.58  516.84  183.34  625.42  182.66  629.53  182.66  667.96  183.04
   689.12  183.06  691.69  183.07  791.93  183.77  795.32  183.81  826.73  185.25
   837.26   185.9  851.15  187.78  855.96  188.36  871.31  190.21  873.39  190.54
   888.49   195.1  890.57  195.44  906.74  203.24

 Manning's n Values        num=       5
      Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val
        0     .05  235.75    .035  516.84     .05  689.12    .035  826.73     .05

 Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         333.43  826.73              78.34  115.61   55.34              .1       .3
 Ineffective Flow     num=        1
    Sta L   Sta R    Elev  Permanent
 888       F
 Blocked Obstructions     num=        1
    Sta L   Sta R    Elev
    794.5   805.5  268.63

 CROSS SECTION          RIVER: San Juan
 REACH: Upper              RS: 5387.141

 INPUT
 Description: Manual Modification of Manning's N Values
 Station Elevation Data    num=      44
      Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
        0  202.52   11.98  198.33   21.92   193.9   28.17  191.06    35.4  189.79
    41.93  188.74    42.2  188.69   48.79  188.43   61.58  187.98   81.89  185.97
    89.61   185.8   92.55  184.87   93.21  184.86  110.32  183.43  154.59  184.33
   163.18   184.5  180.85  184.86  181.81  184.89  194.88  185.29  226.86  184.68
   243.43  184.05  325.46  183.97  403.65  183.83  459.42  183.74  519.66  183.68
   531.37  183.79  592.59  183.51  606.02  183.45  648.82   182.7  737.13  183.32
   774.24  184.57  782.14  184.96     795  187.72  800.24  188.85  805.38  189.57
   805.58  189.59   815.6  190.63  831.72  192.36     841  194.25  845.27  196.03
   851.06  199.99  852.27  200.98  857.27  205.71  858.83  207.18

 Manning's n Values        num=       5
      Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val
        0     .05  154.59    .035  403.65     .05  592.59    .035     795     .05

 Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         226.86  774.24             129.7  137.48   67.44              .1       .3
 Ineffective Flow     num=        1
    Sta L   Sta R    Elev  Permanent
 888       F
 Blocked Obstructions     num=        1
    Sta L   Sta R    Elev
    779.5   790.5  268.63

 CROSS SECTION          RIVER: San Juan
 REACH: Upper              RS: 5249.660
```

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 36

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	202.7	.52	202.6	1.51	201.66	4.92	198.49	13.56	189.72
14.07	189.49	22.09	185.24	27.89	183.66	37.64	182.92	59.97	181.47
84.69	182.09	93.23	182.16	120	182.49	134.32	182.66	137.33	182.7
173.64	183.5	182.5	183.61	184.05	183.55	285	183.48	424.26	183.39
468.95	183.81	510	183.62	700.25	182.76	700.34	182.76	700.55	182.76
700.74	182.77	743.86	184.17	750.42	184.62	777.35	187.16	792.49	188.58
821.57	189.96	825.28	190.27	828.14	192.34	831.62	194.54	838.72	202.81
839.47	203.7								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	120	.035	285	.05	510	.035	750.42	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
27.89	743.86	141.78	155.8	79.91	.1	.3

Blocked Obstructions num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
584.5	595.5	265.19	779.5	790.5	268.63

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 5093.864

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 38

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	203.51	2.37	203.35	24.51	198.72	28.54	198.21	35.45	196.19
38.92	195.17	41.19	194.5	41.52	194.36	63.35	184.5	69.97	182.66
74.4	182.44	83.85	181.79	99.5	180.73	134.04	181.4	155.14	182.12
166.6	182.38	175.47	182.57	255	183.57	269.15	183.75	283.83	183.12
365.41	183.11	393.38	183.09	473.08	183.82	505	183.68	620.62	183.17
713.73	183.03	771.51	184.47	782.35	184.79	801.73	186.68	817.92	187.32
830.9	187.84	859.17	189.33	865.1	191.19	867.36	191.45	869.67	192.85
873.58	197.08	875.2	198.71	886.16	210.29				

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	35.45	.05	166.6	.035	255	.05	505	.035
782.35	.05								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
63.35	771.51	102.03	146.85	97.36	.1	.3

Blocked Obstructions num= 1

Sta L	Sta R	Elev
664.5	675.5	265.19

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 4947.016

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 39

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	203.11	9.94	202.69	18.28	202.26	60.7	198.07	85.14	195.88
95.51	193.74	105.31	190.47	115.7	187.38	120.69	186.24	126.13	185.04
128.34	184.68	130.58	184.32	134.88	183.63	142.97	183.3	164.22	183.14
167.76	183.16	174.18	183.19	188.89	183.26	224.49	183.02	268.68	181.99
302.23	181.85	319.19	182.15	354.59	182.69	388.04	183.27	451.56	183.85
475	183.75	485.44	183.7	665	183.4	701.57	183.34	750.45	184.55
770.04	184.86	785.05	185.1	866.36	188.88	886.57	189.58	891.62	191.63
907.53	202.02	907.69	202.13	908.09	202.44	916.71	209.1		

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.07	128.34	.05	174.18	.035	302.23	.05	475	.035
665	.05								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
128.34	750.45	101.25	101.15	96.58	.1	.3

Blocked Obstructions num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
544.5	555.5	261.76	734.5	745.5	265.19

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 4845.863

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 37

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	203.27	2.7	203.05	22.2	200.57	39.38	198.64	45.86	197.73
65.32	192.84	72.69	191.29	89.71	187.69	101.01	186.43	106.56	185.79
138.3	185.07	139.26	185.08	156.93	183.8	157.18	183.78	230.93	181.97
244.77	181.1	278.92	180.95	320	181.42	406.46	182.41	526.28	183.4
575.56	183.75	663.99	183.6	676.22	183.91	690	184.13	700.75	184.3
717.86	184.58	759.74	185.63	773.79	185.8	845.65	187.78	868.49	188.52
871.5	189.01	874.3	189.1	881.19	189.68	885.07	191.8	889.09	194.41
895.93	200.48	901.87	204.71						

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.07	106.56	.05	156.93	.035	320	.05	575.56	.035
690	.05								

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
156.93 663.99 113.15 117.68 124.47 .1 .3
Blocked Obstructions num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
384.5	395.5	258.32	574.5	585.5	261.76

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 4728.187

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 45

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	203.37	9.53	202.76	20.4	202.06	36.42	201.09	50.8	199.14
71.17	195.99	100.99	189.01	102.85	188.51	113.07	187.21	123.91	185.57
136.12	183.73	139.59	183.33	145.56	183.36	163.61	182.2	176.37	181.39
182.05	181.29	203.03	180.94	215.67	180.8	238.29	180.69	305	180.39
370	180.09	380.93	180.04	397.55	180.08	568.85	182.24	649.68	183.55
671.96	184.11	733.05	185.63	801.23	188.49	804.55	188.63	808.66	188.57
852.92	188.6	857.61	189.59	864.28	190.59	866.35	192.27	881.76	203.91
882.65	204.4	886.3	206.66	890.93	209.34	894.01	210.39	927.95	221.47
945.35	228.82	946.78	229.36	946.92	229.4	947.13	229.45	953.14	231.35

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	9.53	.07	123.91	.05	238.29	.035	305	.05
370	.035	671.96	.05						

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
163.61 568.85 103.68 96.65 85.93 .1 .3
Blocked Obstructions num= 1

Sta L	Sta R	Elev
474.5	485.5	258.32

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 4631.533

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 37

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	203.7	8.12	203.31	18.46	202.36	18.67	202.33	56.14	197.09
56.6	197.04	81.62	192.05	85.3	191.27	93.91	189.44	98.45	188.91
133.04	183.77	161.9	182.23	167.16	182.29	183.87	181.93	192.69	181.74
259.21	180.6	301.66	180.12	332.65	179.99	340	180.01	411.37	180.19
460.04	180.8	504.03	181.5	624.71	183.42	646.81	183.96	660	184.28
781.7	187.28	816.45	188.73	842.43	189.84	843.6	189.82	844.06	189.93
846.04	191.24	875.7	208.82	878.23	210.1	883.52	211.31	904.2	215.08
916.56	216.32	933.35	218.99						

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	18.67	.07	133.04	.05	340	.035	660	.05

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
183.87 504.03 83.04 106.65 96.62 .1 .3
Blocked Obstructions num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
324.5	335.5	254.88	524.5	535.5	258.32

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 4524.879

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 42

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	203.49	8.73	202.84	36.07	200.83	53.14	199.51	70.23	197.68
83.18	196.14	121.15	189.14	127.15	187.91	127.61	187.81	157.72	184.03
165.37	183.73	172.29	183.81	190.55	183.45	198.19	183.31	273.27	181.93
283.53	181.72	286.23	181.62	291.78	181.48	305.84	180.44	314.99	180.99
321.12	180.85	329.3	180.71	350	178.47	356.33	177.79	364.66	177.19
379.38	177.67	394.96	177.76	425.04	178.51	471.14	180.69	491.33	181.67
592.54	183.25	618.14	183.87	640	184.4	809.52	188.49	831.63	188.9
834.06	189.26	838.59	189.88	841.25	191.07	849.43	194.04	864.99	201.64
869.63	203.45	873.08	204.07						

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	8.73	.07	165.37	.05	350	.035	640	.05

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
286.23 491.33 102.46 90.4 106.95 .1 .3
Blocked Obstructions num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
184.5	195.5	251.44	374.5	385.5	254.88

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 4434.483

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 40

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	202.71	1.83	202.52	3.78	201.81	10.5	199.86	34.89	192.51
40.24	190.96	61.14	187.34	74.08	185.22	75.83	184.93	92.5	183.31
99.46	182.63	102.1	182.37	106.69	182.4	157.49	181.58	159.14	181.53

176.66	180.96	252.87	179.64	305.4	177.68	309.44	177.31	311.99	177.43
313.89	177.33	317.76	177.33	384.57	177.21	404.39	177.39	469.88	180.38
500.79	181.91	519.99	183.3	550.36	183.77	560	183.92	600.21	184.54
626.85	184.93	777.58	187.81	794.64	190.22	801.18	190.33	806.42	191.35
808.69	192.2	812.94	194.2	818	196.77	825.03	198.57	828.85	199.46

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.07	99.46	.05	317.76	.035	560	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
252.87	469.88	229.37	220.73	203.25	.1	.3

Blocked Obstructions num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
189.5	200.5	251.44	379.5	390.5	254.88

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 4213.757

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 40

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	200.81	5.26	198.89	8.08	197.81	12.49	196.17	28.49	190.98
37.55	187.18	44.54	184.77	53.68	182.73	67.4	182.76	93.9	181.55
134.36	179.7	143.82	179.39	152.85	179.17	215.97	177.58	217.28	177.55
238.51	177.6	290.3	177.71	365.47	177.34	390	177.26	413.09	177.18
445.34	176.41	472.97	177.11	483.44	177.6	497.22	179.2	517.55	181.23
537.8	183.7	537.88	183.71	547.73	183.71	567.09	184.07	625.37	184.51
700.46	185.13	733.35	186.02	760	186.68	792.43	187.48	806.68	187.89
811.25	188.05	812.52	188.39	827.71	190.67	831.02	192.4	853.65	202.22

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.07	93.9	.05	390	.035	537.8	.05	760	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
152.85	497.22	211.8	205.08	199.31	.1	.3

Blocked Obstructions num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
-65.5	-54.5	235.24	129.5	140.5	248

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 4008.681

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 45

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	201.88	6.03	199.17	12.95	196.64	35.87	186.57	36.93	186.03
45.91	183.57	49.77	182.45	50.49	182.24	50.74	182.17	51.67	181.92
52.26	181.86	119.93	178.37	132.49	177.84	136.23	177.87	153.26	177.82
257.16	177.53	349.61	177.27	391.37	176.26	410	176.09	474.15	175.49
481.6	175.85	495.72	176.02	498.86	175.98	499.79	176.12	504.54	177.37
507.19	177.88	511.21	180.96	513.35	182.9	513.95	183.14	519.28	184.66
520.13	184.65	527.43	184.55	542.2	184.47	588.47	185.67	660.87	185.2
708.48	184.85	754	185.73	764.5	185.9	789.79	189.86	794.92	190.26
796.59	190.68	801.16	193.59	805.97	196.28	824.38	203.17	829.56	203.83

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.07	49.77	.05	410	.035	519.28	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
119.93	507.19	243.81	216.85	190.05	.1	.3

Blocked Obstructions num= 1

Sta L	Sta R	Elev
34.5	45.5	244.57

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 3791.835

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 47

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	200.41	4.26	198.05	4.8	197.85	7.66	197.43	26.58	194.7
59.61	193.56	68.97	193.43	77.7	193.24	96.01	192.43	103.34	192.15
118.37	191.47	125.11	190.83	133.18	189.67	136.17	189.03	137.21	188.63
152.36	181.67	166.58	177.95	206.03	176.05	221.16	175.47	236.77	175.37
251.29	175.28	260.54	175.36	302.78	175.62	355	176.19	420.2	176.91
442.45	177.08	453.3	177.93	470	178.6	477.38	178.9	481.37	179.06
485.68	179.63	513.63	180.39	558.62	182.24	560.18	182.26	588.4	182.65
655.35	182.02	712	181.92	715.03	182.41	722.35	183.13	726.37	185.78
730.07	187.58	736.14	192.28	742.74	196.34	747.69	198.5	755.83	201.84
757.73	202.43	766.25	203.95						

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.07	7.66	.05	236.77	.035	260.54	.05	355	.035
470	.05								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
166.58	442.45	193.71	199.59	229.82	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 3592.245

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 51

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	205.95	.94	205.38	7.17	200.58	12.98	196.61	19.25	194.43
32.77	190.88	50.87	187.88	58.77	184.86	62.36	184.42	90.6	181.99
93.31	181.83	131.73	177.51	135.33	177.11	139.48	176.94	143.89	176.42
146.78	176.29	147.51	176.26	157.53	175.84	198.67	173.2	221.15	173.48
255	175.11	294.51	177.02	315	177.05	386.09	177.15	423.18	176.91
440.34	177.3	482.38	178.27	500.4	178.99	515.32	179.79	550.44	180.6
601.16	182.67	606.88	183.09	610.77	184.52	613.61	185.24	615.56	186.63
616.08	186.89	630.19	196.8	634.73	197.83	639.33	198.25	655	198.33
660.56	198.36	681.87	198.8	765.96	201.31	793.36	202.21	799.31	202.32
804.12	202.27	817.85	202.17	913.94	202.09	920.78	202.14	925.92	202.73
940.9	203.52								

Manning's n Values num= 8

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.07	131.73	.035	198.67	.05	255	.035	315	.05
386.09	.035	440.34	.05	655	.02				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
135.33	423.18	227.98	216.09	205.8	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 3376.157

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 48

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	201.07	3.37	197.95	19.05	184.4	24.22	179.7	25.55	178.3
28.52	177.22	29.4	177.16	29.83	176.92	30.03	176.89	31.14	176.95
33.89	177.33	45.71	179.18	53.46	178.96	58.29	178.68	60.79	178.53
80.26	177.38	114.81	175.93	135	175.61	170	175.06	175.76	174.97
277.41	173.7	290	173.69	297.62	173.68	301.92	173.67	368.9	173.8
370	173.8	380.43	173.82	381.68	173.85	441.58	175.45	450.44	176.6
456.37	177.34	461.78	178.92	482.65	187.5	485.35	188.63	487.9	189.38
496.63	191.83	501.76	192.43	517.34	194.82	521.03	196	530	196.14
577.96	196.9	581.86	197.01	667.6	198.92	692.21	199.27	729.61	200.36
787.24	202.45	809.84	202.7	832.73	203.46				

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.07	58.29	.05	135	.035	170	.05	290	.035
370	.05	530	.02						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
114.81	441.58	213.06	206.59	170.09	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 3169.567

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 37

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	202.81	17.39	187.19	20.1	184.41	26.49	176.65	30.73	174.19
36.31	170.12	63.45	169.65	68.1	169.36	68.33	169.37	70.89	169.5
71.77	169.54	79.63	169.57	102.49	170.28	128.59	171.1	198.45	171.16
267.13	172.44	325	173.69	343.3	174.08	368.86	174.3	385	174.45
392.02	174.51	428.46	174.85	457.13	175.24	466.29	175.91	474.08	176.34
491.45	177.44	514.47	185.13	530.01	190.11	540.37	191.17	560.21	193.29
605.9	194.1	663.72	196.08	731.34	198.35	771.14	200.95	809.16	202.81
836.92	203.19	854.08	203.45						

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.07	68.33	.035	102.49	.05	325	.035	385	.05
540.37	.02								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
30.73	392.02	233.08	206.98	127.76	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 2962.583

INPUT
Description:
Station Elevation Data num= 48

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	196.65	1.21	194.95	2.74	193.19	7.39	187.41	9.04	185.53
9.93	184.66	15.36	180.15	18.49	177.74	21.12	176.24	27.45	172.63
29.96	170.67	32.82	170.12	40.32	169.22	42.53	169.14	53.73	169.83
66.24	170.54	73.41	170.96	88.51	172.01	95.45	172.5	112.8	173.7
119.62	174.18	151.76	174.34	174.26	174.29	181.79	174.04	238.12	172.4
298.06	170.72	355.76	171.99	382.05	172.57	393.11	173.1	418.99	174.35
421.7	174.38	425.17	174.42	502.17	175.22	524.26	175.57	529.87	175.94
555.35	177.47	582.7	184.53	590.04	186.21	602.82	189.14	610.81	190.23
628.44	192.16	664.5	193.75	706.88	195.82	743.83	197.24	795.3	198.69
826.88	201.82	849.91	203.31	867.7	203.18				

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.07	95.45	.035	112.8	.05	355.76	.035	425.17	.05
590.04	.02								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.

```
        27.45  355.76            219.26  216.54  187.47              .1        .3

CROSS SECTION           RIVER: San Juan
REACH: Upper               RS: 2746.045

INPUT
Description:
Station Elevation Data     num=       66
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  193.09    5.87  190.32    7.53  189.61   20.08  187.13   45.88   181.4
   62.08  178.42   67.85  177.35   74.88  176.01  104.52  170.55  124.17   168.6
  129.19  168.21  136.57  168.15  140.31  168.12  148.42  167.83  155.03  167.55
  165.53  167.39  174.64  167.25  203.55  167.33  227.61  167.69  284.63  168.54
  329.45  170.32  372.93  171.35   382.8  171.81  395.64  172.41  432.46  174.56
  434.53  174.68  472.25  176.88  496.43  177.65  499.58   177.7  523.92  178.02
  572.77  177.97  598.51  179.61  628.03  179.17  637.73  179.28  649.82  179.89
  657.53  180.45  662.14  181.22  668.87  182.36  699.31   186.2  702.46  186.74
  710.77  187.33  730.98  189.45  737.08  190.23  771.86  191.33  773.38  191.38
  807.73  193.38  812.26  193.29  819.59  194.04  832.36  194.19  838.02  194.76
  852.47  196.21  862.83  196.32  880.74  196.32  921.34  198.05  924.11  198.18
  925.18  198.36  926.23  198.45  927.97  198.45  954.06  199.83  960.65  200.47
  967.55  200.25  976.45  200.54   993.9   201.7 1015.04   203.9 1021.08  203.93
 1034.59  204.46

Manning's n Values         num=        8
     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val
       0     .02   62.08     .07  165.53    .035  227.61     .05   382.8    .035
  434.53     .05  662.14     .02  838.02    .035

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
        104.52  329.45            139.12  137.72  142.04              .1        .3

CROSS SECTION           RIVER: San Juan
REACH: Upper               RS: 2608.338

INPUT
Description:
Station Elevation Data     num=       45
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  197.52    1.98  197.16    8.23  195.57   20.39  192.61   44.27  186.73
    50.9  185.94   53.04  185.69   92.16  177.69      96  176.91  110.52  172.48
  114.02  171.41  116.04  171.24  130.76  168.57  130.88  168.57  145.73  167.82
  173.95  167.14  181.17  167.34  235.62  168.88  271.89  169.71  309.03  171.22
  322.92  171.78  327.21  172.04  403.24  176.68  403.38  176.68  404.98  176.75
  407.11  176.87  411.05  176.99  505.74  180.17  543.27  182.79  619.05  185.86
  621.92  185.99  623.65  186.15  625.34  186.23  646.06   187.2  651.27  187.46
  659.44  187.68  684.52  188.97   684.6  188.97  684.63  188.98  684.81  189.01
  697.48  191.28  697.49  191.28  714.77  198.08  718.68  199.93  727.14  204.25

Manning's n Values         num=        5
     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val
       0     .02    50.9     .07  130.88    .035  327.21     .05  625.34     .02

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
        116.04  309.03            157.33  164.71  180.94              .3        .5

BRIDGE                  RIVER: San Juan
REACH: Upper               RS: 2580

INPUT
Description:
Distance from Upstream XS =       30
Deck/Roadway Width        =    62.99
Weir Coefficient          =      2.6
Upstream  Deck/Roadway Coordinates
    num=        4
     Sta Hi Cord Lo Cord     Sta Hi Cord Lo Cord     Sta Hi Cord Lo Cord
-47.6437  208.06       0-47.6437  208.06  200.56  728.35  235.94  228.44
  728.35  235.94       0

Upstream Bridge Cross Section Data
Station Elevation Data     num=       45
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  197.52    1.98  197.16    8.23  195.57   20.39  192.61   44.27  186.73
    50.9  185.94   53.04  185.69   92.16  177.69      96  176.91  110.52  172.48
  114.02  171.41  116.04  171.24  130.76  168.57  130.88  168.57  145.73  167.82
  173.95  167.14  181.17  167.34  235.62  168.88  271.89  169.71  309.03  171.22
  322.92  171.78  327.21  172.04  403.24  176.68  403.38  176.68  404.98  176.75
  407.11  176.87  411.05  176.99  505.74  180.17  543.27  182.79  619.05  185.86
  621.92  185.99  623.65  186.15  625.34  186.23  646.06   187.2  651.27  187.46
  659.44  187.68  684.52  188.97   684.6  188.97  684.63  188.98  684.81  189.01
  697.48  191.28  697.49  191.28  714.77  198.08  718.68  199.93  727.14  204.25

Manning's n Values         num=        5
     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val
       0     .02    50.9     .07  130.88    .035  327.21     .05  625.34     .02

Bank Sta: Left   Right    Coeff Contr.   Expan.
        116.04  309.03              .3        .5

Downstream  Deck/Roadway Coordinates
    num=        4
     Sta Hi Cord Lo Cord     Sta Hi Cord Lo Cord     Sta Hi Cord Lo Cord
-47.6437  208.06       0-47.6437  208.06  200.56  728.35  235.94  228.44
  728.35  235.94       0

Downstream Bridge Cross Section Data
Station Elevation Data     num=       41
```

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	195.62	.85	195.36	3.42	194.45	20.23	187.93	21.53	187.55
26.44	186.13	33.57	183.63	45.92	178.05	46.63	177.78	47.28	177.54
60.9	176.79	78.94	173.17	79.06	173.15	84.86	172.18	86.84	171.91
97.13	170.5	130.03	170.2	155.46	168.82	187	168.81	204.75	168.82
216.73	168.71	237.91	168.51	281.75	169.76	349.25	171.27	381.38	173.34
461.47	177.12	476.01	177.84	496.32	178.63	524.44	180.28	609.93	186.01
645.4	187.24	655.65	189.33	672.2	190.78	674.49	190.75	687.77	190.65
697.57	195.15	697.71	195.19	701.59	196.97	714.78	202.98	715.19	203.14
717.65	204.28								

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	21.53	.07	78.94	.035	204.75	.05

Bank Sta: Left	Right	Coeff Contr.	Expan.
130.03	281.75	.3	.5

Upstream Embankment side slope = 0 horiz. to 1.0 vertical
Downstream Embankment side slope = 0 horiz. to 1.0 vertical
Maximum allowable submergence for weir flow = .95
Elevation at which weir flow begins = 210
Energy head used in spillway design =
Spillway height used in design =
Weir crest shape = Broad Crested

Number of Piers = 4

Pier Data
Pier Station Upstream= 79.36 Downstream= 79.36
Upstream num= 2

Width	Elev	Width	Elev
10.56	0	10.56	336

Downstream num= 2

Width	Elev	Width	Elev
10.56	0	10.56	336

Pier Data
Pier Station Upstream= 253.36 Downstream= 253.36
Upstream num= 2

Width	Elev	Width	Elev
10.56	0	10.56	336

Downstream num= 2

Width	Elev	Width	Elev
10.56	0	10.56	336

Pier Data
Pier Station Upstream= 427.36 Downstream= 427.36
Upstream num= 2

Width	Elev	Width	Elev
10.562	0	10.562	336

Downstream num= 2

Width	Elev	Width	Elev
10.562	0	10.562	336

Pier Data
Pier Station Upstream= 601.36 Downstream= 601.36
Upstream num= 2

Width	Elev	Width	Elev
10.562	0	10.562	336

Downstream num= 2

Width	Elev	Width	Elev
10.562	0	10.562	336

Number of Bridge Coefficient Sets = 1

Low Flow Methods and Data
Energy
Selected Low Flow Methods = Energy

High Flow Method
Energy Only

Additional Bridge Parameters
Add Friction component to Momentum
Do not add Weight component to Momentum
Class B flow critical depth computations use critical depth
inside the bridge at the upstream end
Criteria to check for pressure flow = Upstream energy grade line

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 2443.625

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 41

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	195.62	.85	195.36	3.42	194.45	20.23	187.93	21.53	187.55
26.44	186.13	33.57	183.63	45.92	178.05	46.63	177.78	47.28	177.54
60.9	176.79	78.94	173.17	79.06	173.15	84.86	172.18	86.84	171.91
97.13	170.5	130.03	170.2	155.46	168.82	187	168.81	204.75	168.82
216.73	168.71	237.91	168.51	281.75	169.76	349.25	171.27	381.38	173.34
461.47	177.12	476.01	177.84	496.32	178.63	524.44	180.28	609.93	186.01
645.4	187.24	655.65	189.33	672.2	190.78	674.49	190.75	687.77	190.65
697.57	195.15	697.71	195.19	701.59	196.97	714.78	202.98	715.19	203.14
717.65	204.28								

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	21.53	.07	78.94	.035	204.75	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
130.03	281.75	22.78	37.03	49.81	.3	.5

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 2406.59*

INPUT
Description:
Station Elevation Data num= 67

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	193.29	.14	193.25	.83	193.06	3.34	192.24	6.67	191.07
19.78	186.6	21.05	186.26	25.85	185.02	32.82	182.85	44.9	178.1
45.59	177.87	46.23	177.66	48.13	177.53	50.54	177.39	51.48	177.34
59.55	176.79	77.18	173.51	77.3	173.49	82.97	172.59	84.91	172.33
86.5	172.11	89.49	171.67	94.97	170.92	127.14	169.88	128.48	169.8
141.12	169.04	144.5	168.86	149.33	168.57	176.86	168.26	184.65	168.18
192.35	168.11	202.81	167.91	202.85	167.91	217.15	167.64	221.29	167.6
243.49	168.45	257.95	169	268.3	169.45	287.61	169.8	338.33	170.72
371.66	172.4	375.12	172.53	375.76	172.55	419.15	174.17	454.75	175.6
469.84	176.24	483.9	176.72	490.91	176.96	510.21	177.91	520.08	178.4
551.88	180.17	603.28	183.67	608.18	183.97	608.78	184.01	632.92	185.04
645.58	185.57	656.21	187.4	673.38	188.81	675.75	188.82	689.53	188.94
698.57	192.27	699.7	192.68	699.84	192.72	703.87	194.18	717.55	199.11
717.98	199.24	720.53	200.18						

Manning's n Values num= 9

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	21.05	.066	77.18	.038	127.14	.047	196.66	.047
223.37	.035	268.3	.05	375.12	.05	720.53	.05		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
127.14	268.3	22.78	37.03	49.81	.3	.5

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 2369.55*

INPUT
Description:
Station Elevation Data num= 67

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	190.96	.14	190.93	.81	190.75	3.27	190.03	6.51	189.01
19.33	185.27	20.57	184.98	25.26	183.9	32.08	182.07	43.88	178.15
44.56	177.96	45.18	177.79	47.03	177.63	49.39	177.48	50.31	177.43
58.19	176.8	75.43	173.84	75.54	173.83	81.09	172.99	82.98	172.74
84.53	172.54	87.46	172.08	92.81	171.35	124.25	169.56	125.39	169.48
136.19	168.75	139.08	168.6	143.21	168.32	166.72	167.71	173.37	167.55
179.95	167.39	188.89	167.11	188.92	167.11	201.13	166.72	204.68	166.68
228.37	167.79	243.8	168.51	254.85	169.15	274.86	169.43	327.41	170.17
361.95	171.46	365.53	171.56	366.19	171.58	411.15	172.84	448.04	174.09
463.67	174.64	478.23	175.06	485.5	175.28	505.49	176.1	515.73	176.51
548.68	178	601.93	181.68	607.01	181.96	607.62	182	632.64	183.27
645.75	183.89	656.77	185.46	674.56	186.83	677.02	186.89	691.29	187.23
700.66	189.9	701.83	190.21	701.98	190.24	706.15	191.38	720.33	195.24
720.77	195.34	723.41	196.07						

Manning's n Values num= 9

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	20.57	.062	75.43	.041	124.25	.044	188.57	.044
213.28	.035	254.85	.05	365.53	.05	723.41	.05		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
124.25	254.85	22.78	37.03	49.81	.3	.5

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 2332.52*

INPUT
Description:
Station Elevation Data num= 67

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	188.63	.14	188.61	.79	188.45	3.19	187.82	6.36	186.94
18.88	183.94	20.09	183.69	24.68	182.79	31.33	181.29	42.86	178.21
43.52	178.05	44.13	177.91	45.94	177.73	48.24	177.57	49.14	177.52
56.84	176.8	73.67	174.18	73.78	174.16	79.2	173.4	81.05	173.16
82.57	172.97	85.42	172.49	90.65	171.77	121.35	169.24	122.31	169.16
131.26	168.46	133.66	168.34	137.08	168.06	156.58	167.16	162.1	166.91
167.56	166.68	174.97	166.31	175	166.31	185.12	165.81	188.06	165.77
213.25	167.14	229.65	168.02	241.4	168.84	262.11	169.06	316.49	169.62
352.23	170.52	355.93	170.59	356.62	170.61	403.14	171.5	441.32	172.57
457.5	173.04	472.57	173.41	480.09	173.61	500.78	174.28	511.37	174.63
545.47	175.84	600.57	179.69	605.83	179.95	606.47	180	632.35	181.5
645.92	182.22	657.33	183.53	675.74	184.86	678.28	184.95	693.06	185.52
702.75	187.52	703.96	187.75	704.11	187.77	708.43	188.59	723.1	191.37
723.56	191.44	726.3	191.97						

Manning's n Values num= 9

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	20.09	.058	73.67	.044	121.35	.041	180.47	.041
203.19	.035	241.4	.05	355.93	.05	726.3	.05		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
121.35	241.4	22.78	37.03	49.81	.3	.5

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 2295.48*

INPUT
Description:
Station Elevation Data num= 67

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	186.3	.13	186.28	.77	186.14	3.12	185.61	6.21	184.88
18.43	182.6	19.61	182.41	24.09	181.67	30.58	180.51	41.83	178.26
42.48	178.14	43.07	178.03	44.84	177.83	47.09	177.67	47.97	177.61
55.48	176.8	71.92	174.52	72.03	174.5	77.31	173.8	79.11	173.58
80.6	173.39	83.39	172.89	88.49	172.19	118.46	168.92	119.22	168.84
126.33	168.17	128.23	168.08	130.95	167.81	146.44	166.61	150.82	166.28
155.16	165.96	161.04	165.51	161.07	165.51	169.11	164.89	171.45	164.85
198.13	166.48	215.51	167.54	227.95	168.54	249.35	168.68	305.57	169.06
342.51	169.58	346.34	169.63	347.05	169.63	395.14	170.17	434.6	171.05
451.32	171.44	466.9	171.76	474.68	171.93	496.06	172.47	507.01	172.75
542.26	173.67	599.22	177.7	604.66	177.95	605.31	177.99	632.07	179.72
646.1	180.55	657.89	181.59	676.92	182.89	679.55	183.02	694.82	183.81
704.84	185.14	706.09	185.28	706.25	185.29	710.71	185.79	725.88	187.5
726.35	187.54	729.18	187.86						

Manning's n Values num= 9

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	19.61	.054	71.92	.047	118.46	.038	172.38	.038
193.1	.035	227.95	.05	346.34	.05	729.18	.05		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
118.46	227.95	22.78	37.03	49.81	.3	.5

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 2258.454

INPUT
Description:
Station Elevation Data num= 31

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	183.97	.13	183.96	6.06	182.82	43.75	177.93	45.94	177.76
46.8	177.7	78.63	173.82	81.35	173.3	115.57	168.6	116.13	168.52
121.4	167.88	122.81	167.82	139.55	165.64	147.14	164.71	153.1	163.98
154.83	163.94	183.01	165.83	201.36	167.05	214.5	168.23	236.6	168.31
336.75	168.66	337.48	168.66	387.14	168.84	461.24	170.11	491.35	170.66
539.05	171.51	597.87	175.71	603.48	175.94	631.79	177.95	706.93	182.76
732.06	183.76								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.05	183.01	.035	336.75	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
115.57	214.5	37.15	40.69	38.12	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 2217.76*

INPUT
Description:
Station Elevation Data num= 72

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	184.18	.17	184.16	3.03	183.69	4.81	183.4	5	183.35
5.55	183.24	5.92	183.16	8.13	182.68	17.8	180.92	27.6	179.98
45.33	178.12	58.67	177.02	61.6	176.87	62.76	176.81	62.96	176.79
67.27	176.38	68.2	176.29	78.67	175.34	89.94	174.13	105.02	173.02
105.44	172.98	109.09	172.53	117.49	171.76	148.36	168.94	154.98	168.31
155.52	168.24	160.65	167.64	162.02	167.57	168.49	166.77	178.31	165.56
185.7	164.7	191.12	164.07	191.5	164.02	193.18	163.95	225.26	165.56
227.4	165.67	246.15	166.83	261.11	167.99	283.96	168.1	354.64	168.42
380.78	168.5	387.48	168.52	388.23	168.52	394.07	168.54	408.98	168.7
417.08	168.8	437.69	169.03	439.56	169.04	492.08	169.93	499.67	170.03
516.16	170.25	547.28	170.71	565.05	170.96	571.43	171.11	580.09	171.37
596.59	171.68	633.84	173.81	637.12	174.04	651.71	174.72	657.38	175.02
659.26	175.07	663.18	175.39	672.23	176.32	676.03	176.78	683.59	177.16
687.85	177.6	692.45	178.03	700.99	178.79	735.99	180.99	753.41	181.97
770.11	182.84	796.09	183.74						

Manning's n Values num= 10

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.046	67.27	.039	154.98	.035	182.51	.035	227.33	.035
261.11	.05	354.64	.05	387.48	.05	408.98	.05	796.09	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
154.98	261.11	37.15	40.69	38.12	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 2177.07*

INPUT
Description:
Station Elevation Data num= 72

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	184.39	.22	184.37	3.81	183.83	6.03	183.5	6.28	183.43
6.97	183.29	7.42	183.18	10.19	182.54	22.32	179.95	34.62	179.03
56.86	177.01	73.59	176.11	77.27	175.97	78.72	175.92	78.97	175.91
84.37	175.48	85.54	175.38	98.68	174.42	112.81	173.04	131.72	172.17
132.25	172.14	136.83	171.77	147.36	171.07	186.08	168.6	194.39	168.02
194.91	167.96	199.9	167.4	201.23	167.31	207.52	166.59	217.07	165.49
224.25	164.69	229.53	164.1	229.89	164.06	231.53	163.96	267.52	165.3
269.91	165.39	290.95	166.62	307.73	167.76	331.32	167.89	404.3	168.28
431.29	168.36	438.21	168.38	438.99	168.38	445.01	168.4	460.41	168.68
468.78	168.83	490.05	169.22	491.99	169.24	546.21	170.15	554.05	170.22

571.07	170.4	603.21	170.75	621.56	170.95	628.15	171.14	637.09	171.52
654.12	171.84	692.58	173.54	695.97	173.78	711.04	174.13	716.9	174.32
718.84	174.36	722.89	174.84	732.22	176.07	736.15	176.75	743.95	176.99
748.36	177.56	753.1	178.11	761.92	179.1	798.06	181.33	816.05	182.22
833.3	182.93	860.12	183.71						

Manning's n Values num= 10

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.043	84.37	.043	194.39	.035	223.79	.035	271.65	.035
307.73	.05	404.3	.05	438.21	.05	460.41	.05	860.12	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
194.39	307.73	37.15	40.69	38.12	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 2136.38*

INPUT
Description:
Station Elevation Data num= 72

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	184.6	.26	184.57	4.58	183.98	7.26	183.6	7.55	183.51
8.38	183.34	8.93	183.21	12.26	182.4	26.85	178.99	41.63	178.07
68.38	175.91	88.5	175.2	92.93	175.08	94.67	175.03	94.98	175.02
101.48	174.57	102.88	174.47	118.68	173.51	135.68	171.94	158.43	171.33
159.06	171.3	164.57	171	177.24	170.39	223.81	168.26	233.79	167.73
234.31	167.67	239.15	167.17	240.45	167.06	246.56	166.4	255.83	165.41
262.81	164.68	267.93	164.14	268.29	164.1	269.88	163.98	309.77	165.03
312.43	165.1	335.74	166.4	354.35	167.52	378.68	167.67	453.96	168.15
481.8	168.23	488.94	168.24	489.74	168.25	495.96	168.26	511.84	168.65
520.47	168.87	542.42	169.41	544.41	169.44	600.35	170.36	608.43	170.41
625.99	170.54	659.14	170.8	678.07	170.94	684.86	171.17	694.09	171.66
711.66	172.01	751.33	173.26	754.83	173.51	770.37	173.53	776.41	173.63
778.41	173.64	782.59	174.28	792.22	175.83	796.27	176.71	804.32	176.81
808.86	177.52	813.76	178.19	822.86	179.42	860.14	181.67	878.69	182.47
896.48	183.01	924.15	183.69						

Manning's n Values num= 10

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.039	101.48	.046	233.79	.035	265.06	.035	315.97	.035
354.35	.05	453.96	.05	488.94	.05	511.84	.05	924.15	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
233.79	354.35	37.15	40.69	38.12	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 2095.690

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 47

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	184.81	5.35	184.12	8.48	183.7	8.82	183.59	9.79	183.39
10.43	183.23	31.37	178.02	48.65	177.12	79.91	174.8	110.99	174.13
118.58	173.66	120.22	173.56	138.69	172.59	158.55	170.85	185.13	170.49
207.11	169.71	261.53	167.92	273.2	167.44	285.59	166.22	306.34	164.18
308.23	163.99	354.94	164.82	400.96	167.28	490	167.92	503.62	168.02
532.31	168.09	546.9	168.12	563.27	168.62	572.16	168.9	594.78	169.6
654.48	170.58	662.81	170.6	734.58	170.93	741.58	171.2	751.09	171.81
810.08	172.99	813.68	173.25	829.7	172.94	837.99	172.93	852.22	175.58
856.39	176.67	864.69	176.63	869.37	177.48	883.79	179.73	922.21	182.01
941.33	182.72	988.18	183.67						

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	118.58	.05	306.34	.035	490	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
273.2	400.96	97.79	280.21	315.49	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 1815.468

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 45

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	179.36	2.08	178.85	6.28	177.56	30.14	175.76	32.7	175.46
86.02	175.1	87.39	175.09	87.62	175.08	87.99	175.06	132	173.2
202.5	170.23	250.96	169.57	285	167.82	293.94	167.36	330.88	165.46
377.12	164.1	414.9	163.81	477.77	163.14	573.83	163.32	603.6	163.51
604.68	163.38	620.57	162.55	631.33	160.3	637.44	158.18	641.68	157.71
646.53	157.13	649.75	156.78	654.61	156.93	665.23	158.28	666.56	158.49
667.62	158.75	684.92	162.64	695.21	164.31	700.31	164.76	703.34	166.78
707.45	170.49	710	170.97	714.12	171.75	723.72	172.17	724.25	172.17
738.75	172.16	744.8	172.26	867.33	173.98	923.67	175.76	1010.11	177.35

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	202.5	.05	285	.035	620.57	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
620.57	684.92	157.35	199.5	221.7	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 1615.906

INPUT

Description: Manual Modification of Manning's N Values
Station Elevation Data num= 44

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	177.11	44.42	176.08	68.41	175.81	81.79	175.66	117.53	174.86
132.29	174.76	186.79	173.08	192.24	172.93	218.39	172.08	239.31	171.94
334.71	169.35	345	169	437.24	165.85	443.29	165.68	452	165.43
477.2	164.71	492.81	164.25	648.25	163.06	676.88	162.9	682.45	162.6
714.81	162.27	768.99	161.61	800.23	159.03	822.19	157.53	838.02	157.67
860.36	161.95	866.99	162.84	882.33	164.88	894.26	166.49	902.99	167.17
918.58	168.4	947.9	170.66	948.47	170.67	962.33	171	1035.59	171.38
1115.66	171.7	1141.92	171.77	1192.22	172.45	1201.31	172.59	1223.41	173.39
1257.31	174.05	1310.92	176.14	1344.33	176.54	1368.17	177.12		

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	68.41	.02	345	.05	452	.035	918.58	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
768.99	860.36	158.82	235.44	273.12	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 1380.475

INPUT
Description:
Station Elevation Data num= 56

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	177.79	4.62	176.59	9.63	176.35	32.39	175.14	35.77	175.09
50.4	174.87	115.45	172.82	173.47	171.49	228.38	171	243.14	170.89
324.6	170.78	396.47	170.44	439.48	170.52	447.14	170.26	481.59	169.11
527.7	167.7	542.55	166.99	599.17	164.47	608.12	164.07	622.33	163.44
643.38	163.09	679.46	162.19	699.01	161.78	722.2	161.31	812.09	159.88
879.06	158.93	921.4	158.33	927.64	157.96	929.02	157.63	934.75	154.08
936.57	153.2	940.51	151.34	942.47	151.04	948.13	151.76	963.53	159.99
969.15	161.85	971.84	163.3	973.16	163.99	993.78	165.11	1004.59	165.98
1006.97	165.96	1019.49	165.84	1075.03	165.33	1155.65	164.57	1190.39	164.24
1195.11	164.23	1197.13	164.29	1211.81	164.25	1356.61	165.58	1581	171
1619.13	172.04	1626.05	172.09	1637.76	172.47	1694.72	174.38	1695.02	174.4
1788.58	177.19								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	35.77	.02	447.14	.05	608.12	.035	1019.49	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
812.09	963.53	32.45	39.81	46.27	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 1340.66*

INPUT
Description:
Station Elevation Data num= 107

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	177.75	2.11	177.22	4.63	176.64	9.65	176.37	32.46	175.03
35.31	174.96	35.85	174.94	50.51	174.55	77.39	173.46	78.91	173.4
79.6	173.37	80.14	173.35	115.69	172.25	141.34	171.64	164.14	171.19
173.84	171.01	216.56	170.7	228.86	170.64	229.15	170.64	243.65	170.55
321.39	170.47	325.29	170.46	397.31	170.11	422.04	170.13	440.41	170.12
448.09	169.89	482.61	168.85	521.41	167.79	528.82	167.57	543.7	166.91
595.64	164.77	600.21	164.59	600.44	164.58	609.41	164.23	623.65	163.68
644.74	163.35	680.9	162.53	694.93	162.26	700.49	162.15	703.66	162.09
709.06	161.97	723.73	161.63	812.05	159.9	813.81	159.87	843.79	159.24
856.66	159.09	885.23	158.81	891.63	158.75	908.82	158.58	930.35	158.37
940.82	158.18	948.07	157.82	949.68	157.53	956.33	154.52	958.45	153.77
960.01	153.23	963.03	152.18	965.3	151.92	967.71	152.17	969.69	152.4
971.52	152.6	981.67	156.83	988.43	159.88	992.97	161.34	993.87	161.62
996.48	162.91	997.76	163.52	999.78	163.68	1012.74	164.59	1017.74	164.85
1024.41	165.34	1028.21	165.59	1030.52	165.57	1041.9	165.46	1042.65	165.45
1042.72	165.45	1065.27	165.27	1074.9	165.2	1094.86	165.04	1096.46	165.03
1118.91	164.86	1131.34	164.81	1165.59	164.52	1174.57	164.44	1208.23	164.14
1212.8	164.13	1214.76	164.18	1228.98	164.14	1247.45	164.27	1291.01	164.49
1369.28	164.87	1383.75	165.12	1495.01	167.42	1510.91	167.78	1529.97	168.26
1586.69	169.66	1623.63	170.68	1630.34	170.75	1641.68	171.11	1646.71	171.27
1696.87	173.03	1697.16	173.05	1698.34	173.09	1728.51	174.05	1730.35	174.14
1759.03	175.15	1787.81	176.24						

Manning's n Values num= 12

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	35.31	.032	35.85	.02	448.09	.045	600.21	.025
609.41	.038	812.05	.047	813.81	.05	988.43	.05	1042.65	.05
1065.27	.05	1787.81	.05						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
813.81	988.43	32.45	39.81	46.27	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 1300.86*

INPUT
Description:
Station Elevation Data num= 107

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	177.72	2.11	177.2	4.64	176.69	9.67	176.39	32.53	174.93
35.38	174.82	35.92	174.79	50.61	174.23	77.56	172.89	79.07	172.81
79.77	172.78	80.31	172.77	115.94	171.68	141.64	171.05	164.48	170.66
174.2	170.52	217.02	170.3	229.35	170.28	229.63	170.28	244.17	170.21
322.07	170.16	325.98	170.15	398.15	169.79	422.93	169.77	441.34	169.72

449.03	169.51	483.63	168.6	522.51	167.65	529.94	167.43	544.85	166.84
596.89	164.86	601.48	164.71	601.71	164.7	610.7	164.4	624.97	163.93
646.11	163.61	682.34	162.88	696.4	162.63	701.97	162.52	705.15	162.46
710.56	162.34	725.26	161.96	813.76	159.9	815.53	159.86	849.69	158.97
864.36	158.82	896.91	158.61	904.19	158.56	923.78	158.44	948.32	158.29
960.25	158.04	968.51	157.68	970.33	157.43	977.92	154.96	980.33	154.34
982.11	153.89	985.55	153.03	988.14	152.8	990.76	153.02	992.92	153.25
994.91	153.43	1005.96	156.96	1013.32	159.77	1017.72	161.13	1018.59	161.39
1021.12	162.52	1022.35	163.06	1024.31	163.25	1036.86	164.35	1041.69	164.58
1048.15	165.01	1051.83	165.21	1054.06	165.19	1065.08	165.07	1065.8	165.06
1065.88	165.06	1087.7	164.92	1097.02	164.86	1116.34	164.73	1117.89	164.72
1139.62	164.6	1151.65	164.64	1184.79	164.38	1193.49	164.31	1226.07	164.05
1230.5	164.04	1232.39	164.07	1246.16	164.03	1264.03	164.12	1306.19	164.14
1381.95	164.15	1395.95	164.3	1503.64	166.12	1519.03	166.46	1537.48	166.93
1592.38	168.33	1628.14	169.32	1634.63	169.4	1645.61	169.75	1650.47	169.9
1699.02	171.68	1699.3	171.7	1700.44	171.74	1729.65	172.73	1731.42	172.85
1759.19	173.99	1787.04	175.29						

Manning's n Values num= 12

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	35.38	.03	35.92	.02	449.03	.04	601.48	.03
610.7	.04	813.76	.045	815.53	.05	1013.32	.05	1065.8	.05
1087.7	.05	1787.04	.05						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
815.53	1013.32	32.45	39.81	46.27	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 1261.05*

INPUT
Description:
Station Elevation Data num= 107

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	177.68	2.12	177.18	4.65	176.75	9.69	176.41	32.6	174.82
35.46	174.67	36	174.65	50.72	173.9	77.72	172.32	79.24	172.23
79.94	172.2	80.48	172.18	116.18	171.11	141.93	170.45	164.83	170.14
174.57	170.04	217.48	169.89	229.83	169.92	230.12	169.92	244.68	169.87
322.75	169.85	326.66	169.83	398.99	169.46	423.82	169.41	442.27	169.31
449.98	169.14	484.65	168.34	523.61	167.51	531.05	167.3	546	166.76
598.15	164.95	602.74	164.82	602.98	164.81	611.98	164.56	626.28	164.17
647.47	163.88	683.78	163.22	697.86	163	703.45	162.89	706.64	162.83
712.05	162.71	726.79	162.28	815.48	159.89	817.25	159.85	855.59	158.7
872.05	158.55	908.58	158.41	916.76	158.38	938.74	158.3	966.28	158.2
979.67	157.89	988.94	157.53	990.99	157.33	999.5	155.4	1002.21	154.91
1004.21	154.55	1008.06	153.87	1010.97	153.68	1013.81	153.87	1016.14	154.1
1018.3	154.27	1030.26	157.1	1038.22	159.65	1042.47	160.93	1043.32	161.17
1045.75	162.13	1046.95	162.59	1048.84	162.83	1060.97	164.11	1065.65	164.32
1071.9	164.69	1075.45	164.82	1077.61	164.8	1088.26	164.68	1088.96	164.68
1089.03	164.67	1110.13	164.57	1119.14	164.52	1137.82	164.43	1139.31	164.42
1160.33	164.35	1171.95	164.46	1204	164.25	1212.41	164.19	1243.91	163.95
1248.19	163.94	1250.02	163.97	1263.33	163.92	1280.61	163.97	1321.37	163.78
1394.62	163.44	1408.16	163.49	1512.27	164.82	1527.15	165.13	1544.99	165.6
1598.07	166.99	1632.64	167.95	1638.91	168.06	1649.53	168.38	1654.23	168.53
1701.17	170.33	1701.45	170.35	1702.55	170.39	1730.78	171.41	1732.5	171.57
1759.34	172.84	1786.27	174.33						

Manning's n Values num= 12

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	35.46	.027	36	.02	449.98	.035	602.74	.035
611.98	.043	815.48	.043	817.25	.05	1038.22	.05	1088.96	.05
1110.13	.05	1786.27	.05						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
817.25	1038.22	32.45	39.81	46.27	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 1221.24*

INPUT
Description:
Station Elevation Data num= 107

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	177.65	2.12	177.16	4.66	176.8	9.71	176.43	32.66	174.71
35.53	174.53	36.07	174.5	50.83	173.58	77.88	171.75	79.41	171.65
80.1	171.61	80.65	171.59	116.43	170.54	142.23	169.86	165.18	169.61
174.94	169.55	217.93	169.49	230.31	169.56	230.6	169.56	245.2	169.53
323.43	169.54	327.35	169.52	399.83	169.13	424.72	169.06	443.2	168.91
450.93	168.76	485.67	168.09	524.72	167.37	532.17	167.17	547.15	166.68
599.41	165.03	604.01	164.93	604.25	164.93	613.27	164.73	627.6	164.41
648.83	164.14	685.22	163.57	699.33	163.37	704.93	163.26	708.13	163.21
713.55	163.08	728.32	162.6	817.2	159.89	818.97	159.83	861.48	158.43
879.74	158.28	920.26	158.21	929.32	158.2	953.71	158.16	984.24	158.12
999.09	157.74	1009.37	157.39	1011.65	157.23	1021.09	155.84	1024.09	155.48
1026.31	155.21	1030.58	154.72	1033.81	154.55	1036.86	154.73	1039.37	154.95
1041.69	155.11	1054.55	157.23	1063.12	159.54	1067.22	160.73	1068.04	160.94
1070.39	161.74	1071.55	162.12	1073.38	162.4	1085.09	163.87	1089.6	164.05
1095.64	164.36	1099.07	164.44	1101.15	164.42	1111.44	164.3	1112.11	164.29
1112.18	164.29	1132.56	164.22	1141.26	164.18	1159.3	164.12	1160.74	164.12
1181.04	164.09	1192.26	164.28	1223.21	164.11	1231.33	164.06	1261.75	163.86
1265.88	163.84	1267.65	163.86	1280.5	163.81	1297.19	163.82	1336.56	163.43
1407.29	162.72	1420.36	162.67	1520.91	163.52	1535.28	163.8	1552.5	164.28
1603.76	165.65	1637.14	166.59	1643.2	166.71	1653.45	167.02	1658	167.16
1703.33	168.98	1703.59	169	1704.65	169.04	1731.92	170.09	1733.58	170.29
1759.5	171.68	1785.51	173.38						

Manning's n Values num= 12

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val

0	.035	35.53	.025	36.07	.02	450.93	.03	604.01	.04
613.27	.045	817.2	.04	818.97	.05	1063.12	.05	1112.11	.05
1132.56	.05	1785.51	.05						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
818.97	1063.12	32.45	39.81	46.27	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 1181.44*

INPUT
Description:
Station Elevation Data num= 107

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	177.62	2.13	177.14	4.67	176.85	9.73	176.45	32.73	174.6
35.61	174.39	36.15	174.35	50.93	173.26	78.05	171.19	79.57	171.07
80.27	171.03	80.82	171.01	116.67	169.97	142.53	169.26	165.52	169.09
175.31	169.07	218.39	169.08	230.8	169.2	231.09	169.2	245.71	169.19
324.11	169.22	328.04	169.2	400.67	168.81	425.61	168.7	444.13	168.51
451.88	168.39	486.69	167.83	525.82	167.23	533.29	167.04	548.3	166.6
600.67	165.12	605.28	165.05	605.52	165.04	614.56	164.89	628.92	164.65
650.19	164.4	686.66	163.91	700.8	163.73	706.41	163.63	709.61	163.58
715.05	163.44	729.85	162.93	818.91	159.88	820.69	159.82	867.38	158.16
887.44	158.01	931.93	158.01	941.89	158.01	968.67	158.02	1002.21	158.03
1018.51	157.6	1029.81	157.25	1032.3	157.13	1042.67	156.28	1045.97	156.05
1048.4	155.88	1053.1	155.56	1056.65	155.43	1059.91	155.58	1062.59	155.8
1065.08	155.94	1078.85	157.36	1088.01	159.43	1091.97	160.52	1092.76	160.71
1095.03	161.35	1096.15	161.65	1097.91	161.98	1109.2	163.63	1113.56	163.79
1119.38	164.04	1122.69	164.05	1124.7	164.03	1134.62	163.91	1135.27	163.9
1135.34	163.9	1154.99	163.86	1163.38	163.85	1180.78	163.82	1182.17	163.82
1201.74	163.84	1212.57	164.11	1242.42	163.98	1250.25	163.93	1279.59	163.76
1283.57	163.75	1285.28	163.75	1297.68	163.7	1313.77	163.66	1351.74	163.08
1419.96	162.01	1432.57	161.85	1529.54	162.23	1543.4	162.48	1560.01	162.95
1609.44	164.32	1641.64	165.23	1647.49	165.37	1657.38	165.66	1661.76	165.79
1705.48	167.63	1705.73	167.65	1706.76	167.69	1733.05	168.78	1734.65	169
1759.65	170.53	1784.74	172.43						

Manning's n Values num= 12

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	35.61	.022	36.15	.02	451.88	.025	605.28	.045
614.56	.047	818.91	.038	820.69	.05	1088.01	.05	1135.27	.05
1154.99	.05	1784.74	.05						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
820.69	1088.01	32.45	39.81	46.27	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 1141.636

INPUT
Description:
Station Elevation Data num= 56

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	177.58	2.13	177.12	35.68	174.25	78.21	170.62	79.74	170.49
80.44	170.44	80.99	170.42	142.83	168.67	165.87	168.56	218.85	168.68
231.57	168.84	324.79	168.91	426.5	168.34	526.92	167.09	601.93	165.21
606.55	165.16	702.27	164.1	711.1	163.95	716.55	163.81	820.63	159.88
822.41	159.81	873.28	157.89	895.13	157.74	943.61	157.81	983.63	157.88
1020.17	157.95	1070.5	156.54	1079.48	156.31	1082.96	156.43	1085.82	156.65
1103.14	157.49	1112.91	159.32	1116.72	160.32	1122.44	161.55	1133.32	163.39
1143.12	163.71	1157.8	163.52	1158.49	163.51	1177.42	163.51	1185.5	163.51
1202.26	163.51	1222.45	163.58	1232.88	163.93	1261.63	163.84	1330.35	163.51
1366.92	162.73	1444.77	161.03	1538.17	160.93	1551.52	161.15	1567.52	161.62
1665.52	164.42	1708.86	166.34	1734.19	167.46	1735.73	167.72	1759.81	169.37
1783.97	171.48								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	35.68	.02	606.55	.05	820.63	.035	1177.42	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
822.41	1112.91	36.67	37.86	38.56	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 1103.77*

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	176.41	2.12	175.99	4.72	175.77	12.67	175.24	32.9	173.68
35.47	173.49	76.05	170.35	77.76	170.23	79.28	170.12	79.97	170.08
80.52	170.06	136.97	168.64	142	168.51	164.7	168.38	164.91	168.37
188.19	168.42	217.58	168.48	230.23	168.61	269.28	168.64	322.9	168.67
338.09	168.6	424.02	167.99	479.79	167.27	523.86	166.71	541.47	166.3
598.44	165.13	603.03	165.09	606.34	165.06	698.19	164.09	699.55	164.07
706.97	163.91	711.7	163.78	712.39	163.76	815.87	159.79	817.64	159.72
863.44	158	883.11	157.82	915.15	157.78	926.77	157.78	962.8	157.8
992.19	157.83	995.71	157.83	1041.02	156.62	1049.11	156.42	1053.57	156.48
1057.53	156.53	1058.55	156.56	1060.84	156.62	1064.46	156.72	1069.38	156.8
1071.93	156.86	1095.33	157.39	1106.39	157.51	1118.1	158.2	1118.63	158.23
1130.04	159.28	1133.62	160.13	1139	161.18	1149.22	162.76	1156.63	163.01
1158.44	163.07	1172.24	162.98	1172.88	162.98	1181.59	163.02	1190.68	163.04
1198.27	163.05	1214.03	163.09	1222.78	163.14	1233	163.19	1234.23	163.23
1242.81	163.54	1269.83	163.63	1274.69	163.64	1334.43	163.52	1364.16	163.03
1367.14	162.98	1368.8	162.94	1441.98	161.19	1485.11	160.95	1495.64	160.92
1529.77	160.92	1542.32	161.12	1557.36	161.52	1561.09	161.62	1572.95	161.94
1574.45	161.98	1649.48	164.39	1673.86	165.51	1689.46	166.26	1690.22	166.29

1701.82	166.88	1703.73	166.97	1714.02	167.49	1715.47	167.72	1738.11	169.34
1760.82	171.35								

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.032	35.47	.02	603.03	.045	711.7	.025	815.87	.038
817.64	.047	960.74	.035	1130.04	.05	1156.63	.05	1190.68	.05
1760.82	.05								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
817.64	1130.04	36.67	37.86	38.56	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 1065.90*

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	175.24	2.11	174.87	4.69	174.63	12.6	174.26	32.71	172.9
35.27	172.72	75.61	169.94	77.3	169.84	78.81	169.75	79.51	169.71
80.05	169.7	136.17	168.46	141.17	168.35	163.74	168.19	163.94	168.19
187.09	168.22	216.31	168.27	228.88	168.38	267.71	168.41	321.02	168.44
336.12	168.38	421.55	167.64	476.99	166.9	520.8	166.33	538.31	165.95
594.94	165.05	599.51	165.02	602.79	165	694.12	164.07	695.46	164.05
702.84	163.87	707.55	163.73	708.23	163.71	811.1	159.71	812.86	159.64
853.6	158.11	871.1	157.9	899.59	157.76	909.93	157.75	941.98	157.73
968.12	157.71	971.24	157.71	1011.55	156.7	1018.74	156.54	1025.81	156.59
1032.11	156.63	1033.72	156.65	1037.36	156.7	1043.1	156.78	1050.9	156.86
1054.95	156.92	1092.08	157.51	1109.64	157.53	1128.22	158	1129.06	158.02
1147.17	159.24	1150.52	159.94	1155.56	160.81	1165.13	162.14	1172.06	162.38
1173.75	162.44	1186.67	162.44	1187.28	162.44	1195.43	162.52	1203.94	162.56
1211.04	162.6	1225.79	162.67	1233.99	162.73	1243.56	162.8	1244.71	162.84
1252.74	163.15	1278.03	163.43	1282.58	163.47	1338.5	163.54	1366.34	163.22
1369.13	163.19	1370.68	163.15	1439.19	161.35	1479.56	160.93	1489.42	160.87
1521.37	160.91	1533.12	161.08	1547.2	161.43	1550.69	161.51	1561.79	161.78
1563.19	161.82	1633.43	164.36	1656.26	165.45	1670.87	166.21	1671.57	166.25
1682.43	166.87	1684.22	166.97	1693.86	167.52	1695.21	167.73	1716.4	169.32
1737.66	171.22								

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.03	35.27	.02	599.51	.04	707.55	.03	811.1	.04
812.86	.045	965.99	.035	1147.17	.05	1172.06	.05	1203.94	.05
1737.66	.05								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
812.86	1147.17	36.67	37.86	38.56	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 1028.04*

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	174.08	2.09	173.74	4.66	173.5	12.52	173.28	32.52	172.11
35.06	171.96	75.16	169.53	76.85	169.45	78.35	169.38	79.04	169.35
79.58	169.34	135.37	168.29	140.34	168.19	162.78	168.01	162.98	168
185.99	168.03	215.04	168.07	227.54	168.15	266.14	168.17	319.13	168.2
334.14	168.16	419.07	167.28	474.19	166.53	517.74	165.95	535.15	165.6
591.45	164.97	595.98	164.95	599.25	164.94	690.04	164.06	691.38	164.04
698.71	163.83	703.39	163.68	704.07	163.66	806.34	159.62	808.08	159.55
843.76	158.22	859.08	157.98	884.03	157.75	893.08	157.72	921.15	157.65
944.04	157.59	946.78	157.59	982.07	156.78	988.37	156.65	998.06	156.69
1006.68	156.73	1008.88	156.75	1013.87	156.79	1021.73	156.85	1032.43	156.91
1037.97	156.98	1088.84	157.62	1112.88	157.55	1138.34	157.8	1139.49	157.81
1164.3	159.2	1167.42	159.75	1172.11	160.44	1181.03	161.51	1187.49	161.74
1189.07	161.8	1201.11	161.9	1201.67	161.91	1209.27	162.03	1217.19	162.09
1223.82	162.14	1237.56	162.25	1245.2	162.32	1254.11	162.42	1255.18	162.45
1262.66	162.76	1286.24	163.22	1290.47	163.3	1342.58	163.55	1368.51	163.41
1371.12	163.4	1372.57	163.36	1436.4	161.51	1474.02	160.9	1483.21	160.81
1512.98	160.9	1523.92	161.05	1537.04	161.33	1540.29	161.4	1550.64	161.62
1551.94	161.65	1617.39	164.32	1638.66	165.39	1652.27	166.16	1652.93	166.2
1663.05	166.86	1664.71	166.97	1673.69	167.55	1674.96	167.73	1694.7	169.29
1714.51	171.09								

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.027	35.06	.02	595.98	.035	703.39	.035	806.34	.043
808.08	.043	971.25	.035	1164.3	.05	1187.49	.05	1217.19	.05
1714.51	.05								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
808.08	1164.3	36.67	37.86	38.56	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 990.179*

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	172.91	2.08	172.62	4.64	172.37	12.45	172.3	32.32	171.32
34.85	171.19	74.72	169.12	76.39	169.06	77.89	169	78.57	168.98
79.11	168.97	134.57	168.11	139.51	168.03	161.81	167.82	162.02	167.82
184.89	167.83	213.77	167.86	226.19	167.92	264.57	167.94	317.25	167.96
332.17	167.93	416.59	166.93	471.38	166.15	514.68	165.57	531.98	165.26

587.95	164.89	592.46	164.89	595.71	164.88	685.96	164.05	687.29	164.03
694.59	163.79	699.23	163.63	699.91	163.6	801.57	159.53	803.31	159.46
833.92	158.33	847.07	158.07	868.47	157.74	876.24	157.7	900.32	157.57
919.96	157.47	922.31	157.47	952.6	156.86	958	156.76	970.31	156.8
981.26	156.83	984.05	156.84	990.39	156.87	1000.37	156.92	1013.96	156.96
1020.99	157.04	1085.59	157.74	1116.13	157.56	1148.46	157.6	1149.93	157.61
1181.43	159.16	1184.33	159.56	1188.67	160.07	1196.94	160.88	1202.93	161.11
1204.39	161.16	1215.54	161.36	1216.07	161.37	1223.1	161.54	1230.45	161.62
1236.59	161.69	1249.33	161.83	1256.41	161.91	1264.67	162.03	1265.66	162.05
1272.59	162.37	1294.44	163.02	1298.37	163.13	1346.66	163.56	1370.69	163.61
1373.1	163.61	1374.45	163.57	1433.6	161.67	1468.47	160.87	1476.99	160.76
1504.58	160.89	1514.72	161.02	1526.88	161.24	1529.9	161.29	1539.48	161.46
1540.69	161.49	1601.35	164.29	1621.06	165.34	1633.67	166.11	1634.28	166.16
1643.66	166.85	1645.2	166.97	1653.53	167.58	1654.7	167.73	1673	169.27
1691.36	170.96								

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.025	34.85	.02	592.46	.03	699.23	.04	801.57	.045
803.31	.04	976.51	.035	1181.43	.05	1202.93	.05	1230.45	.05
1691.36	.05								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
803.31	1181.43	36.67	37.86	38.56	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 952.315*

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	171.74	2.07	171.49	4.61	171.24	12.37	171.33	32.13	170.54
34.64	170.43	74.27	168.7	75.94	168.67	77.43	168.63	78.1	168.62
78.64	168.61	133.77	167.94	138.68	167.86	160.85	167.64	161.05	167.63
183.79	167.64	212.5	167.66	224.85	167.69	262.99	167.71	315.36	167.72
330.19	167.71	414.12	166.58	468.58	165.78	511.62	165.18	528.82	164.91
584.46	164.81	588.94	164.82	592.17	164.82	681.88	164.03	683.21	164.02
690.46	163.76	695.08	163.58	695.75	163.55	796.81	159.45	798.53	159.38
824.08	158.44	835.05	158.15	852.92	157.72	859.4	157.67	879.5	157.5
895.89	157.36	897.85	157.35	923.12	156.94	927.63	156.88	942.55	156.9
955.83	156.93	959.22	156.94	966.9	156.96	979.01	156.99	995.48	157.02
1004.01	157.1	1082.34	157.86	1119.38	157.58	1158.58	157.4	1160.36	157.4
1198.56	159.12	1201.23	159.37	1205.23	159.71	1212.84	160.26	1218.36	160.47
1219.7	160.53	1229.98	160.82	1230.46	160.84	1236.94	161.04	1243.71	161.14
1249.36	161.23	1261.09	161.4	1267.61	161.51	1275.22	161.64	1276.13	161.66
1282.52	161.98	1302.64	162.81	1306.26	162.96	1350.74	163.58	1372.87	163.8
1375.09	163.82	1376.33	163.78	1430.81	161.83	1462.93	160.85	1470.77	160.71
1496.18	160.88	1505.52	160.99	1516.72	161.14	1519.5	161.18	1528.33	161.31
1529.44	161.33	1585.31	164.26	1603.46	165.28	1615.08	166.07	1615.64	166.11
1624.28	166.84	1625.7	166.97	1633.36	167.61	1634.44	167.73	1651.29	169.24
1668.2	170.83								

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.022	34.64	.02	588.94	.025	695.08	.045	796.81	.047
798.53	.038	981.77	.035	1198.56	.05	1218.36	.05	1243.71	.05
1668.2	.05								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
798.53	1198.56	36.67	37.86	38.56	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 914.451

INPUT
Description:
Station Elevation Data num= 45

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	170.57	4.58	170.11	12.3	170.35	31.94	169.75	73.83	168.29
132.97	167.76	159.89	167.45	182.69	167.44	261.42	167.48	328.22	167.49
465.78	165.41	525.66	164.56	588.63	164.76	679.12	164.01	690.92	163.53
793.76	159.29	837.36	157.71	871.81	157.24	897.26	156.99	914.8	157.01
934.39	157.03	943.42	157.04	977.01	157.07	987.03	157.16	1079.1	157.98
1168.7	157.2	1170.79	157.19	1215.69	159.08	1233.79	159.84	1250.78	160.55
1278.82	161.1	1286.61	161.27	1314.15	162.79	1375.05	163.99	1377.08	164.03
1457.38	160.82	1464.55	160.66	1509.1	161.07	1517.17	161.15	1518.19	161.17
1585.86	165.22	1596.48	166.02	1604.89	166.83	1606.19	166.97	1645.05	170.7

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.02	690.92	.05	987.03	.035	1233.79	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
793.76	1215.69	48.05	43.73	44.13	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 870.723*

INPUT
Description:
Station Elevation Data num= 83

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	170.8	4.75	170.19	6.57	170.14	9.82	170.12	12.76	170.19
33.13	169.67	64.92	168.77	75.34	168.46	76.59	168.43	84.47	168.42
90.66	168.37	99.45	168.32	137.94	167.98	165.87	167.68	179.14	167.65
189.52	167.58	199.11	167.53	239.93	167.38	271.19	167.29	307.05	167.17
340.49	167.05	377.37	166.48	429.35	165.86	483.19	165.2	524.55	164.73

545.31	164.49	606.72	164.61	610.63	164.61	620.18	164.55	704.51	163.9
706.98	163.82	716.75	163.51	726.45	163.21	728.18	163.14	778.76	161.12
788.35	160.54	811.13	159.49	823.43	158.98	842.16	158.28	865.18	157.51
886.65	157.19	892.83	157.12	898.17	157.06	922.54	156.85	939.94	156.91
959.38	156.97	968.34	157	985.73	157.05	1001.67	157.1	1006.2	157.15
1011.61	157.18	1102.96	157.76	1113.05	157.68	1167.02	157.33	1191.86	157.17
1193.93	157.16	1225.77	158.26	1226.21	158.28	1238.48	158.81	1253.79	159.48
1268.15	160.09	1283.58	160.43	1291.86	160.61	1298.45	160.77	1321.74	162.06
1324.34	162.11	1357.38	162.79	1373.23	163.18	1374.95	163.22	1393.32	162.62
1441.94	161.27	1442.84	161.24	1448.91	161.16	1486.58	161.78	1493.4	161.9
1494.26	161.92	1546.44	165.29	1551.48	165.68	1560.46	166.5	1567.57	167.29
1568.67	167.43	1576.92	168.34	1601.53	170.87				

Manning's n Values num= 9

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.02	716.75	.044	823.43	.038	976.31	.047	1013.55	.035
1238.48	.05	1253.79	.05	1283.58	.05	1601.53	.05		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
823.43	1238.48	48.05	43.73	44.13	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 826.996*

INPUT
Description:
Station Elevation Data num= 83

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	171.02	4.92	170.26	6.81	170.11	10.18	169.98	13.22	170.02
34.33	169.6	67.26	168.85	78.06	168.59	79.35	168.57	87.52	168.61
93.93	168.58	103.04	168.54	142.91	168.2	171.84	167.9	185.59	167.85
196.35	167.73	206.29	167.62	248.57	167.29	280.96	167.09	318.12	166.85
352.76	166.6	390.97	166	444.82	165.53	500.6	165	543.45	164.61
564.96	164.42	628.58	164.46	632.64	164.47	642.53	164.41	729.89	163.79
732.45	163.72	742.58	163.5	752.63	163.27	754.42	163.21	806.82	161.17
816.76	160.4	840.36	159.2	853.1	158.66	871	157.98	893	157.3
913.52	156.98	919.43	156.93	924.53	156.88	947.82	156.71	965.09	156.8
984.37	156.91	993.26	156.96	1010.51	157.05	1026.32	157.14	1030.82	157.19
1036.19	157.21	1126.82	157.53	1136.83	157.46	1190.38	157.24	1215.02	157.14
1217.08	157.13	1248.66	157.98	1249.09	158	1261.27	158.55	1273.78	159.11
1285.53	159.64	1298.14	159.96	1304.9	160.13	1310.29	160.27	1329.32	161.33
1331.45	161.38	1358.46	161.97	1371.41	162.36	1372.81	162.4	1387.83	162.08
1427.57	161.67	1428.31	161.66	1433.26	161.66	1464.05	162.5	1469.63	162.65
1470.34	162.68	1512.98	165.72	1517.1	166.14	1524.44	166.98	1530.25	167.75
1531.15	167.88	1537.89	168.78	1558.01	171.04				

Manning's n Values num= 9

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.02	742.58	.038	853.1	.041	1003.45	.044	1040.07	.035
1261.27	.05	1273.78	.05	1298.14	.05	1558.01	.05		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
853.1	1261.27	48.05	43.73	44.13	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 783.268*

INPUT
Description:
Station Elevation Data num= 83

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	171.25	5.09	170.34	7.05	170.08	10.53	169.83	13.68	169.86
35.52	169.52	69.6	168.94	80.77	168.71	82.11	168.72	90.56	168.81
97.2	168.78	106.62	168.76	147.88	168.41	177.82	168.13	192.05	168.05
203.18	167.87	213.46	167.71	257.22	167.21	290.74	166.9	329.18	166.53
365.03	166.16	404.56	165.52	460.29	165.2	518.01	164.79	562.36	164.5
584.61	164.35	650.44	164.32	654.64	164.32	664.87	164.28	755.28	163.68
757.93	163.63	768.4	163.48	778.81	163.33	780.66	163.27	834.89	161.22
845.16	160.26	869.59	158.9	882.78	158.35	899.85	157.67	920.83	157.1
940.39	156.77	946.03	156.73	950.89	156.69	973.1	156.56	990.23	156.7
1009.36	156.85	1018.18	156.92	1035.3	157.05	1050.98	157.17	1055.44	157.22
1060.77	157.23	1150.68	157.31	1160.61	157.24	1213.73	157.15	1238.18	157.11
1240.22	157.1	1271.56	157.7	1271.98	157.72	1284.07	158.28	1293.78	158.75
1302.9	159.18	1312.69	159.49	1317.95	159.64	1322.13	159.77	1336.91	160.59
1338.56	160.64	1359.53	161.14	1369.59	161.55	1370.68	161.59	1382.34	161.54
1413.2	162.07	1413.77	162.08	1417.62	162.16	1441.53	163.21	1445.86	163.41
1446.41	163.43	1479.53	166.15	1482.72	166.59	1488.42	167.46	1492.94	168.22
1493.64	168.34	1498.87	169.22	1514.49	171.21				

Manning's n Values num= 9

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.02	768.4	.032	882.78	.044	1030.58	.041	1066.59	.035
1284.07	.05	1293.78	.05	1312.69	.05	1514.49	.05		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
882.78	1284.07	48.05	43.73	44.13	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 739.541*

INPUT
Description:
Station Elevation Data num= 83

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	171.47	5.26	170.42	7.28	170.06	10.89	169.69	14.14	169.69
36.72	169.44	71.94	169.02	83.49	168.84	84.87	168.86	93.61	169
100.46	168.99	110.21	168.99	152.85	168.63	183.8	168.36	198.5	168.26
210.01	168.01	220.64	167.79	265.86	167.12	300.51	166.7	340.25	166.22

377.3	165.71	418.16	165.05	475.76	164.86	535.43	164.59	581.26	164.38
604.26	164.28	672.31	164.18	676.65	164.18	687.22	164.14	780.67	163.57
783.4	163.53	794.23	163.47	804.98	163.4	806.9	163.34	862.95	161.28
873.57	160.11	898.82	158.61	912.45	158.03	928.69	157.37	948.65	156.9
967.26	156.56	972.62	156.54	977.25	156.51	998.38	156.42	1015.37	156.6
1034.35	156.79	1043.1	156.88	1060.08	157.05	1075.64	157.21	1080.06	157.26
1085.34	157.25	1174.54	157.08	1184.39	157.03	1237.09	157.06	1261.34	157.07
1263.36	157.08	1294.45	157.42	1294.87	157.44	1306.86	158.02	1313.78	158.38
1320.27	158.73	1327.25	159.01	1330.99	159.15	1333.97	159.27	1344.49	159.86
1345.67	159.91	1360.61	160.32	1367.77	160.73	1368.55	160.78	1376.85	161
1398.83	162.48	1399.24	162.5	1401.98	162.66	1419.01	163.93	1422.09	164.16
1422.48	164.19	1446.07	166.57	1448.35	167.05	1452.41	167.94	1455.62	168.68
1456.12	168.8	1459.84	169.65	1470.97	171.38				

Manning's n Values num= 9

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.02	794.23	.026	912.45	.047	1057.72	.038	1093.11	.035
1306.86	.05	1313.78	.05	1327.25	.05	1470.97	.05		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
912.45	1306.86	48.05	43.73	44.13	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 695.814

INPUT
Description:
Station Elevation Data num= 43

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	171.7	7.52	170.03	11.24	169.55	74.28	169.11	86.2	168.97
96.65	169.2	103.73	169.19	113.79	169.21	204.96	168.46	227.81	167.88
274.51	167.04	351.31	165.9	431.76	164.57	491.23	164.53	600.16	164.27
694.17	164.04	709.57	164.01	808.88	163.44	831.16	163.46	833.14	163.4
891.01	161.33	901.98	159.97	928.05	158.32	942.12	157.72	957.53	157.07
994.13	156.35	999.22	156.34	1023.66	156.28	1084.86	157.05	1104.68	157.3
1208.17	156.81	1260.44	156.97	1317.34	157.14	1317.76	157.16	1329.65	157.75
1341.8	158.54	1352.78	159.17	1361.68	159.49	1371.36	160.46	1384.46	162.88
1412.61	167	1420.82	170.09	1427.45	171.55				

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.02	942.12	.05	1084.86	.035	1341.8	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
942.12	1329.65	43.52	42.21	40.09	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 653.607*

INPUT
Description:
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	171.53	7.23	170.12	10.8	169.69	20.97	169.52	46.91	169.41
71.4	169.13	82.85	168.96	92.9	169.08	99.7	169.04	101.99	169.03
102.8	169.03	109.37	168.96	112.88	168.89	166.05	167.92	169.03	167.88
183.88	167.7	197	167.64	218.97	167.22	236.86	167	254.12	166.66
263.85	166.52	337.67	165.67	415	164.67	472.16	164.69	532.21	164.62
576.86	164.55	589.17	164.53	597.73	164.57	607.87	164.59	659.13	164.59
667.22	164.59	682.02	164.58	682.32	164.58	723.74	163.83	726.03	163.81
745.64	162.62	748.18	162.47	754.74	162.39	768.78	162.18	777.48	162.14
778.65	162.15	781.93	162.15	787.34	162.15	798.89	162.13	799.62	162.11
800.79	162.08	855.44	160.33	856.42	160.29	866.92	159.17	866.96	159.17
892.02	157.37	892.41	157.35	905.54	156.66	919.29	155.96	919.59	155.95
951.94	155.26	956.48	155.23	960.33	155.21	978.29	155.16	1004.26	155.48
1033.05	155.84	1050.79	156.06	1143.4	155.78	1162.12	155.85	1190.17	155.92
1216.15	155.99	1241.09	156.15	1241.47	156.17	1252.11	156.68	1255.27	156.84
1269.22	157.55	1276.94	157.91	1284.68	158.39	1292.51	158.79	1297.21	159.02
1299.65	159.23	1310.85	159.87	1321.05	160.94	1323.84	161.24	1329.3	161.82
1342.24	162.91	1352.87	163.74	1356.63	164.02	1361.24	164.22	1367.29	164.84
1368.94	165.04	1372.09	165.82	1375.03	166.76	1378.36	168.18	1378.48	168.23
1380.5	168.87	1382.19	169.25	1382.68	169.38	1383.69	169.62	1388.94	171.17
1389.48	171.31	1389.84	171.4						

Manning's n Values num= 8

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.02	905.54	.05	976.78	.05	1033.19	.038	1252.11	.047
1269.22	.047	1378.36	.038	1389.84	.05				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
905.54	1252.11	43.52	42.21	40.09	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 611.400*

INPUT
Description:
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	171.36	6.94	170.2	10.37	169.84	20.12	169.57	45.01	169.54
68.51	169.15	79.51	168.94	89.15	168.97	95.68	168.88	97.87	168.86
98.65	168.85	104.95	168.71	108.32	168.6	159.34	167.11	162.2	167.07
176.45	166.82	189.05	166.82	210.12	166.57	227.29	166.45	243.85	166.09
253.2	166	324.03	165.44	398.24	164.78	453.09	164.85	510.71	164.86
553.56	164.84	565.37	164.83	573.59	164.91	583.32	164.99	632.51	165.13
640.27	165.14	654.47	165.16	654.76	165.16	694.51	163.9	696.71	163.88
715.52	161.6	717.96	161.33	724.25	161.2	737.73	160.86	746.07	160.85
747.2	160.85	750.35	160.85	755.53	160.84	766.62	160.8	767.32	160.79

768.45	160.76	820.89	159.28	821.83	159.26	831.91	158.37	831.94	158.37
855.99	156.42	856.37	156.4	868.97	155.59	881.05	154.85	881.31	154.84
909.75	154.16	913.75	154.12	917.13	154.09	932.91	154.03	955.84	154.31
981.24	154.62	996.9	154.82	1078.63	154.74	1095.14	154.83	1119.9	154.88
1142.83	154.92	1164.84	155.16	1165.17	155.17	1174.56	155.61	1178.65	155.79
1196.63	156.57	1206.59	156.97	1216.58	157.62	1226.67	158.2	1232.75	158.55
1235.89	158.79	1250.33	159.28	1263.5	160.09	1267.1	160.31	1274.13	160.75
1290.83	161.59	1304.54	162.16	1309.38	162.31	1315.34	162.24	1323.14	162.85
1325.27	163.07	1329.33	163.8	1333.12	164.9	1337.42	166.84	1337.58	166.91
1340.18	167.64	1342.36	168.14	1343	168.33	1344.3	168.66	1351.07	170.93
1351.76	171.13	1352.23	171.24						

Manning's n Values num= 8

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.02	868.97	.05	931.78	.05	981.53	.041	1174.56	.044
1196.63	.044	1337.42	.041	1352.23	.05				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
868.97	1174.56	43.52	42.21	40.09	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 569.194*

INPUT
Description:
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	171.19	6.64	170.29	9.93	169.98	19.27	169.62	43.12	169.66
65.63	169.18	76.16	168.93	85.39	168.85	91.65	168.73	93.75	168.69
94.49	168.68	100.54	168.45	103.76	168.32	152.63	166.31	155.37	166.25
169.02	165.95	181.09	165.99	201.28	165.91	217.72	165.9	233.59	165.53
242.54	165.48	310.39	165.21	381.47	164.88	434.02	165.01	489.21	165.11
530.26	165.12	541.57	165.12	549.45	165.26	558.77	165.4	605.89	165.66
613.32	165.69	626.93	165.73	627.2	165.73	665.28	163.96	667.38	163.94
685.4	160.59	687.74	160.19	693.77	160.01	706.67	159.54	714.67	159.55
715.75	159.56	718.77	159.56	723.73	159.54	734.36	159.47	735.03	159.46
736.1	159.44	786.33	158.24	787.23	158.22	796.89	157.57	796.93	157.57
819.96	155.47	820.32	155.45	832.39	154.53	842.81	153.74	843.04	153.73
867.57	153.07	871.01	153.01	873.92	152.96	887.54	152.91	907.41	153.14
929.44	153.41	943	153.57	1013.85	153.71	1028.17	153.81	1049.64	153.83
1069.51	153.85	1088.59	154.17	1088.88	154.18	1097.02	154.53	1102.02	154.74
1124.05	155.58	1136.25	156.03	1148.48	156.84	1160.84	157.62	1168.28	158.08
1172.13	158.36	1189.82	158.69	1205.94	159.23	1210.35	159.39	1218.97	159.69
1239.42	160.27	1256.21	160.57	1262.14	160.61	1269.44	160.26	1279	160.87
1281.6	161.11	1286.57	161.79	1291.21	163.04	1296.48	165.5	1296.68	165.59
1299.86	166.42	1302.54	167.03	1303.31	167.27	1304.91	167.69	1313.19	170.69
1314.04	170.95	1314.61	171.09						

Manning's n Values num= 8

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.02	832.39	.05	886.78	.05	929.86	.044	1097.02	.041
1124.05	.041	1296.48	.044	1314.61	.05				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
832.39	1097.02	43.52	42.21	40.09	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 526.987*

INPUT
Description:
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	171.02	6.35	170.37	9.49	170.12	18.43	169.67	41.22	169.79
62.74	169.2	72.81	168.91	81.64	168.73	87.62	168.58	89.63	168.53
90.34	168.51	96.12	168.2	99.2	168.03	145.93	165.5	148.55	165.44
161.6	165.07	173.13	165.17	192.43	165.25	208.16	165.35	223.32	164.96
231.88	164.96	296.75	164.99	364.71	164.98	414.95	165.17	467.72	165.35
506.96	165.4	517.78	165.42	525.3	165.61	534.21	165.8	579.26	166.2
586.37	166.23	599.38	166.3	599.64	166.31	636.04	164.03	638.06	164.01
655.29	159.57	657.52	159.04	663.28	158.83	675.62	158.23	683.27	158.26
684.3	158.26	687.18	158.26	691.93	158.23	702.09	158.15	702.73	158.14
703.76	158.12	751.78	157.2	752.64	157.18	761.88	156.77	761.91	156.77
783.93	154.53	784.28	154.49	795.82	153.46	804.58	152.63	804.76	152.61
825.38	151.97	828.27	151.9	830.72	151.84	842.16	151.78	858.99	151.98
877.63	152.2	889.11	152.33	949.08	152.68	961.2	152.78	979.37	152.78
996.19	152.78	1012.34	153.17	1012.58	153.18	1019.47	153.46	1025.4	153.69
1051.47	154.6	1065.9	155.09	1080.38	156.07	1095.01	157.03	1103.82	157.61
1108.37	157.92	1129.31	158.1	1148.39	158.38	1153.61	158.46	1163.8	158.63
1188.01	158.95	1207.88	158.99	1214.9	158.9	1223.53	158.28	1234.85	158.88
1237.93	159.15	1243.81	159.77	1249.31	161.17	1255.54	164.16	1255.77	164.27
1259.54	165.19	1262.71	165.93	1263.63	166.22	1265.51	166.73	1275.32	170.45
1276.33	170.77	1277	170.93						

Manning's n Values num= 8

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.02	795.82	.05	841.79	.05	878.2	.047	1019.47	.038
1051.47	.038	1255.54	.047	1277	.05				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
795.82	1019.47	43.52	42.21	40.09	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 484.781

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 59

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	170.85	17.58	169.72	39.33	169.91	85.51	168.36	86.19	168.34
94.64	167.74	139.22	164.7	141.72	164.62	154.17	164.2	198.59	164.8
213.06	164.4	446.22	165.59	493.98	165.71	501.16	165.96	509.66	166.2
552.64	166.73	572.08	166.88	606.81	164.1	608.73	164.07	625.17	158.56
627.3	157.9	632.8	157.64	644.57	156.91	652.85	156.97	655.6	156.97
660.13	156.93	670.43	156.81	717.23	156.16	726.86	155.97	748.23	153.54
759.24	152.4	766.49	151.5	787.52	150.72	796.79	150.66	810.56	150.81
894.23	151.76	922.87	151.71	941.93	152.39	948.77	152.64	995.56	154.15
1029.18	156.45	1044.61	157.49	1090.83	157.52	1096.86	157.54	1136.6	157.63
1159.55	157.4	1167.66	157.2	1177.63	156.3	1190.7	156.89	1201.05	157.75
1207.4	159.31	1214.6	162.82	1214.87	162.95	1222.88	164.82	1223.94	165.17
1226.12	165.76	1237.45	170.21	1238.61	170.59	1239.39	170.78		

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.02	796.79	.05	941.93	.035	1214.6	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
759.24	941.93	43.18	43.96	42.55	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 440.825*

INPUT
Description:
Station Elevation Data num= 92

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	170.09	14.82	169.21	30.72	169.37	33.15	169.38	72.07	168.1
72.64	168.09	79.76	167.6	117.33	165.13	119.44	165.06	129.93	164.71
167.37	165.15	171.54	165.04	179.57	164.81	338.08	165.09	340.44	165.08
343.52	165.05	376.07	164.85	416.32	164.51	422.37	164.64	423.36	164.66
429.54	164.76	458.18	164.8	465.76	164.84	482.14	164.85	511.42	162.42
513.03	162.38	526.89	157.88	528.68	157.34	533.32	157.1	543.24	156.45
550.22	156.45	552.53	156.43	556.35	156.37	565.03	156.22	604.48	155.42
612.59	155.21	630.6	153.15	639.88	152.17	642.02	151.91	642.1	151.9
647.52	151.36	669.66	150.57	673.21	150.53	678.18	150.44	679.12	150.43
679.42	150.42	683.89	150.49	694.92	150.66	722.98	151.08	730.16	151.13
738.72	151.22	768.78	151.45	789.11	151.61	821.35	151.56	835.49	151.92
842.81	152.17	848.92	152.42	890.71	153.94	890.94	153.95	920.74	156
926.58	156.39	934.52	156.94	968.46	157.24	975.8	157.29	981.19	157.33
984.95	157.36	987.02	157.37	1005.18	157.05	1006.37	157.1	1016.68	157.37
1018.77	157.4	1037.18	157.68	1044.42	157.7	1050.52	157.35	1053.33	157.28
1065	158.39	1074.24	159.58	1079.92	161.13	1082.78	162.53	1086.35	164.05
1086.59	164.15	1087.28	164.29	1091.44	165.02	1093.74	165.53	1094.69	165.82
1095.28	165.97	1096.64	166.3	1101.41	168	1106.76	170.08	1106.82	170.1
1107.79	170.43	1108.49	170.61						

Manning's n Values num= 8

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.026	639.88	.047	681.59	.047	766.25	.035	842.81	.038
1018.77	.05	1086.35	.05	1108.49	.05				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
639.88	842.81	43.18	43.96	42.55	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 396.869*

INPUT
Description:
Station Elevation Data num= 92

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	169.34	12.05	168.7	24.99	168.85	26.96	168.86	58.62	167.85
59.09	167.83	64.88	167.46	95.45	165.55	97.16	165.5	105.7	165.23
136.15	165.51	139.54	165.42	146.07	165.21	275.02	164.82	276.94	164.78
279.44	164.71	305.92	164.12	338.67	163.3	343.59	163.32	344.39	163.32
349.42	163.32	372.71	162.99	378.88	162.95	392.21	162.81	416.02	160.74
417.34	160.7	428.61	157.2	430.07	156.78	433.84	156.56	441.91	155.98
447.58	155.92	449.47	155.89	452.58	155.81	459.64	155.62	491.72	154.69
498.32	154.46	512.98	152.75	520.52	151.94	522.77	151.68	522.86	151.67
528.54	151.21	551.8	150.43	555.53	150.36	560.75	150.22	561.74	150.19
562.05	150.19	567.02	150.28	579.29	150.5	610.47	151.08	618.46	151.1
627.98	151.18	661.4	151.34	683.99	151.46	719.83	151.42	735.55	151.68
743.69	151.96	749.06	152.2	785.86	153.72	786.06	153.74	812.29	155.55
817.44	155.9	824.43	156.39	854.31	156.96	860.77	157.05	865.51	157.13
868.82	157.18	870.65	157.19	886.63	156.5	887.68	156.59	896.76	157.11
898.6	157.2	914.81	157.97	921.18	158.2	926.56	158.13	929.02	158.26
939.3	159.88	947.44	161.4	952.43	162.95	954.95	164.2	958.09	165.28
958.31	165.35	958.92	165.44	962.58	165.81	964.6	166.23	965.44	166.47
965.96	166.59	967.15	166.84	971.36	168.14	976.06	169.95	976.12	169.96
976.97	170.27	977.59	170.44						

Manning's n Values num= 8

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.032	520.52	.044	566.39	.044	659.5	.035	743.69	.041
898.6	.05	958.09	.05	977.59	.05				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
520.52	743.69	43.18	43.96	42.55	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 352.914*

INPUT
Description:
Station Elevation Data num= 92

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev

0	168.58	9.29	168.19	19.26	168.33	20.78	168.33	45.18	167.59
45.54	167.58	50.01	167.32	73.56	165.98	74.88	165.94	81.46	165.74
104.93	165.86	107.55	165.8	112.58	165.62	211.95	164.55	213.44	164.48
215.36	164.37	235.77	163.38	261.01	162.1	264.8	162	265.42	161.98
269.29	161.88	287.25	161.17	292	161.06	302.27	160.78	320.63	159.06
321.64	159.01	330.33	156.52	331.45	156.22	334.36	156.02	340.58	155.52
344.95	155.4	346.4	155.35	348.8	155.26	354.24	155.03	378.97	153.95
384.06	153.7	395.35	152.36	401.17	151.71	403.52	151.44	403.61	151.44
409.57	151.07	433.94	150.28	437.85	150.2	443.32	149.99	444.36	149.96
444.69	149.95	450.15	150.07	463.65	150.35	497.97	151.07	506.75	151.07
517.23	151.14	554.01	151.24	578.87	151.31	618.32	151.27	635.61	151.44
644.56	151.74	649.21	151.98	681	153.51	681.18	153.52	703.85	155.1
708.3	155.4	714.33	155.84	740.15	156.68	745.74	156.82	749.84	156.92
752.7	156.99	754.27	157.01	768.09	155.94	768.99	156.08	776.84	156.85
778.43	156.99	792.43	158.25	797.94	158.7	802.59	158.9	804.72	159.24
813.6	161.38	820.63	163.23	824.95	164.77	827.12	165.86	829.84	166.5
830.02	166.55	830.55	166.59	833.72	166.61	835.47	166.94	836.19	167.11
836.63	167.21	837.67	167.39	841.3	168.27	845.37	169.81	845.41	169.83
846.15	170.1	846.68	170.28						

Manning's n Values num= 8

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.038	401.17	.041	451.19	.041	552.74	.035	644.56	.044
778.43	.05	829.84	.05	846.68	.05				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
401.17	644.56	43.18	43.96	42.55	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 308.958*

INPUT
Description:
Station Elevation Data num= 92

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	167.83	6.53	167.68	13.53	167.81	14.6	167.8	31.74	167.33
31.99	167.32	35.13	167.17	51.67	166.41	52.6	166.38	57.22	166.25
73.71	166.22	75.55	166.17	79.08	166.02	148.89	164.28	149.93	164.18
151.29	164.03	165.62	162.64	183.35	160.9	186.02	160.68	186.45	160.65
189.17	160.44	201.78	159.36	205.12	159.17	212.34	158.74	225.23	157.38
225.94	157.33	232.05	155.84	232.84	155.66	234.88	155.48	239.25	155.06
242.32	154.88	243.34	154.81	245.02	154.7	248.84	154.43	266.22	153.21
269.79	152.95	277.72	151.96	281.81	151.48	284.27	151.21	284.37	151.2
290.59	150.92	316.08	150.13	320.17	150.03	325.89	149.77	326.97	149.72
327.32	149.72	333.28	149.85	348.01	150.19	385.46	151.06	395.05	151.03
406.49	151.11	446.62	151.13	473.76	151.16	516.8	151.12	535.67	151.2
545.44	151.53	549.36	151.76	576.15	153.3	576.3	153.31	595.41	154.64
599.15	154.91	604.24	155.29	626	156.41	630.71	156.58	634.16	156.71
636.57	156.81	637.9	156.83	649.54	155.39	650.31	155.58	656.92	156.59
658.26	156.79	670.06	158.53	674.71	159.2	678.62	159.67	680.42	160.22
687.9	162.87	693.83	165.05	697.46	166.59	699.3	167.53	701.59	167.73
701.74	167.75	702.19	167.75	704.85	167.4	706.33	167.64	706.93	167.76
707.31	167.83	708.18	167.93	711.25	168.41	714.67	169.68	714.71	169.69
715.34	169.94	715.78	170.11						

Manning's n Values num= 8

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.044	281.81	.038	336	.038	445.99	.035	545.44	.047
658.26	.05	701.59	.05	715.78	.05				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
281.81	545.44	43.18	43.96	42.55	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 265.003

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 38

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	167.07	7.8	167.29	43.55	166.55	85.83	164.01	86.43	163.88
87.21	163.69	107.48	159.31	116.32	157.54	162.45	151.25	165.02	150.97
165.12	150.97	202.49	149.86	208.46	149.54	209.59	149.49	209.95	149.48
216.41	149.64	272.96	151.05	283.35	151	295.74	151.07	339.23	151.03
435.73	150.96	446.32	151.31	471.42	153.09	490.01	154.41	511.85	156.13
520.45	156.62	521.53	156.65	531	154.84	531.62	155.07	538.09	156.58
554.65	160.44	571.47	169.19	573.82	168.9	575.99	168.2	577.99	168.45
581.19	168.55	584.01	169.56	584.88	169.94				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.05	339.23	.035	538.09	.05

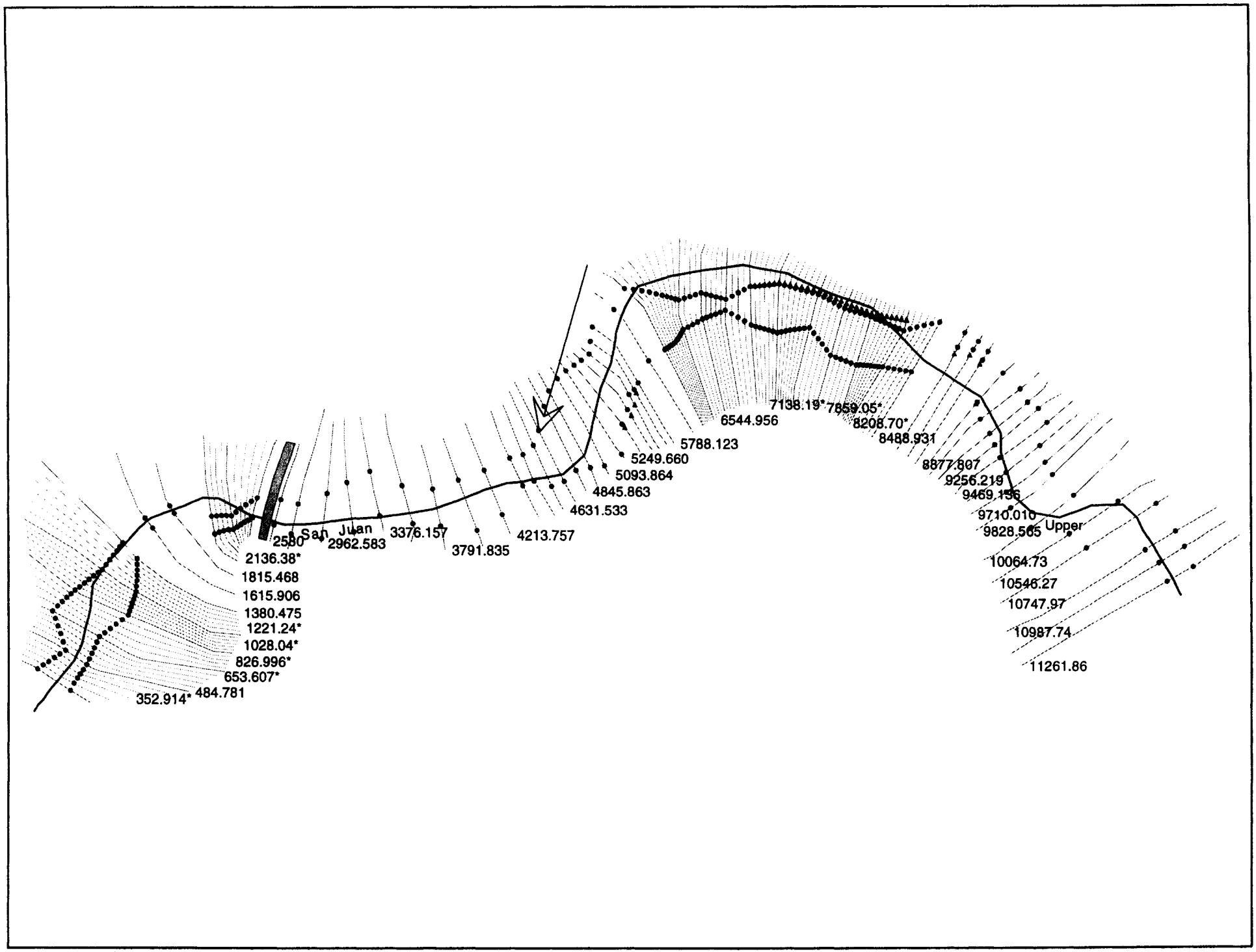
Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
162.45	446.32	122.99	265	54.95	.1	.3

Profile Output Table - Standard Table 1

Reach	River Sta	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
		(cfs)	(ft)	(ft)	(ft)	(ft)	(ft/ft)	(ft/s)	(sq ft)	(ft)	
Upper	11261.86	33597.00	214.32	227.99	225.42	228.83	0.003306	8.58	5227.69	962.44	0.45
Upper	11118.79	33597.00	216.23	225.59	225.59	227.91	0.011038	13.46	3132.41	678.46	0.79
Upper	10987.74	33597.00	215.95	224.01	223.37	225.51	0.009764	11.27	3773.23	830.55	0.72

Upper	10747.97	33597.00	215.06	222.96		223.88	0.004135	7.75	4406.45	661.49
0.51										
Upper	10546.27	33597.00	213.13	221.46		222.78	0.006853	9.84	3790.08	681.41
0.69										
Upper	10064.73	33597.00	207.79	220.89		221.51	0.001218	6.89	6061.01	889.69
0.38										
Upper	9828.565	33597.00	207.84	220.64		221.19	0.001307	6.51	6293.82	876.98
0.35										
Upper	9710.010	33597.00	207.81	220.38		221.02	0.001581	7.09	5993.58	872.89
0.39										
Upper	9587.161	33597.00	208.82	220.01		220.79	0.002116	7.95	5551.20	881.22
0.44										
Upper	9469.136	33597.00	209.82	219.90		220.50	0.001954	6.77	5894.56	899.09
0.39										
Upper	9350.632	33597.00	209.90	219.58		220.25	0.002247	7.13	5578.63	834.77
0.41										
Upper	9256.219	33597.00	209.51	218.92		219.96	0.003508	8.83	4580.26	753.55
0.52										
Upper	9137.316	33597.00	207.79	218.57		219.56	0.003062	8.51	4750.10	799.74
0.49										
Upper	9018.948	33597.00	208.76	217.58	215.28	219.07	0.004826	10.94	4063.51	801.88
0.67										
Upper	8877.807	33597.00	204.51	217.07	215.29	218.43	0.004517	13.10	4227.33	842.89
0.68										
Upper	8785.928	33597.00	202.85	216.46	216.46	217.98	0.004832	13.86	4069.57	855.09
0.69										
Upper	8699.415	33597.00	202.95	215.07	212.84	216.25	0.002853	10.82	4191.19	591.93
0.56										
Upper	8488.931	33597.00	202.72	215.05		215.76	0.001111	6.86	5049.03	461.70
0.36										
Upper	8287.319	33597.00	203.83	212.95	212.12	214.98	0.007450	11.95	3017.57	474.47
0.76										
Upper	8012.155	33597.00	202.47	211.29	209.27	212.67	0.004070	9.91	3686.20	510.63
0.63										
Upper	7820.775	33597.00	202.05	208.76	208.76	211.36	0.013233	13.43	2661.86	536.49
0.98										
Upper	7605.154	33597.00	197.44	204.99	204.99	207.36	0.009642	13.56	2976.25	666.24
0.90										
Upper	7289.783	33597.00	196.27	203.86	201.50	204.60	0.003429	7.37	5083.44	831.62
0.48										
Upper	7062.404	33597.00	196.41	203.24	200.89	203.85	0.003224	6.26	5604.10	968.87
0.44										
Upper	6894.555	33597.00	189.63	201.46	201.46	203.16	0.006833	15.27	4175.56	1002.78
0.88										
Upper	6705.202	33597.00	190.32	200.37		201.40	0.004008	9.67	4805.99	1056.31
0.58										
Upper	6544.956	33597.00	190.14	199.55		200.39	0.003776	8.08	5138.66	1155.48
0.49										
Upper	6151.870	34722.00	189.97	196.29		197.59	0.005392	9.47	3969.79	836.34
0.68										
Upper	5978.856	34722.00	187.90	193.99	193.99	196.21	0.011163	12.53	3076.86	726.31
0.95										
Upper	5788.123	34722.00	184.32	192.63	191.05	193.76	0.004533	8.93	4211.46	792.07
0.63										
Upper	5686.773	34722.00	183.41	192.06	190.63	193.28	0.005559	9.27	3964.08	719.72
0.68										
Upper	5593.814	34722.00	183.73	191.98	189.40	192.78	0.003515	7.68	4927.80	816.83
0.49										
Upper	5502.751	34722.00	182.66	191.79	188.62	192.52	0.002338	7.24	5285.48	797.76
0.44										
Upper	5387.141	34722.00	182.70	191.65	188.14	192.25	0.001803	6.48	5701.37	787.23
0.40										
Upper	5249.660	34722.00	181.47	191.50		192.00	0.001518	5.75	6195.76	793.16
0.35										
Upper	5093.864	34722.00	180.73	191.23		191.75	0.001684	5.85	6109.57	806.02
0.36										
Upper	4947.016	34722.00	181.85	190.61		191.41	0.002952	7.31	5041.11	762.24
0.47										
Upper	4845.863	34722.00	180.95	190.26		191.09	0.003200	7.74	4969.47	782.71
0.49										
Upper	4728.187	34722.00	180.04	190.03		190.76	0.002063	7.33	5271.32	752.93
0.43										
Upper	4631.533	34722.00	180.00	189.62		190.51	0.002906	8.29	4768.17	722.23
0.49										
Upper	4524.879	34722.00	177.19	188.16		189.99	0.006619	12.43	3452.41	647.71
0.74										
Upper	4434.483	34722.00	177.22	187.95		189.34	0.004406	10.93	4079.13	698.97
0.62										
Upper	4213.757	34722.00	176.41	187.50		188.44	0.002839	8.36	4866.00	745.25
0.47										
Upper	4008.681	34722.00	175.49	186.96		187.88	0.002652	8.00	4839.20	725.78
0.45										
Upper	3791.835	34722.00	175.28	185.83		187.14	0.004038	10.01	4054.79	583.15
0.57										
Upper	3592.245	34722.00	173.20	184.48		186.16	0.005240	11.20	3619.51	548.79
0.67										
Upper	3376.157	34722.00	173.67	183.55		185.05	0.004612	10.23	3694.76	453.06
0.60										
Upper	3169.567	34722.00	169.36	183.48		184.24	0.001971	7.24	5105.97	488.65
0.37										
Upper	2962.583	34722.00	169.14	183.17		183.81	0.002094	6.33	5458.22	565.72
0.34										
Upper	2746.045	34722.00	167.25	182.85		183.45	0.001369	6.93	5919.97	633.43
0.32										
Upper	2608.338	34722.00	167.14	180.96	178.50	183.02	0.003248	12.37	3463.68	440.96
0.63										
Upper	2580	Bridge								
Upper	2443.625	34722.00	168.51	177.83	177.83	181.01	0.010746	15.91	2641.71	429.27

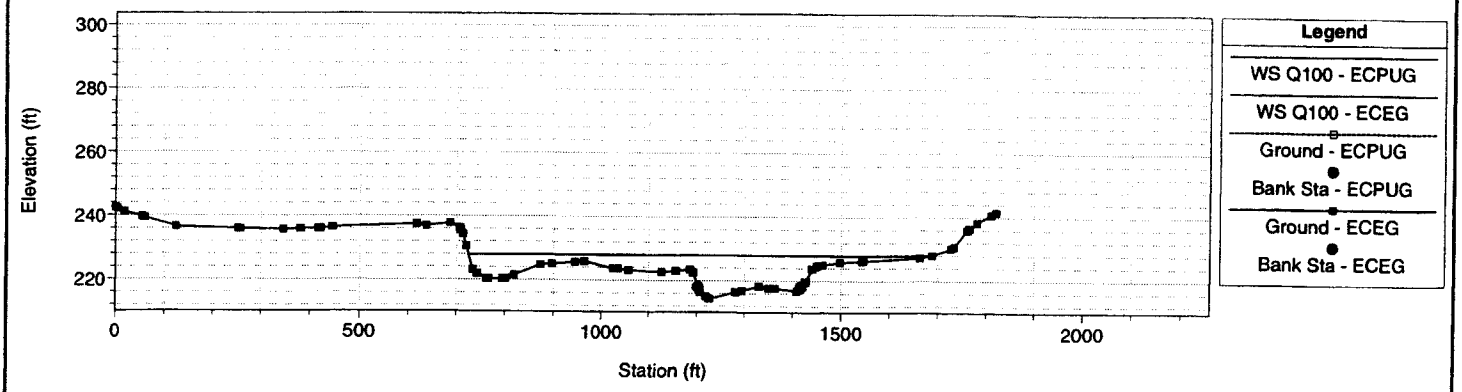
0.94										
Upper	2258.454	34722.00	163.94	176.63		177.99	0.004737	11.00	3846.27	557.62
0.60										
Upper	2095.690	34722.00	163.99	172.89	173.87	176.36	0.014965	18.56	2725.84	672.40
1.19										
Upper	1815.468	34722.00	156.78	168.41	169.40	172.59	0.019454	18.01	2144.62	431.70
1.04										
Upper	1615.906	34722.00	157.53	168.80	168.80	171.27	0.006807	15.72	2975.69	572.84
0.90										
Upper	1380.475	34722.00	151.04	166.42	167.17	169.61	0.009068	16.50	2923.05	836.25
1.00										
Upper	1141.636	34722.00	156.31	166.06		167.28	0.003493	10.24	4978.76	1134.66
0.63										
Upper	914.451	34722.00	156.99	165.77		166.52	0.002666	7.65	5553.93	1151.44
0.47										
Upper	695.814	34722.00	156.28	162.92	162.92	165.48	0.010878	12.92	2736.83	538.33
0.93										
Upper	484.781	34722.00	150.66	161.05		162.59	0.003296	10.22	3702.83	593.22
0.58										
Upper	265.003	34722.00	149.48	159.56	158.03	161.42	0.006001	11.34	3251.85	444.56
0.67										



1 in Horiz. = 900 ft 1 in Vert. = 800 ft

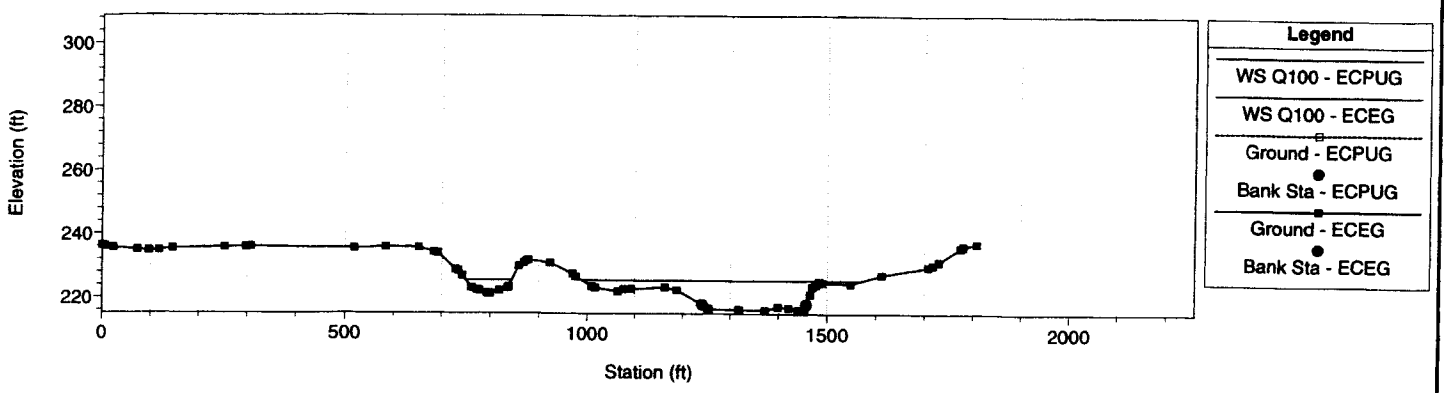
Project Model - D3

RS = 11261.86 CC Alternative - San Juan Creek Crossing



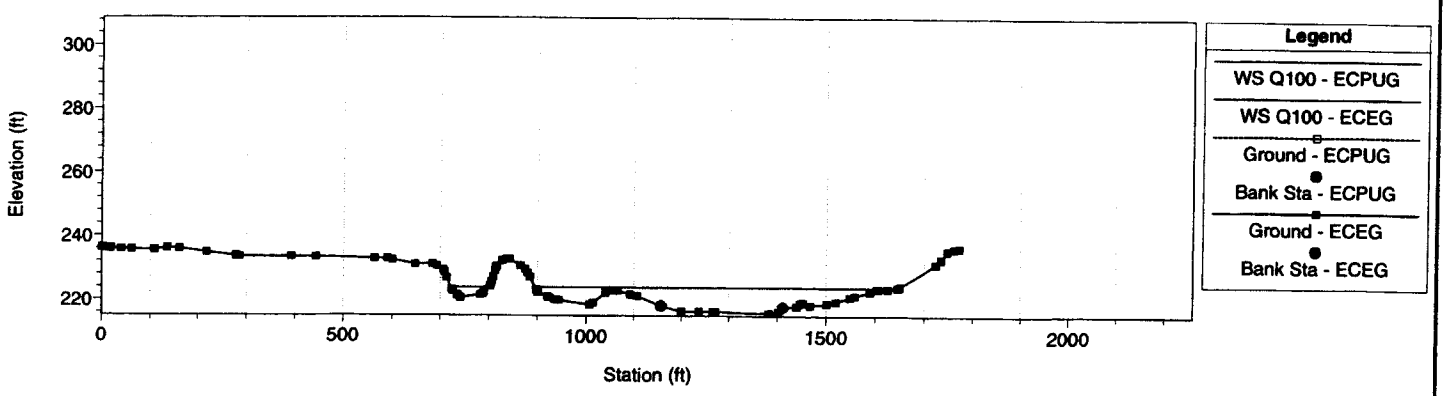
Project Model - D3

RS = 11118.79 CC Alternative - San Juan Creek Crossing



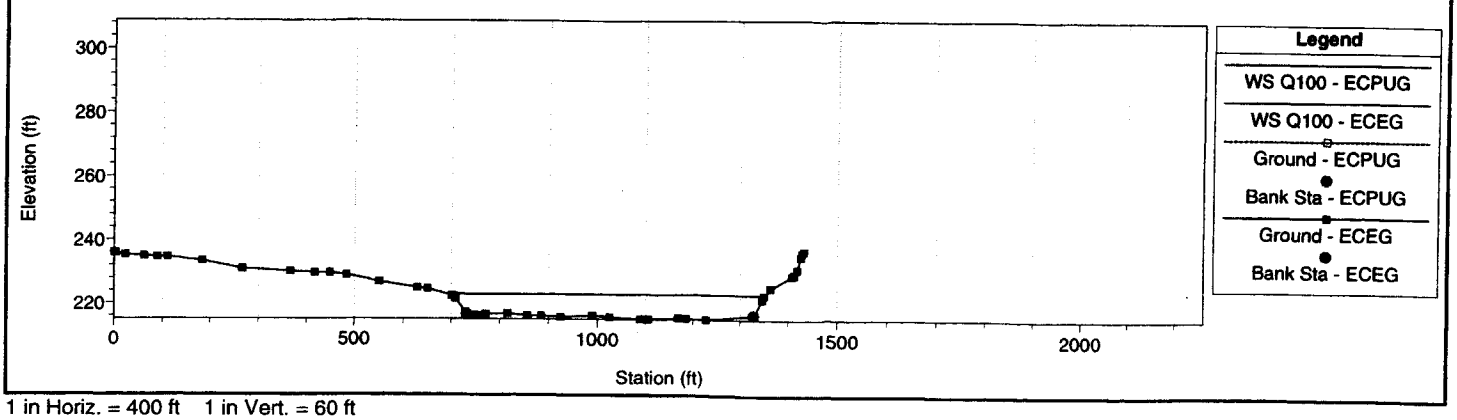
Project Model - D3

RS = 10987.74 CC Alternative - San Juan Creek Crossing



Project Model - D3

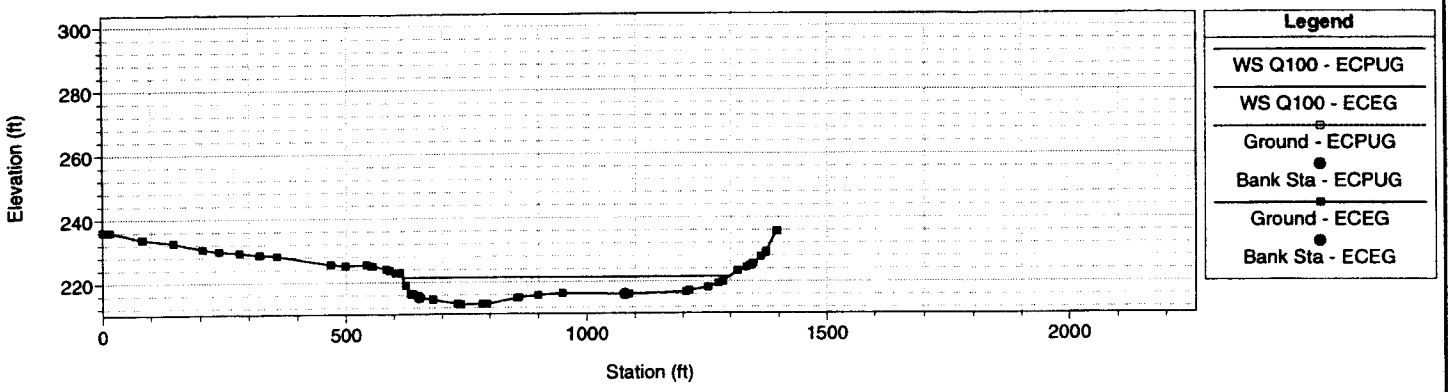
RS = 10747.97 CC Alternative - San Juan Creek Crossing



1 in Horiz. = 400 ft 1 in Vert. = 60 ft

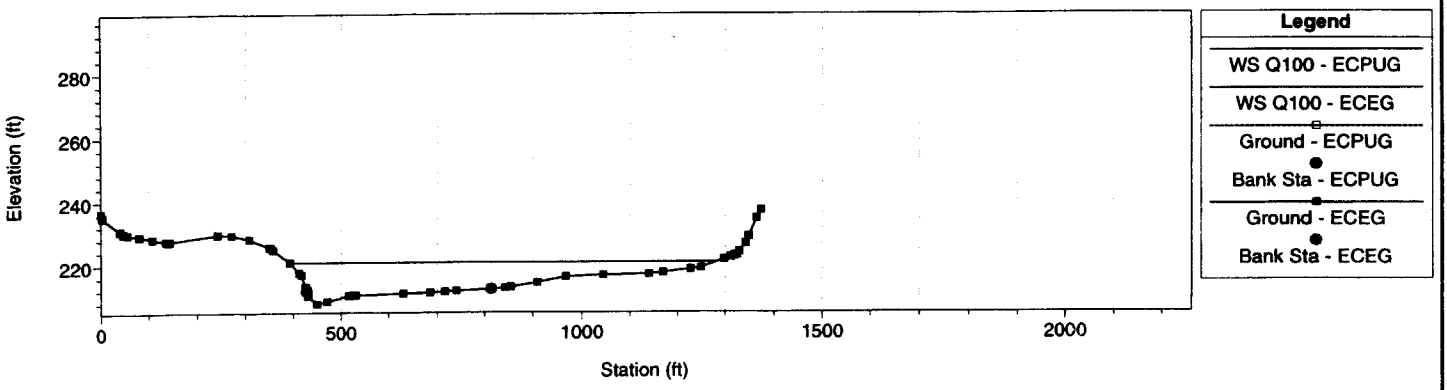
Project Model - D3

RS = 10546.27 CC Alternative - San Juan Creek Crossing



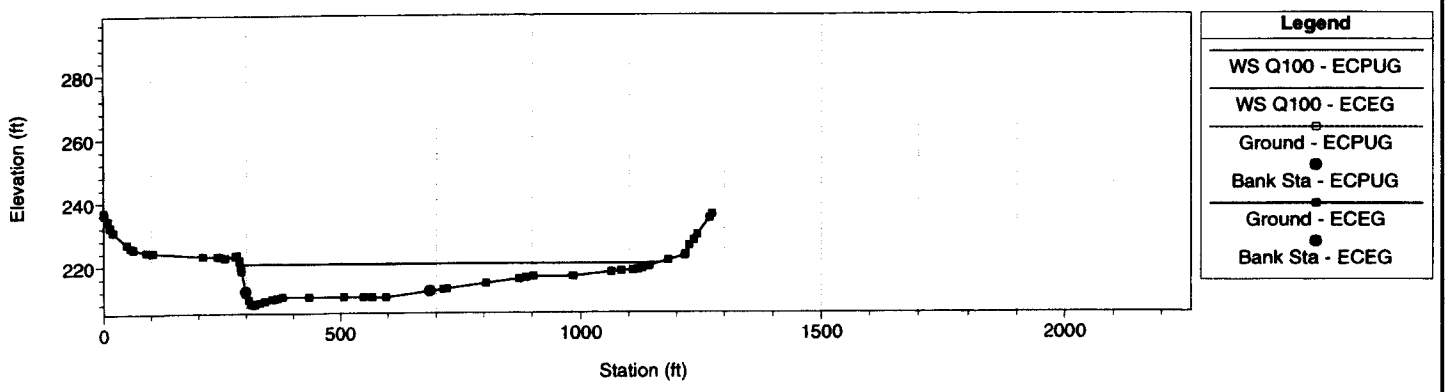
Project Model - D3

RS = 10064.73 CC Alternative - San Juan Creek Crossing



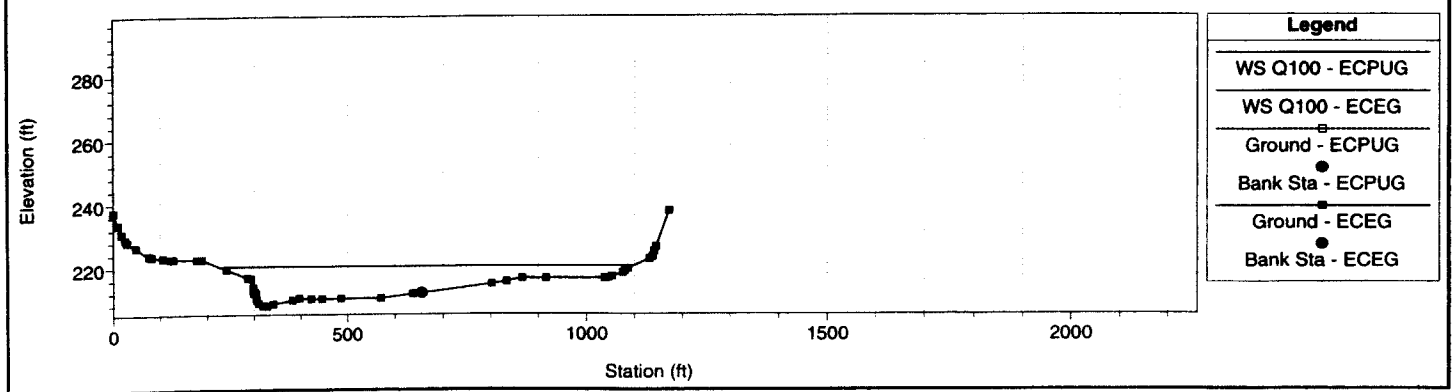
Project Model - D3

RS = 9828.565 CC Alternative - San Juan Creek Crossing



Project Model - D3

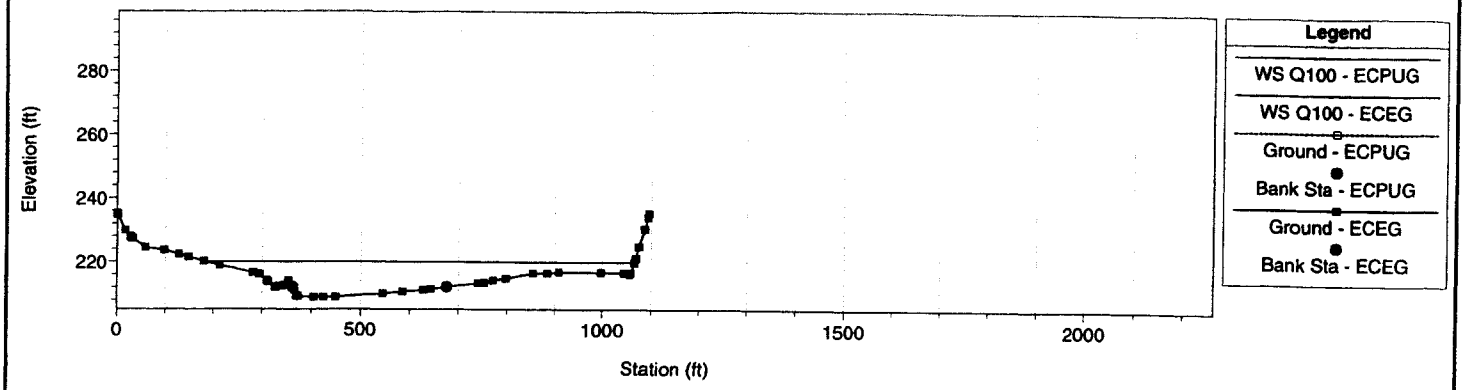
RS = 9710.010 CC Alternative - San Juan Creek Crossing



1 in Horiz. = 400 ft 1 in Vert. = 60 ft

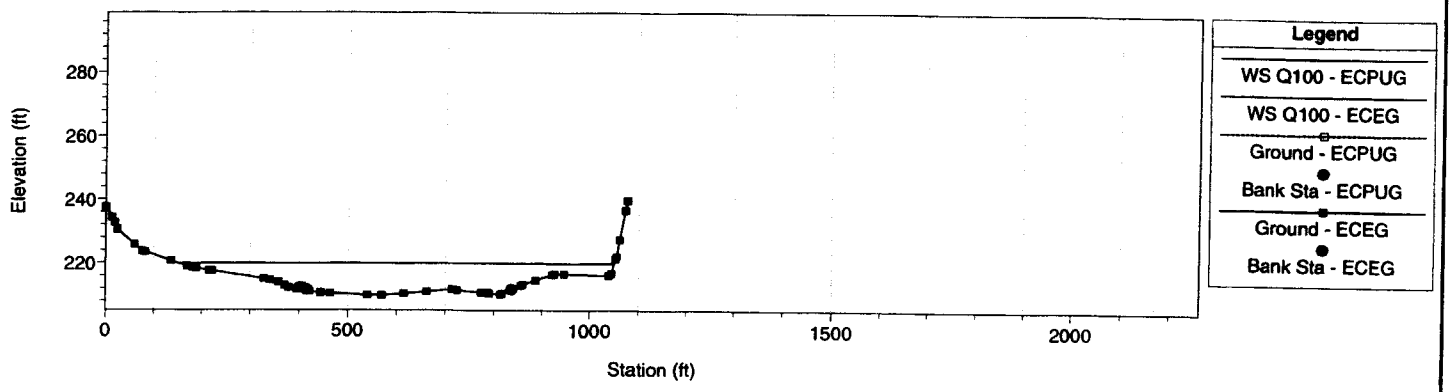
Project Model - D3

RS = 9587.161 CC Alternative - San Juan Creek Crossing



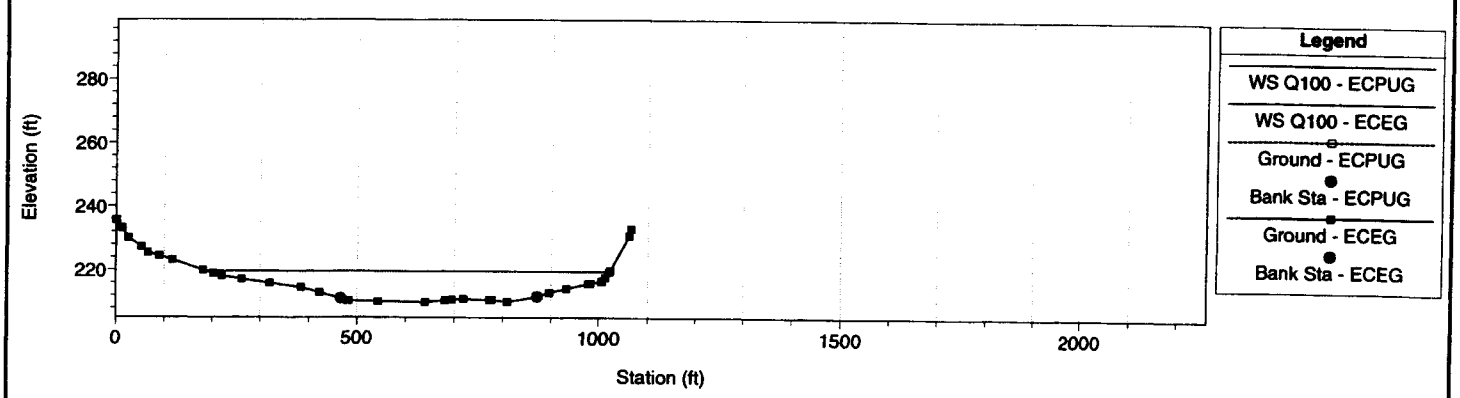
Project Model - D3

RS = 9469.136 CC Alternative - San Juan Creek Crossing



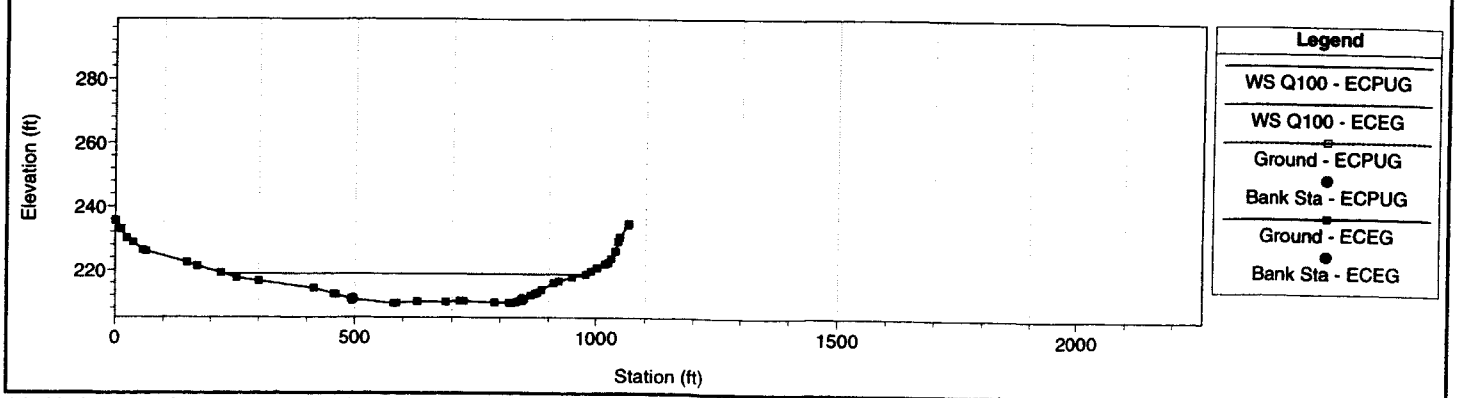
Project Model - D3

RS = 9350.632 CC Alternative - San Juan Creek Crossing



Project Model - D3

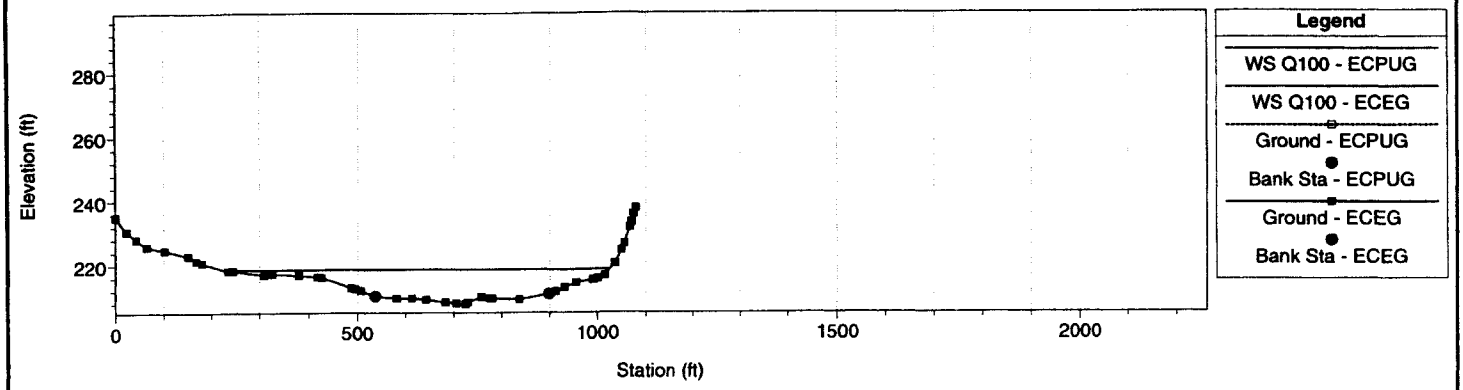
RS = 9256.219 CC Alternative - San Juan Creek Crossing



1 in Horiz. = 400 ft 1 in Vert. = 60 ft

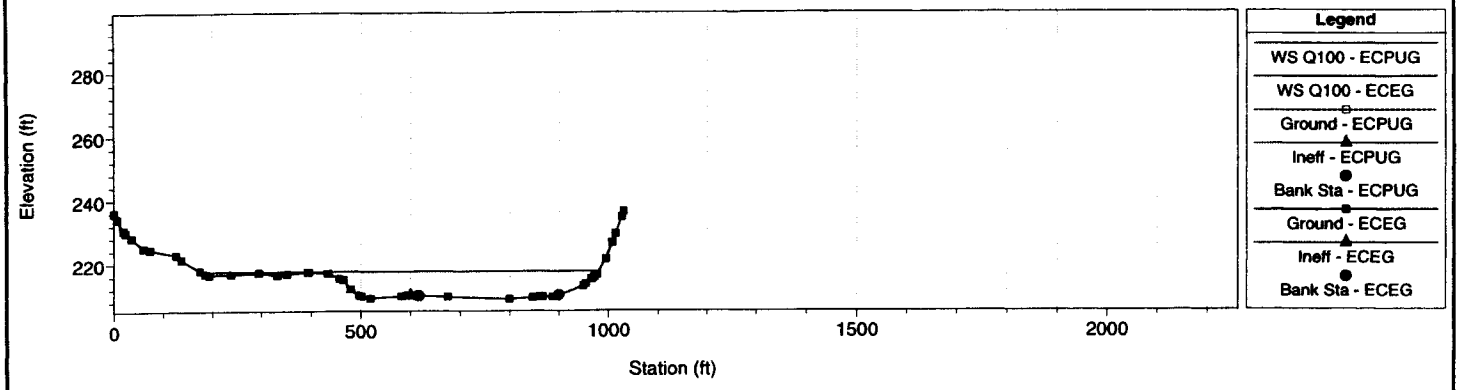
Project Model - D3

RS = 9137.316 CC Alternative - San Juan Creek Crossing



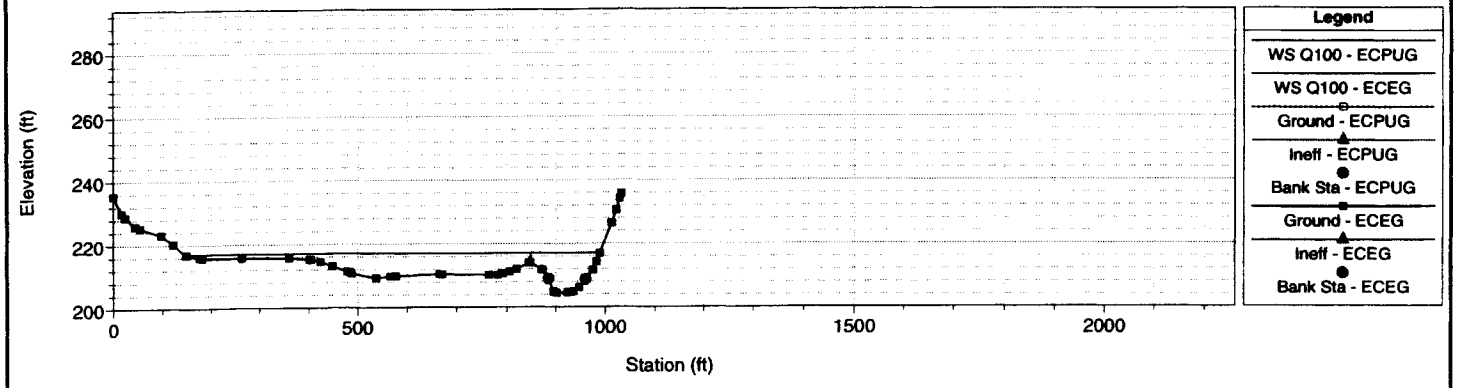
Project Model - D3

RS = 9018.948 CC Alternative - San Juan Creek Crossing



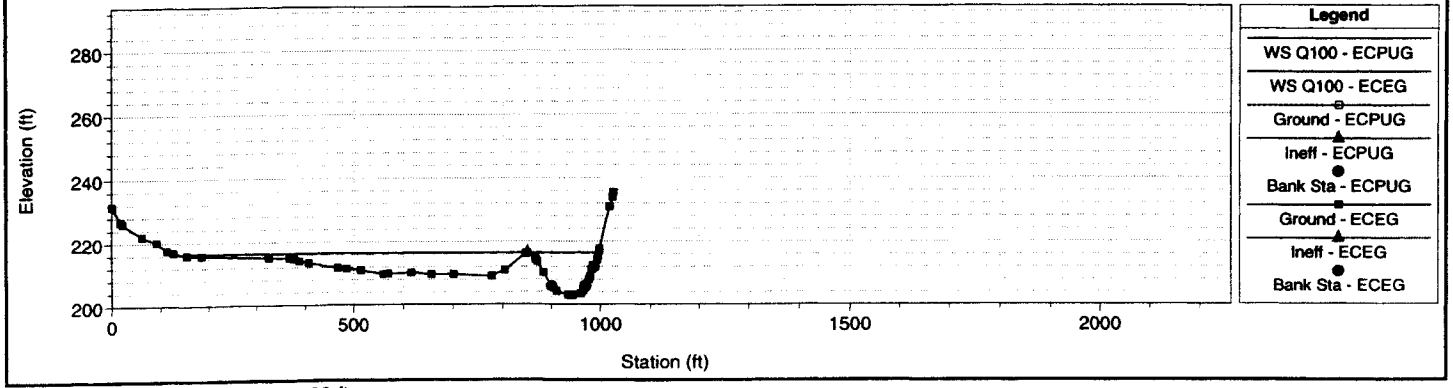
Project Model - D3

RS = 8877.807 CC Alternative - San Juan Creek Crossing



Project Model - D3

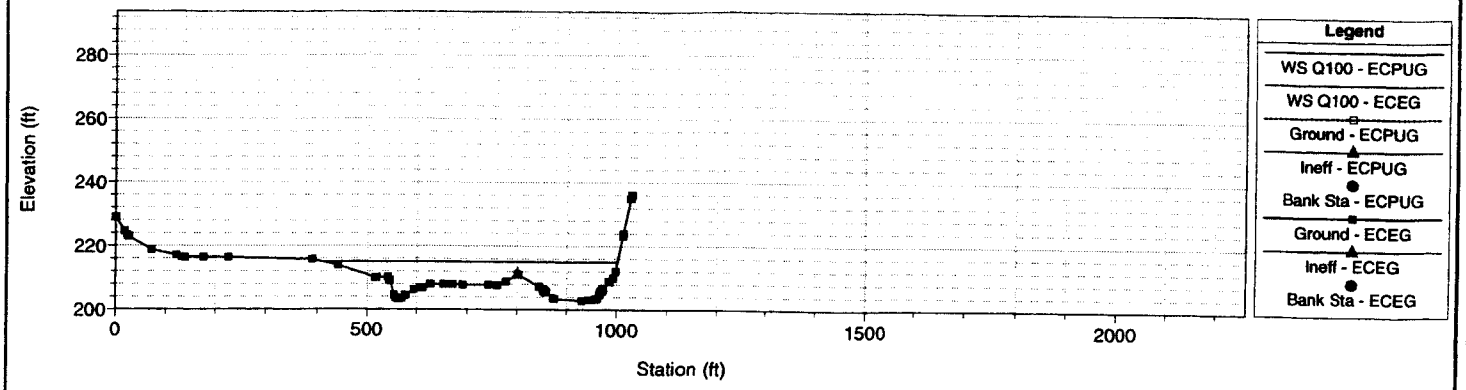
RS = 8785.928 CC Alternative - San Juan Creek Crossing



1 in Horiz. = 400 ft 1 in Vert. = 60 ft

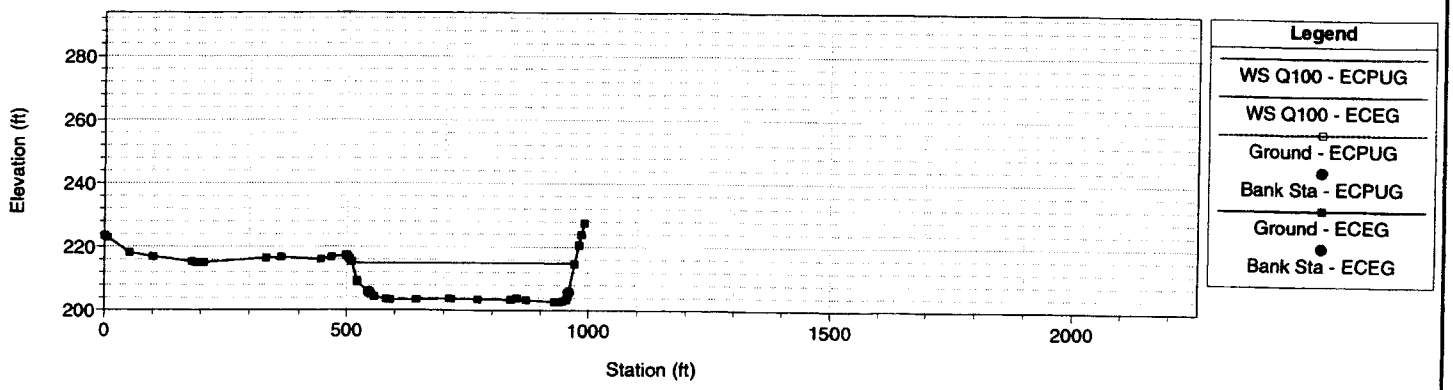
Project Model - D3

RS = 8699.415 CC Alternative - San Juan Creek Crossing



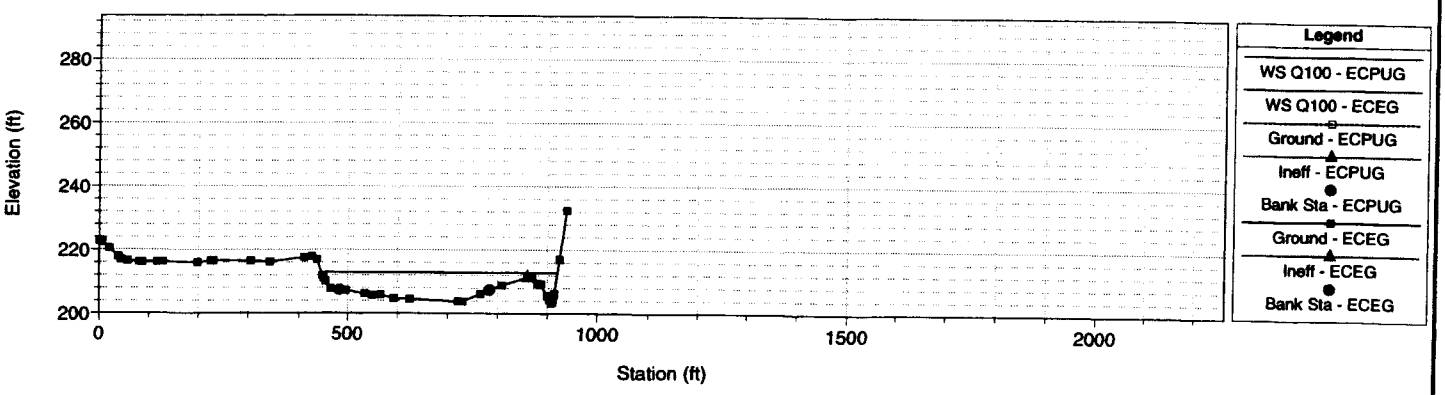
Project Model - D3

RS = 8488.931 CC Alternative - San Juan Creek Crossing



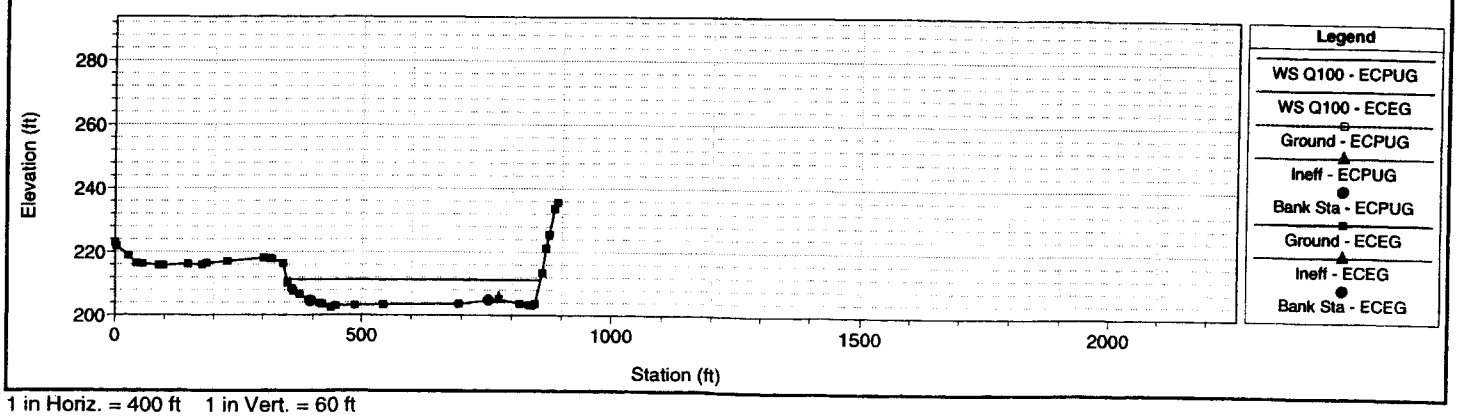
Project Model - D3

RS = 8287.319 CC Alternative - San Juan Creek Crossing



Project Model - D3

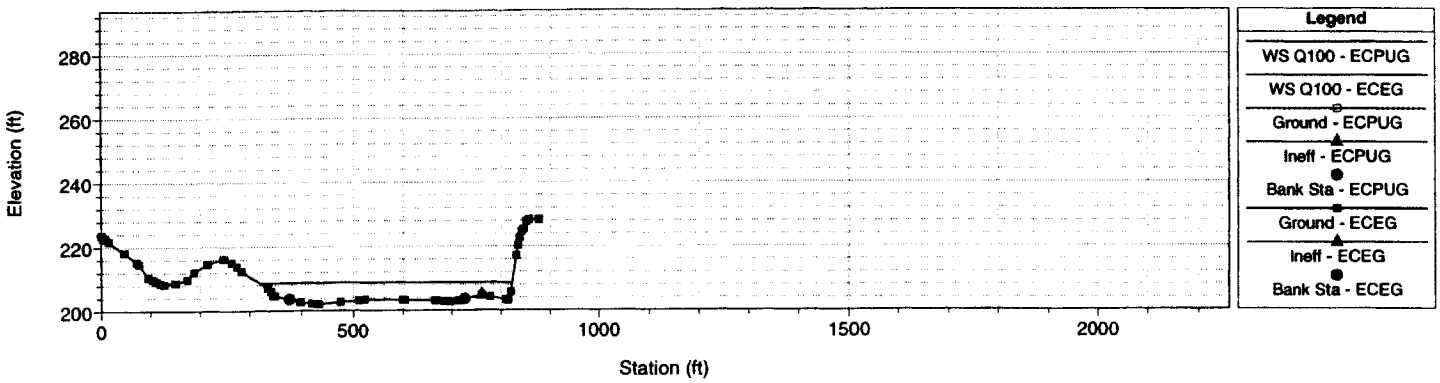
RS = 8012.155 CC Alternative - San Juan Creek Crossing



1 in Horiz. = 400 ft 1 in Vert. = 60 ft

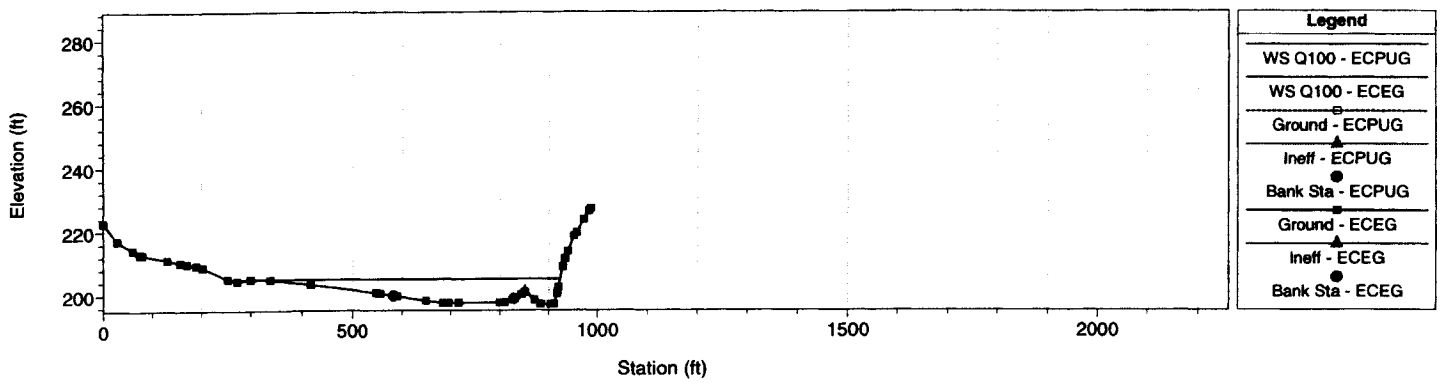
Project Model - D3

RS = 7820.775 CC Alternative - San Juan Creek Crossing



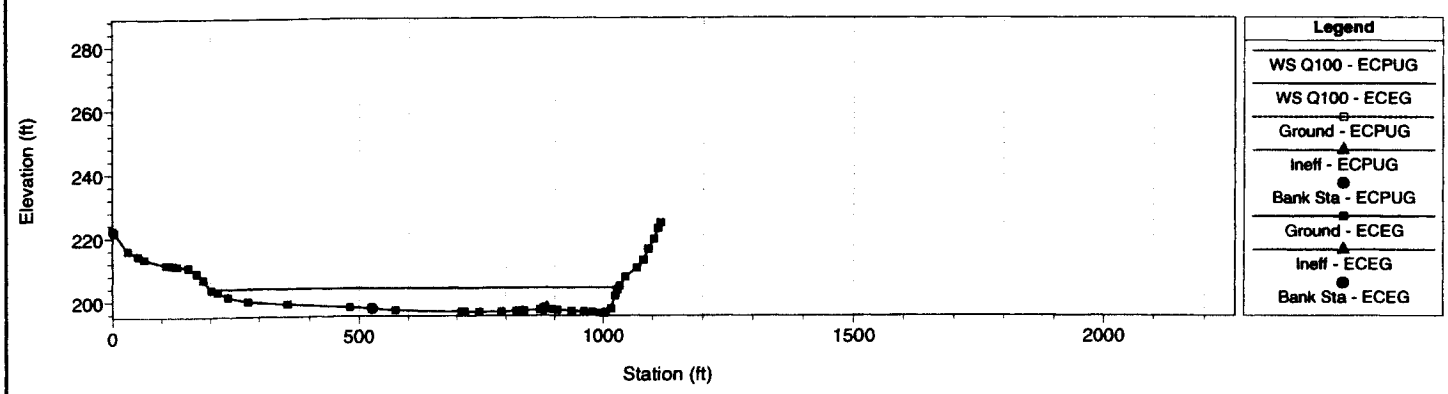
Project Model - D3

RS = 7605.154 CC Alternative - San Juan Creek Crossing



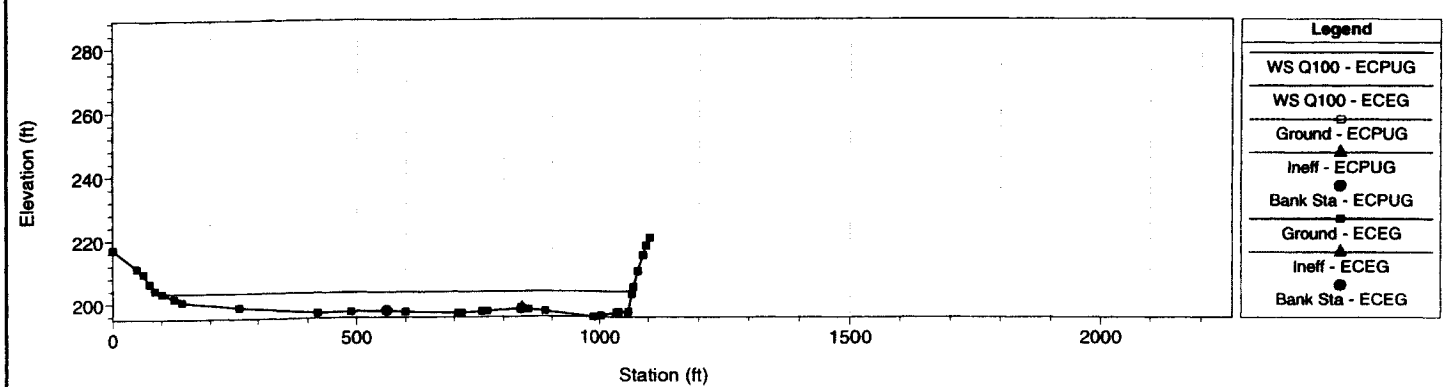
Project Model - D3

RS = 7289.783 CC Alternative - San Juan Creek Crossing



Project Model - D3

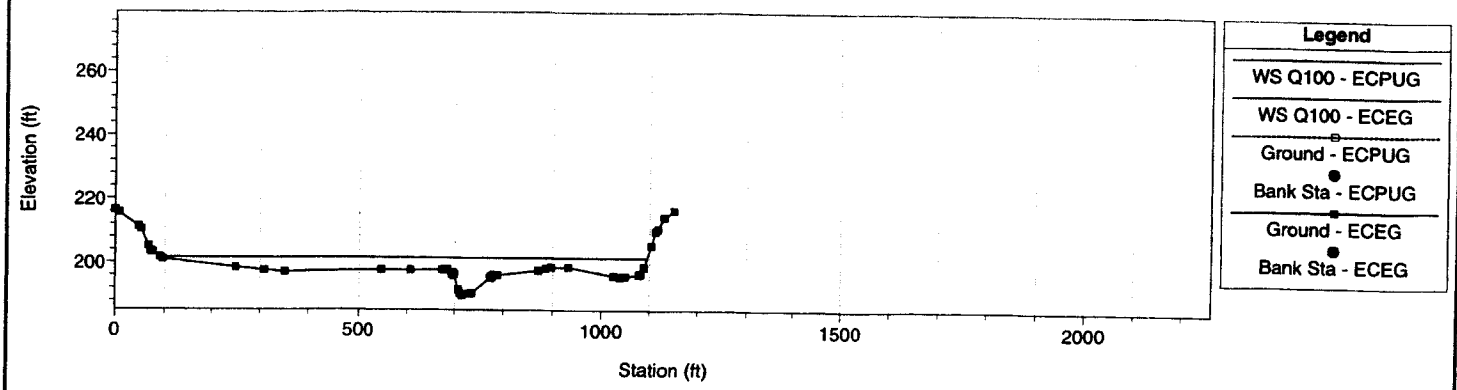
RS = 7062.404 CC Alternative - San Juan Creek Crossing



1 in Horiz. = 400 ft 1 in Vert. = 60 ft

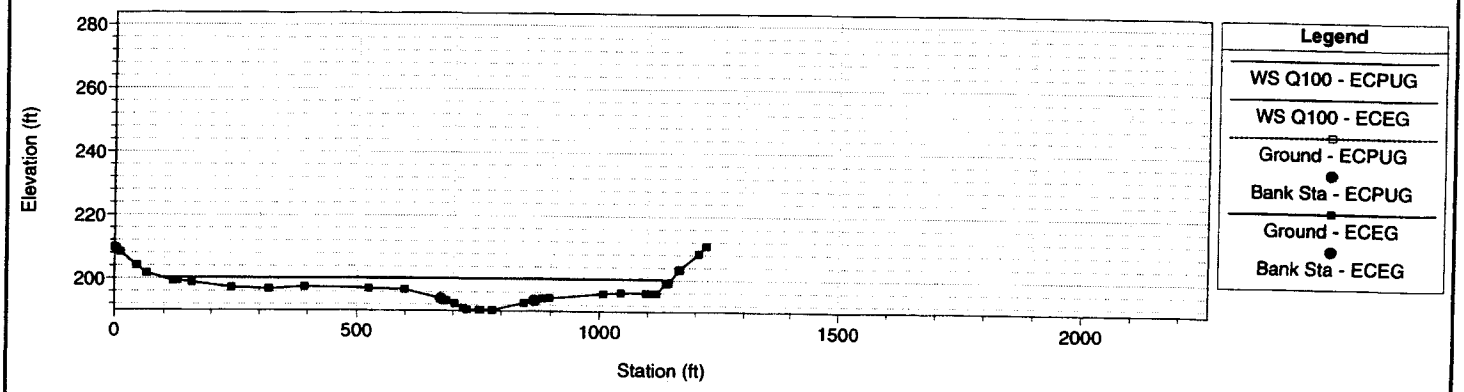
Project Model - D3

RS = 6894.555 CC Alternative - San Juan Creek Crossing



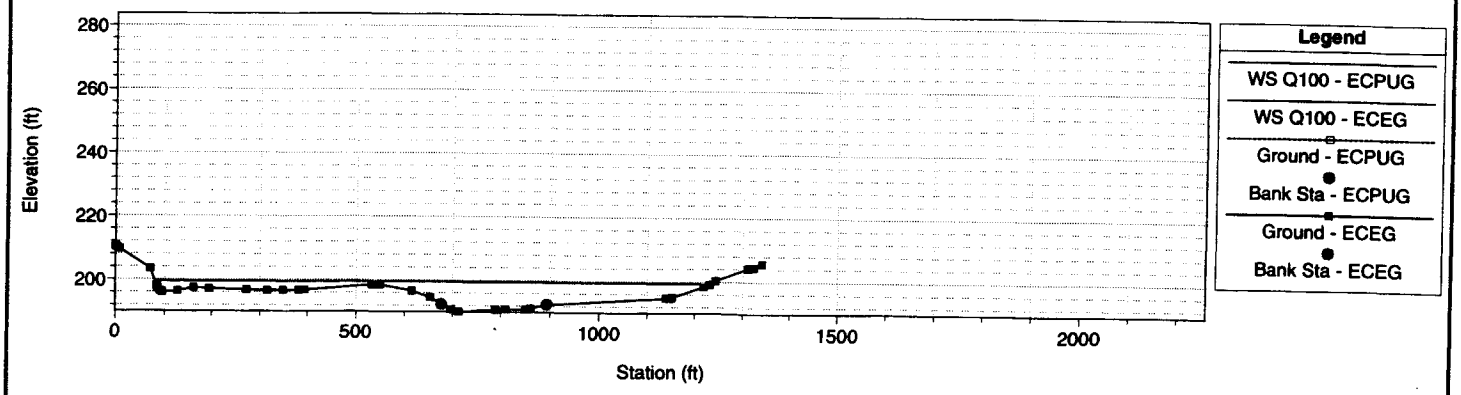
Project Model - D3

RS = 6705.202 CC Alternative - San Juan Creek Crossing



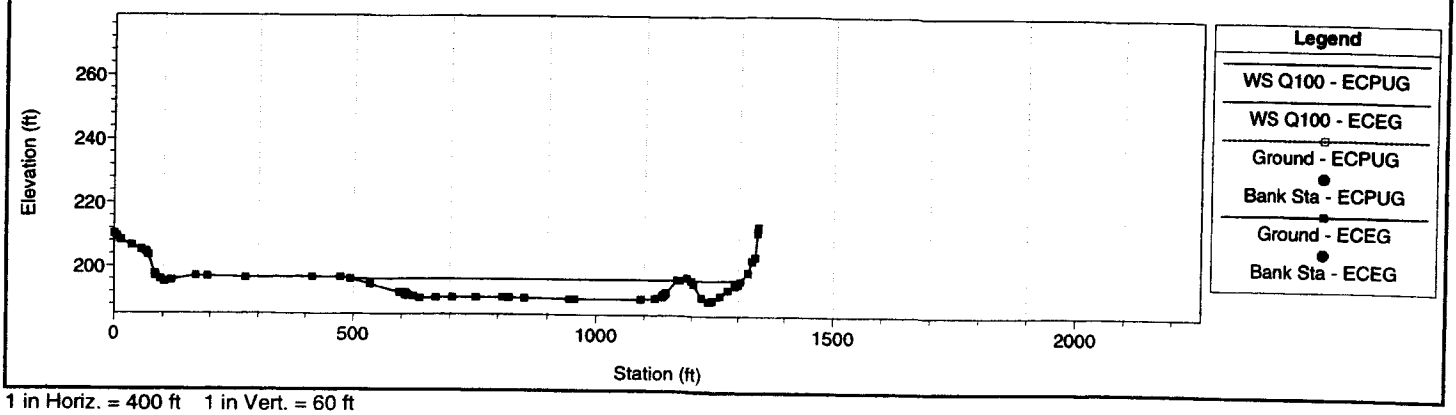
Project Model - D3

RS = 6544.956 CC Alternative - San Juan Creek Crossing



Project Model - D3

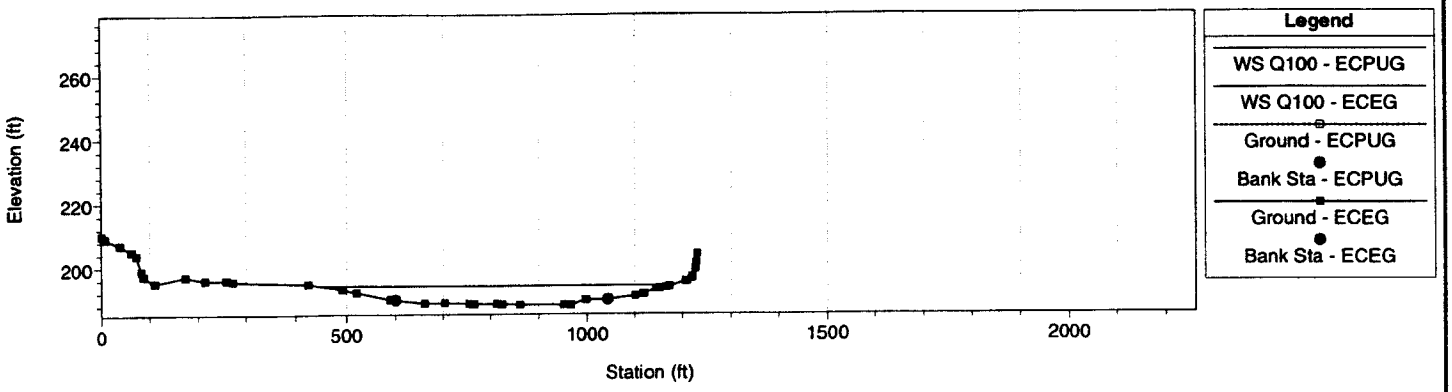
RS = 6151.870 CC Alternative - San Juan Creek Crossing



1 in Horiz. = 400 ft 1 in Vert. = 60 ft

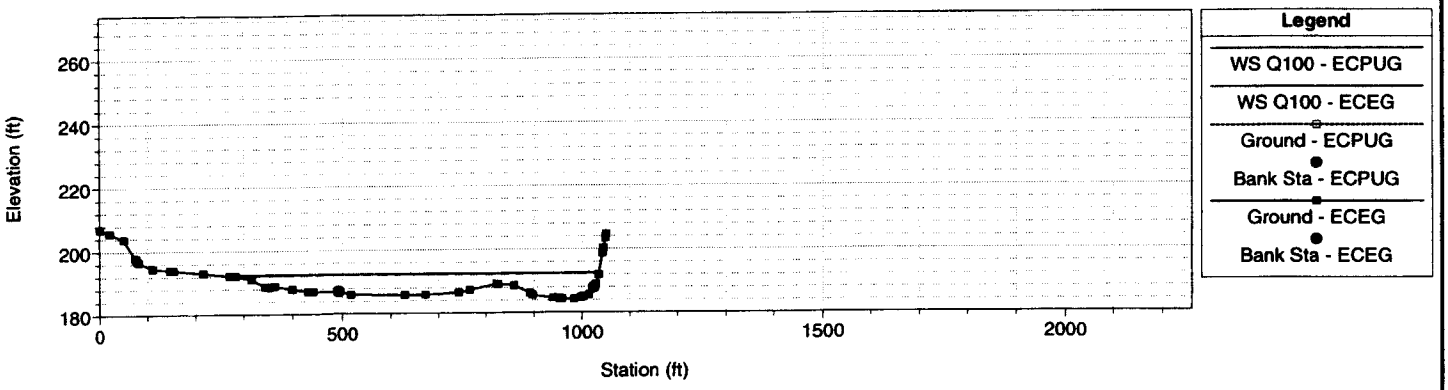
Project Model - D3

RS = 5978.856 CC Alternative - San Juan Creek Crossing



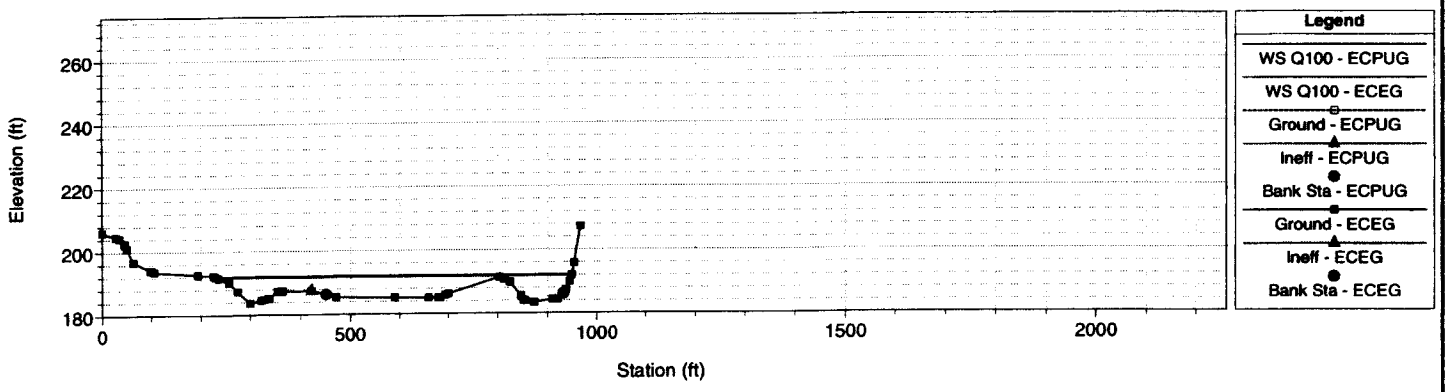
Project Model - D3

RS = 5788.123 CC Alternative - San Juan Creek Crossing



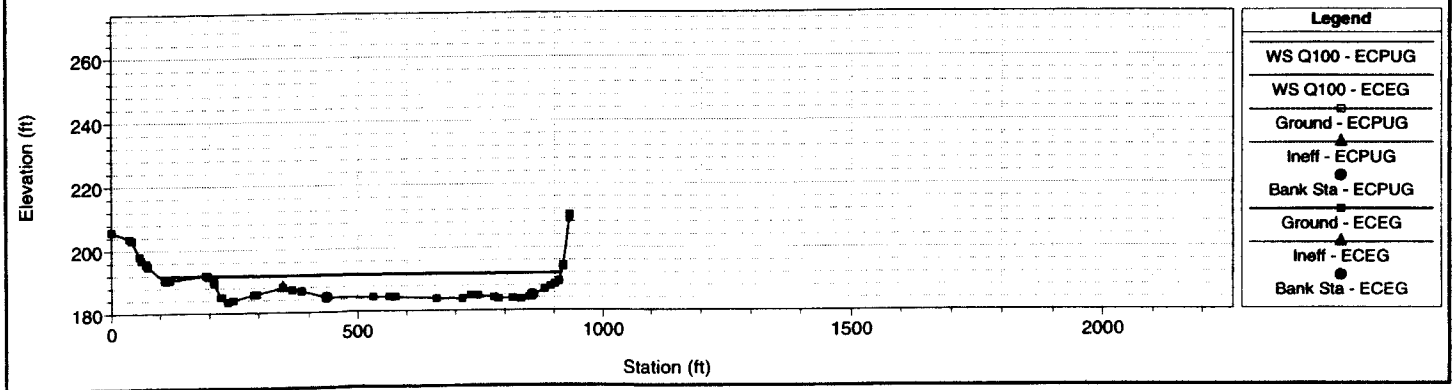
Project Model - D3

RS = 5686.773 CC Alternative - San Juan Creek Crossing



Project Model - D3

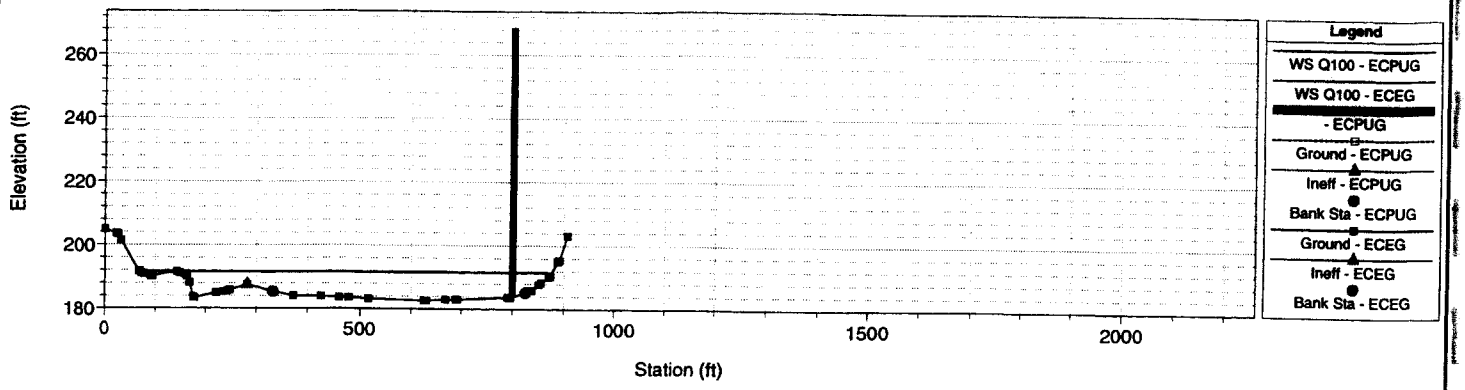
RS = 5593.814 CC Alternative - San Juan Creek Crossing



1 in Horiz. = 400 ft 1 in Vert. = 60 ft

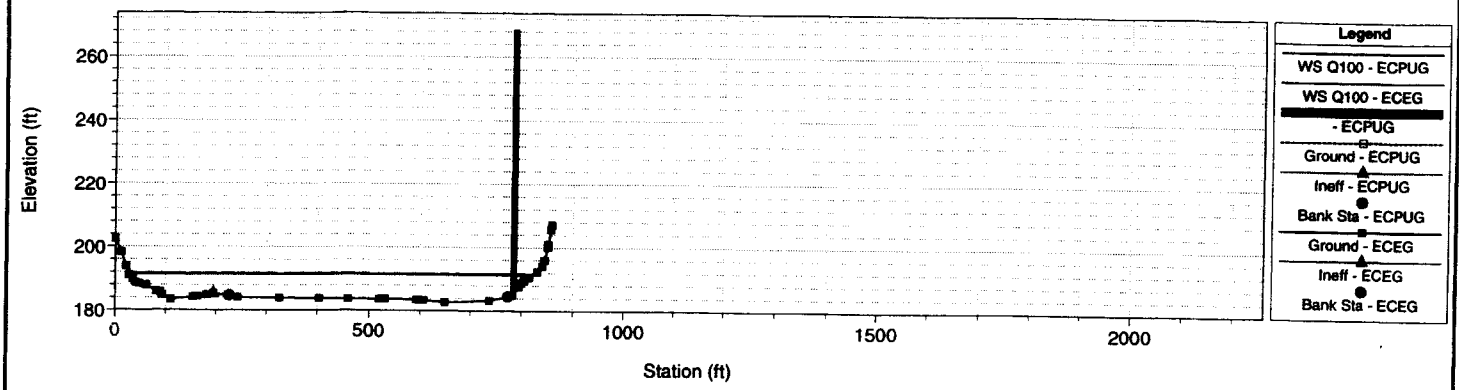
Project Model - D3

RS = 5502.751 CC Alternative - San Juan Creek Crossing



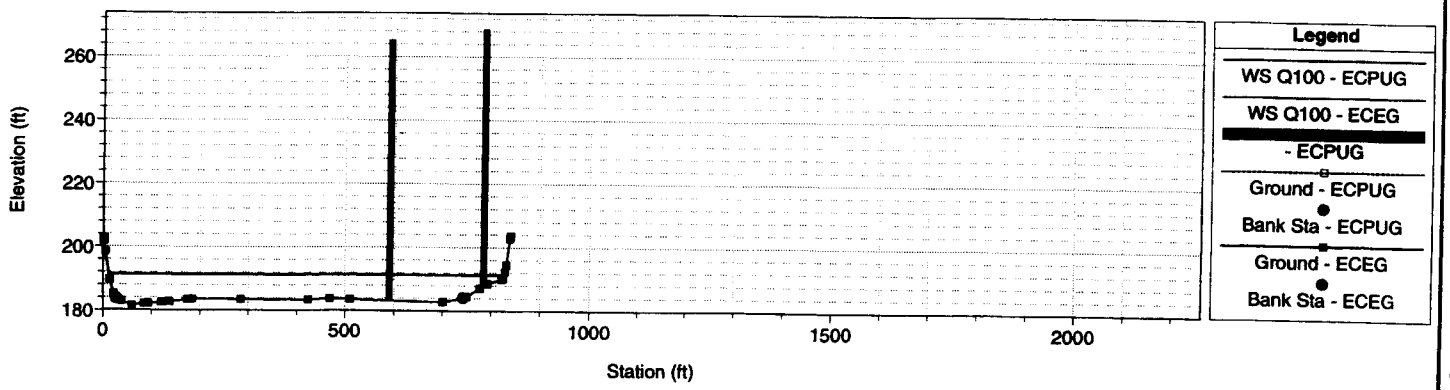
Project Model - D3

RS = 5387.141 CC Alternative - San Juan Creek Crossing



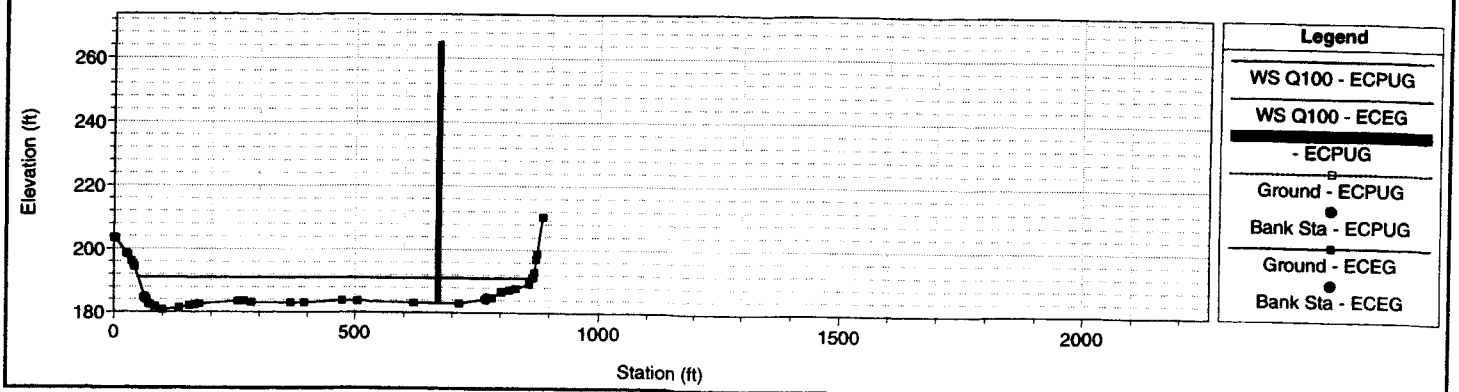
Project Model - D3

RS = 5249.660 CC Alternative - San Juan Creek Crossing



Project Model - D3

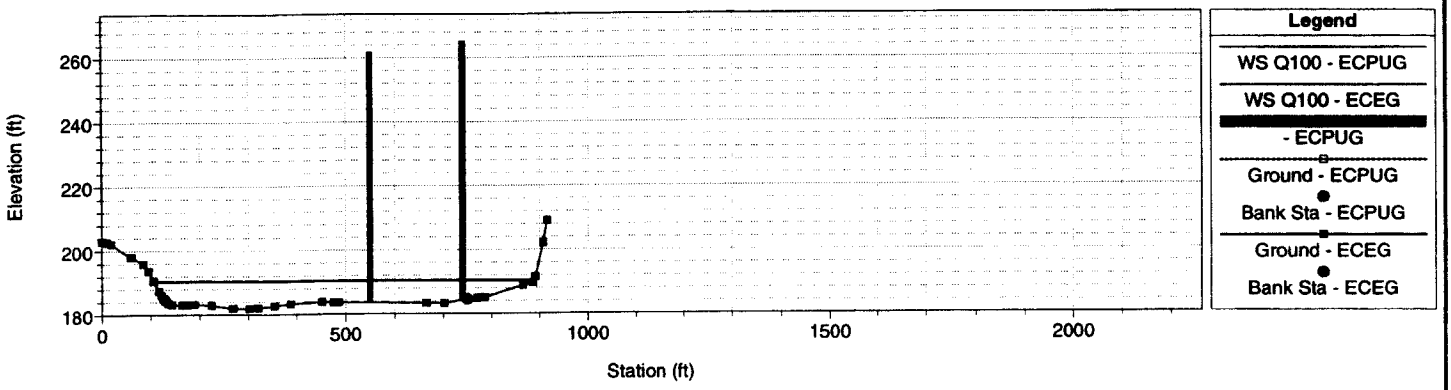
RS = 5093.864 CC Alternative - San Juan Creek Crossing



1 in Horiz. = 400 ft 1 in Vert. = 60 ft

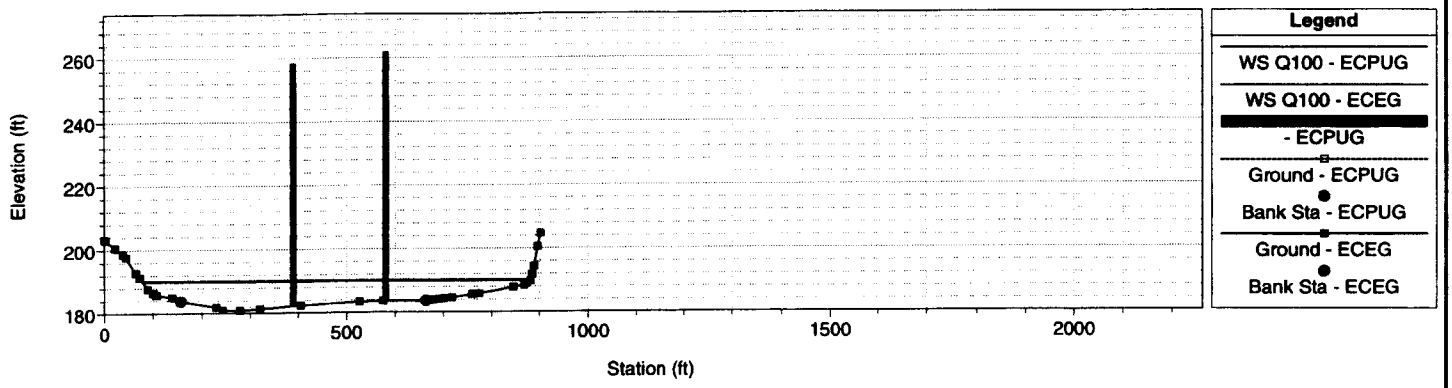
Project Model - D3

RS = 4947.016 CC Alternative - San Juan Creek Crossing



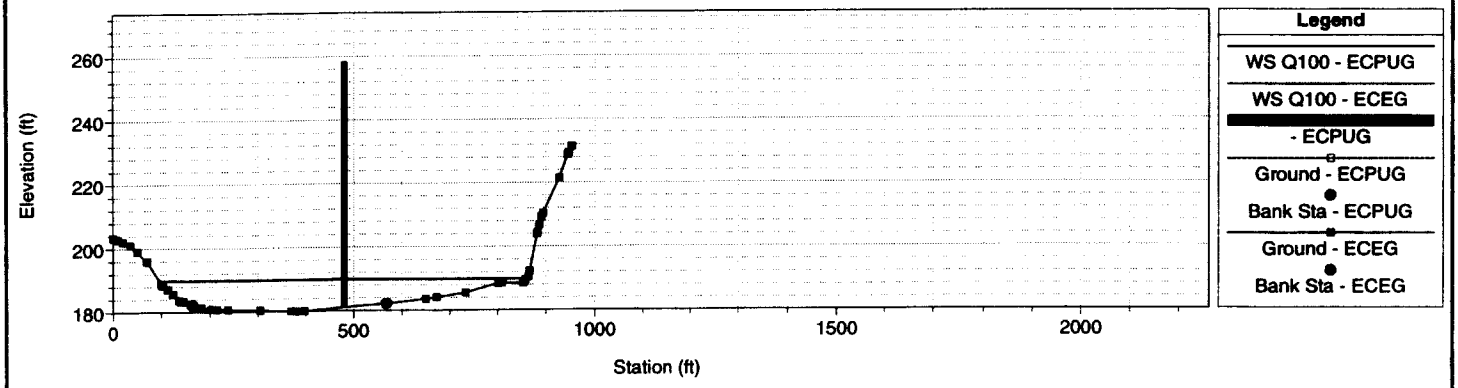
Project Model - D3

RS = 4845.863 CC Alternative - San Juan Creek Crossing



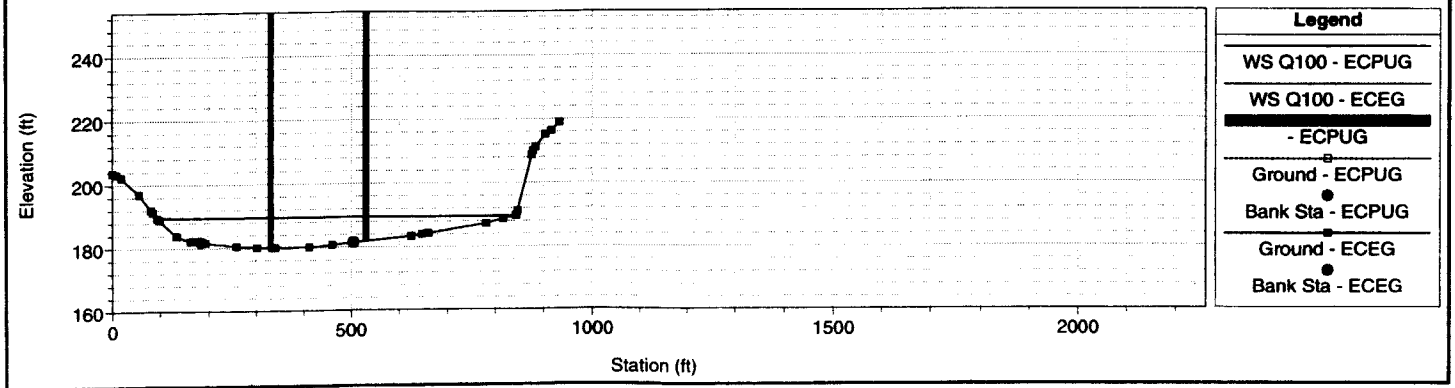
Project Model - D3

RS = 4728.187 CC Alternative - San Juan Creek Crossing



Project Model - D3

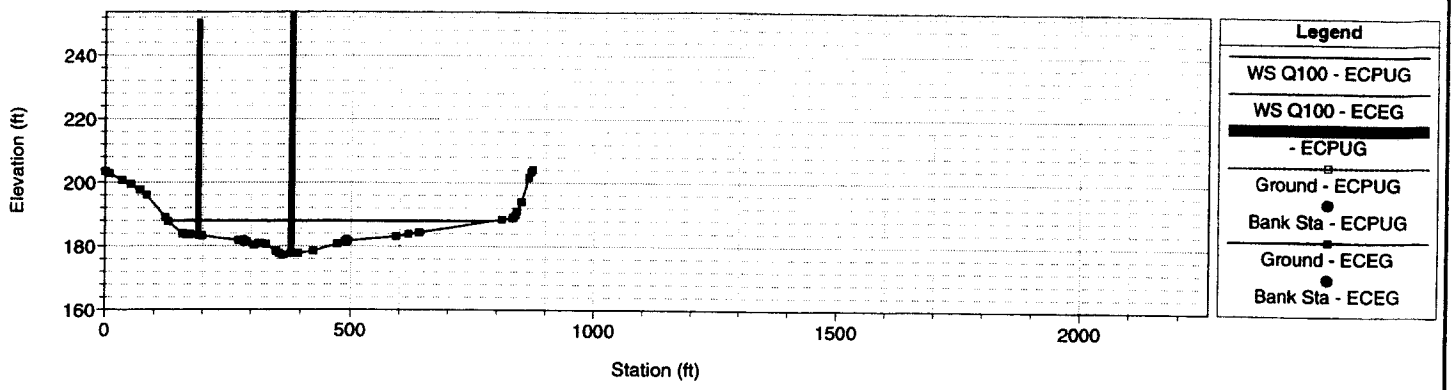
RS = 4631.533 CC Alternative - San Juan Creek Crossing



1 in Horiz. = 400 ft 1 in Vert. = 60 ft

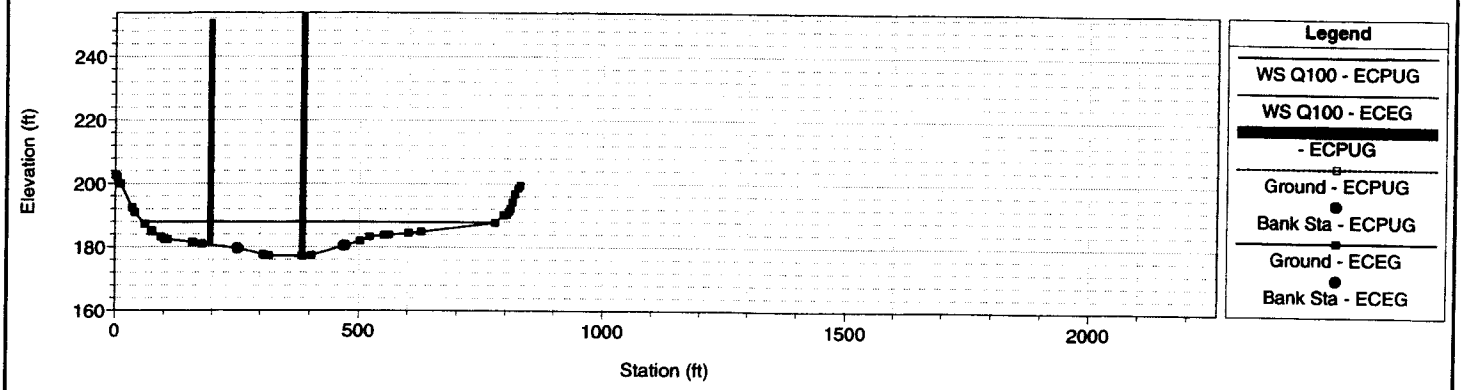
Project Model - D3

RS = 4524.879 CC Alternative - San Juan Creek Crossing



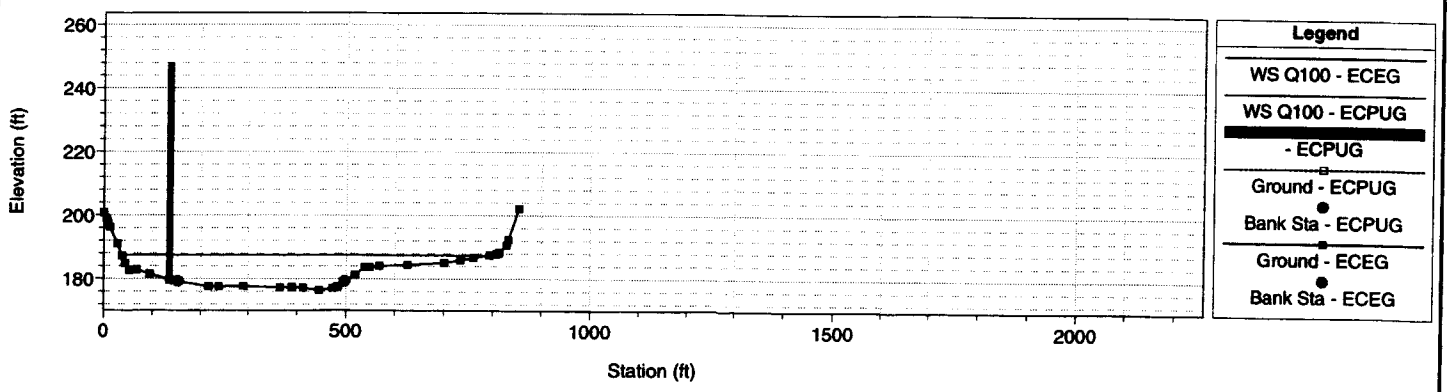
Project Model - D3

RS = 4434.483 CC Alternative - San Juan Creek Crossing



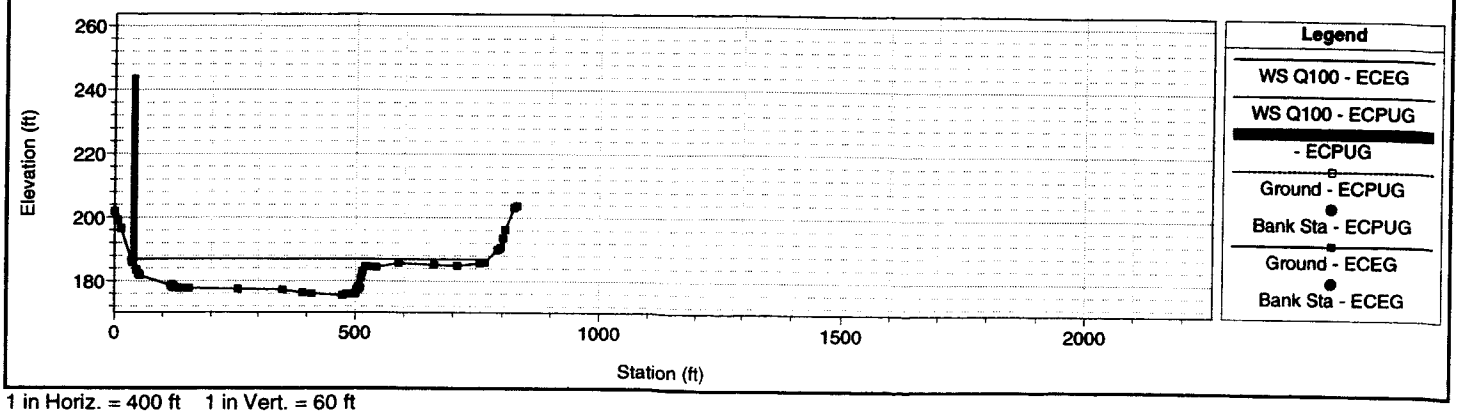
Project Model - D3

RS = 4213.757 CC Alternative - San Juan Creek Crossing



Project Model - D3

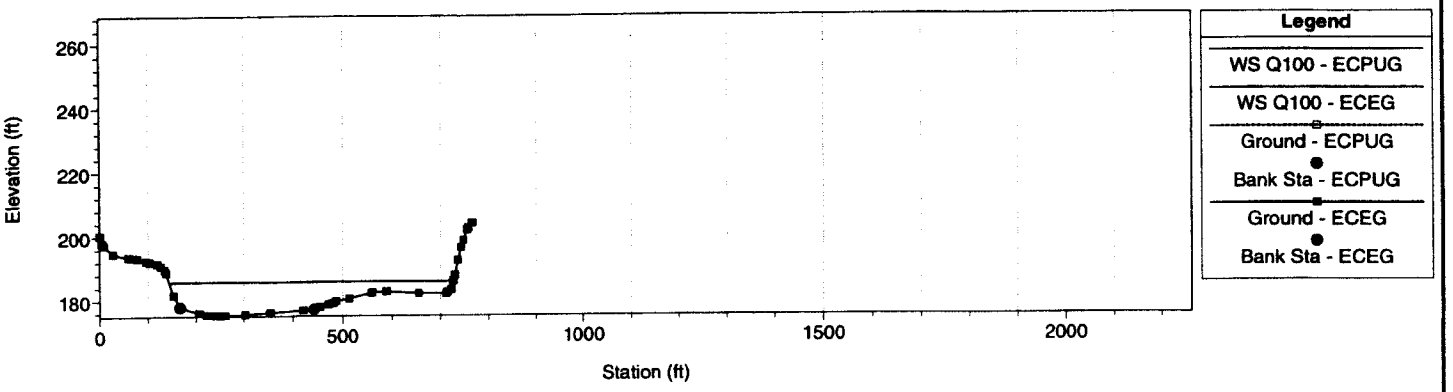
RS = 4008.681 CC Alternative - San Juan Creek Crossing



1 in Horiz. = 400 ft 1 in Vert. = 60 ft

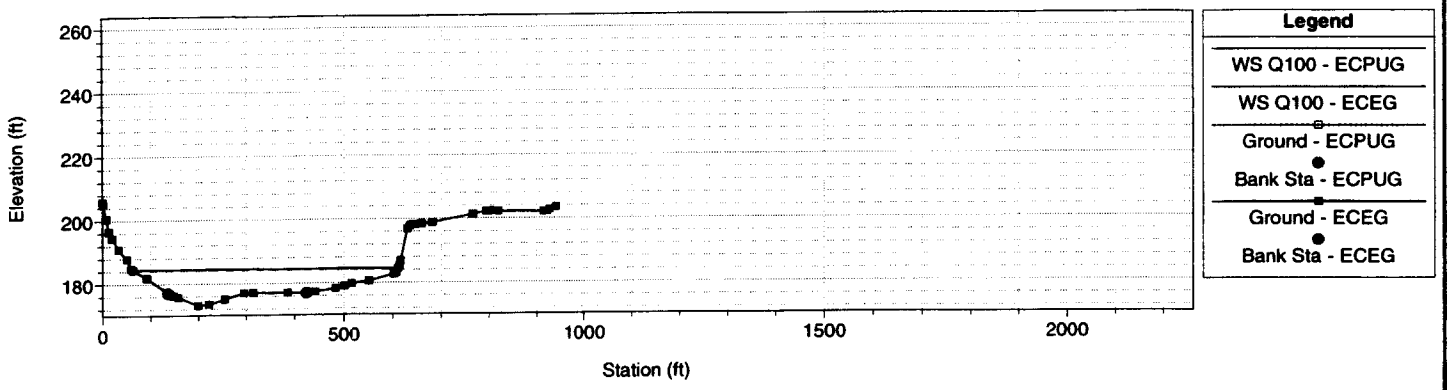
Project Model - D3

RS = 3791.835 CC Alternative - San Juan Creek Crossing



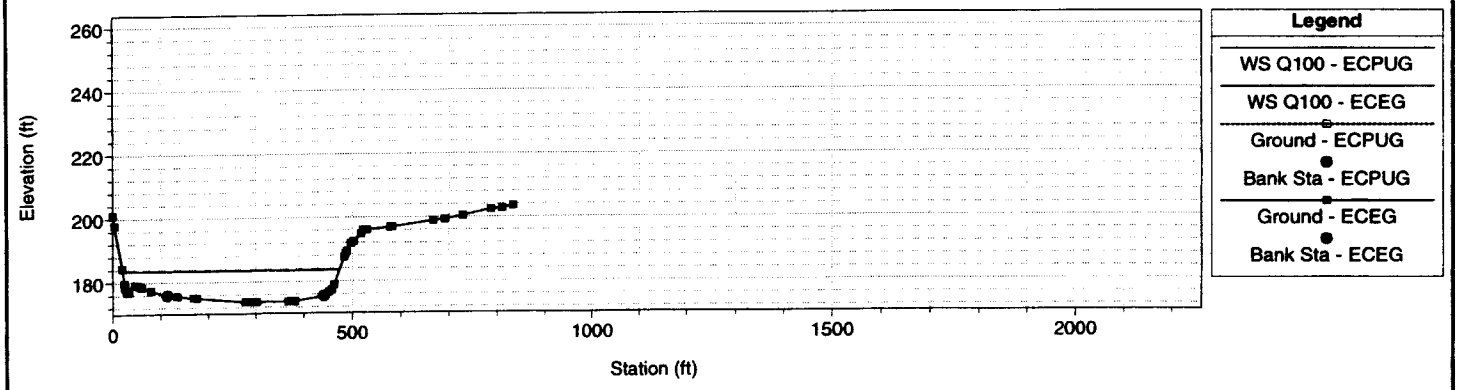
Project Model - D3

RS = 3592.245 CC Alternative - San Juan Creek Crossing



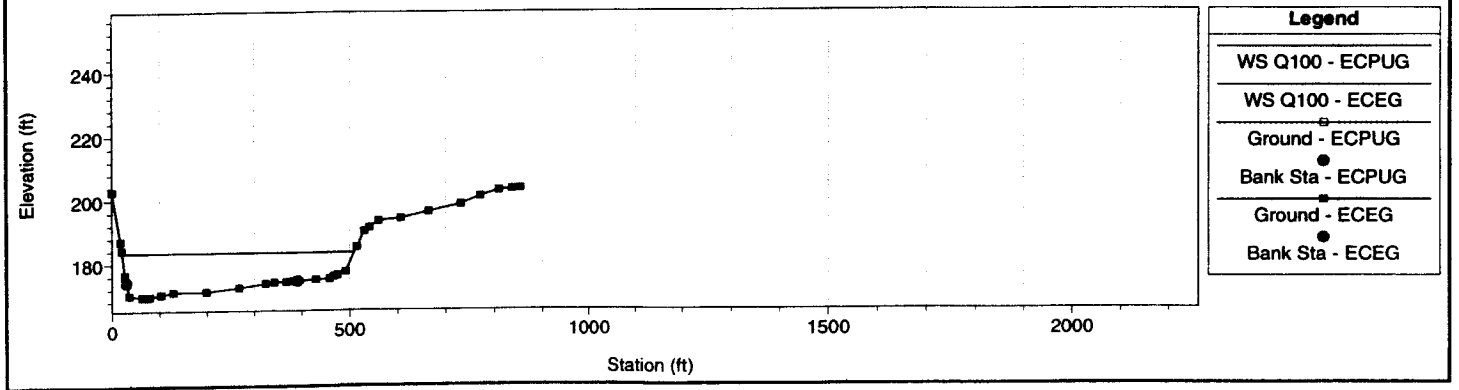
Project Model - D3

RS = 3376.157 CC Alternative - San Juan Creek Crossing



Project Model - D3

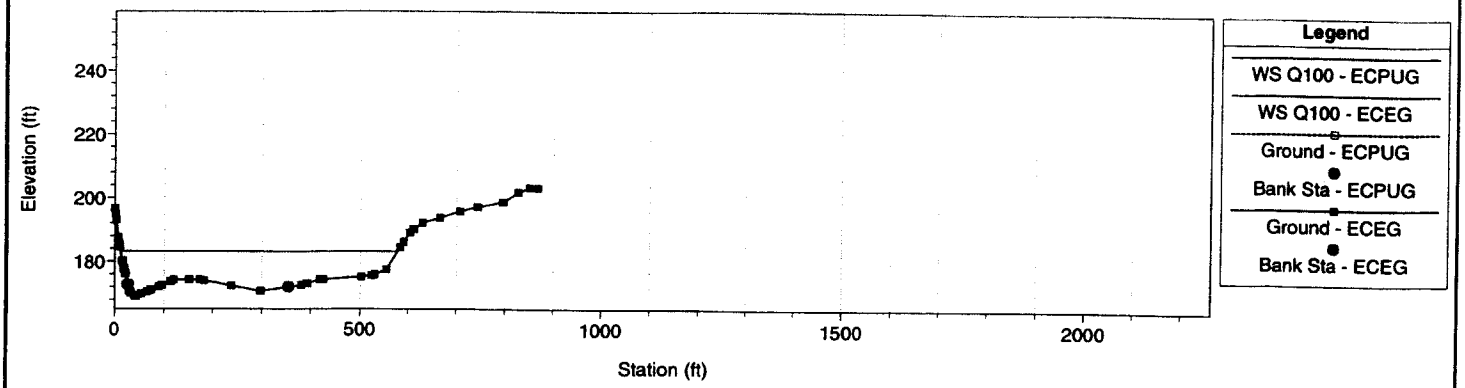
RS = 3169.567 CC Alternative - San Juan Creek Crossing



1 in Horiz. = 400 ft 1 in Vert. = 60 ft

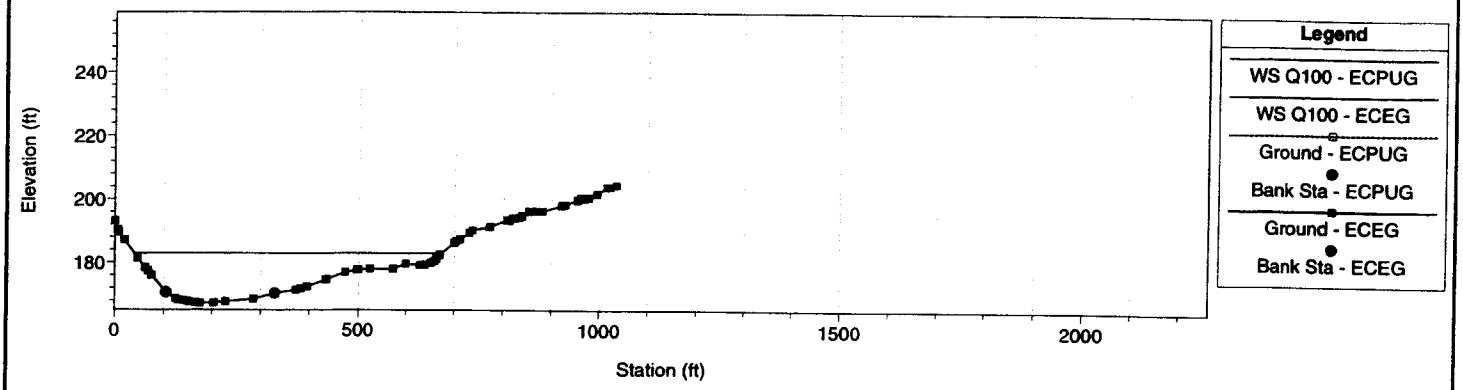
Project Model - D3

RS = 2962.583 CC Alternative - San Juan Creek Crossing



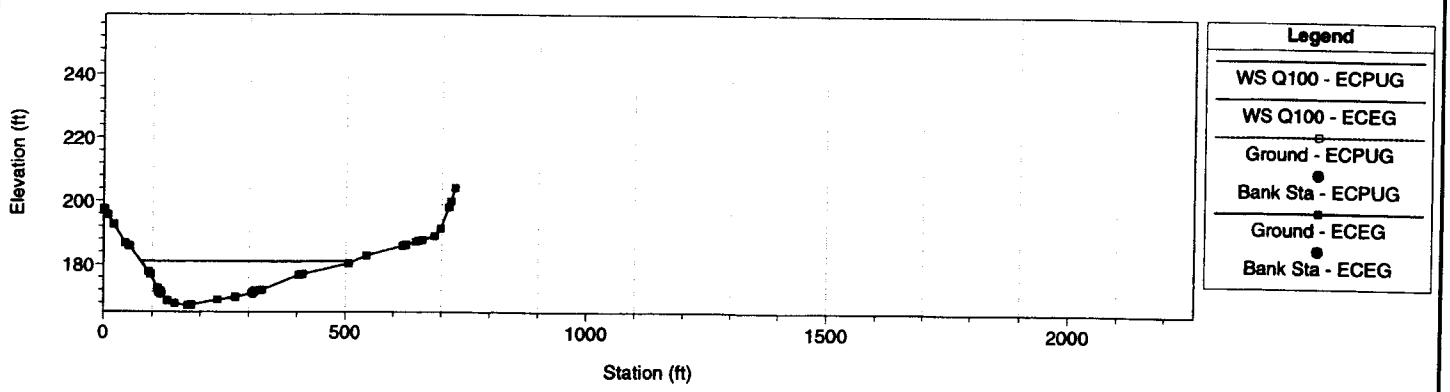
Project Model - D3

RS = 2746.045 CC Alternative - San Juan Creek Crossing



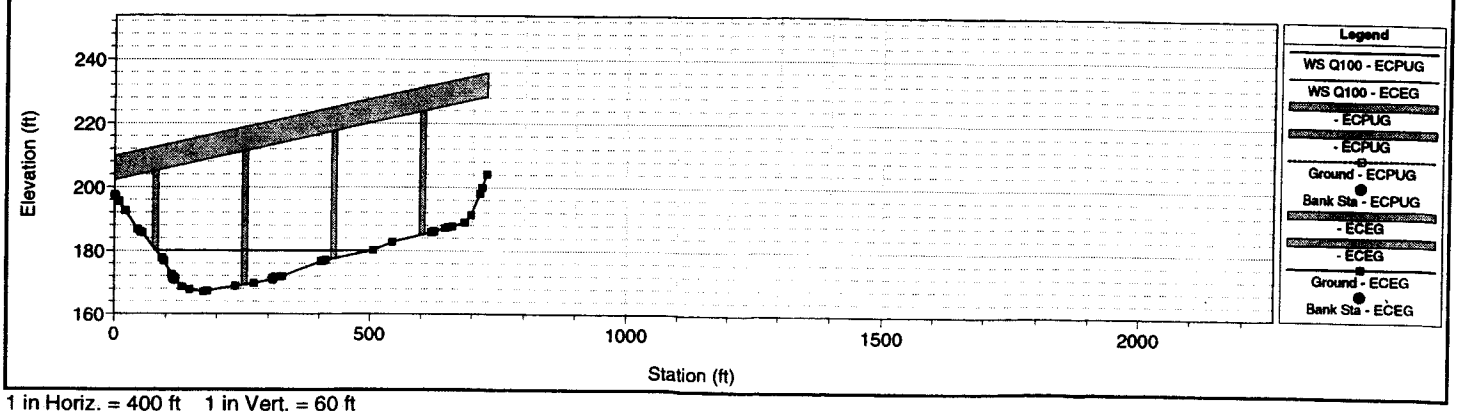
Project Model - D3

RS = 2608.338 CC Alternative - San Juan Creek Crossing



Project Model - D3

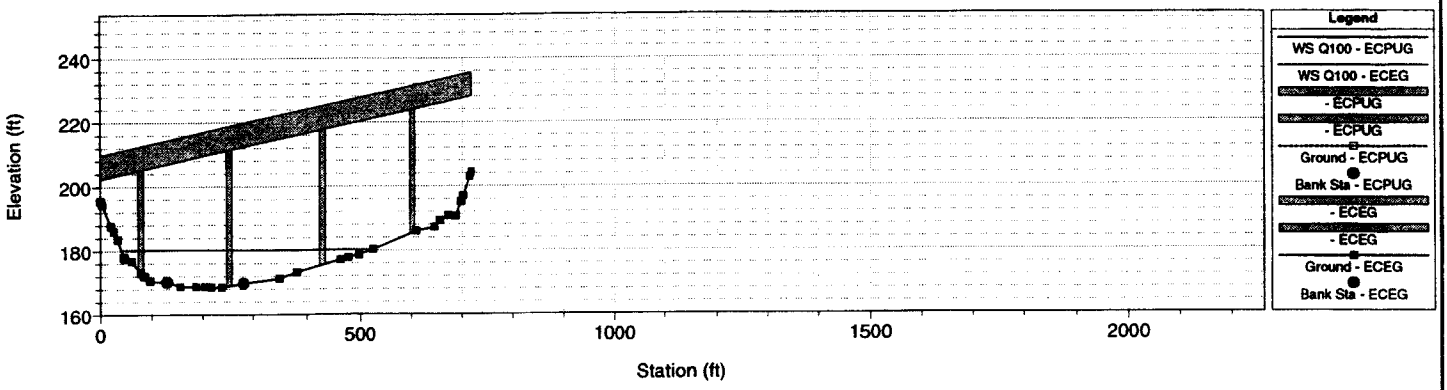
RS = 2580 CC Alternative - San Juan Creek Crossing



1 in Horiz. = 400 ft 1 in Vert. = 60 ft

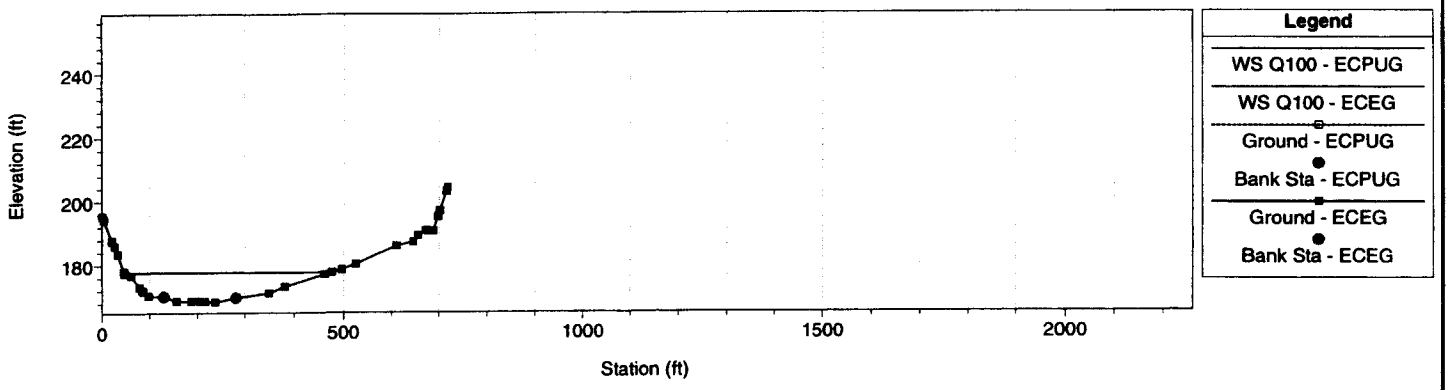
Project Model - D3

RS = 2580 CC Alternative - San Juan Creek Crossing



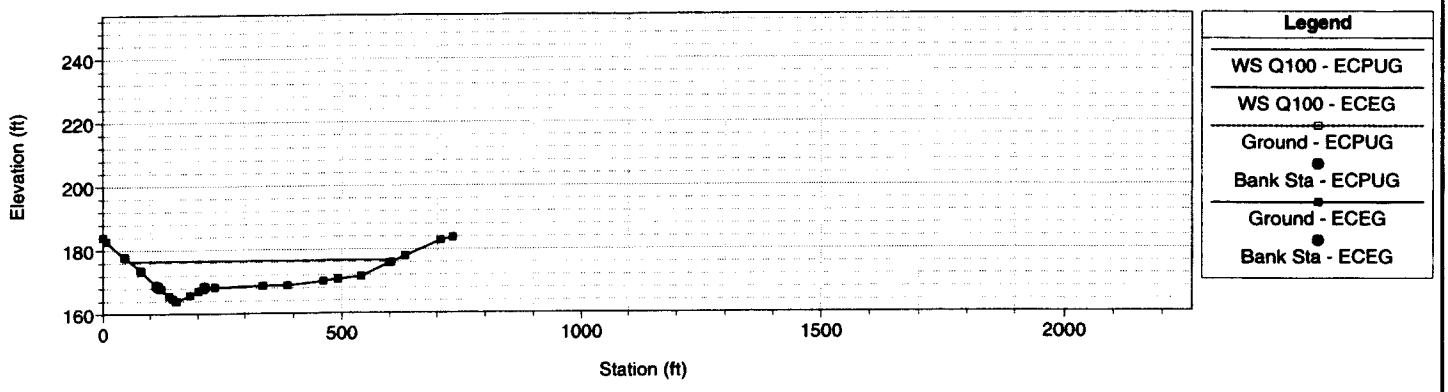
Project Model - D3

RS = 2443.625 CC Alternative - San Juan Creek Crossing



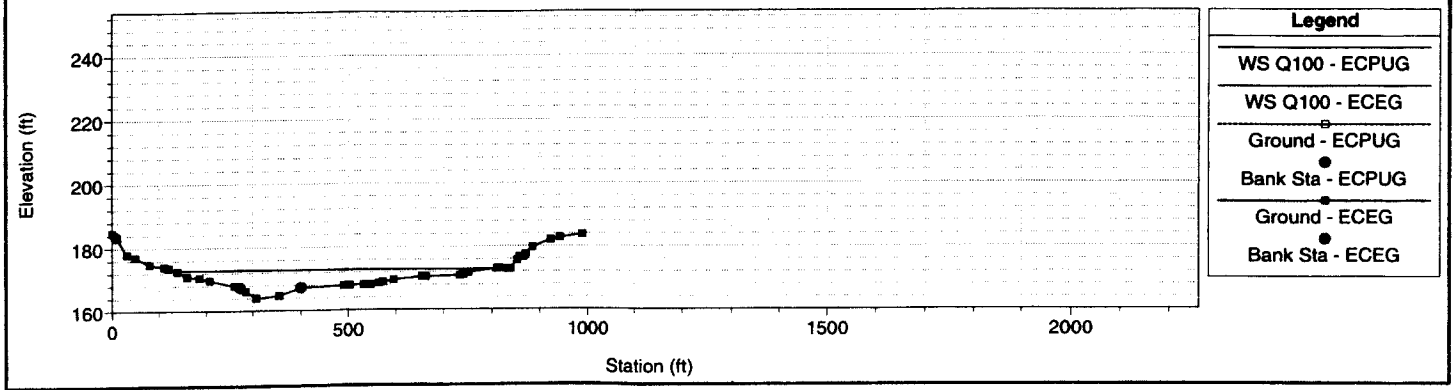
Project Model - D3

RS = 2258.454 CC Alternative - San Juan Creek Crossing



Project Model - D3

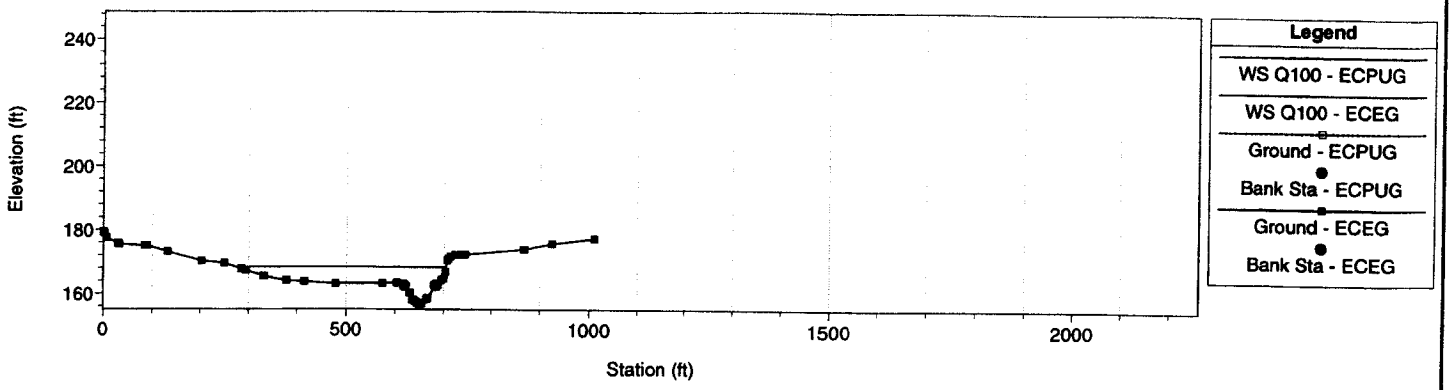
RS = 2095.690 CC Alternative - San Juan Creek Crossing



1 in Horiz. = 400 ft 1 in Vert. = 60 ft

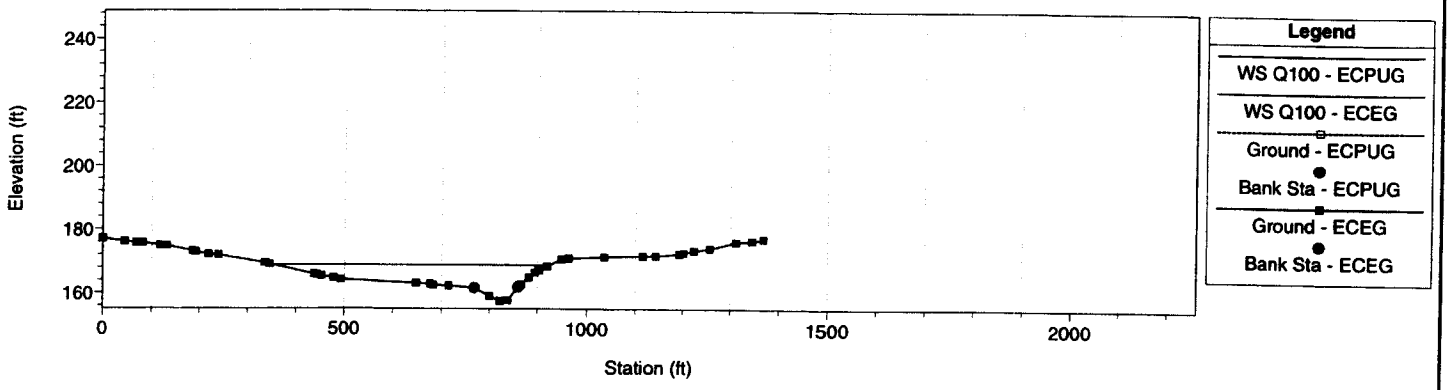
Project Model - D3

RS = 1815.468 CC Alternative - San Juan Creek Crossing



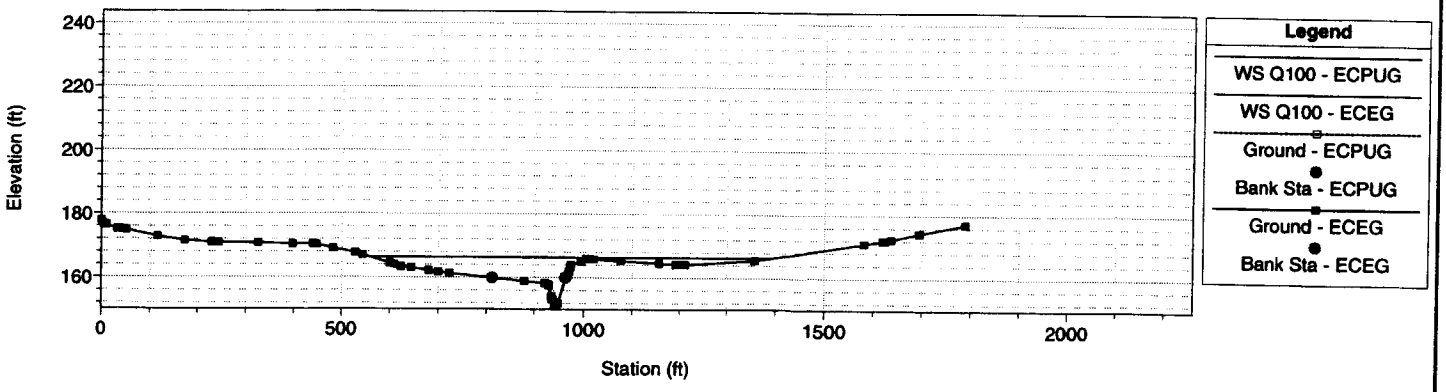
Project Model - D3

RS = 1615.906 CC Alternative - San Juan Creek Crossing



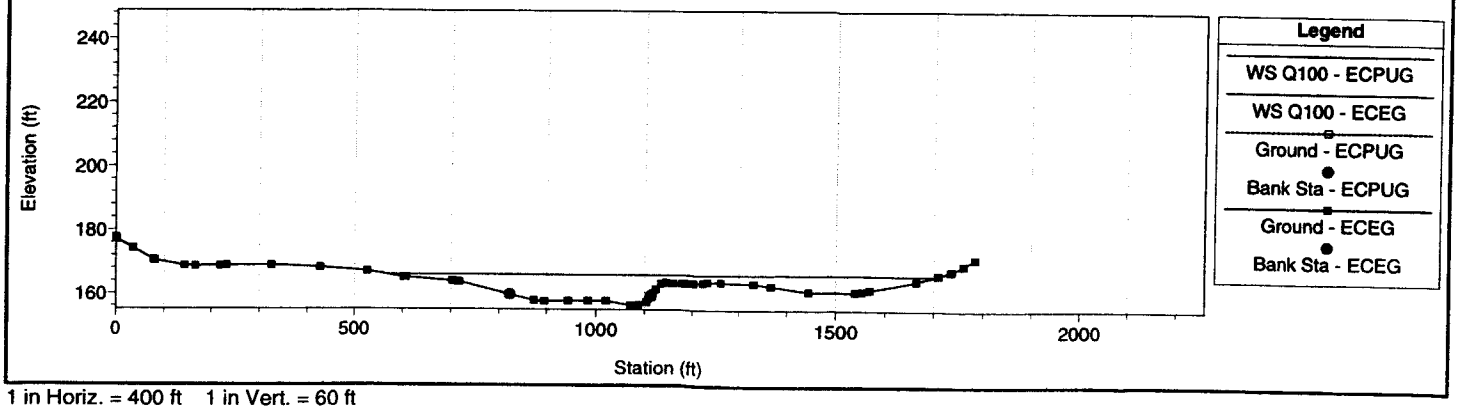
Project Model - D3

RS = 1380.475 CC Alternative - San Juan Creek Crossing



Project Model - D3

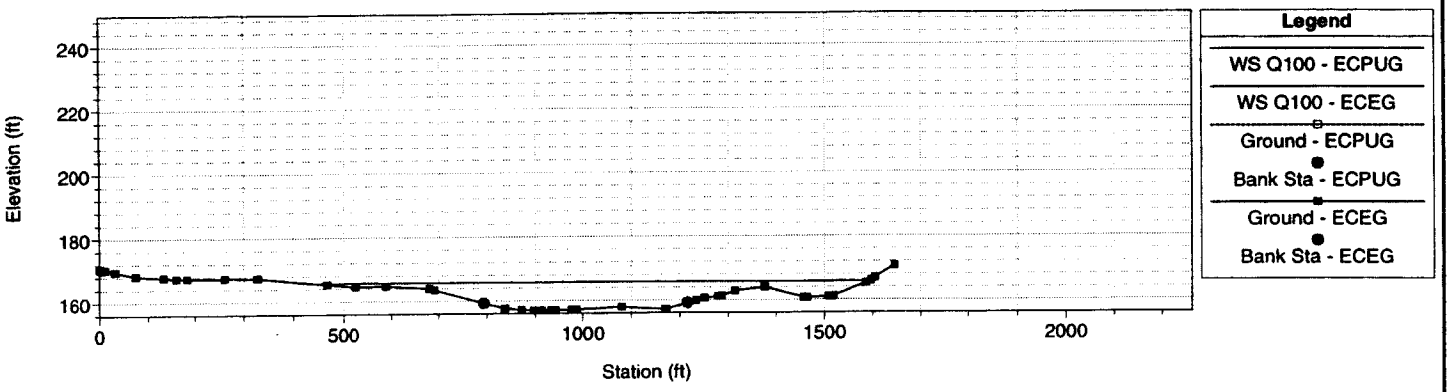
RS = 1141.636 CC Alternative - San Juan Creek Crossing



1 in Horiz. = 400 ft 1 in Vert. = 60 ft

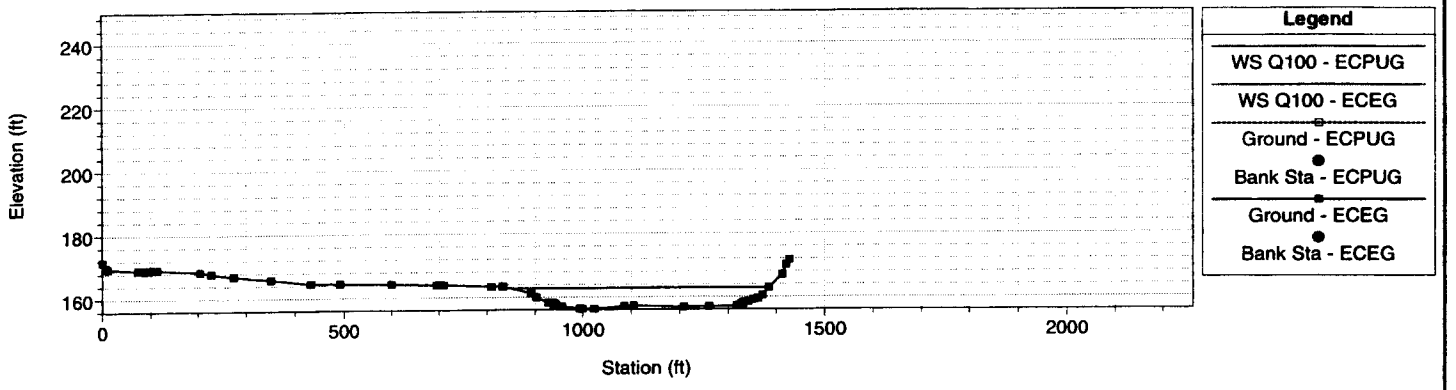
Project Model - D3

RS = 914.451 CC Alternative - San Juan Creek Crossing



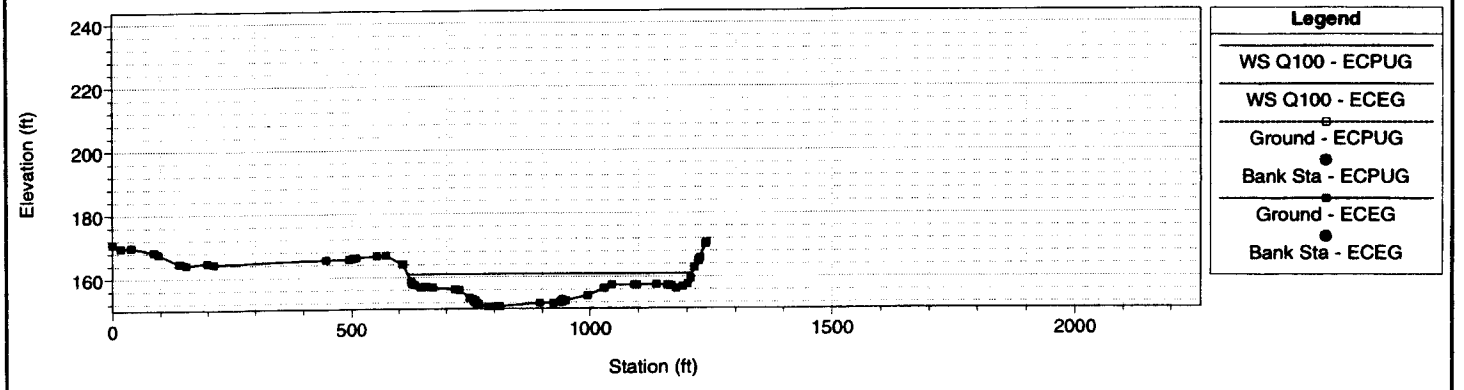
Project Model - D3

RS = 695.814 CC Alternative - San Juan Creek Crossing



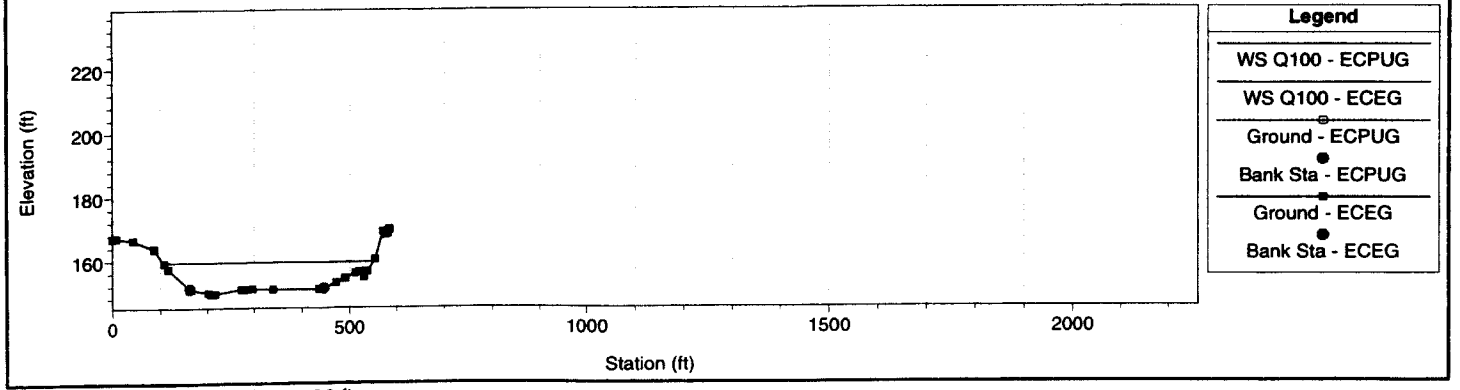
Project Model - D3

RS = 484.781 CC Alternative - San Juan Creek Crossing

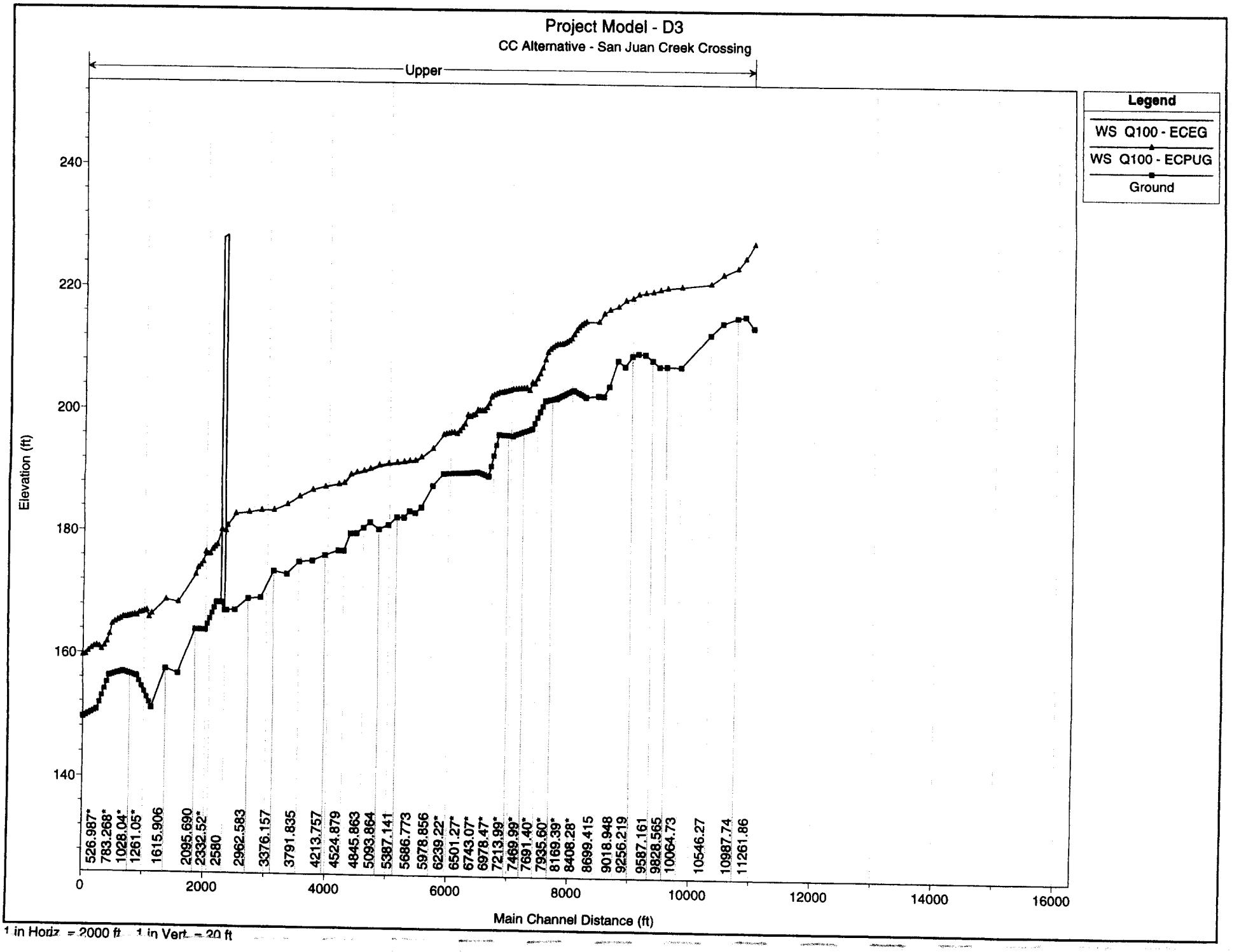


Project Model - D3

RS = 265.003 CC Alternative - San Juan Creek Crossing



1 in Horiz. = 400 ft 1 in Vert. = 60 ft


Project Model - D3
CC Alternative - San Juan Creek Crossing
Upper
Legend
WS Q100 - ECEG
WS Q100 - ECPUG
Ground
Elevation (ft)
240
220
200
180
160
140
526.987*
783.268*
1028.04*
1261.05*
1615.906
2095.690
2332.52*
2580
2962.583
3376.157
3791.835
4213.757
4524.879
4845.863
5093.864
5387.141
5686.773
5978.856
6239.22*
6501.27*
6743.07*
6978.47*
7213.99*
7469.99*
7691.40*
7935.60*
8169.39*
8408.28*
8699.415
9018.948
9256.219
9587.161
9828.565
10064.73
10546.27
10987.74
11261.86
0
2000
4000
6000
8000
10000
12000
14000
16000
Main Channel Distance (ft)
1 in Horiz = 2000 ft 1 in Vert = 20 ft

APPENDIX L
HYDRAULIC MODEL INPUT & RESULTS
A7C ALTERNATIVE AT SAN JUAN CREEK
(MODEL "D4")

Appendix L. **Hydraulic Model Input & Results**

A7C Alternative at San Juan Creek (Model D4)

- Model Report
- Project geometry, plan view
- Cross-sections comparing 100-yr existing and project geometries and water surface elevations
- Geometry and water surface elevation profile

Cross-sections associated with the proposed bridge structure include:

2960	(9710)
2922	(9587)
2886	(9469)
2850	(9351)
2821	(9256)
2785	(9137)
2749	(9019)
2706	(8878)
2678	(8786)

HEC-RAS Version 3.0.1 Mar 2001
U.S. Army Corp of Engineers
Hydrologic Engineering Center
609 Second Street, Suite D
Davis, California 95616-4687
(916) 756-1104

```
X     X  XXXXXX    XXXX        XXXX       XX      XXXX
X     X  X        X    X       X   X     X  X    X
X     X  X        X            X   X    X    X   X
XXXXXXX  XXXX     X       XXX  XXXX     XXXXXX    XXXX
X     X  X        X            X  X     X    X        X
X     X  X        X    X       X   X    X    X        X
X     X  XXXXXX    XXXX        X    X   X    X   XXXXX
```

PROJECT DATA
Project Title: Project Model - D4
Project File : PMD4.prj
Run Date and Time: 12/5/02 10:43:28 AM

Project in English units

Project Description:
A7C Alternative - San Juan Creek Crossing

PLAN DATA

Plan Title: Existing Flow/Existing Geometry
Plan File : p:\2PDA0104\Hydr\LHS\Modeling\Model D\HecRas D\PMD4.p01

Geometry Title: Existing Conditions
Geometry File : p:\2PDA0104\Hydr\LHS\Modeling\Model D\HecRas D\PMD4.g01

Flow Title : Existing Conditions
Flow File : p:\2PDA0104\Hydr\LHS\Modeling\Model D\HecRas D\PMD4.f01

Plan Summary Information:
Number of: Cross Sections = 143 Mulitple Openings = 0
Culverts = 0 Inline Weirs = 0
Bridges = 1

Computational Information
Water surface calculation tolerance = 0.01
Critical depth calculaton tolerance = 0.01
Maximum number of interations = 20
Maximum difference tolerance = 0.3
Flow tolerance factor = 0.001

Computation Options
Critical depth computed only where necessary
Conveyance Calculation Method: At breaks in n values only
Friction Slope Method: Average Conveyance
Computational Flow Regime: Mixed Flow

FLOW DATA

Flow Title: Existing Conditions
Flow File : p:\2PDA0104\Hydr\LHS\Modeling\Model D\HecRas D\PMD4.f01

Flow Data (cfs)

River	Reach	RS	Q2	Q5	Q10	Q25	Q50	Q100	Q100HC
San Juan	Upper	11261.86	399	2710	5235	13333	21312	33597	84230
San Juan	Upper	6151.870	422	2755	5241	13703	22162	34722	86997

Boundary Conditions

River	Reach	Profile	Upstream	Downstream
San Juan	Upper	Q2	Normal S = .007	Normal S = .006
San Juan	Upper	Q5	Normal S = .007	Normal S = .006
San Juan	Upper	Q10	Normal S = .007	Normal S = .006
San Juan	Upper	Q25	Normal S = .007	Normal S = .006
San Juan	Upper	Q50	Normal S = .007	Normal S = .006
San Juan	Upper	Q100	Normal S = .007	Normal S = .006
San Juan	Upper	Q100HC	Normal S = .007	Normal S = .006

GEOMETRY DATA

Geometry Title: Existing Conditions

Geometry File : p:\2PDA0104\Hydr\LHS\Modeling\Model D\HecRas D\PMD4.g01

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 11261.86

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 77

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	242.54	4.3	242.24	17.83	241.34	54.62	239.7	59.18	239.5
123.46	236.63	252.74	235.97	254.58	235.92	258.01	235.88	345.45	235.75
381	235.91	416.15	236.08	421.47	236.09	444.76	236.48	616.89	237.54
635.95	236.85	686.17	237.78	686.35	237.78	686.66	237.76	705.96	236.3
708.32	235.71	712.55	234.41	719.34	230.57	733.27	223.18	741.67	221.95
761.26	220.33	764.68	220.33	795.12	220.3	799.34	220.3	801.34	220.35
818.73	221.46	873.43	224.78	896.84	225.07	943.86	225.66	963.45	225.9
1024.79	223.71	1034.82	223.73	1056.83	223.25	1126.76	222.61	1155.33	223.03
1185.38	223.52	1191.02	222.57	1192.05	222.48	1202.64	218.02	1206.6	216.44
1218.59	215.06	1223.77	214.46	1227.31	214.32	1282.3	216.37	1294.49	216.87
1330.81	218.33	1349.69	217.75	1364.3	217.74	1409.65	216.8	1415.9	217.4
1418.57	217.99	1426.08	219.58	1427.14	219.78	1440.15	223.77	1449.59	224.59
1452.99	224.9	1460.48	225.02	1497.36	225.89	1543.03	226.26	1544	226.23
1544.51	226.23	1545.71	226.27	1661.88	227.31	1687.17	228	1726.31	230.17
1731.68	230.61	1760.22	235.86	1764.18	236.51	1779.94	238.34	1809.73	240.73
1820.32	241.62	1820.66	241.64						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.07	54.62	.035	764.68	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
1202.64	1418.57	130.03	143.07	149.61	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 11118.79

INPUT
Description:
Station Elevation Data num= 73

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	236.28	6.22	236.08	23.39	235.63	72.28	235.01	95.7	234.71
116.39	234.76	145.25	235.39	253.54	235.79	296.34	235.95	305.3	236
306.56	236.01	307.67	236.01	517.86	235.46	582.18	235.91	651.6	235.74
682.29	234.27	691.5	233.97	727.73	228.91	734.54	228.53	741.74	227.01
761.35	223.21	771.59	222.64	772.91	222.56	777.01	222.33	793.57	221.41
795.23	221.26	799.6	221.41	818.65	222.32	835.77	223.06	838.02	223.54
858.58	230	868.91	230.97	873.43	231.61	877.11	231.89	921.97	231.07
922.09	231.07	922.12	231.07	969.56	227.62	975.21	226.75	1009.04	223.72
1016.91	223.3	1063.95	222.15	1075.79	222.76	1092.71	222.9	1162.63	223.35
1187.76	222.47	1242.01	217.99	1252.71	216.77	1255.07	216.57	1255.52	216.54
1317.4	216.46	1319.11	216.45	1372.17	216.23	1398.59	217.3	1421.05	217
1440.94	216.26	1453.06	216.41	1456.68	217.54	1457.61	217.97	1465.34	221.17
1469.74	223.55	1476.75	224.23	1483.58	225.18	1489.7	224.96	1548.76	224.65
1611.98	227.28	1707.68	229.93	1716.91	230.38	1728.83	231.47	1773.15	235.81
1777.73	236.17	1778.68	236.35	1807.01	237.16				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.07	72.28	.035	777.01	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
1242.01	1457.61	113.3	131.05	129.24	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 10987.74

INPUT
Description:
Station Elevation Data num= 86

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	236.29	4.65	236.1	17.71	235.99	40.01	235.81	61.33	235.71
108.51	235.52	135.11	236.1	160.74	235.99	218.01	234.83	278.02	233.69
285.21	233.54	392.39	233.47	443.26	233.45	562.6	232.91	589.54	232.87
600.16	232.54	647.72	231.1	683.46	231.18	692.86	230.59	705.84	229.38
708.6	228.65	713.49	226.92	723.65	223.34	726.23	222.95	734.77	221.65
736.86	221.37	742.25	220.66	781.95	221.62	787.48	221.88	789.8	222.37
802.82	224.27	805.64	225.65	808.72	227.16	812.84	229.18	814.74	230.22
815.95	230.46	827.13	232.22	835.58	232.69	842.86	232.81	865.03	230.7
874.42	229.56	880.31	228.4	884.46	227.12	897.57	223.21	899.81	222.46
900.69	222.26	920.38	221.07	924.94	220.81	935.4	220.22	943.09	220.04
1006.44	218.49	1014.33	219.06	1040.71	222.3	1049.72	223.1	1065.02	223
1092.15	221.8	1106.38	221.42	1157.88	218.22	1200.31	216.53	1236.43	216.46
1266.17	216.4	1271.79	216.38	1382.69	215.95	1401.69	216.34	1412.06	217.68
1439.71	217.96	1447.39	218.97	1452.82	219.2	1467.43	218.38	1501.43	219.15
1519.8	219.56	1548.43	221.03	1558.95	221.44	1589.62	222.71	1603.43	223.49
1604.51	223.52	1605.84	223.54	1625.44	223.62	1645.18	223.96	1647.53	224.07
1649.57	224.32	1723.55	231.37	1734.13	232.95	1747.54	235.46	1759.85	236.07
1771.3	236.43								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.07	17.71	.035	726.23	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
1157.88	1412.06	39.53	39.96	40.57	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 10947.7*

INPUT
Description:
Station Elevation Data num= 129

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	236.25	3.68	236.08	4.37	236.05	16.62	235.92	33.4	235.75
37.56	235.72	57.57	235.61	91.32	235.45	101.86	235.4	126.83	235.86
132.01	235.84	150.89	235.76	162.93	235.54	204.65	234.71	260.99	233.66
267.74	233.52	272.24	233.51	368.35	233.13	394.49	233.04	416.1	233.01
528.13	232.46	543.43	232.42	553.42	232.4	563.39	232.12	608.04	230.88
618.5	230.89	641.59	230.94	650.41	230.45	662.6	229.44	665.19	228.83
665.41	228.76	669.78	227.38	679.32	224.37	681.74	224.04	689.75	222.94
691.72	222.7	696.78	222.1	717.57	222.5	734.04	222.79	739.23	222.99
741.41	223.39	753.63	224.93	756.28	226.07	759.17	227.32	763.04	228.99
764.82	229.85	765.96	230.04	776.46	231.47	784.39	231.83	791.22	231.91
812.03	230.07	816.55	229.57	820.85	229.1	826.38	228.12	830.27	227.04
842.58	223.75	844.68	223.12	845.51	222.95	863.99	221.91	868.27	221.68
878.09	221.16	885.31	221	933.57	219.82	944.78	219.56	952.19	220.02
965.5	221.45	976.95	222.64	985.41	223.26	999.77	223.11	1025.24	221.98
1038.6	221.6	1039.69	221.53	1047.98	221.04	1051.73	220.71	1081.38	218.37
1086.94	217.93	1095.61	217.66	1098.09	217.54	1107.53	217.37	1132.22	216.73
1137.86	216.55	1154.51	216.46	1170.24	216.41	1181.21	216.37	1191.76	216.34
1216.9	216.35	1223.65	216.35	1227.13	216.34	1246.58	216.23	1281.13	216.02
1287.89	216	1290.8	216.01	1290.95	216.01	1324.47	215.97	1333.87	215.92
1356.74	215.8	1383.52	216.28	1398.13	217.48	1401.18	217.52	1422.49	218.07
1429.26	219.02	1434.04	219.29	1446.91	218.82	1452.22	219.02	1462.08	219.42
1476.87	219.88	1493.05	220.38	1503.38	220.98	1518.27	221.77	1527.54	222.16
1554.56	223.34	1566.73	224.05	1567.68	224.08	1568.85	224.1	1586.12	224.25
1603.51	224.62	1605.58	224.72	1607.38	224.94	1639.5	227.98	1651.75	229.14
1655.54	229.5	1672.55	231.28	1673.81	231.47	1681.87	232.86	1693.69	235.31
1695.56	235.46	1704.53	236.07	1704.64	236.08	1714.62	236.48		

Manning's n Values num= 10

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.067	16.62	.038	91.32	.047	681.74	.047	1081.38	.038
1086.94	.047	1166.67	.035	1239.74	.038	1398.13	.05	1714.62	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
1086.94	1398.13	39.53	39.96	40.57	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 10907.8*

INPUT
Description:
Station Elevation Data num= 129

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	236.21	3.44	236.03	4.08	236	15.54	235.86	31.22	235.66
35.11	235.63	53.82	235.51	85.36	235.34	95.21	235.29	118.55	235.62
123.39	235.6	141.04	235.53	152.29	235.35	191.3	234.6	243.95	233.62
250.26	233.5	254.47	233.48	344.31	232.79	368.74	232.61	388.95	232.57
493.66	232	507.97	231.96	517.3	231.93	526.62	231.7	568.35	230.66
578.13	230.66	599.71	230.7	607.96	230.3	619.35	229.49	621.77	229.01
621.98	228.95	626.07	227.83	634.98	225.4	637.24	225.13	644.74	224.23
646.57	224.04	651.3	223.54	670.74	223.8	686.14	223.97	690.99	224.1
693.02	224.41	704.45	225.59	706.92	226.49	709.63	227.48	713.24	228.79
714.91	229.47	715.97	229.63	725.78	230.72	733.2	230.98	739.58	231.01
759.04	229.45	763.25	229.03	767.28	228.63	772.44	227.83	776.09	226.96
787.59	224.29	789.55	223.78	790.33	223.64	807.6	222.75	811.61	222.55
820.78	222.11	827.53	221.95	872.65	220.86	883.12	220.63	890.04	220.98
902.49	222.09	913.19	222.98	921.1	223.43	934.52	223.22	958.33	222.17
970.81	221.78	971.84	221.72	979.58	221.29	983.09	220.86	1010.8	218.15
1016	217.64	1026.12	217.38	1029.01	217.24	1040.03	217.21	1068.84	216.75
1075.42	216.58	1094.84	216.41	1113.19	216.34	1125.99	216.28	1138.3	216.23
1167.64	216.3	1175.51	216.31	1179.57	216.32	1202.27	216.15	1242.57	215.85
1250.46	215.82	1253.86	215.85	1254.03	215.85	1293.14	215.89	1304.11	215.82
1330.8	215.65	1365.34	216.22	1384.2	217.28	1386.84	217.32	1405.27	218.18
1411.12	219.07	1415.26	219.38	1426.39	219.26	1430.98	219.52	1439.51	220.07
1452.3	220.61	1466.3	221.19	1475.23	221.79	1488.11	222.51	1496.13	222.88
1519.5	223.98	1530.03	224.61	1530.85	224.64	1531.86	224.67	1546.8	224.88
1561.84	225.28	1563.63	225.37	1565.18	225.55	1592.96	228.17	1603.57	229.15
1606.84	229.48	1621.56	231.18	1622.64	231.36	1629.62	232.77	1639.84	235.17
1641.45	235.35	1649.22	236.08	1649.31	236.08	1657.94	236.54		

Manning's n Values num= 10

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.063	15.54	.04	85.36	.045	637.24	.045	1010.8	.04
1016	.045	1110.33	.035	1196.79	.04	1384.2	.05	1657.94	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
1016	1384.2	39.53	39.96	40.57	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 10867.8*

INPUT
Description:
Station Elevation Data num= 129

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	236.16	3.2	235.97	3.8	235.95	14.45	235.79	29.04	235.57
32.66	235.54	50.06	235.42	79.4	235.23	88.57	235.17	110.28	235.39
114.78	235.36	131.2	235.3	141.66	235.17	177.94	234.48	226.92	233.59
232.79	233.48	236.7	233.45	320.27	232.46	343	232.19	361.79	232.13
459.2	231.55	472.5	231.5	481.18	231.46	489.85	231.27	528.67	230.44
537.77	230.43	557.84	230.45	565.51	230.16	576.11	229.55	578.36	229.19
578.55	229.14	582.35	228.29	590.65	226.44	592.75	226.23	599.72	225.52
601.43	225.37	605.83	224.98	623.9	225.11	638.23	225.14	642.74	225.21
644.64	225.43	655.26	226.25	657.57	226.91	660.08	227.63	663.44	228.6

664.99	229.1	665.98	229.21	675.11	229.97	682	230.12	687.94	230.11
706.04	228.82	709.96	228.48	713.7	228.17	718.51	227.55	721.9	226.88
732.6	224.83	734.43	224.44	735.15	224.33	751.22	223.59	754.94	223.43
763.48	223.05	769.75	222.91	811.72	221.9	821.46	221.69	827.9	221.94
839.48	222.74	849.43	223.32	856.78	223.59	869.27	223.33	891.42	222.35
903.03	221.96	903.98	221.91	911.19	221.53	914.45	221.02	940.23	217.93
945.07	217.35	956.63	217.11	959.93	216.93	972.52	217.05	1005.45	216.77
1012.97	216.6	1035.17	216.37	1056.14	216.26	1070.78	216.19	1084.84	216.13
1118.37	216.25	1127.37	216.28	1132	216.29	1157.95	216.07	1204.02	215.68
1213.03	215.64	1216.92	215.69	1217.11	215.69	1261.81	215.8	1274.34	215.72
1304.85	215.51	1347.17	216.16	1370.27	217.08	1372.5	217.13	1388.05	218.29
1392.99	219.13	1396.48	219.48	1405.87	219.7	1409.75	220.02	1416.94	220.72
1427.74	221.34	1439.55	222.01	1447.09	222.61	1457.96	223.26	1464.72	223.59
1484.44	224.61	1493.32	225.18	1494.02	225.2	1494.87	225.23	1507.48	225.52
1520.17	225.93	1521.68	226.02	1522.99	226.17	1546.43	228.36	1555.38	229.17
1558.15	229.45	1570.56	231.09	1571.48	231.25	1577.36	232.67	1585.99	235.02
1587.35	235.24	1593.9	236.08	1593.98	236.09	1601.27	236.59		

Manning's n Values num= 10

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.06	14.45	.043	79.4	.043	592.75	.043	940.23	.043
945.07	.043	1054	.035	1153.84	.043	1370.27	.05	1601.27	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
945.07	1370.27	39.53	39.96	40.57	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 10827.8*

INPUT
Description:
Station Elevation Data num= 129

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	236.12	2.96	235.92	3.51	235.91	13.37	235.72	26.86	235.48
30.21	235.44	46.3	235.32	73.44	235.12	81.92	235.06	102	235.15
106.16	235.12	121.35	235.07	131.03	234.98	164.58	234.36	209.89	233.56
215.32	233.45	218.93	233.42	296.23	232.12	317.25	231.77	334.63	231.68
424.73	231.1	437.03	231.04	445.07	231	453.08	230.85	488.99	230.22
497.4	230.19	515.97	230.21	523.07	230.01	532.86	229.61	534.95	229.36
535.12	229.34	538.64	228.75	546.31	227.47	548.26	227.32	554.71	226.81
556.28	226.7	560.35	226.42	577.07	226.41	590.32	226.31	594.5	226.32
596.25	226.45	606.08	226.91	608.21	227.33	610.53	227.79	613.64	228.41
615.08	228.73	615.99	228.79	624.43	229.23	630.81	229.27	636.31	229.21
653.04	228.2	656.67	227.94	660.13	227.71	664.58	227.26	667.71	226.8
677.61	225.37	679.3	225.09	679.96	225.02	694.83	224.43	698.27	224.3
706.17	224	711.97	223.86	750.79	222.94	759.8	222.76	765.76	222.9
776.47	223.38	785.67	223.65	792.47	223.75	804.02	223.44	824.5	222.53
835.25	222.14	836.13	222.1	842.79	221.77	845.81	221.17	869.65	217.71
874.13	217.06	887.13	216.83	890.85	216.62	905.02	216.89	942.06	216.79
950.52	216.62	975.5	216.32	999.1	216.19	1015.56	216.11	1031.38	216.02
1069.11	216.2	1079.22	216.25	1084.44	216.27	1113.63	216	1165.46	215.51
1175.6	215.46	1179.98	215.53	1180.19	215.53	1230.49	215.72	1244.58	215.61
1278.9	215.36	1329	216.1	1356.34	216.88	1358.15	216.93	1370.83	218.4
1374.85	219.18	1377.7	219.57	1385.35	220.13	1388.51	220.53	1394.37	221.37
1403.17	222.07	1412.8	222.83	1418.94	223.43	1427.8	224	1433.31	224.31
1449.38	225.25	1456.62	225.74	1457.19	225.77	1457.88	225.79	1468.15	226.15
1478.5	226.59	1479.73	226.67	1480.8	226.78	1499.9	228.55	1507.19	229.18
1509.45	229.42	1519.57	230.99	1520.31	231.13	1525.11	232.58	1532.14	234.87
1533.25	235.13	1538.59	236.08	1538.65	236.09	1544.59	236.64		

Manning's n Values num= 10

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.057	13.37	.045	73.44	.04	548.26	.04	869.65	.045
874.13	.04	997.67	.035	1110.89	.045	1356.34	.05	1544.59	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
874.13	1356.34	39.53	39.96	40.57	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 10787.9*

INPUT
Description:
Station Elevation Data num= 129

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	236.08	2.72	235.87	3.23	235.86	12.28	235.66	24.68	235.38
27.75	235.35	42.54	235.22	67.48	235	75.27	234.94	93.72	234.91
97.55	234.88	111.5	234.84	120.39	234.79	151.23	234.24	192.85	233.52
197.84	233.43	201.17	233.39	272.19	231.78	291.51	231.34	307.48	231.24
390.26	230.65	401.57	230.57	408.95	230.53	416.31	230.43	449.3	230
457.04	229.96	474.1	229.97	480.62	229.87	489.62	229.66	491.54	229.54
491.7	229.53	494.93	229.2	501.98	228.5	503.77	228.41	509.69	228.1
511.14	228.03	514.88	227.86	530.24	227.72	542.42	227.49	546.25	227.43
547.86	227.48	556.89	227.57	558.85	227.75	560.99	227.95	563.84	228.22
565.16	228.36	566	228.38	573.76	228.48	579.62	228.41	584.67	228.31
600.05	227.57	603.38	227.39	606.56	227.25	610.65	226.98	613.52	226.72
622.62	225.9	624.17	225.75	624.78	225.71	638.44	225.27	641.6	225.17
648.86	224.94	654.19	224.82	689.86	223.98	698.14	223.83	703.61	223.86
713.45	224.03	721.91	223.99	728.16	223.92	738.77	223.54	757.59	222.72
767.46	222.32	768.27	222.28	774.4	222.02	777.17	221.33	799.08	217.49
803.19	216.77	817.64	216.56	821.77	216.32	837.51	216.72	878.68	216.8
888.08	216.65	915.83	216.28	942.05	216.12	960.34	216.02	977.92	215.92
1019.84	216.15	1031.08	216.21	1036.88	216.24	1069.32	215.92	1126.91	215.34
1138.17	215.29	1143.03	215.38	1143.27	215.38	1199.16	215.63	1214.82	215.51
1252.96	215.21	1310.83	216.04	1342.41	216.68	1343.81	216.74	1353.61	218.51
1356.72	219.23	1358.92	219.66	1364.84	220.57	1367.28	221.03	1371.81	222.02
1378.61	222.8	1386.05	223.65	1390.8	224.24	1397.64	224.74	1401.9	225.03
1414.32	225.88	1419.92	226.3	1420.36	226.33	1420.89	226.36	1428.83	226.78

1436.83	227.25	1437.78	227.32	1438.61	227.4	1453.37	228.74	1459.01	229.2
1460.75	229.4	1468.57	230.9	1469.15	231.02	1472.85	232.49	1478.29	234.72
1479.14	235.03	1483.27	236.08	1483.32	236.1	1487.91	236.7		

Manning's n Values num= 10

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.053	12.28	.047	67.48	.038	503.77	.038	799.08	.047
803.19	.038	941.33	.035	1067.95	.047	1342.41	.05	1487.91	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
803.19	1342.41	39.53	39.96	40.57	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 10747.97

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 48

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	236.04	2.48	235.82	22.5	235.29	61.52	234.89	88.93	234.64
109.76	234.6	183.4	233.36	265.76	230.92	366.1	230.11	416.67	229.73
448.27	229.72	483.41	229.02	550.09	226.85	628.93	225.02	650.44	224.67
700.42	222.47	706	222.26	708.53	221.48	728.5	217.27	732.25	216.48
748.15	216.28	752.69	216.01	770.01	216.56	815.29	216.82	856.16	216.23
885	216.05	924.46	215.81	989.32	216.22	1025	215.84	1088.35	215.17
1100.74	215.11	1106.09	215.22	1106.35	215.22	1167.83	215.55	1185.06	215.41
1227.01	215.06	1328.48	216.48	1329.47	216.54	1346.04	221.53	1349.24	222.67
1362.65	225.06	1406.84	228.93	1410.82	229.21	1412.05	229.37	1417.98	230.91
1425.04	234.92	1427.99	236.1	1431.23	236.75				

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	61.52	.035	728.5	.05	885	.035	1025	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
732.25	1328.48	153.99	201.69	181.38	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 10546.27

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 49

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	236.22	15.31	236.1	82.15	233.76	145.91	232.57	204.39	230.63
237.53	229.94	279.43	229.37	322	228.82	357.76	228.36	467.04	225.64
498.68	225.16	542.5	225.53	555.23	225.12	584.32	224.17	590.62	223.73
603.48	222.96	611.71	223	624.09	219.15	633.77	216.5	636.62	216.16
639.41	216.26	650.3	215.4	651.87	215.27	680	214.57	731.07	213.3
734.14	213.24	736.27	213.13	738.91	213.14	785	213.22	794.25	213.24
855.69	215.03	860.69	215.18	900.15	215.88	949.77	216.48	1078.71	216.09
1087.61	216.06	1206.66	216.79	1213.61	217.18	1253.05	218.16	1274.66	219.45
1285.16	219.95	1314.1	223.32	1332.02	224.38	1339.94	224.86	1345.91	225.6
1361.48	227.69	1371.08	228.8	1373.43	229.44	1395.49	235.75		

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	322	.035	603.48	.05	680	.035	785	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
651.87	1078.71	193.88	481.55	278.86	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 10064.73

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 55

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	236.69	2.25	235.52	3.44	235.23	39.26	231	45.72	230.22
46.1	230.2	54.9	229.94	80	229.2	108.21	228.37	136.39	227.57
139.49	227.54	140.5	227.54	144.18	227.6	241.56	229.75	270.67	229.52
308.9	228.27	350.32	225.72	352.38	225.51	357.79	224.93	392.41	221.01
412.12	217.68	417.62	217.01	425.14	213.21	427.78	212	431.1	210.34
431.53	210.31	449.01	207.79	470.75	208.63	515.87	210.35	524.74	210.61
530.85	210.6	630	211.13	685.58	211.43	715.69	211.75	740.32	211.98
814.18	212.46	842.43	212.85	853.67	213.13	909.6	214.49	967.31	216.31
1043.73	216.78	1139.17	217.15	1168.86	217.63	1227.2	218.61	1249.1	218.99
1297.47	221.72	1310.51	222.39	1317.8	222.77	1323.48	223.09	1327.81	224.11
1341.36	226.67	1347.21	228.87	1363.43	234.6	1371.97	237.09	1372.46	237.17

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.07	54.9	.05	80	.035	270.67	.035	630	.035
853.67	.05								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
427.78	814.18	211.89	236.17	217.43	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 9828.565

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 61

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	236.98	1.55	236.3	7.74	234.46	13.66	232.4	19.63	230.85
48.1	227.01	55.82	225.9	61.58	225.47	89.19	224.43	90.37	224.38

102.46	224.18	103.69	224.17	208.98	223.05	239.58	223.07	242.07	223
253.69	222.62	275.8	223.24	279.3	223.44	284.47	221.81	285.5	221.47
288.04	219.66	289.78	218.35	299.1	212	299.55	211.26	305.25	209.37
310.18	208.19	314.04	208.02	316.25	207.91	317.91	207.84	329.99	208.42
340.14	208.91	355.77	209.46	366.15	209.81	377.03	210.22	433.19	210.2
507.35	210.17	548.46	210.16	566.82	210.11	595.74	210.14	686.65	212
715	212.59	721.13	212.72	803.83	214.42	873.18	215.71	887.08	216.05
902.38	216.51	983.81	216.5	1063.49	217.85	1084.26	218.24	1108.83	218.43
1118.78	218.6	1127.28	219.01	1142.48	219.66	1182	221.49	1216.79	222.99
1218.55	223.27	1225.94	226.07	1235.89	227.79	1243.42	229.53	1268.71	234.66
1274.08	235.96								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.07	89.19	.035	242.07	.05	433.19	.035	715	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
299.1	686.65	118.07	118.56	92.16	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 9710.010

INPUT
Description:
Station Elevation Data num= 49

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	237.56	9.65	233.67	16.71	230.9	24.72	229.13	28.53	228.26
47.4	226.46	73.88	223.9	78.37	223.7	81.58	223.63	105.5	223.15
122.06	222.81	128.27	222.82	178.12	222.64	188.98	222.6	240.96	219.54
286.21	216.75	293.2	216.54	298.11	213.76	302.07	212.02	304.78	210.35
306	209.73	310.33	208.75	319.5	207.93	327.69	207.81	340.97	208.4
381.78	209.58	396.96	210.19	422.01	210.14	445.07	210.09	486.21	210.12
570.66	210.19	637.15	211.58	656.46	211.95	802.19	214.72	833.25	215.49
866.72	216.5	916.71	216.49	1038.3	216.49	1044.5	216.6	1052.62	216.99
1075.97	218.25	1080.92	218.83	1086.83	219.53	1132.21	222.55	1137.29	223.24
1138.13	223.4	1140.89	224.99	1144.53	226.44	1172.25	237.73		

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	105.5	.05	422.01	.035	656.46	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
302.07	656.46	105.82	122.85	111.7	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 9587.161

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 51

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	235.13	.85	234.8	16.38	229.87	27.38	227.87	29.69	227.46
31.73	227.22	57.78	224.46	97.35	223.56	128.59	222.34	148.19	221.51
180	220.22	212.56	218.9	281.1	216.65	294.01	216.15	309.99	214.06
312.35	213.75	326.78	212.04	334.41	212.32	338.81	212.32	344.29	212.59
353.29	213.96	362.45	212.15	366.12	211.09	370.15	209.41	372.66	209.12
404.96	208.82	425	208.86	448.67	208.91	545.27	210.01	585	210.6
626.43	211.21	626.55	211.21	642.39	211.44	675.79	212.15	741.69	213.41
753.28	213.48	771.95	214.16	797.84	214.81	853.17	216.48	884.32	216.48
909.54	216.85	996.87	216.79	1043.26	216.64	1056.32	216.22	1058.79	216.57
1065.87	219.78	1069.48	221.22	1074.99	224.9	1086.45	230.37	1093.15	234.08
1095.36	235.39								

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	180	.05	425	.035	545.27	.05	585	.035
642.39	.05								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
362.45	675.79	123.08	118.02	93.39	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 9469.136

INPUT
Description:
Station Elevation Data num= 53

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	237.57	12.94	234.3	17.91	232.7	24.18	230.54	59.34	225.73
76.13	223.7	81.78	223.42	135.85	220.64	169.07	219.04	180.99	218.57
187.82	218.35	215.48	217.65	221.82	217.49	328.29	215	340.74	214.75
358	213.99	370.63	212.99	378.86	212.34	395.08	211.79	399.54	212.37
404.97	212.66	409.25	212.27	415.36	211.65	421.14	211.09	444.15	210.57
463.29	210.43	540.01	209.9	570.3	209.82	614.13	210.4	660.46	211
713.27	211.7	714.02	211.69	724.7	211.51	773.82	210.74	774.7	210.73
786.16	210.77	789.96	210.35	813.58	210.1	816.39	210.42	837.61	211.74
855.43	212.89	859.2	213.18	886.42	214.6	922.31	216.41	926.97	216.6
947.26	216.63	1039.24	216.13	1044.89	216.74	1052.81	221.3	1054.77	222
1061.39	227.39	1073.18	236.6	1077.41	239.66				

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	215.48	.05	463.29	.035	614.13	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
415.36	837.61	89.26	118.5	115.68	.1	.3

CROSS SECTION RIVER: San Juan

REACH: Upper RS: 9350.632

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 41

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	235.55	12.28	233.13	24.99	230.02	52.05	227.19	66.18	225.45
90.05	224.42	117.19	223.07	181.12	219.9	202.42	218.92	220.15	218.12
262.29	217.13	319.13	215.8	384.17	214.49	421.88	212.86	466.73	210.99
480.59	210.33	480.81	210.31	481.1	210.3	481.5	210.29	482.43	210.29
543.33	210.13	639.13	209.9	680	210.42	694.61	210.61	718.93	210.93
772.78	210.62	777.09	210.59	809.31	210.02	871.62	211.73	895.72	212.94
932.8	214.27	978.37	215.79	983.34	215.94	1006.1	216.52	1007.14	216.55
1013.04	217.67	1021.96	219.37	1024.06	219.91	1061.51	230.84	1065.28	232.96
1065.35	233.03								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.07	117.19	.035	202.42	.05	543.33	.035	680	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
466.73	871.62	84.67	94.41	83.86	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 9256.219

INPUT
Description:
Station Elevation Data num= 47

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	235.56	11.33	233.02	23.65	230.11	36.67	228.78	56.57	226.31
63.88	226	149.59	222.37	170.35	221.36	171.49	221.31	219.79	219.17
253.31	217.64	300.03	216.55	413.44	214.26	454.77	212.48	458.88	212.3
495.1	210.77	580.72	209.51	585.58	209.57	628.06	210.1	686.73	209.96
716.31	210.34	716.54	210.34	723.99	210.3	788.11	209.93	818.2	209.76
822.23	209.68	830.02	209.9	836.38	210.22	845.79	210.84	862.11	212.09
871.59	212.66	876.13	212.99	884.78	213.94	909.99	216.15	920.78	216.71
948.86	217.91	978.02	218.84	988.49	219.84	1001.47	220.78	1017.4	221.96
1024.33	222.37	1030.22	223.76	1038.84	226.09	1044.05	229.23	1047.45	230.51
1063.67	234.43	1064.7	234.9						

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.07	63.88	.035	170.35	.05	585.58	.035	723.99	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
495.1	845.79	101.89	118.9	108.87	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 9137.316

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 45

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	235.18	22.33	230.75	42.24	228.2	63.9	225.84	101.49	224.61
150.55	222.89	167.63	221.32	180	220.74	235.15	218.14	244.78	218.25
309.54	217.04	325.48	217.26	379.62	216.78	417.92	216.26	427.16	216.09
488.07	212.8	495.35	212.5	507.55	211.99	537.37	210.2	581.23	209.62
613.53	209.59	642	209.07	682.73	208.32	704.34	208.03	723.51	207.79
727.77	208.32	756.83	209.99	773.79	209.62	780.18	209.47	835.8	209.21
899.08	210.85	912.49	211.72	931.6	212.97	954.81	214.4	955.14	214.42
991.54	215.27	999.52	215.73	1014.81	216.69	1035.94	220.35	1049.41	224.63
1055.27	226.59	1067.37	231.66	1070.65	233.33	1074.77	235.81	1079.2	237.67

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	180	.05	642	.035	773.79	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
537.37	899.08	68.43	118.37	170.91	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 9018.948

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 48

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	236.19	5.61	234.34	19.05	230.7	22.32	229.92	34.98	228.26
58.81	225.12	71.59	224.56	125.23	222.86	136.34	221.54	175.03	217.95
186.19	216.91	194.69	216.65	239.64	216.66	295.33	217.21	331.31	216.54
349.96	216.78	393.11	217.37	395.15	217.35	434.37	217.01	456.94	215.29
464.98	214.87	479.59	211.99	496.75	209.99	501.41	209.82	519.32	209.15
581.79	209.78	592.3	209.97	596.43	209.99	600.8	209.99	617.29	209.94
675	209.57	799.23	208.76	846.63	209.31	856.61	209.49	865.04	209.64
867.03	209.63	887.36	209.5	899.78	209.99	949.51	212.86	954.98	213.65
966.37	215.05	971.53	215.74	976.9	216.45	994.13	221.26	1007.41	226.4
1013.51	229.18	1026.11	234.49	1029.58	236.16				

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	175.03	.05	675	.035	865.04	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
617.29	899.78	103.94	141.14	196.85	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent

888 F

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 8877.807

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 50

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	235.47	16	230.13	23.53	228.82	43.04	226.02	53.75	225.26
97.11	223.1	121.98	220.27	148.33	216.92	149.86	216.85	175.44	216.02
182.43	215.79	264.01	215.76	359.16	215.66	400.91	215.23	404.49	215.19
423.94	214.49	448.47	213.08	478.83	211.44	485.24	211.18	487.34	210.83
536.77	209.27	566.36	209.8	576.89	209.87	666.14	210.47	670.81	210.46
763.6	210.34	781.64	210.19	791.65	210.67	805.26	211.21	820.04	212.02
844.24	213.88	847.94	213.98	871.25	211.93	872.2	211.87	873.1	211.78
885.93	208.92	895.03	204.91	901.36	204.51	923.65	204.73	925.5	204.75
935.26	204.92	948.14	206.25	961.4	208.7	974.67	211.59	982.85	214.28
989.46	216.85	1012.58	226.37	1021.32	230.5	1028.34	234.21	1032.01	235.71

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	175.44	.05	670.81	.035	935.26	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
885.93	961.4	90.38	91.88	97.21	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 8785.928

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 53

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	231.65	17.24	226.79	22.09	226.18	61.29	222.04	91.45	220.2
113.91	217.61	126.85	216.97	154.25	215.99	184.6	215.82	324.44	215.06
367.24	214.93	375.23	214.64	387.3	214.03	407.3	213.48	467.14	211.83
486.18	211.6	514.54	211.07	559.35	209.79	569.19	209.86	616.65	210.18
656.85	209.7	700.89	209.71	776.42	209.15	803.51	210.94	846.49	216.22
850.58	216.45	866.12	214.61	866.92	214.48	867.87	214.26	870.7	213.58
883.15	210.23	900.95	205.79	910.93	204.24	934.29	203.03	935.91	202.95
939.77	202.85	944.19	203.03	960.1	203.43	965.34	204.3	969.91	205.78
976.64	208.01	978.76	208.86	981.84	211.21	984.92	212.46	987.05	211.72
989.84	212.14	992.8	214.24	994.96	215.3	996.84	216.96	998.25	217.71
1017.83	230.92	1023.32	233.95	1025.57	235.44				

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	184.6	.05	656.85	.035	939.77	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
900.95	969.91	89.24	86.51	114.83	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 8699.415

INPUT
Description:
Station Elevation Data num= 57

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	228.96	16.5	224.59	22.67	223.16	25.71	222.88	70.95	218.8
120.94	217.13	132.52	216.5	138.16	216.41	177.33	216.52	226.62	216.35
389.19	215.81	440.44	213.92	516.4	210.08	516.93	210.07	518.16	210.05
540.65	210.23	543.99	209.34	546.05	209.12	554.09	204.61	556.71	203.68
559.84	203.47	564.63	203.29	567.58	203.49	568.92	203.58	576.85	204.46
593.65	206.31	607.75	206.8	611.61	206.94	626.8	207.98	653.38	208
669.55	207.98	689.74	207.95	741.83	207.88	759.1	207.73	776.74	208.88
800.07	211.05	801.37	211.01	843.83	207.44	844.58	207.28	855.43	205.99
872.29	203.81	875.46	203.48	931.18	202.95	944.59	203.18	947.68	203.23
958.4	203.41	961.9	203.6	965.82	204.69	971.93	205.96	986	208.87
993.13	209.98	997.35	212.14	1012.4	223.31	1013.12	223.91	1013.28	224.02
1027.96	234.99	1030.08	236.14						

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	226.62	.05	576.85	.035	607.75	.05	669.55	.035
947.68	.05								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
855.43	971.93	196.8	210.5	198	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 8488.931

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 44

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	223.53	5.06	222.86	50.35	218.19	100.15	216.85	181.75	215.37

191.02	215.13	194.19	215.09	206.53	215.12	333.22	216.49	363.57	216.83
444.57	216.12	466.47	216.8	497.41	217.45	499.38	217.37	501.77	216.86
505	216.26	509.57	215.4	520.92	209.41	521.52	209.1	521.65	209.03
521.85	209	546.91	205.67	556.86	204.35	582	203.55	590.02	203.36
645	203.5	711.54	203.67	715	203.66	770.23	203.53	837.91	203.44
850.34	203.93	869.98	203.3	929.34	202.79	937.43	202.72	946.04	202.93
953.2	203.42	954.83	203.48	957.04	204.49	959.37	205.75	971.52	214.75
979.71	220.55	984.84	223.89	990.63	227.51	990.77	227.61		

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	505	.05	546.91	.035	645	.05	715	.035
971.52	.05								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
546.91	959.37	41.88	40.32	46.55	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 8448.60*

INPUT
Description:
Station Elevation Data num= 91

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	223.41	4.94	222.8	5.82	222.71	22.26	220.92	41.42	218.8
42.88	218.64	48.31	218.02	49.19	217.94	62.64	217.57	89.34	216.92
95.9	216.76	97.85	216.72	129.23	216.27	141.07	216.11	177.58	215.53
186.64	215.33	189.73	215.29	201.79	215.31	218.68	215.44	248.55	215.82
254.46	215.89	325.57	216.49	336.54	216.58	355.23	216.73	377.59	216.54
434.37	216.35	452.5	216.88	455.77	216.98	469.69	217.27	469.74	217.27
469.79	217.27	469.84	217.27	470.11	217.27	481.32	217.28	486	217
487.92	216.78	490.26	216.19	493.41	215.47	494.34	215.25	496.74	214.71
497.88	214.48	501.63	212.72	508.97	209.26	509.55	208.99	509.68	208.92
509.88	208.89	513.05	208.42	534.36	206.02	537.29	205.68	543.57	204.94
550.35	204.73	566.83	204.23	574.25	204.05	607.9	204.02	625.13	203.98
629.18	203.97	655.59	204.05	686.7	203.93	689.9	203.9	694.22	203.86
741.01	203.72	742.29	203.72	803.64	203.59	815.14	203.97	833.31	203.45
882.59	203.04	888.24	203	895.73	202.94	906.93	203.39	914.47	203.9
916.24	204.02	918.36	204.12	921.23	205	924.26	206.08	932.98	209.28
945.94	213.93	951.7	215.91	954.89	216.88	958.92	217.85	960.55	218.32
961.45	218.55	966.14	219.18	967.69	219.41	969.06	219.61	969.7	219.83
969.89	219.9	970.76	220.53	971.27	220.81	975.12	224.05	980.03	228.35
980.28	228.58								

Manning's n Values num= 14

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	41.42	.038	248.55	.047	452.5	.038	493.41	.05
534.36	.035	548.45	.035	627.09	.047	693.26	.035	717.6	.038
899.75	.047	924.26	.047	945.94	.047	980.28	.047		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
534.36	924.26	41.88	40.32	46.55	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 8408.28*

INPUT
Description:
Station Elevation Data num= 91

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	223.29	4.83	222.73	5.68	222.65	21.74	220.82	40.45	218.59
41.87	218.42	47.17	217.77	48.04	217.7	61.17	217.32	87.24	216.76
93.65	216.61	95.55	216.58	126.19	216.28	137.76	216.16	173.41	215.69
182.25	215.53	185.28	215.5	197.05	215.5	213.55	215.58	242.71	216
248.49	216.08	317.93	216.49	328.64	216.55	346.89	216.63	368.72	216.45
424.17	216.58	441.88	217.07	445.07	217.15	458.66	217.44	458.71	217.44
458.75	217.44	458.81	217.44	459.07	217.44	470.02	217.21	474.59	216.54
476.47	216.2	478.75	215.53	481.83	214.67	482.73	214.42	485.07	213.79
486.19	213.57	489.85	212.06	497.02	209.1	497.59	208.87	497.71	208.82
497.9	208.78	501	208.28	521.81	206.37	524.5	206.1	530.28	205.52
536.51	205.34	551.66	204.9	558.49	204.74	589.42	204.59	605.26	204.45
608.98	204.42	633.27	204.52	661.86	204.18	664.81	204.13	668.77	204.07
711.79	203.92	712.97	203.91	769.37	203.75	779.94	204.02	796.65	203.61
841.95	203.24	847.14	203.21	854.03	203.16	867.81	203.85	877.11	204.47
879.28	204.61	881.89	204.76	885.43	205.51	889.16	206.41	901.71	209.18
920.36	213.1	928.65	214.78	933.24	215.46	939.05	215.8	941.39	216.09
942.68	216.23	949.44	215.77	951.67	215.67	953.65	215.57	954.56	215.78
954.84	215.84	956.09	216.8	956.81	217.17	962.36	222.31	969.43	229.19
969.79	229.55								

Manning's n Values num= 14

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	40.45	.041	242.71	.044	441.88	.041	481.83	.05
521.81	.035	535.09	.035	609.17	.044	671.52	.035	694.45	.041
866.06	.044	889.16	.044	920.36	.044	969.79	.044		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
521.81	889.16	41.88	40.32	46.55	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 8367.96*

INPUT
Description:
Station Elevation Data num= 91

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	223.17	4.71	222.67	5.54	222.59	21.22	220.71	39.48	218.37
40.86	218.2	46.04	217.51	46.88	217.45	59.7	217.06	85.15	216.6

91.39	216.47	93.26	216.45	123.16	216.29	134.45	216.22	169.24	215.85
177.87	215.73	180.82	215.7	192.31	215.68	208.41	215.71	236.87	216.18
242.51	216.27	310.28	216.49	320.74	216.52	338.55	216.53	359.85	216.36
413.97	216.81	431.25	217.25	434.36	217.33	447.63	217.61	447.68	217.61
447.72	217.61	447.78	217.61	448.03	217.6	458.71	217.15	463.17	216.09
465.01	215.61	467.23	214.86	470.24	213.88	471.13	213.59	473.41	212.88
474.5	212.65	478.07	211.4	485.06	208.95	485.62	208.76	485.74	208.71
485.93	208.68	488.96	208.13	509.27	206.73	511.72	206.53	516.99	206.11
522.68	205.95	536.5	205.58	542.72	205.43	570.94	205.16	585.39	204.93
588.79	204.88	610.94	204.99	637.02	204.44	639.71	204.37	643.33	204.29
682.57	204.11	683.65	204.11	735.09	203.9	744.74	204.06	759.98	203.76
801.3	203.44	806.05	203.42	812.32	203.39	828.7	204.31	839.74	205.04
842.32	205.21	845.42	205.39	849.62	206.01	854.05	206.75	870.43	209.09
894.78	212.28	905.6	213.65	911.6	214.04	919.17	213.75	922.23	213.86
923.91	213.91	932.74	212.37	935.65	211.92	938.23	211.52	939.42	211.72
939.78	211.78	941.42	213.07	942.36	213.54	949.6	220.57	958.83	230.03
959.3	230.52								

Manning's n Values num= 14

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	39.48	.044	236.87	.041	431.25	.044	470.24	.05
509.27	.035	521.73	.035	591.26	.041	649.78	.035	671.3	.044
832.38	.041	854.05	.041	894.78	.041	959.3	.041		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
509.27	854.05	41.88	40.32	46.55	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 8327.64*

INPUT
Description:
Station Elevation Data num= 91

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	223.05	4.6	222.6	5.41	222.53	20.69	220.6	38.5	218.16
39.86	217.98	44.9	217.25	45.73	217.21	58.23	216.81	83.05	216.43
89.14	216.32	90.96	216.32	120.12	216.29	131.13	216.28	165.07	216.01
173.49	215.93	176.37	215.91	187.58	215.87	203.28	215.85	231.04	216.36
236.54	216.46	302.64	216.49	312.83	216.49	330.2	216.43	350.99	216.27
403.77	217.04	420.63	217.44	423.66	217.51	436.6	217.78	436.65	217.78
436.69	217.78	436.74	217.77	436.99	217.77	447.41	217.08	451.76	215.64
453.55	215.02	455.72	214.19	458.65	213.09	459.52	212.76	461.74	211.96
462.8	211.74	466.29	210.74	473.11	208.79	473.66	208.64	473.78	208.61
473.96	208.57	476.91	207.99	496.72	207.08	498.93	206.95	503.7	206.7
508.84	206.57	521.33	206.25	526.95	206.12	552.46	205.72	565.52	205.41
568.59	205.33	588.61	205.46	612.19	204.69	614.61	204.61	617.88	204.5
653.35	204.3	654.32	204.3	700.82	204.05	709.54	204.11	723.31	203.91
760.66	203.64	764.95	203.63	770.62	203.61	789.59	204.77	802.37	205.61
805.36	205.81	808.95	206.03	813.81	206.52	818.95	207.08	839.16	208.99
869.2	211.45	882.55	212.53	889.95	212.61	899.3	211.7	903.07	211.63
905.15	211.58	916.03	208.96	919.62	208.18	922.81	207.48	924.28	207.67
924.73	207.73	926.74	209.34	927.91	209.91	936.84	218.83	948.23	230.88
948.81	231.49								

Manning's n Values num= 14

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	38.5	.047	231.04	.038	420.63	.047	458.65	.05
496.72	.035	508.36	.035	573.35	.038	628.04	.035	648.15	.047
798.69	.038	818.95	.038	869.2	.038	948.81	.038		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
496.72	818.95	41.88	40.32	46.55	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 8287.319

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 52

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	222.93	5.27	222.47	20.17	220.49	37.53	217.95	38.85	217.76
43.77	216.99	56.76	216.56	80.95	216.27	86.89	216.18	117.09	216.3
127.82	216.34	198.14	215.98	225.2	216.54	230.56	216.65	304.93	216.46
342.12	216.18	410	217.62	425.57	217.95	425.62	217.95	425.66	217.95
425.71	217.94	425.95	217.93	436.11	217.01	447.91	211.93	450.08	211.05
454.51	210.08	464.86	207.84	484.17	207.43	486.15	207.38	495	207.18
533.98	206.29	548.39	205.79	566.28	205.93	592.44	204.71	625	204.49
720.02	203.84	728.92	203.83	765	206.18	783.84	207.41	807.88	208.9
859.5	211.4	868.3	211.19	879.42	209.65	886.38	209.26	899.33	205.55
903.6	204.43	907.39	203.43	909.67	203.67	912.07	205.61	913.46	206.28
924.08	217.09	938.32	232.46						

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	37.53	.05	225.2	.035	410	.05	495	.035
625	.05	765	.035						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
484.17	783.84	21.4	39.31	35.65	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 8248.00*

INPUT
Description:

Station Elevation Data num= 88

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	222.94	3.21	222.53	5.13	222.35	19.63	220.44	32.04	218.66
36.53	218	37.82	217.81	42.6	217.07	50.62	216.69	55.25	216.55
65.26	216.42	65.4	216.42	78.79	216.25	84.58	216.17	105.83	216.2
113.97	216.23	116.25	216.24	124.42	216.27	176.31	216.08	192.86	215.99
210.35	216.3	219.2	216.52	221.16	216.57	224.42	216.64	272.46	216.59
296.81	216.58	333.01	216.4	359.7	216.95	374.41	217.22	378.9	217.27
399.08	217.5	405.58	217.57	414.24	217.05	414.29	217.04	414.33	217.04
414.38	217.03	414.61	217	416.51	216.7	416.87	216.64	424.5	215.84
426.98	214.84	430.84	213.26	435.99	211.26	438.1	210.49	442.41	209.61
445.12	209.07	452.48	207.58	471.28	207.02	473.02	206.97	480.82	206.79
515.15	205.99	527.85	205.55	543.61	205.66	564.77	204.68	566.65	204.59
595.33	204.35	596.25	204.34	679.03	203.66	686.87	203.64	690.04	203.82
701.81	204.23	718.23	204.8	747.72	205.81	762.14	206.3	779.5	207.04
802.03	208.32	803.14	208.37	848.25	210.07	853.92	210.29	862.57	210.08
868.11	209.39	873.51	208.73	874.24	208.69	880.35	208.44	881.83	208.08
882.11	208.03	893.09	206.21	897.29	205.6	898.85	205.37	901.02	205.15
903.26	205.64	905.62	207.61	906.99	208.36	907.47	208.85	914.24	215.48
917.43	218.65	924.94	226.52	931.44	232.92				

Manning's n Values num= 15

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	36.53	.048	50.62	.037	219.2	.037	399.08	.05
471.28	.035	482.42	.035	491.46	.035	550.2	.037	598.66	.048
616.13	.048	760.12	.035	779.5	.037	802.03	.05	931.44	.037

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
471.28	779.5	21.4	39.31	35.65	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 8208.70*

INPUT
Description:
Station Elevation Data num= 88

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	222.95	3.12	222.42	4.99	222.24	19.1	220.39	31.16	218.69
35.53	218.05	36.78	217.86	41.44	217.14	49.23	216.66	53.74	216.53
63.47	216.41	63.61	216.41	76.64	216.24	82.26	216.15	102.93	216.13
110.86	216.16	113.07	216.17	121.01	216.21	171.49	216.09	187.59	216
204.6	216.24	213.21	216.51	215.12	216.57	218.28	216.62	265.01	216.66
288.69	216.7	323.9	216.63	349.86	217.14	364.17	217.36	368.54	217.36
388.17	217.37	394.48	217.38	402.91	216.14	402.96	216.14	403	216.13
403.04	216.11	403.27	216.07	405.12	215.64	405.47	215.57	412.89	214.68
415.3	213.77	419.06	212.33	424.06	210.6	426.12	209.93	430.31	209.15
432.94	208.66	440.11	207.32	458.39	206.6	459.9	206.56	466.64	206.4
496.33	205.7	507.31	205.32	520.93	205.39	539.23	204.54	540.86	204.47
565.66	204.21	566.45	204.2	638.04	203.47	644.81	203.44	649.29	203.68
665.84	204.05	688.94	204.56	730.45	205.43	750.73	205.86	775.16	206.66
797.31	207.8	798.41	207.84	842.76	209.01	848.33	209.18	856.84	208.97
862.29	208.38	867.6	207.8	868.31	207.77	874.33	207.61	875.78	207.33
876.05	207.32	886.85	206.87	890.98	206.77	892.51	206.73	894.64	206.87
896.85	207.62	899.17	209.61	900.52	210.44	900.99	210.92	907.65	217.16
910.79	220.21	918.16	227.71	924.56	233.37				

Manning's n Values num= 15

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	35.53	.046	49.23	.039	213.21	.039	388.17	.05
458.39	.035	469.84	.035	479.13	.035	539.5	.039	589.3	.046
607.26	.046	755.24	.035	775.16	.039	797.31	.05	924.56	.039

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
458.39	775.16	21.4	39.31	35.65	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 8169.39*

INPUT
Description:
Station Elevation Data num= 88

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	222.96	3.03	222.3	4.85	222.12	18.56	220.34	30.29	218.72
34.53	218.09	35.75	217.92	40.27	217.22	47.85	216.63	52.23	216.52
61.69	216.4	61.83	216.39	74.48	216.22	79.95	216.14	100.04	216.07
107.74	216.1	109.89	216.1	117.61	216.14	166.67	216.11	182.31	216.02
198.84	216.18	207.21	216.49	209.07	216.56	212.15	216.61	257.56	216.73
280.58	216.82	314.8	216.85	340.02	217.33	353.93	217.49	358.17	217.45
377.25	217.25	383.39	217.18	391.58	215.24	391.63	215.23	391.66	215.22
391.71	215.2	391.93	215.14	393.73	214.59	394.07	214.49	401.28	213.51
403.62	212.7	407.28	211.39	412.14	209.93	414.13	209.36	418.21	208.68
420.77	208.25	427.73	207.06	445.5	206.19	446.77	206.15	452.46	206.02
477.5	205.4	486.76	205.08	498.26	205.11	513.69	204.41	515.07	204.34
535.99	204.07	536.66	204.07	597.04	203.29	602.76	203.25	608.53	203.55
629.87	203.87	659.66	204.32	713.17	205.06	739.33	205.41	770.82	206.29
792.6	207.29	793.67	207.32	837.27	207.96	842.75	208.06	851.11	207.86
856.47	207.36	861.68	206.88	862.39	206.84	868.3	206.79	869.73	206.58
870	206.6	880.61	207.52	884.67	207.94	886.18	208.09	888.27	208.59
890.44	209.59	892.72	211.61	894.04	212.52	894.51*	213	901.06	218.85
904.14	221.77	911.39	228.91	917.68	233.83				

Manning's n Values num= 15

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	34.53	.044	47.85	.041	207.21	.041	377.25	.05
445.5	.035	457.26	.035	466.8	.035	528.8	.041	579.95	.044
598.38	.044	750.37	.035	770.82	.041	792.6	.05	917.68	.041

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
445.5 770.82 21.4 39.31 35.65 .1 .3
Ineffective Flow num= 1
Sta L Sta R Elev Permanent
888 F

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 8130.08*

INPUT
Description:
Station Elevation Data num= 88

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	222.98	2.94	222.19	4.71	222	18.02	220.29	29.41	218.75
33.53	218.14	34.71	217.97	39.11	217.3	46.46	216.6	50.72	216.5
59.9	216.38	60.04	216.38	72.33	216.21	77.64	216.13	97.14	216
104.62	216.03	106.71	216.04	114.21	216.07	161.85	216.12	177.04	216.03
193.09	216.13	201.22	216.48	203.02	216.55	206.01	216.6	250.11	216.8
272.46	216.94	305.69	217.08	330.18	217.51	343.69	217.63	347.81	217.53
366.34	217.12	372.3	216.99	380.25	214.34	380.3	214.32	380.33	214.31
380.38	214.29	380.59	214.21	382.34	213.53	382.67	213.41	389.67	212.35
391.95	211.63	395.49	210.45	400.21	209.26	402.15	208.8	406.11	208.21
408.59	207.84	415.36	206.81	432.61	205.77	433.65	205.74	438.28	205.63
458.68	205.11	466.22	204.85	475.59	204.84	488.16	204.28	489.28	204.22
506.32	203.94	506.86	203.93	556.05	203.11	560.71	203.05	567.77	203.41
593.91	203.69	630.37	204.09	695.89	204.68	727.92	204.97	766.48	205.91
787.88	206.78	788.94	206.79	831.78	206.9	837.16	206.95	845.38	206.75
850.65	206.35	855.77	205.95	856.46	205.92	862.27	205.97	863.67	205.83
863.94	205.89	874.37	208.18	878.36	209.1	879.84	209.45	881.9	210.31
884.03	211.57	886.27	213.61	887.57	214.6	888.03	215.07	894.46	220.54
897.49	223.33	904.62	230.1	910.79	234.29				

Manning's n Values num= 15

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	33.53	.041	46.46	.044	201.22	.044	366.34	.05
432.61	.035	444.68	.035	454.47	.035	518.1	.044	570.59	.041
589.51	.041	745.49	.035	766.48	.044	787.88	.05	910.79	.044

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
432.61 766.48 21.4 39.31 35.65 .1 .3
Ineffective Flow num= 1
Sta L Sta R Elev Permanent
888 F

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 8090.77*

INPUT
Description:
Station Elevation Data num= 88

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	222.99	2.86	222.08	4.57	221.88	17.49	220.24	28.53	218.79
32.53	218.19	33.68	218.02	37.94	217.37	45.08	216.58	49.2	216.49
58.12	216.37	58.25	216.37	70.17	216.19	75.32	216.11	94.25	215.93
101.5	215.96	103.53	215.97	110.81	216.01	157.02	216.13	171.76	216.04
187.34	216.07	195.22	216.46	196.97	216.54	199.87	216.59	242.65	216.86
264.34	217.06	296.58	217.3	320.35	217.7	333.45	217.77	337.45	217.62
355.42	217	361.21	216.8	368.92	213.43	368.96	213.41	369	213.4
369.04	213.38	369.25	213.28	370.94	212.48	371.26	212.33	378.06	211.18
380.27	210.56	383.71	209.51	388.29	208.6	390.17	208.24	394.01	207.75
396.42	207.44	402.98	206.55	419.72	205.36	420.52	205.34	424.1	205.24
439.85	204.81	445.68	204.61	452.91	204.57	462.62	204.15	463.49	204.1
476.65	203.8	477.07	203.79	515.06	202.93	518.66	202.86	527.01	203.28
557.94	203.52	601.09	203.85	678.61	204.31	716.51	204.53	762.14	205.54
783.16	206.27	784.2	206.26	826.29	205.85	831.58	205.84	839.65	205.64
844.82	205.33	849.86	205.03	850.54	205	856.25	205.14	857.62	205.08
857.88	205.17	868.13	208.84	872.05	210.27	873.5	210.8	875.53	212.03
877.62	213.54	879.82	215.61	881.1	216.68	881.55	217.14	887.87	222.23
890.84	224.89	897.85	231.29	903.91	234.75				

Manning's n Values num= 15

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	32.53	.039	45.08	.046	195.22	.046	355.42	.05
419.72	.035	432.09	.035	442.14	.035	507.4	.046	561.23	.039
580.64	.039	740.61	.035	762.14	.046	783.16	.05	903.91	.046

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
419.72 762.14 21.4 39.31 35.65 .1 .3
Ineffective Flow num= 1
Sta L Sta R Elev Permanent
888 F

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 8051.46*

INPUT
Description:
Station Elevation Data num= 88

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	223	2.77	221.96	4.43	221.77	16.95	220.19	27.66	218.82
31.54	218.24	32.64	218.07	36.78	217.45	43.69	216.55	47.69	216.48
56.33	216.35	56.46	216.35	68.02	216.18	73.01	216.1	91.35	215.87
98.39	215.89	100.35	215.9	107.4	215.94	152.2	216.15	166.49	216.05

181.58	216.02	189.23	216.44	190.92	216.54	193.73	216.57	235.2	216.93
256.22	217.18	287.47	217.53	310.51	217.89	323.21	217.9	327.08	217.71
344.51	216.87	350.11	216.6	357.59	212.53	357.63	212.51	357.67	212.49
357.71	212.46	357.91	212.35	359.55	211.42	359.86	211.26	366.45	210.02
368.59	209.49	371.92	208.57	376.36	207.93	378.19	207.68	381.91	207.28
384.24	207.03	390.6	206.29	406.83	204.94	407.39	204.93	409.92	204.85
421.03	204.52	425.14	204.37	430.24	204.3	437.09	204.01	437.7	203.98
446.98	203.66	447.27	203.65	474.07	202.74	476.6	202.66	486.25	203.14
521.97	203.34	571.8	203.61	661.34	203.93	705.11	204.09	757.8	205.16
778.45	205.75	779.47	205.73	820.8	204.79	825.99	204.73	833.92	204.53
839	204.32	843.95	204.1	844.61	204.08	850.22	204.32	851.57	204.33
851.83	204.46	861.89	209.5	865.74	211.44	867.17	212.16	869.15	213.75
871.21	215.52	873.37	217.61	874.63	218.76	875.07	219.21	881.27	223.91
884.2	226.45	891.07	232.49	897.03	235.2				

Manning's n Values num= 15

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	31.54	.037	43.69	.048	189.23	.048	344.51	.05
406.83	.035	419.51	.035	429.81	.035	496.7	.048	551.88	.037
571.77	.037	735.73	.035	757.8	.048	778.45	.05	897.03	.048

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
406.83	757.8	21.4	39.31	35.65	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 8012.155

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 41

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	223.01	2.68	221.85	26.78	218.85	42.31	216.52	54.55	216.34
54.67	216.34	88.46	215.8	97.17	215.83	147.38	216.16	175.83	215.96
184.87	216.53	227.75	217	300.67	218.08	312.97	218.04	316.72	217.8
339.02	216.41	348.16	210.37	348.46	210.18	356.91	208.42	360.14	207.63
372.07	206.62	393.94	204.53	411.55	203.88	417.48	203.51	434.55	202.47
445.49	203.01	486	203.16	542.52	203.37	693.7	203.65	753.46	204.79
773.73	205.24	815.31	203.74	833.18	203.3	838.69	203.16	845.52	203.58
845.77	203.74	860.83	213.52	868.59	221.28	874.68	225.6	884.3	233.68
890.15	235.66								

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	42.31	.05	417.48	.035	486	.05	542.52	.035
773.73	.05								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
393.94	753.46	39.95	38.28	37.37	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 7973.87*

INPUT
Description:
Station Elevation Data num= 95

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	223.14	2.66	222.09	2.75	222.07	4.18	221.89	8.43	221.4
16.25	220.46	26.54	219.2	41.94	217	48.44	216.79	54.07	216.6
54.19	216.6	74.46	215.9	78.73	215.69	87.68	215.22	96.32	214.9
99.97	214.78	109.04	214.68	116.16	214.61	123.58	214.54	132.03	214.51
146.08	214.64	156.36	214.63	174.28	214.69	180.64	215.07	183.24	215.28
195.25	215.74	222.09	216.5	225.75	216.57	255.87	217.22	257.11	217.23
273.03	217.19	273.28	217.19	284.49	217.09	294.4	216.92	298.02	216.89
310.22	216.61	313.93	216.34	336.04	214.78	345.1	209.76	345.39	209.6
346.98	209.3	353.52	208	353.77	207.95	356.97	207.14	358.34	206.97
360.16	206.83	368.8	206.18	390.47	204.34	406.6	203.72	409.47	203.63
415.87	203.3	423.93	202.9	427.94	202.7	434.28	202.39	445.04	202.85
479.02	203.04	484.9	203.07	517.71	203.26	530.78	203.36	540.51	203.38
611.7	203.47	618.15	203.47	683.78	203.53	684.89	203.52	689.25	203.51
702.04	203.66	715.42	203.88	732.07	204.19	748.04	204.54	768.71	205.07
778.88	204.86	795.05	204.31	811.1	203.75	825.2	203.4	829.32	203.29
830.67	203.25	831.35	203.29	834.94	203.55	836.13	203.72	836.15	203.72
841.91	205.28	842.16	205.47	846.37	208.55	849.47	210.76	852.01	212.53
856.16	215.02	857.52	215.82	858.15	216.37	858.89	216.96	864.57	221.9
865.43	222.59	868.85	224.59	871.64	226.14	881.45	232.6	887.41	234.18

Manning's n Values num= 14

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	41.94	.047	109.04	.038	390.47	.035	413.89	.035
439.94	.035	482.03	.047	491.06	.038	538.25	.038	623.96	.047
748.04	.05	768.71	.05	795.05	.05	887.41	.05		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
390.47	748.04	39.95	38.28	37.37	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 7935.60*

INPUT

Description:
Station Elevation Data num= 95

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	223.28	2.63	222.33	2.72	222.31	4.14	222.13	8.35	221.68
16.1	220.77	26.31	219.55	41.57	217.49	48.01	217.15	53.59	216.86
53.71	216.85	73.8	215.78	78.03	215.44	86.9	214.64	95.46	213.98
99.08	213.7	108.07	213.45	115.13	213.26	122.48	213.07	130.86	212.94
144.79	213.12	154.97	213.17	172.74	213.42	179.04	213.78	181.62	214.03
193.52	214.83	220.11	216.04	223.74	216.14	253.6	216.99	254.83	217
270.61	216.67	270.86	216.66	281.97	216.3	291.79	215.82	295.38	215.71
307.46	215.18	311.15	214.88	333.05	213.14	342.03	209.14	342.33	209.02
343.9	208.75	350.38	207.53	350.63	207.47	353.8	206.65	355.16	206.43
356.96	206.31	365.52	205.73	387.01	204.15	404.31	203.45	407.39	203.37
414.25	203.09	422.9	202.74	427.2	202.57	434.01	202.3	444.59	202.68
478.02	202.94	483.8	202.99	516.07	203.23	528.92	203.38	538.49	203.4
608.52	203.43	614.86	203.43	679.42	203.42	680.51	203.41	684.8	203.38
697.38	203.43	710.54	203.59	726.91	203.89	742.63	204.3	763.69	204.9
774.05	204.84	790.54	204.3	806.9	203.77	821.26	203.39	825.47	203.27
826.84	203.23	827.53	203.34	831.2	203.95	832.4	204.21	832.42	204.22
838.29	206.98	838.55	207.19	842.84	210.67	846.01	213.11	848.59	215.05
852.82	217.39	854.2	218.12	854.85	218.59	855.6	219.05	861.4	223.35
862.27	223.9	865.75	225.51	868.59	226.68	878.59	231.52	884.67	232.71

Manning's n Values num= 14

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	41.57	.044	108.07	.041	387.01	.035	410.29	.035
436.21	.035	478.07	.044	487.04	.041	533.98	.041	619.22	.044
742.63	.05	763.69	.05	790.54	.05	884.67	.05		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
387.01	742.63	39.95	38.28	37.37	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 7897.32*

INPUT
Description:
Station Elevation Data num= 95

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	223.41	2.61	222.57	2.7	222.55	4.1	222.36	8.28	221.95
15.96	221.08	26.07	219.9	41.19	217.97	47.58	217.51	53.11	217.12
53.23	217.11	73.14	215.66	77.33	215.19	86.13	214.07	94.61	213.05
98.19	212.62	107.11	212.22	114.1	211.91	121.38	211.59	129.68	211.38
143.49	211.61	153.59	211.71	171.19	212.15	177.44	212.49	179.99	212.78
191.79	213.91	218.14	215.58	221.74	215.7	251.33	216.76	252.54	216.77
268.19	216.15	268.43	216.14	279.44	215.51	289.18	214.72	292.73	214.52
304.71	213.75	308.36	213.43	330.07	211.51	338.97	208.53	339.26	208.44
340.82	208.2	347.25	207.06	347.49	207	350.63	206.16	351.98	205.89
353.76	205.78	362.25	205.29	383.54	203.95	402.02	203.19	405.31	203.12
412.64	202.88	421.87	202.59	426.47	202.45	433.73	202.22	444.14	202.52
477.01	202.85	482.69	202.9	514.43	203.21	527.07	203.4	536.48	203.41
605.34	203.4	611.57	203.39	675.05	203.3	676.13	203.29	680.34	203.24
692.71	203.19	705.66	203.31	721.76	203.6	737.21	204.05	758.67	204.73
769.23	204.83	786.03	204.3	802.69	203.78	817.33	203.39	821.61	203.26
823.01	203.21	823.71	203.38	827.45	204.34	828.68	204.7	828.7	204.71
834.68	208.69	834.94	208.92	839.32	212.8	842.54	215.47	845.17	217.56
849.48	219.76	850.89	220.42	851.54	220.82	852.32	221.15	858.22	224.8
859.1	225.21	862.65	226.44	865.55	227.22	875.74	230.44	881.93	231.23

Manning's n Values num= 14

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	41.19	.041	107.11	.044	383.54	.035	406.7	.035
432.47	.035	474.1	.041	483.03	.044	529.7	.044	614.48	.041
737.21	.05	758.67	.05	786.03	.05	881.93	.05		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
383.54	737.21	39.95	38.28	37.37	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 7859.05*

INPUT
Description:
Station Elevation Data num= 95

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	223.55	2.59	222.8	2.67	222.78	4.07	222.6	8.2	222.23
15.81	221.4	25.84	220.25	40.82	218.46	47.15	217.88	52.63	217.37
52.75	217.36	72.48	215.55	76.63	214.94	85.35	213.49	93.75	212.12
97.31	211.55	106.14	210.99	113.07	210.56	120.29	210.12	128.51	209.82
142.19	210.09	152.2	210.26	169.64	210.88	175.83	211.19	178.36	211.53
190.05	212.99	216.17	215.12	219.73	215.27	249.06	216.53	250.26	216.53
265.76	215.63	266.01	215.61	276.92	214.72	286.56	213.62	290.09	213.33
301.96	212.32	305.57	211.97	327.09	209.87	335.91	207.92	336.2	207.85
337.74	207.66	344.11	206.59	344.35	206.53	347.47	205.67	348.8	205.35
350.57	205.26	358.98	204.84	380.08	203.76	399.73	202.93	403.23	202.86
411.02	202.67	420.85	202.43	425.73	202.32	433.46	202.13	443.7	202.36
476.01	202.75	481.59	202.81	512.79	203.18	525.21	203.43	534.47	203.42
602.16	203.36	608.29	203.35	670.69	203.19	671.75	203.17	675.89	203.1
688.05	202.96	700.78	203.03	716.6	203.3	731.8	203.81	753.65	204.56
764.4	204.81	781.51	204.3	798.49	203.8	813.39	203.38	817.76	203.24
819.18	203.2	819.9	203.43	823.7	204.74	824.95	205.19	824.97	205.2
831.07	210.39	831.33	210.65	835.79	214.92	839.07	217.83	841.75	220.08

846.14	222.12	847.57	222.72	848.24	223.04	849.03	223.24	855.04	226.26
855.94	226.52	859.56	227.37	862.51	227.76	872.88	229.37	879.19	229.76

Manning's n Values num= 14

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	40.82	.038	106.14	.047	380.08	.035	403.11	.035
428.74	.035	470.14	.038	479.01	.047	525.43	.047	609.74	.038
731.8	.05	753.65	.05	781.51	.05	879.19	.05		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
380.08	731.8	39.95	38.28	37.37	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 7820.775

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 59

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	223.68	2.65	223.02	4.03	222.83	8.13	222.5	15.67	221.71
46.72	218.24	71.82	215.43	75.93	214.69	96.42	210.47	105.17	209.76
112.04	209.21	119.19	208.65	127.34	208.26	150.81	208.8	174.23	209.9
188.32	212.07	214.2	214.66	246.79	216.3	247.98	216.3	263.34	215.11
263.58	215.09	274.39	213.93	283.95	212.52	334.66	207.11	340.97	206.12
345.62	204.81	347.37	204.73	376.61	203.57	397.44	202.67	419.82	202.28
425	202.19	433.19	202.05	475	202.65	511.15	203.16	523.36	203.45
598.98	203.33	605	203.31	666.33	203.08	667.37	203.05	683.39	202.72
695.9	202.75	711.45	203.01	726.38	203.56	759.58	204.79	777	204.3
809.46	203.38	815.35	203.18	816.08	203.47	821.23	205.68	821.25	205.69
832.26	217.05	835.6	220.19	838.33	222.6	842.8	224.49	844.94	225.27
845.74	225.33	851.86	227.71	856.46	228.3	876.45	228.28		

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	105.17	.05	425	.035	475	.05	605	.035
777	.05								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
376.61	726.38	42.15	43.12	43.34	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 7777.65*

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	223.49	3.25	222.74	4.95	222.47	9.99	221.86	16.37	220.99
19.25	220.7	34.19	219.13	42.72	218.24	45.2	218.04	57.38	217.02
74.94	215.55	88.21	214.43	89.94	214.21	93.26	213.79	97.53	213.17
108.47	211.58	116.16	210.41	118.42	210.05	129.17	209.23	137.6	208.59
145.41	208	146.39	207.94	156.4	207.49	177.72	207.97	199.01	208.91
200.62	209.13	211.81	210.64	235.33	212.7	264.94	213.99	266.03	213.99
284.17	212.94	284.45	212.92	297.21	211.92	308.5	210.73	314.62	210.25
368.39	206	375.84	205.16	381.33	204.07	383.4	204	395.83	203.58
400.9	203.4	417.93	202.81	422.37	202.64	441.94	201.9	460.66	201.53
467.75	201.4	473.72	201.29	483.16	201.13	504.63	201.4	520.8	201.61
541.39	201.87	553.35	202.02	564.34	202.25	632.42	202.16	637.84	202.15
693.04	201.97	693.06	201.97	693.99	201.94	708.42	201.69	712.57	201.7
719.68	201.76	733.68	202.06	747.12	202.6	761.63	203.3	768.1	203.61
780.55	203.65	786.66	203.36	798.09	202.85	798.77	202.82	818.65	202.37
820.51	202.33	826.15	202.23	830.78	202.65	831.82	202.74	833.02	202.84
834.93	203.07	836.71	203.29	837.45	203.63	842.63	206.19	842.65	206.21
843.4	206.93	848.01	211.23	853.1	215.85	853.74	216.42	857.1	219.2
859.85	221.35	864.35	223.22	865.09	223.5	866.51	223.96	867.31	224.03
871.03	225.31	873.47	226.21	878.11	226.95	885.16	227.36	895.32	227.88
898.24	228.05								

Manning's n Values num= 14

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	116.71	.047	121.82	.038	392.38	.047	417.93	.038
426.98	.05	463.47	.038	510.53	.05	566.99	.047	632.88	.035
747.12	.05	761.63	.05	798.09	.05	898.24	.05		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
417.93	747.12	42.15	43.12	43.34	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 7734.52*

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	223.29	3.86	222.45	5.87	222.11	11.84	221.22	19.41	220.02
22.82	219.69	40.54	217.9	50.66	216.9	53.6	216.73	68.04	215.8
88.86	214.46	104.6	213.43	106.64	213.24	110.58	212.88	115.64	212.36
128.62	211.03	137.75	209.97	140.42	209.64	153.16	208.7	163.17	207.96
172.43	207.29	173.58	207.22	185.45	206.72	204.64	207.15	223.78	207.91

225.24	208.08	235.3	209.21	256.46	210.74	283.1	211.69	284.07	211.68
304.99	210.76	305.32	210.75	320.04	209.91	333.06	208.93	340.11	208.53
402.12	204.89	410.71	204.2	417.05	203.34	419.43	203.26	433.76	202.84
439.62	202.66	459.25	202.04	464.27	201.87	486.45	201.13	507.64	200.66
515.67	200.52	522.44	200.4	533.13	200.21	552.22	200.42	566.6	200.57
584.91	200.77	595.55	200.88	605.32	201.06	665.86	200.99	670.68	200.98
719.77	200.85	719.79	200.85	720.62	200.84	733.45	200.65	737.14	200.67
743.46	200.77	755.91	201.12	767.86	201.63	782.47	202.5	788.99	202.88
801.53	202.51	807.67	202.1	819.19	201.41	819.87	201.36	839.88	201.02
841.76	200.99	847.44	200.94	852.1	201.92	853.15	202.13	854.35	202.38
856.27	202.89	858.07	203.4	858.81	203.8	864.03	206.71	864.05	206.72
864.81	207.41	869.45	211.28	874.58	215.3	875.22	215.79	878.6	218.21
881.37	220.1	885.9	221.96	886.65	222.23	888.07	222.64	888.88	222.73
892.63	223.85	895.09	224.71	899.75	225.61	906.85	226.43	917.08	227.48
920.02	227.81								

Manning's n Values num= 14

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	128.25	.044	133.87	.041	431.18	.044	459.25	.041
467.74	.05	501.95	.041	546.06	.05	598.99	.044	660.77	.035
767.86	.05	782.47	.05	819.19	.05	920.02	.05		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
459.25	767.86	42.15	43.12	43.34	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 7691.40*

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	223.1	4.46	222.17	6.79	221.74	13.7	220.58	22.46	219.05
26.4	218.68	46.89	216.68	58.6	215.57	62	215.42	78.7	214.58
102.78	213.38	120.98	212.44	123.35	212.27	127.91	211.98	133.76	211.55
148.78	210.47	159.33	209.54	162.42	209.22	177.16	208.16	188.73	207.34
199.44	206.57	200.78	206.51	214.51	205.95	231.55	206.32	248.56	206.92
249.85	207.04	258.79	207.78	277.59	208.77	301.25	209.38	302.12	209.38
325.82	208.59	326.19	208.58	342.86	207.9	357.61	207.14	365.6	206.82
435.85	203.78	445.58	203.24	452.76	202.6	455.46	202.53	471.69	202.11
478.33	201.91	500.57	201.28	506.18	201.11	530.95	200.36	554.63	199.8
563.6	199.64	571.15	199.5	583.1	199.28	599.81	199.43	612.41	199.53
628.44	199.67	637.74	199 74	646.3	199.86	699.31	199.83	703.53	199.82
746.5	199.74	746.52	199.74	747.24	199.73	758.47	199.62	761.7	199.63
767.24	199.79	778.14	200.17	788.61	200.67	803.32	201.7	809.88	202.16
822.5	201.38	828.69	200.83	840.28	199.96	840.97	199.91	861.12	199.67
863.01	199.65	868.72	199.66	873.42	201.18	874.48	201.52	875.69	201.92
877.62	202.72	879.43	203.51	880.18	203.96	885.44	207.22	885.46	207.24
886.22	207.89	890.89	211.33	896.05	214.75	896.7	215.16	900.11	217.23
902.89	218.85	907.46	220.69	908.21	220.97	909.64	221.33	910.46	221.44
914.22	222.4	916.7	223.21	921.4	224.26	928.55	225.5	938.85	227.08
941.81	227.58								

Manning's n Values num= 14

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	139.79	.041	145.91	.044	469.97	.041	500.57	.044
508.49	.05	540.42	.044	581.59	.05	631	.041	688.65	.035
788.61	.05	803.32	.05	840.28	.05	941.81	.05		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
500.57	788.61	42.15	43.12	43.34	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 7648.27*

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	222.9	5.07	221.88	7.71	221.38	15.55	219.94	25.5	218.09
29.97	217.67	53.24	215.45	66.53	214.23	70.39	214.11	89.36	213.36
116.71	212.29	137.37	211.44	140.06	211.31	145.23	211.07	151.88	210.75
168.93	209.92	180.91	209.1	184.42	208.81	201.16	207.63	214.3	206.71
226.46	205.86	227.98	205.8	243.56	205.18	258.47	205.5	273.34	205.92
274.47	205.99	282.28	206.35	298.72	206.81	319.41	207.07	320.16	207.07
346.64	206.42	347.05	206.41	365.69	205.89	382.17	205.35	391.09	205.1
469.58	202.67	480.46	202.28	488.47	201.87	491.49	201.79	509.63	201.37
517.04	201.17	541.89	200.51	548.09	200.34	575.46	199.58	601.61	198.94
611.52	198.76	619.87	198.6	633.07	198.36	647.41	198.44	658.21	198.49
671.96	198.56	679.94	198.6	687.28	198.66	732.75	198.66	736.37	198.66
773.23	198.62	773.24	198.62	773.87	198.62	783.5	198.59	786.27	198.6
791.02	198.8	800.37	199.23	809.35	199.7	824.16	200.9	830.76	201.43
843.47	200.24	849.7	199.57	861.38	198.51	862.07	198.45	882.35	198.32
884.26	198.31	890.01	198.37	894.74	200.45	895.8	200.92	897.02	201.45
898.97	202.54	900.79	203.62	901.54	204.13	906.84	207.74	906.86	207.75
907.62	208.36	912.33	211.37	917.53	214.2	918.17	214.53	921.61	216.24
924.41	217.6	929.01	219.42	929.76	219.71	931.21	220.01	932.03	220.14
935.82	220.94	938.32	221.71	943.05	222.91	950.24	224.56	960.61	226.67
963.59	227.34								

Manning's n Values num= 14

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val

0	.035	151.33	.038	157.96	.047	508.77	.038	541.89	.047
549.25	.05	578.89	.047	617.13	.05	663	.038	716.53	.035
809.35	.05	824.16	.05	861.38	.05	963.59	.05		

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
541.89 809.35 42.15 43.12 43.34 .1 .3
Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888		F	

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 7605.154

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 44

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	222.71	28.54	217.12	59.59	214.23	74.47	212.9	78.79	212.8
130.63	211.2	156.77	210.34	170	209.94	189.08	209.36	202.49	208.66
253.47	205.15	272.62	204.41	299.08	204.95	338.21	204.76	416.58	203.38
547.56	200.64	555.75	200.43	583.21	199.75	590	199.58	648.6	198.08
683.04	197.44	695	197.45	715.48	197.46	799.96	197.51	810.84	197.57
830.09	198.74	845	200.1	851.65	200.71	870.72	198.31	883.17	196.99
903.59	196.97	905.51	196.97	911.3	197.09	917.13	200.31	918.36	200.99
920.32	202.37	929.03	208.84	933.77	211.42	939	213.65	951.32	218.45
957.42	219.49	971.94	223.63	982.38	226.27	985.38	227.11		

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	170	.05	547.56	.035	590	.05	695	.035
845	.05								

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
583.21 830.09 34.01 45.05 44.87 .1 .3
Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888		F	

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 7560.10*

INPUT
Description:
Station Elevation Data num= 89

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	222.65	2.95	222.07	28.15	217.12	33.9	216.5	56.48	214.42
58.77	214.22	70.02	213.24	73.45	212.95	77.71	212.84	119.72	211.48
128.84	211.21	133.84	211.06	144.11	210.74	154.62	210.42	167.67	210.04
169.54	209.99	186.48	209.3	187.63	209.23	199.71	208.44	202	208.26
221.15	206.63	234.91	205.71	249.99	204.67	258.25	204.32	268.88	203.91
294.97	204.26	303.41	204.18	333.56	204.01	388.81	203.1	410.86	202.73
525.48	200.52	540.04	200.23	548.12	200.04	575.2	199.43	583.14	199.25
600.18	198.87	651.64	197.86	672.67	197.55	675.79	197.51	691.91	197.27
703.7	197.29	723.91	197.31	740.85	197.32	774.55	197.36	776.26	197.36
793.18	197.39	807.24	197.42	817.97	197.48	828.06	198.03	836.96	198.51
841.94	198.87	845.41	199.11	849.08	199.38	852.99	199.65	855.87	199.85
860.14	200.15	876.81	198.44	880.64	198.05	894.02	196.89	894.63	196.89
907.37	196.85	915.98	196.82	918.04	196.81	918.77	196.82	924.26	196.91
925.21	197.32	926.71	198.02	930.53	199.8	931.85	200.41	933.96	201.64
934.21	201.79	940.21	205.91	943.33	208.01	943.4	208.05	943.72	208.21
947.24	209.91	948.42	210.48	954.04	212.68	954.97	213.02	967.29	217.15
971.12	217.76	973.85	218.24	980.09	219.91	987.25	222.03	989.46	222.67
994.66	224.03	1000.36	225.66	1000.68	225.75	1003.91	226.71		

Manning's n Values num= 16

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	133.84	.037	167.67	.05	540.04	.037	575.2	.048
582.4	.048	693.73	.035	715.29	.035	771.22	.037	807.01	.048
830.87	.037	836.96	.048	852.99	.048	855.87	.035	894.63	.037
1003.91	.05								

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
575.2 836.96 34.01 45.05 44.87 .1 .3
Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888		F	

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 7515.04*

INPUT
Description:
Station Elevation Data num= 89

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	222.59	2.91	222.01	27.76	217.11	33.43	216.42	55.69	214.4
57.95	214.2	69.05	213.26	72.42	213	76.63	212.88	118.06	211.47
127.04	211.23	131.98	211.08	142.1	210.79	152.46	210.49	165.33	210.15
167.17	210.1	183.89	209.24	185.01	209.16	196.93	208.23	199.18	208.03
218.07	206.11	231.64	205.22	246.51	204.19	254.65	203.81	265.13	203.42
290.86	203.56	299.19	203.45	328.92	203.27	383.39	202.42	405.14	202.09
518.16	200.08	532.52	199.83	540.48	199.66	567.19	199.11	576.28	198.93
595.79	198.53	654.69	197.64	678.75	197.36	682.32	197.32	700.77	197.11
712.41	197.13	732.33	197.15	749.04	197.18	782.28	197.23	783.96	197.23
800.65	197.28	814.51	197.32	825.1	197.39	835.05	197.86	843.82	198.27
849.15	198.58	852.86	198.77	856.79	198.98	860.97	199.2	864.06	199.36
868.62	199.6	886.46	198.12	890.56	197.78	904.88	196.79	905.52	196.79
919.16	196.73	928.36	196.67	930.57	196.65	931.35	196.66	937.23	196.72
938.24	197.07	939.85	197.7	943.94	199.28	945.35	199.83	947.6	200.92

947.86	201.05	954.29	205.14	957.62	207.18	957.7	207.22	958.04	207.39
961.81	209	963.07	209.55	969.09	211.72	970.07	212.05	983.26	215.84
987.35	216.46	990.28	216.99	996.95	218.68	1004.61	221.03	1006.98	221.71
1012.54	223.21	1018.63	225.13	1018.98	225.23	1022.43	226.32		

Manning's n Values num= 16

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	131.98	.039	165.33	.05	532.52	.039	567.19	.046
574.8	.046	692.45	.035	715.24	.035	774.35	.039	812.17	.046
837.39	.039	843.82	.046	860.97	.046	864.06	.035	905.52	.039
1022.43	.05								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
567.19	843.82	34.01	45.05	44.87	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 7469.99*

INPUT
Description:
Station Elevation Data num= 89

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	222.53	2.86	221.95	27.36	217.11	32.96	216.35	54.91	214.38
57.13	214.19	68.07	213.29	71.4	213.05	75.54	212.92	116.39	211.47
125.25	211.24	130.12	211.11	140.1	210.84	150.31	210.57	163	210.25
164.81	210.2	181.29	209.17	182.4	209.09	194.15	208.01	196.37	207.79
214.99	205.58	228.36	204.73	243.03	203.72	251.05	203.31	261.39	202.92
286.76	202.87	294.96	202.73	324.27	202.52	377.98	201.74	399.42	201.44
510.84	199.65	525	199.42	532.85	199.27	559.18	198.79	569.41	198.6
591.39	198.2	657.73	197.41	684.84	197.16	688.86	197.13	709.64	196.94
721.11	196.96	740.76	197	757.23	197.03	790.01	197.1	791.66	197.1
808.12	197.17	821.79	197.23	832.23	197.3	842.04	197.69	850.69	198.04
856.37	198.3	860.32	198.43	864.51	198.59	868.96	198.75	872.25	198.87
877.11	199.04	896.11	197.8	900.47	197.52	915.73	196.69	916.42	196.69
930.94	196.6	940.75	196.52	943.1	196.5	943.94	196.5	950.19	196.54
951.28	196.81	952.99	197.37	957.34	198.77	958.84	199.25	961.25	200.19
961.52	200.3	968.37	204.37	971.92	206.35	972	206.39	972.37	206.56
976.38	208.09	977.73	208.61	984.13	210.75	985.18	211.09	999.23	214.54
1003.59	215.17	1006.7	215.74	1013.82	217.44	1021.98	220.02	1024.49	220.75
1030.42	222.39	1036.91	224.6	1037.29	224.71	1040.96	225.92		

Manning's n Values num= 16

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	130.12	.041	163	.05	525	.041	559.18	.044
567.2	.044	691.18	.035	715.19	.035	777.48	.041	817.34	.044
843.91	.041	850.69	.044	868.96	.044	872.25	.035	916.42	.041
1040.96	.05								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
559.18	850.69	34.01	45.05	44.87	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 7424.94*

INPUT
Description:
Station Elevation Data num= 89

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	222.48	2.82	221.89	26.97	217.11	32.49	216.27	54.12	214.36
56.32	214.18	67.1	213.31	70.38	213.1	74.46	212.96	114.72	211.46
123.45	211.25	128.25	211.13	138.09	210.89	148.16	210.64	160.66	210.35
162.45	210.31	178.69	209.11	179.79	209.02	191.37	207.8	193.56	207.55
211.91	205.05	225.09	204.24	239.55	203.24	247.46	202.8	257.64	202.43
282.65	202.17	290.74	202	319.63	201.78	372.56	201.06	393.69	200.79
503.52	199.22	517.48	199.02	525.22	198.89	551.17	198.47	562.55	198.28
586.99	197.86	660.78	197.19	690.92	196.97	695.39	196.94	718.51	196.77
729.82	196.8	749.18	196.85	765.42	196.89	797.74	196.96	799.37	196.97
815.59	197.06	829.07	197.13	839.36	197.21	849.03	197.53	857.56	197.81
863.58	198.01	867.78	198.09	872.22	198.2	876.95	198.3	880.44	198.38
885.59	198.49	905.76	197.48	910.39	197.26	926.58	196.59	927.31	196.58
942.73	196.48	953.13	196.37	955.63	196.34	956.52	196.34	963.16	196.35
964.31	196.56	966.12	197.05	970.74	198.25	972.34	198.67	974.89	199.46
975.18	199.56	982.44	203.59	986.21	205.52	986.31	205.56	986.69	205.74
990.95	207.18	992.38	207.68	999.18	209.79	1000.29	210.12	1015.2	213.24
1019.83	213.87	1023.13	214.49	1030.68	216.21	1039.34	219.01	1042.01	219.79
1048.31	221.57	1055.19	224.07	1055.59	224.2	1059.49	225.52		

Manning's n Values num= 16

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	128.25	.044	160.66	.05	517.48	.044	551.17	.041
559.6	.041	689.91	.035	715.14	.035	780.61	.044	822.5	.041
850.44	.044	857.56	.041	876.95	.041	880.44	.035	927.31	.044
1059.49	.05								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
551.17	857.56	34.01	45.05	44.87	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 7379.88*

INPUT
Description:
Station Elevation Data num= 89

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	222.42	2.78	221.83	26.58	217.1	32.01	216.19	53.33	214.33
55.5	214.16	66.12	213.34	69.36	213.15	73.38	213.01	113.05	211.45
121.66	211.27	126.39	211.16	136.08	210.94	146	210.72	158.33	210.45
160.09	210.42	176.1	209.05	177.18	208.95	188.58	207.58	190.75	207.31
208.83	204.52	221.82	203.74	236.06	202.76	243.86	202.29	253.9	201.93
278.54	201.48	286.51	201.27	314.98	201.03	367.15	200.39	387.97	200.14
496.21	198.79	509.96	198.61	517.59	198.5	543.16	198.15	555.69	197.95
582.59	197.52	663.82	196.97	697.01	196.78	701.93	196.75	727.38	196.6
738.52	196.64	757.61	196.69	773.62	196.74	805.46	196.83	807.07	196.84
823.06	196.95	836.34	197.04	846.48	197.12	856.02	197.36	864.43	197.58
870.8	197.72	875.24	197.74	879.93	197.81	884.93	197.85	888.62	197.88
894.08	197.93	915.41	197.16	920.31	196.99	937.43	196.49	938.21	196.48
954.51	196.35	965.52	196.21	968.16	196.18	969.1	196.17	976.12	196.17
977.34	196.3	979.26	196.72	984.14	197.74	985.83	198.09	988.53	198.73
988.84	198.81	996.52	202.82	1000.51	204.69	1000.61	204.73	1001.01	204.91
1005.52	206.27	1007.03	206.74	1014.22	208.82	1015.4	209.15	1031.17	211.93
1036.07	212.57	1039.56	213.24	1047.54	214.97	1056.7	218	1059.53	218.83
1066.19	220.75	1073.47	223.53	1073.89	223.68	1078.02	225.12		

Manning's n Values num= 16

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	126.39	.046	158.33	.05	509.96	.046	543.16	.039
552	.039	688.63	.035	715.1	.035	783.74	.046	827.67	.039
856.96	.046	864.43	.039	884.93	.039	888.62	.035	938.21	.046
1078.02	.05								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
543.16	864.43	34.01	45.05	44.87	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 7334.83*

INPUT
Description:
Station Elevation Data num= 89

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	222.36	2.74	221.77	26.19	217.1	31.54	216.12	52.55	214.31
54.68	214.15	65.15	213.36	68.33	213.2	72.3	213.05	111.39	211.45
119.87	211.28	124.52	211.18	134.08	210.99	143.85	210.79	155.99	210.56
157.73	210.52	173.5	208.99	174.56	208.88	185.8	207.37	187.93	207.08
205.75	203.99	218.55	203.25	232.58	202.28	240.27	201.79	250.15	201.43
274.43	200.79	282.29	200.55	310.34	200.29	361.73	199.71	382.25	199.5
488.89	198.35	502.44	198.21	509.95	198.12	535.15	197.83	548.83	197.63
578.2	197.19	666.87	196.75	703.09	196.58	708.46	196.56	736.24	196.44
747.23	196.48	766.04	196.54	781.81	196.6	813.19	196.7	814.78	196.71
830.53	196.84	843.62	196.95	853.61	197.03	863.01	197.2	871.29	197.34
878.01	197.43	882.69	197.4	887.65	197.41	892.92	197.4	896.81	197.39
902.57	197.38	925.06	196.84	930.23	196.73	948.29	196.39	949.1	196.38
966.3	196.23	977.91	196.06	980.69	196.02	981.68	196.01	989.09	195.98
990.37	196.05	992.39	196.4	997.55	197.22	999.33	197.51	1002.17	198.01
1002.5	198.07	1010.6	202.04	1014.81	203.86	1014.91	203.9	1015.34	204.09
1020.09	205.36	1021.68	205.81	1029.27	207.86	1030.51	208.19	1047.14	210.63
1052.3	211.28	1055.99	212	1064.41	213.74	1074.07	216.99	1077.05	217.87
1084.07	219.93	1091.75	223	1092.19	223.16	1096.54	224.73		

Manning's n Values num= 16

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	124.52	.048	155.99	.05	502.44	.048	535.15	.037
544.4	.037	687.36	.035	715.05	.035	786.87	.048	832.83	.037
863.48	.048	871.29	.037	892.92	.037	896.81	.035	949.1	.048
1096.54	.05								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
535.15	871.29	34.01	45.05	44.87	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 7289.783

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 50

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	222.3	2.7	221.71	31.07	216.04	51.76	214.29	64.17	213.39
109.72	211.44	122.66	211.21	132.07	211.04	155.37	210.63	171.95	208.81
185.12	206.84	202.67	203.46	215.28	202.76	236.67	201.28	278.06	199.82
356.32	199.03	481.57	197.92	527.14	197.51	573.8	196.85	709.18	196.39
715	196.37	745.11	196.27	790	196.45	820.92	196.57	822.48	196.58
838	196.73	870	197.03	878.16	197.11	885.23	197.14	890.15	197.06
895.36	197.02	905	196.9	934.71	196.52	960	196.28	978.08	196.1
994.26	195.85	1003.4	195.79	1005.53	196.07	1016.16	197.32	1024.68	201.27
1029.21	203.07	1029.66	203.26	1034.66	204.45	1045.62	207.22	1068.54	209.98
1081.27	212.5	1091.43	215.98	1101.95	219.11	1110.03	222.47	1115.07	224.33

Manning's n Values num= 8

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	122.66	.05	715	.035	790	.05	838	.035
870	.05	905	.035	960	.05				

```
Bank Sta: Left   Right    Lengths: Left Channel   Right      Coeff Contr.   Expan.
        527.14  878.16             31.39    37.9   42.85              .1       .3
Ineffective Flow     num=        1
   Sta L   Sta R    Elev  Permanent
888        F

CROSS SECTION           RIVER: San Juan
REACH: Upper               RS: 7251.88*

INPUT
Description:
Station Elevation Data     num=       76
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  221.43    2.73  220.88   31.41  215.54   46.49  214.16   52.33  213.64
   59.28  213.08   64.88   212.5    71.1     212   81.54  211.27   95.37   210.6
  110.93  209.86  119.23  209.64  124.01  209.52  133.52  209.28  134.69  209.25
  157.08  208.86  173.84   207.3  187.15  205.62   204.9  202.76  217.65  202.14
  239.27  200.85  247.62  200.58  281.12  199.54  360.23  198.73  397.59  198.39
  463.38  197.94  486.86  197.78  532.93  197.46  577.25  196.85  583.83  196.82
  705.82  196.41  711.35  196.39  731.37  196.32  739.95  196.29  783.46  196.52
   784.3  196.52  794.69  196.58  814.85  196.67  816.39  196.68  831.72  196.83
  863.34  197.13   871.4   197.2  878.61  197.21  883.52  197.13  883.63  197.13
  888.94  197.08  898.77  196.95  914.62  196.73  929.07  196.54  954.85  196.25
  973.29  196.04  989.79  195.78  999.11   195.7 1001.28  195.93 1007.74  196.53
 1012.12  196.97 1020.81   200.3 1022.76  200.95 1025.43  201.83 1025.89  201.99
 1030.99  203.01 1042.16  205.38 1051.65  206.36 1055.47  206.76 1065.53  207.76
  1073.8  209.11 1078.51  210.55 1080.18  211.26 1083.19   212.5 1088.87  214.66
 1091.53  215.57  1099.6  218.31 1100.36  218.64 1105.75  220.96 1107.84  221.79
 1112.98  223.65

Manning's n Values         num=       16
     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val
       0    .035   46.49    .038  124.01     .05  532.93    .035  712.07    .035
  714.08    .035  769.99    .038  786.39     .05  832.68    .038  863.53     .05
   871.4    .035  898.77    .035  914.62    .035  954.85    .047 1007.74    .038
 1112.98     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right      Coeff Contr.   Expan.
        532.93   871.4             31.39    37.9   42.85              .1       .3
Ineffective Flow     num=        1
   Sta L   Sta R    Elev  Permanent
888        F

CROSS SECTION           RIVER: San Juan
REACH: Upper               RS: 7213.99*

INPUT
Description:
Station Elevation Data     num=       76
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  220.57    2.76  220.06   31.75  215.04      47  213.55    52.9  212.99
   59.92  212.37   65.58  211.61   71.87  210.88   82.43  209.86    96.4  209.11
  112.13  208.29  120.53  207.98  125.36  207.83  134.97  207.51  136.15  207.47
  158.78  207.09  175.73  205.79  189.19   204.4  207.12  202.05  220.01  201.52
  241.87  200.42  250.31  200.18  284.17  199.27  364.15  198.43  401.91  198.07
  468.42  197.76  492.15  197.64  538.72  197.42  580.69  196.85  586.93  196.81
  702.46  196.42   707.7  196.41  726.66  196.34  734.78  196.32  777.77  196.59
   778.6   196.6  788.86  196.66  808.78  196.77   810.3  196.79  825.45  196.93
  856.68  197.22  864.64   197.3  871.99  197.28     877   197.2  877.11   197.2
  882.52  197.14  892.54     197  908.69  196.76  923.42  196.55  949.71  196.23
   968.5  195.99  985.32  195.72  994.82  195.62  997.03  195.79 1003.61  196.25
 1008.08  196.62 1016.94  199.34 1018.92  199.86 1021.65  200.59 1022.11  200.72
 1027.31  201.57  1038.7  203.53 1048.37  204.38 1052.27  204.73 1062.53  205.55
 1070.95  206.64 1075.76  208.61 1077.46  209.46 1080.52  210.92 1086.32  213.33
 1089.03  214.38 1097.25   217.5 1098.03  217.86 1103.52   220.3 1105.65  221.12
 1110.89  222.96

Manning's n Values         num=       16
     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val
       0    .035      47    .04  125.36     .05  538.72    .035  711.22    .035
  713.15    .035  766.99    .04  782.79     .05  827.36    .04  857.07     .05
  864.64    .035  892.54   .035  908.69    .035  949.71   .045 1003.61     .04
 1110.89     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right      Coeff Contr.   Expan.
        538.72  864.64             31.39    37.9   42.85              .1       .3
Ineffective Flow     num=        1
   Sta L   Sta R    Elev  Permanent
888        F

CROSS SECTION           RIVER: San Juan
REACH: Upper               RS: 7176.09*

INPUT
Description:
Station Elevation Data     num=       76
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0   219.7    2.79  219.23   32.09  214.54    47.5  212.93   53.47  212.34
   60.57  211.67   66.29  210.72   72.64  209.75   83.31  208.44   97.44  207.61
  113.34  206.71  121.82  206.33   126.7  206.13  136.42  205.75  137.62   205.7
  160.49  205.32  177.62  204.28  191.22  203.18  209.35  201.35  222.38   200.9
  244.47  199.98     253  199.77  287.23  198.99  368.06  198.14  406.23  197.76
  473.45  197.57  497.44  197.51  544.52  197.37  584.14  196.84  590.03   196.8
  699.11  196.44  704.05  196.42  721.95  196.36  729.62  196.34  772.07  196.67
   772.9  196.67  783.03  196.75   802.7  196.88  804.21  196.89  819.17  197.03
  850.02  197.32  857.89  197.39  865.37  197.35  870.47  197.27  870.58  197.27
   876.1   197.2  886.31  197.05  902.77   196.8  917.78  196.57  944.56   196.2
```

963.71	195.93	980.85	195.65	990.53	195.53	992.78	195.65	999.49	195.96
1004.04	196.28	1013.07	198.37	1015.09	198.78	1017.86	199.34	1018.34	199.45
1023.64	200.12	1035.24	201.69	1045.1	202.41	1049.06	202.7	1059.52	203.33
1068.1	204.16	1073	206.66	1074.73	207.66	1077.86	209.35	1083.76	212.01
1086.52	213.19	1094.9	216.7	1095.69	217.07	1101.29	219.65	1103.46	220.44
1108.8	222.27								

Manning's n Values num= 16

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	47.5	.043	126.7	.05	544.52	.035	710.37	.035
712.23	.035	763.99	.043	779.18	.05	822.03	.043	850.6	.05
857.89	.035	886.31	.035	902.77	.035	944.56	.043	999.49	.043
1108.8	.05								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
544.52	857.89	31.39	37.9	42.85	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 7138.19*

INPUT
Description:
Station Elevation Data num= 76

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	218.83	2.82	218.4	32.44	214.04	48.01	212.32	54.03	211.69
61.21	210.96	66.99	209.83	73.41	208.63	84.2	207.03	98.48	206.12
114.54	205.13	123.12	204.67	128.05	204.44	137.87	203.98	139.08	203.93
162.2	203.55	179.51	202.77	193.26	201.97	211.58	200.65	224.74	200.28
247.07	199.55	255.69	199.36	290.28	198.71	371.98	197.84	410.55	197.44
478.49	197.39	502.73	197.37	550.31	197.32	587.59	196.84	593.12	196.8
695.75	196.46	700.4	196.44	717.24	196.39	724.46	196.36	766.38	196.74
767.19	196.75	777.21	196.84	796.63	196.98	798.12	196.99	812.89	197.13
843.36	197.41	851.13	197.48	858.75	197.42	863.95	197.34	864.06	197.34
869.68	197.26	880.08	197.09	896.85	196.83	912.13	196.58	939.42	196.17
958.92	195.88	976.38	195.59	986.24	195.45	988.54	195.51	995.37	195.68
1000	195.93	1009.2	197.41	1011.26	197.7	1014.08	198.1	1014.57	198.17
1019.96	198.68	1031.79	199.85	1041.82	200.43	1045.86	200.66	1056.51	201.11
1065.25	201.69	1070.25	204.71	1072.01	205.86	1075.19	207.77	1081.21	210.68
1084.02	212.01	1092.56	215.9	1093.36	216.29	1099.06	218.99	1101.27	219.77
1106.71	221.59								

Manning's n Values num= 16

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	48.01	.045	128.05	.05	550.31	.035	709.52	.035
711.3	.035	761	.045	775.57	.05	816.71	.045	844.13	.05
851.13	.035	880.08	.035	896.85	.035	939.42	.04	995.37	.045
1106.71	.05								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
550.31	851.13	31.39	37.9	42.85	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 7100.30*

INPUT
Description:
Station Elevation Data num= 76

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	217.97	2.85	217.57	32.78	213.54	48.51	211.7	54.6	211.03
61.86	210.25	67.7	208.93	74.19	207.5	85.08	205.61	99.51	204.62
115.75	203.55	124.41	203.02	129.4	202.75	139.33	202.22	140.55	202.15
163.91	201.79	181.4	201.26	195.29	200.75	213.8	199.95	227.11	199.66
249.67	199.12	258.38	198.96	293.34	198.44	375.89	197.54	414.87	197.13
483.52	197.2	508.02	197.23	556.1	197.28	591.03	196.84	596.22	196.79
692.39	196.47	696.75	196.46	712.53	196.41	719.29	196.39	760.69	196.82
761.49	196.82	771.38	196.92	790.56	197.08	792.03	197.09	806.62	197.23
836.7	197.51	844.37	197.58	852.13	197.49	857.42	197.41	857.54	197.41
863.26	197.32	873.85	197.14	890.92	196.86	906.49	196.6	934.27	196.15
954.13	195.82	971.91	195.52	981.95	195.36	984.29	195.37	991.24	195.39
995.96	195.58	1005.32	196.44	1007.42	196.61	1010.3	196.86	1010.8	196.9
1016.29	197.24	1028.33	198	1038.55	198.45	1042.66	198.63	1053.51	198.89
1062.41	199.21	1067.49	202.77	1069.28	204.06	1072.53	206.2	1078.65	209.36
1081.51	210.82	1090.21	215.1	1091.02	215.51	1096.83	218.34	1099.08	219.09
1104.62	220.9								

Manning's n Values num= 16

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	48.51	.047	129.4	.05	556.1	.035	708.67	.035
710.38	.035	758	.047	771.97	.05	811.39	.047	837.67	.05
844.37	.035	873.85	.035	890.92	.035	934.27	.038	991.24	.047
1104.62	.05								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
556.1	844.37	31.38	37.9	42.85	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 7062.404

INPUT

Description: Manual Modification of Manning's N Values
Station Elevation Data num= 31

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	217.1	49.02	211.09	62.5	209.54	74.96	206.38	85.97	204.2
100.55	203.13	125.71	201.36	142.01	200.38	261.07	198.55	419.19	196.81
488.56	197.02	561.89	197.23	599.32	196.78	707.82	196.43	714.13	196.41
755	196.89	765.55	197.01	837.61	197.67	850.9	197.48	885	196.89
987.12	195.11	1003.59	195.53	1035.27	196.47	1039.46	196.6	1059.56	196.74
1066.56	202.26	1069.86	204.62	1079.01	209.63	1088.69	214.73	1094.6	217.68
1102.53	220.22								

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	49.02	.05	707.82	.035	755	.05	885	.035
987.12	.05								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
561.89	837.61	45.82	41.96	42.85	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 7020.44*

INPUT
Description:
Station Elevation Data num= 71

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	216.93	6.78	216.13	39.98	212.16	43.64	211.64	51.94	210.08
56.86	209.19	60.67	208.48	63.56	208.16	66.23	207.87	76.93	205.64
79.43	205.1	81.7	204.71	91.1	203.34	106.55	202.47	133.21	201.01
150.48	200.19	213.17	199.21	263.74	198.43	276.64	198.24	300.48	197.97
444.18	197	467.19	197.07	517.69	197.16	519.88	197.17	576.49	197.31
584.28	197.38	595.39	197.02	607.6	196.84	624.67	196.31	666.68	195.35
667.9	195.32	683.08	194.99	693.71	194.92	709.54	194.76	714.47	194.71
740.55	195.12	746.36	195.2	749.89	195.27	750.16	195.28	759.37	195.54
822.29	197.15	830.62	197.21	836.95	197.18	874.57	196.94	894.74	196.8
907.14	196.82	915.56	196.82	943.93	196.49	987.23	195.57	1005.4	195.72
1016.58	195.84	1026.62	195.96	1027.98	195.99	1032.79	196.11	1035.98	196.2
1040.35	196.31	1044.98	196.43	1058.22	196.57	1059.91	196.67	1065.47	197.22
1067.15	197.47	1074.87	202.71	1077.38	204.29	1078.51	205.01	1085.03	208.38
1088.47	209.84	1088.61	209.9	1099.23	214.62	1099.29	214.65	1105.81	217.08
1114.56	219.29								

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.039	51.94	.05	595.39	.035	715.48	.035	754.31	.046
822.29	.039	874.57	.039	907.14	.046	987.23	.046	1035.98	.039
1114.56	.05								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
595.39	822.29	45.82	41.96	42.85	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 6978.47*

INPUT
Description:
Station Elevation Data num= 71

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	216.75	7.16	215.94	42.23	211.84	46.1	211.23	54.87	209.08
60.06	207.82	64.08	206.82	67.14	206.49	69.95	206.2	81.26	204.29
83.9	203.82	86.3	203.46	96.22	202.49	112.54	201.8	140.7	200.66
158.94	200	225.16	198.94	278.58	198.11	292.2	197.93	317.38	197.65
469.18	197.18	493.48	197.26	546.82	197.31	549.13	197.31	608.93	197.44
617.16	197.56	628.9	196.81	637.7	196.64	650.02	195.84	680.34	194.09
681.21	194.04	692.17	193.45	699.83	193.35	711.26	193.1	714.82	193.02
737.1	193.47	742.07	193.55	745.09	193.66	745.32	193.67	753.2	194.06
806.97	196.62	816.09	196.85	823.01	196.88	864.15	196.98	886.2	197.04
899.76	197.26	908.96	197.41	939.99	197.19	987.35	196.04	1007.22	195.91
1019.44	195.85	1030.42	195.82	1031.91	195.85	1037.17	195.96	1040.65	196.04
1045.44	196.15	1050.49	196.26	1064.97	196.45	1066.82	196.65	1072.9	197.72
1074.74	198.2	1083.19	203.17	1085.93	204.69	1087.17	205.39	1094.29	208.91
1098.05	210.12	1098.2	210.18	1109.82	214.55	1109.88	214.56	1117.01	216.49
1126.58	218.36								

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.043	54.87	.05	628.9	.035	723.15	.035	753.62	.043
806.97	.043	864.15	.043	899.76	.043	987.35	.043	1040.65	.043
1126.58	.05								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
628.9	806.97	45.82	41.96	42.85	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 6936.51*

INPUT
Description:
Station Elevation Data num= 71

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	216.57	7.54	215.76	44.48	211.53	48.55	210.82	57.79	208.07
63.26	206.46	67.5	205.16	70.71	204.83	73.68	204.52	85.59	202.95
88.37	202.55	90.89	202.21	101.35	201.63	118.54	201.14	148.2	200.31
167.41	199.81	237.16	198.68	293.42	197.8	307.77	197.62	334.29	197.32
494.17	197.37	519.77	197.45	575.95	197.45	578.39	197.45	641.37	197.57

650.03	197.74	662.4	196.6	667.81	196.44	675.37	195.36	693.99	192.83
694.53	192.75	701.25	191.9	705.96	191.77	712.98	191.43	715.17	191.33
733.66	191.83	737.79	191.91	740.29	192.05	740.48	192.07	747.02	192.59
791.66	196.1	801.55	196.5	809.06	196.58	853.72	197.03	877.66	197.27
892.38	197.7	902.37	197.99	936.06	197.89	987.46	196.5	1009.03	196.09
1022.3	195.85	1034.22	195.67	1035.83	195.7	1041.54	195.81	1045.33	195.89
1050.52	195.99	1056.01	196.09	1071.73	196.33	1073.74	196.62	1080.34	198.21
1082.33	198.94	1091.5	203.62	1094.47	205.1	1095.82	205.78	1103.56	209.43
1107.64	210.4	1107.8	210.45	1120.41	214.47	1120.48	214.48	1128.22	215.89
1138.6	217.42								

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.046	57.79	.05	662.4	.035	730.81	.035	752.93	.039
791.66	.046	853.72	.046	892.38	.039	987.46	.039	1045.33	.046
1138.6	.05								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
662.4	791.66	45.82	41.96	42.85	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 6894.555

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 45

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	216.4	7.92	215.57	46.73	211.21	51.01	210.41	66.46	205.09
70.91	203.5	74.29	203.16	89.92	201.61	95.49	200.96	249.15	198.41
308.26	197.49	351.2	196.99	546.06	197.64	607.64	197.59	673.81	197.7
682.91	197.92	695.9	196.39	697.91	196.24	707.64	191.57	707.84	191.47
710.34	190.36	712.09	190.2	715.51	189.63	730.22	190.18	733.5	190.27
735.49	190.44	776.34	195.57	787.01	196.14	869.12	197.5	885	198.14
895.78	198.57	932.12	198.59	1025.16	195.86	1038.02	195.53	1039.76	195.56
1045.92	195.66	1050	195.73	1078.48	196.21	1080.65	196.6	1087.77	198.71
1103.02	205.5	1112.82	209.96	1117.22	210.68	1131	214.39	1150.63	216.49

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	695.9	.035	776.34	.05	885	.035	1050	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
695.9	776.34	30.23	37.87	37.36	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 6856.68*

INPUT
Description:
Station Elevation Data num= 82

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	215.08	3.48	214.72	7.87	214.22	11.93	213.75	44.79	209.95
46.45	209.76	50.71	209.02	65.86	204.47	65.89	204.46	65.96	204.44
66.06	204.41	70.49	203.1	73.85	202.8	89.38	201.42	94.92	200.85
120.58	200.29	131.98	200.15	162.95	199.65	247.66	198.19	247.99	198.19
306.42	197.39	327.07	197.17	349.1	197	403.66	197.25	536.88	197.51
542.8	197.52	604.01	197.44	613.69	197.45	669.78	197.1	678.83	197.21
691.74	195.88	694.79	195.69	695.21	195.67	695.53	195.65	701.46	194.25
707.84	192.68	710.51	192.04	713.86	191.35	714.24	191.27	718.95	190.37
719.36	190.36	720.26	190.32	722.25	190.24	728.69	189.77	744.59	190.36
748.13	190.46	750.28	190.62	777.68	193.43	794.41	195.15	804.97	195.69
810.61	195.81	814.03	195.87	826.01	196.06	886.21	197	901.93	197.55
912.59	197.92	941.78	198	948.55	198.02	979.76	197.33	1034.62	196.02
1040.6	195.87	1048.56	195.7	1053.33	195.6	1055.05	195.63	1057.41	195.66
1061.14	195.82	1065.18	195.99	1078.81	196.58	1080.43	196.61	1084.3	196.69
1093.36	197.14	1095.51	197.53	1102.55	199.48	1106.01	200.84	1107.46	201.41
1108.96	202.01	1117.64	205.33	1127.34	209.13	1131.69	209.81	1145.33	213.1
1148.94	213.5	1164.75	215.34						

Manning's n Values num= 10

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	691.74	.035	696.44	.035	735.7	.038	782.78	.047
794.41	.05	901.93	.038	1048.56	.05	1065.18	.05	1164.75	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
691.74	794.41	30.23	37.87	37.36	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 6818.81*

INPUT
Description:
Station Elevation Data num= 82

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	213.76	3.46	213.4	7.83	212.88	11.86	212.38	44.52	208.5
46.17	208.31	50.4	207.63	65.47	203.78	65.5	203.77	65.56	203.75
65.67	203.73	70.06	202.7	73.4	202.43	88.85	201.23	94.35	200.75
119.85	200.04	131.19	199.95	161.97	199.47	246.17	197.97	246.5	197.97
304.58	197.29	325.11	197.09	347	197.02	401.23	197.32	533.65	197.4
539.53	197.41	600.38	197.3	610	197.29	665.76	196.5	674.75	196.49
687.58	195.38	692.06	195.11	692.69	195.08	693.15	195.05	701.86	193.77
711.24	192.25	715.15	191.65	720.09	191.13	720.64	191.07	727.56	190.39
728.17	190.38	729.48	190.35	732.41	190.28	741.88	189.91	758.95	190.54
762.76	190.66	765.07	190.8	794.51	193.24	812.49	194.72	822.93	195.23
828.51	195.38	831.9	195.46	843.75	195.62	903.31	196.5	918.85	196.96
929.4	197.27	958.28	197.42	964.97	197.44	995.86	197	1050.13	195.99
1056.05	195.88	1063.92	195.76	1068.64	195.68	1070.34	195.7	1072.68	195.72
1076.37	195.98	1080.36	196.26	1093.84	197.21	1095.44	197.23	1099.28	197.33

1108.24	198.08	1110.37	198.47	1117.33	200.24	1120.75	201.42	1122.19	201.91
1123.68	202.42	1132.26	205.17	1141.86	208.3	1146.16	208.94	1159.65	211.81
1163.23	212.22	1178.87	214.2						

Manning's n Values num= 10

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	687.58	.035	693.3	.035	741.07	.041	798.34	.044
812.49	.05	918.85	.041	1063.92	.05	1080.36	.05	1178.87	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
687.58	812.49	30.23	37.87	37.36	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 6780.94*

INPUT
Description:
Station Elevation Data num= 82

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	212.44	3.44	212.08	7.78	211.53	11.78	211.01	44.25	207.05
45.89	206.86	50.1	206.24	65.07	203.08	65.1	203.07	65.16	203.06
65.27	203.05	69.64	202.3	72.96	202.07	88.31	201.04	93.78	200.64
119.13	199.79	130.4	199.76	160.99	199.29	244.68	197.75	245.01	197.75
302.73	197.18	323.14	197.02	344.9	197.03	398.8	197.4	530.42	197.3
536.27	197.29	596.75	197.15	606.31	197.13	661.73	195.9	670.67	195.78
683.43	194.87	689.34	194.54	690.16	194.49	690.77	194.46	702.26	193.3
714.64	191.83	719.8	191.26	726.31	190.9	727.04	190.86	736.18	190.4
736.97	190.39	738.7	190.37	742.57	190.32	755.06	190.04	773.32	190.72
777.39	190.85	779.86	190.98	811.34	193.04	830.56	194.3	840.89	194.78
846.41	194.95	849.76	195.04	861.49	195.18	920.4	196.01	935.78	196.37
946.21	196.62	974.78	196.83	981.4	196.87	1011.95	196.67	1065.63	195.97
1071.49	195.9	1079.28	195.81	1083.94	195.75	1085.63	195.77	1087.94	195.78
1091.59	196.14	1095.54	196.52	1108.88	197.83	1110.46	197.86	1114.26	197.97
1123.12	199.01	1125.22	199.4	1132.12	201.01	1135.5	202	1136.92	202.41
1138.39	202.83	1146.88	205	1156.37	207.48	1160.63	208.07	1173.98	210.52
1177.52	210.93	1192.98	213.05						

Manning's n Values num= 10

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	683.43	.035	690.16	.035	746.43	.044	813.89	.041
830.56	.05	935.78	.044	1079.28	.05	1095.54	.05	1192.98	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
683.43	830.56	30.23	37.87	37.36	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 6743.07*

INPUT
Description:
Station Elevation Data num= 82

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	211.12	3.42	210.77	7.73	210.19	11.71	209.65	43.98	205.6
45.61	205.41	49.79	204.85	64.68	202.39	64.71	202.38	64.77	202.38
64.87	202.37	69.22	201.89	72.51	201.71	87.77	200.85	93.21	200.53
118.4	199.55	129.6	199.56	160.01	199.12	243.2	197.54	243.52	197.53
300.89	197.08	321.18	196.94	342.81	197.04	396.38	197.47	527.2	197.19
533.01	197.18	593.12	197	602.62	196.98	657.71	195.29	666.59	195.06
679.27	194.37	686.61	193.96	687.63	193.91	688.39	193.86	702.67	192.82
718.03	191.4	724.45	190.87	732.54	190.68	733.44	190.66	744.79	190.42
745.78	190.41	747.93	190.4	752.73	190.36	768.25	190.18	787.69	190.9
792.02	191.05	794.65	191.17	828.17	192.85	848.64	193.87	858.85	194.32
864.31	194.52	867.63	194.62	879.22	194.75	937.49	195.51	952.7	195.78
963.03	195.97	991.28	196.25	997.83	196.3	1028.05	196.34	1081.14	195.95
1086.94	195.91	1094.64	195.86	1099.25	195.83	1100.92	195.83	1103.21	195.84
1106.82	196.29	1110.73	196.79	1123.91	198.45	1125.48	198.48	1129.23	198.61
1138	199.95	1140.08	200.33	1146.9	201.77	1150.24	202.58	1151.65	202.9
1153.11	203.24	1161.5	204.84	1170.89	206.65	1175.1	207.2	1188.3	209.23
1191.8	209.65	1207.1	211.91						

Manning's n Values num= 10

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	679.27	.035	687.02	.035	751.79	.047	829.45	.038
848.64	.05	952.7	.047	1094.64	.05	1110.73	.05	1207.1	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
679.27	848.64	30.23	37.87	37.36	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 6705.202

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 42

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	209.8	3.4	209.45	11.64	208.28	43.71	204.15	64.28	201.7
64.31	201.69	64.37	201.69	117.68	199.3	128.81	199.37	159.03	198.94
242.03	197.31	319.21	196.86	393.95	197.55	523.97	197.08	598.93	196.82
675.11	193.86	683.88	193.38	685.1	193.32	703.07	192.34	721.43	190.98
729.1	190.48	754.58	190.43	757.15	190.42	781.43	190.32	845	192.65
866.71	193.45	882.21	194.09	885.49	194.2	896.96	194.31	1007.78	195.66
1044.14	196.01	1096.65	195.93	1110	195.91	1118.47	195.9	1138.95	199.07
1140.5	199.1	1144.21	199.25	1164.99	203.16	1166.38	203.4	1167.82	203.65
1206.09	208.37	1221.22	210.76						

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	683.88	.035	757.15	.05	845	.035	1110	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
675.11	866.71	35.92	40.06	40.02	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 6665.14*

INPUT
Description:
Station Elevation Data num= 82

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	209.96	.13	209.93	.52	209.89	2.7	209.67	3.4	209.6
7.33	209.09	11.65	208.52	43.75	204.62	64.34	202.27	64.37	202.26
64.43	202.26	70.43	201.91	82.97	200.15	84.96	199.87	90.46	199.49
92.96	199.32	93.83	199.29	117.79	198.54	126.47	198.61	128.93	198.64
159.18	198.57	160.94	198.56	193.74	198.01	242.25	197.23	271.51	197.06
314.58	196.82	319.5	196.8	347.56	197.01	380.94	197.24	392.99	197.35
394.31	197.37	524.45	197.38	530.27	197.38	542.42	197.38	546.89	197.37
599.48	196.85	613.37	196.35	651.48	194.76	675.73	193.51	683.04	193.08
684.06	193.03	699.03	192.15	714.34	190.99	720.73	190.55	720.95	190.55
741.96	190.44	744.11	190.42	758.2	190.32	764.34	190.28	810.38	191.43
822.35	191.74	845.66	192.24	847.29	192.27	853.13	192.48	873.43	193.21
889.94	193.73	893.44	193.82	905.66	193.94	1023.72	195.28	1062.46	195.65
1081.5	195.68	1087.71	195.68	1088.56	195.69	1089.93	195.7	1091.77	195.74
1118.4	196.12	1132.62	196.33	1141.65	196.46	1148.07	197.26	1159.46	198.68
1163.47	199.24	1165.12	199.32	1168.75	199.53	1169.07	199.55	1191.21	202.85
1192.69	203.06	1194.22	203.27	1225.37	206.5	1229.22	206.88	1235	207.39
1236.31	207.54	1251.11	209.49						

Manning's n Values num= 10

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	675.73	.035	684.78	.035	760.38	.046	842.69	.035
851.03	.035	873.43	.05	1132.62	.05	1159.46	.05	1251.11	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
675.73	873.43	35.92	40.06	40.02	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 6625.07*

INPUT
Description:
Station Elevation Data num= 82

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	210.11	.13	210.08	.52	210.03	2.71	209.83	3.41	209.76
7.34	209.28	11.66	208.76	43.79	205.09	64.4	202.84	64.43	202.83
64.49	202.83	70.49	202.4	83.05	199.43	85.03	198.98	90.54	198.45
93.05	198.24	93.92	198.2	117.9	197.79	126.59	197.86	129.05	197.91
159.32	198.2	161.08	198.21	193.91	197.76	242.47	197.14	271.76	196.97
314.87	196.75	319.8	196.74	347.88	196.89	381.29	197.05	393.35	197.17
394.67	197.18	524.93	197.69	530.76	197.71	542.91	197.75	547.4	197.73
600.03	196.88	613.93	196.42	652.07	194.71	676.35	193.15	682.2	192.78
683.01	192.73	695	191.96	707.24	191	712.36	190.63	712.53	190.62
729.35	190.45	731.06	190.43	742.34	190.29	747.26	190.23	803.33	191.23
817.92	191.49	846.31	191.82	848.3	191.85	855.42	192.1	880.15	192.96
897.67	193.37	901.38	193.45	914.35	193.57	1039.66	194.89	1080.78	195.28
1100.99	195.37	1107.58	195.38	1108.48	195.41	1109.93	195.44	1111.89	195.51
1140.15	196.32	1155.25	196.75	1164.82	197.02	1171.64	197.69	1183.73	198.87
1187.98	199.41	1189.74	199.53	1193.59	199.83	1193.93	199.85	1217.43	202.55
1219	202.72	1220.63	202.89	1253.68	205.74	1257.78	206.07	1263.9	206.42
1265.3	206.52	1281.01	208.23						

Manning's n Values num= 10

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	676.35	.035	685.68	.035	763.61	.043	848.46	.035
857.05	.035	880.15	.05	1155.25	.05	1183.73	.05	1281.01	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
676.35	880.15	35.92	40.06	40.02	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 6585.01*

INPUT
Description:
Station Elevation Data num= 82

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	210.26	.13	210.23	.52	210.17	2.71	209.98	3.41	209.91
7.34	209.48	11.67	209	43.83	205.56	64.46	203.41	64.49	203.4
64.55	203.4	70.56	202.88	83.12	198.72	85.11	198.08	90.63	197.42
93.13	197.15	94	197.12	118	197.03	126.7	197.12	129.16	197.18
159.47	197.83	161.23	197.87	194.09	197.5	242.7	197.06	272.01	196.89
315.16	196.68	320.09	196.68	348.2	196.78	381.64	196.86	393.71	196.98
395.04	197	525.41	197.99	531.24	198.03	543.41	198.11	547.9	198.1
600.58	196.92	614.5	196.48	652.67	194.67	676.97	192.8	681.36	192.48
681.97	192.44	690.96	191.77	700.15	191.01	703.98	190.7	704.12	190.7
716.73	190.46	718.02	190.43	726.48	190.26	730.17	190.18	796.29	191.02
813.49	191.25	846.97	191.41	849.32	191.42	857.71	191.71	886.86	192.71
905.4	193.01	909.33	193.07	923.05	193.2	1055.6	194.51	1099.09	194.92
1120.47	195.07	1127.44	195.08	1128.4	195.13	1129.94	195.17	1132	195.29
1161.9	196.51	1177.87	197.17	1188	197.58	1195.21	198.11	1208	199.06
1212.5	199.58	1214.35	199.75	1218.43	200.12	1218.79	200.14	1243.65	202.24
1245.31	202.37	1247.03	202.51	1282	204.99	1286.33	205.25	1292.81	205.44
1294.28	205.49	1310.91	206.96						

Manning's n Values num= 10

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	676.97	.035	686.58	.035	766.84	.039	854.23	.035

863.08	.035	886.86	.05	1177.87	.05	1208	.05	1310.91	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
676.97	886.86	35.92	40.06	40.02	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 6544.956

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 45

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	210.42	.13	210.38	.52	210.31	2.71	210.13	7.35	209.67
70.62	203.37	83.2	198.01	85.19	197.18	90.71	196.38	93.22	196.06
94.09	196.03	126.82	196.37	161.38	197.52	194.27	197.25	272.26	196.81
315.45	196.61	348.52	196.67	381.99	196.67	394.07	196.8	531.73	198.36
543.91	198.48	548.4	198.46	615.06	196.55	653.27	194.62	677.59	192.45
695.7	190.77	710.62	190.23	713.08	190.14	789.25	190.82	809.06	191
850.33	191	860	191.33	893.58	192.47	1139.96	194.76	1147.31	194.78
1148.32	194.85	1149.94	194.9	1152.12	195.06	1218.78	198.54	1232.27	199.25
1243.27	200.42	1310.31	204.23	1314.88	204.43	1323.27	204.47	1340.8	205.69

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.05	860	.035	1232.27	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
677.59	893.58	14.9	43.68	14.96	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 6501.27*

INPUT
Description:
Station Elevation Data num= 95

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	210.4	.13	210.36	.51	210.3	2.68	210.1	5.86	209.77
7.27	209.62	14.63	208.86	39.9	206.41	61.33	204.33	69.83	203.52
72.08	202.64	76.41	200.87	82.27	198.36	84.24	197.54	89.7	196.58
91.07	196.36	92.18	196.18	92.46	196.16	93.04	196.14	103.67	196.12
112.3	196.12	125.4	196.27	127.83	196.35	159.58	197.4	185.44	197.28
192.1	197.23	213.24	197.11	269.22	196.79	300.18	196.65	311.92	196.6
344.62	196.66	377.72	196.67	389.66	196.79	454.96	197.46	519.58	198.12
525.78	198.17	537.83	198.24	542.21	198.21	542.27	198.21	587.12	196.88
608.18	196.25	645.97	194.36	654.38	193.65	670.01	192.33	672.56	192.17
674.9	192.03	680.84	191.84	686.76	191.65	695.7	191.35	705.32	191.02
707.48	190.94	713.01	190.73	713.49	190.72	729.14	190.49	730.89	190.46
749.31	190.2	755.21	190.12	825.14	190.76	843.33	190.93	858.43	190.94
881.22	190.98	890.1	191.28	920.93	192.35	931.98	192.55	980.2	193.42
992.25	193.53	1024.38	193.88	1044.11	193.96	1053.75	193.93	1089.28	193.77
1120.22	193.9	1125.18	193.94	1136.29	194.09	1152.28	194.3	1159.18	194.35
1160.13	194.42	1161.65	194.47	1163.7	194.62	1172.86	195.11	1206.86	196.99
1226.3	198.05	1237.73	198.67	1238.96	198.74	1249.29	199.81	1253.84	200.07
1263.04	200.67	1296.11	202.73	1312.24	203.99	1314.03	204.1	1316.54	204.23
1324.41	204.33	1328.57	204.65	1338.09	206.12	1339.65	206.33	1340.87	206.49

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	670.01	.035	738.91	.035	881.92	.035	920.93	.048
1238.96	.048	1340.87	.048						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
670.01	920.93	14.9	43.68	14.96	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 6457.60*

INPUT
Description:
Station Elevation Data num= 95

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	210.38	.13	210.35	.51	210.28	2.65	210.08	5.79	209.73
7.19	209.58	14.47	208.78	39.45	206.43	60.63	204.44	69.04	203.66
71.27	202.88	75.55	201.21	81.34	198.71	83.28	197.89	88.68	196.78
90.04	196.51	91.14	196.3	91.42	196.27	91.99	196.24	102.5	196.11
111.03	196	123.98	196.18	126.39	196.25	157.77	197.27	183.34	197.26
189.93	197.21	210.83	197.08	266.17	196.78	296.78	196.64	308.4	196.6
340.73	196.66	373.45	196.67	385.26	196.77	449.81	197.38	513.71	197.96
519.84	197.98	531.75	198	536.08	197.96	536.14	197.96	580.49	196.6
601.31	195.94	638.66	194.11	646.98	193.45	662.44	192.21	666.47	192
670.17	191.8	679.57	191.65	688.96	191.5	703.12	191.24	718.35	190.96
721.76	190.89	730.53	190.68	731.28	190.66	756.06	190.45	758.83	190.42
788	190.18	797.35	190.1	861.04	190.7	877.6	190.86	891.35	190.88
912.11	190.95	920.19	191.24	948.27	192.23	958.6	192.53	1003.7	193.78
1014.96	193.88	1045.01	194.27	1063.46	194.23	1072.47	194.07	1105.69	193.41
1134.63	193.36	1139.26	193.4	1149.65	193.59	1164.6	193.85	1171.06	193.92
1171.94	193.98	1173.37	194.03	1175.28	194.18	1183.84	194.65	1215.64	196.52
1233.81	197.55	1244.5	198.17	1245.66	198.23	1255.31	199.2	1259.56	199.45
1268.17	200.08	1299.09	202.21	1314.18	203.74	1315.84	203.89	1318.19	204.03
1325.56	204.2	1329.45	204.51	1338.34	206.76	1339.8	207.06	1340.95	207.28

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	662.44	.035	740.92	.035	903.83	.035	948.27	.047
1245.66	.047	1340.95	.047						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
662.44	948.27	14.9	43.68	14.96	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 6413.92*

INPUT
Description:
Station Elevation Data num= 95

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	210.37	.13	210.33	.5	210.27	2.62	210.05	5.73	209.69
7.1	209.53	14.3	208.71	39	206.46	59.94	204.55	68.25	203.81
70.45	203.12	74.68	201.54	80.41	199.07	82.33	198.25	87.67	196.97
89.01	196.67	90.09	196.42	90.37	196.38	90.93	196.35	101.32	196.09
109.76	195.89	122.57	196.08	124.94	196.15	155.97	197.15	181.24	197.23
187.75	197.18	208.42	197.06	263.13	196.76	293.39	196.62	304.87	196.59
336.83	196.65	369.18	196.67	380.85	196.76	444.67	197.3	507.83	197.79
513.89	197.79	525.66	197.77	529.95	197.72	530	197.72	573.85	196.32
594.43	195.64	631.36	193.85	639.58	193.24	654.86	192.08	660.37	191.82
665.44	191.57	678.31	191.46	691.16	191.35	710.53	191.13	731.37	190.9
736.04	190.83	748.04	190.62	749.07	190.61	782.99	190.41	786.77	190.38
826.68	190.15	839.48	190.08	896.93	190.65	911.87	190.79	924.27	190.82
943	190.93	950.29	191.19	975.62	192.11	985.23	192.5	1027.19	194.14
1037.68	194.23	1065.64	194.66	1082.8	194.51	1091.19	194.21	1122.1	193.05
1149.03	192.81	1153.34	192.85	1163.01	193.08	1176.92	193.39	1182.93	193.49
1183.76	193.55	1185.08	193.6	1186.86	193.73	1194.83	194.19	1224.42	196.05
1241.33	197.06	1251.27	197.66	1252.35	197.72	1261.34	198.6	1265.29	198.82
1273.3	199.5	1302.07	201.69	1316.11	203.5	1317.66	203.68	1319.85	203.83
1326.7	204.06	1330.32	204.38	1338.6	207.4	1339.95	207.79	1341.02	208.08

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	654.86	.035	742.93	.035	925.75	.035	975.62	.045
1252.35	.045	1341.02	.045						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
654.86	975.62	14.9	43.68	14.96	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 6370.25*

INPUT
Description:
Station Elevation Data num= 95

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	210.35	.12	210.32	.5	210.26	2.59	210.02	5.66	209.65
7.02	209.49	14.14	208.64	38.55	206.48	59.25	204.65	67.46	203.95
69.64	203.36	73.82	201.88	79.48	199.42	81.38	198.6	86.65	197.17
87.98	196.82	89.05	196.54	89.33	196.49	89.88	196.45	100.15	196.07
108.49	195.77	121.15	195.98	123.5	196.05	154.16	197.02	179.14	197.21
185.58	197.16	206.01	197.04	260.08	196.75	289.99	196.61	301.34	196.58
332.93	196.64	364.9	196.67	376.44	196.75	439.52	197.21	501.96	197.62
507.95	197.59	519.58	197.53	523.82	197.47	523.87	197.47	567.21	196.04
587.55	195.33	624.05	193.6	632.18	193.03	647.28	191.96	654.28	191.64
660.71	191.35	677.05	191.27	693.36	191.2	717.94	191.03	744.4	190.84
750.32	190.77	765.55	190.57	766.86	190.55	809.91	190.36	814.71	190.33
865.37	190.13	881.61	190.06	932.82	190.59	946.14	190.72	957.2	190.76
973.89	190.91	980.39	191.15	1002.96	191.99	1011.86	192.47	1050.69	194.51
1060.39	194.58	1086.26	195.05	1102.15	194.78	1109.91	194.35	1138.51	192.68
1163.43	192.27	1167.42	192.3	1176.37	192.57	1189.25	192.93	1194.8	193.06
1195.57	193.12	1196.79	193.17	1198.44	193.29	1205.81	193.73	1233.2	195.58
1248.84	196.56	1258.05	197.15	1259.04	197.2	1267.36	197.99	1271.02	198.2
1278.42	198.91	1305.05	201.17	1318.04	203.25	1319.48	203.47	1321.5	203.63
1327.84	203.93	1331.19	204.25	1338.85	208.04	1340.11	208.52	1341.1	208.87

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	647.28	.035	744.94	.035	947.66	.035	1002.96	.043
1259.04	.043	1341.1	.043						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
647.28	1002.96	14.9	43.68	14.96	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 6326.57*

INPUT
Description:
Station Elevation Data num= 95

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	210.33	.12	210.3	.49	210.24	2.56	209.99	5.6	209.6
6.94	209.44	13.97	208.57	38.09	206.5	58.55	204.76	66.67	204.1
68.82	203.59	72.96	202.21	78.55	199.77	80.43	198.96	85.64	197.37
86.95	196.98	88.01	196.66	88.28	196.59	88.83	196.56	98.98	196.05
107.22	195.66	119.73	195.88	122.05	195.95	152.36	196.9	177.05	197.19
183.41	197.14	203.6	197.01	257.04	196.73	286.6	196.59	297.81	196.58
329.03	196.63	360.63	196.66	372.04	196.73	434.38	197.13	496.08	197.46
502	197.4	513.5	197.29	517.69	197.22	517.74	197.22	560.57	195.76
580.67	195.03	616.75	193.34	624.78	192.82	639.71	191.84	648.19	191.47
655.98	191.12	675.79	191.08	695.55	191.05	725.35	190.92	757.42	190.78
764.6	190.71	783.06	190.51	784.65	190.5	836.83	190.32	842.65	190.29
904.06	190.1	923.75	190.05	968.71	190.53	980.41	190.66	990.12	190.69
1004.77	190.88	1010.48	191.1	1030.31	191.86	1038.49	192.45	1074.18	194.87
1083.1	194.93	1106.89	195.44	1121.5	195.05	1128.63	194.49	1154.93	192.32
1177.84	191.72	1181.5	191.75	1189.73	192.07	1201.57	192.48	1206.68	192.63
1207.38	192.68	1208.5	192.74	1210.02	192.85	1216.8	193.27	1241.97	195.1
1256.36	196.07	1264.82	196.64	1265.73	196.69	1273.38	197.38	1276.74	197.58
1283.55	198.33	1308.03	200.65	1319.98	203.01	1321.3	203.26	1323.16	203.42
1328.99	203.79	1332.07	204.11	1339.11	208.68	1340.26	209.25	1341.17	209.67

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	639.71	.035	746.95	.035	969.58	.035	1030.31	.042
1265.73	.042	1341.17	.042						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
639.71	1030.31	14.9	43.68	14.96	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 6282.89*

INPUT
Description:
Station Elevation Data num= 95

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	210.31	.12	210.29	.49	210.23	2.53	209.97	5.53	209.56
6.86	209.39	13.81	208.5	37.64	206.53	57.86	204.87	65.88	204.25
68.01	203.83	72.09	202.55	77.62	200.12	79.47	199.31	84.62	197.57
85.92	197.13	86.97	196.78	87.24	196.7	87.78	196.66	97.81	196.03
105.95	195.54	118.31	195.79	120.61	195.85	150.55	196.77	174.95	197.16
181.24	197.12	201.18	196.99	253.99	196.72	283.2	196.57	294.29	196.57
325.14	196.63	356.36	196.66	367.63	196.72	429.23	197.04	490.21	197.29
496.06	197.21	507.42	197.05	511.55	196.97	511.61	196.97	553.93	195.48
573.8	194.72	609.44	193.09	617.38	192.61	632.13	191.72	642.1	191.29
651.25	190.89	674.53	190.89	697.75	190.89	732.76	190.81	770.45	190.72
778.88	190.65	800.57	190.46	802.44	190.45	863.75	190.28	870.6	190.24
942.75	190.08	965.88	190.03	1004.61	190.47	1014.68	190.59	1023.04	190.63
1035.66	190.86	1040.58	191.06	1057.65	191.74	1065.12	192.42	1097.68	195.23
1105.82	195.29	1127.52	195.82	1140.84	195.32	1147.35	194.63	1171.34	191.96
1192.24	191.18	1195.58	191.2	1203.09	191.56	1213.89	192.02	1218.55	192.2
1219.19	192.25	1220.22	192.3	1221.6	192.41	1227.78	192.81	1250.75	194.63
1263.87	195.58	1271.59	196.13	1272.43	196.18	1279.4	196.77	1282.47	196.95
1288.68	197.74	1311.02	200.12	1321.91	202.77	1323.12	203.05	1324.81	203.22
1330.13	203.66	1332.94	203.98	1339.36	209.32	1340.42	209.98	1341.25	210.46

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	632.13	.035	748.96	.035	991.5	.035	1057.65	.04
1272.43	.04	1341.25	.04						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
632.13	1057.65	14.9	43.68	14.96	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 6239.22*

INPUT
Description:
Station Elevation Data num= 95

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	210.3	.12	210.27	.48	210.22	2.5	209.94	5.46	209.52
6.77	209.35	13.64	208.42	37.19	206.55	57.17	204.98	65.09	204.39
67.19	204.07	71.23	202.89	76.69	200.47	78.52	199.67	83.61	197.76
84.89	197.29	85.92	196.91	86.19	196.81	86.73	196.77	96.63	196.02
104.68	195.43	116.89	195.69	119.16	195.75	148.75	196.65	172.85	197.14
179.06	197.09	198.77	196.97	250.95	196.7	279.81	196.56	290.76	196.56
321.24	196.62	352.09	196.66	363.23	196.71	424.09	196.96	484.33	197.12
490.11	197.02	501.34	196.81	505.42	196.73	505.48	196.72	547.29	195.2
566.92	194.42	602.14	192.83	609.98	192.41	624.55	191.59	636	191.11
646.53	190.66	673.26	190.7	699.95	190.74	740.18	190.7	783.47	190.66
793.16	190.6	818.09	190.4	820.23	190.39	890.68	190.24	898.54	190.2
981.43	190.05	1008.01	190.01	1040.5	190.41	1048.95	190.52	1055.96	190.57
1066.55	190.84	1070.68	191.01	1085	191.62	1091.74	192.39	1121.18	195.59
1128.53	195.64	1148.15	196.21	1160.19	195.6	1166.07	194.78	1187.75	191.6
1206.64	190.64	1209.67	190.66	1216.45	191.05	1226.21	191.56	1230.42	191.77
1231	191.81	1231.93	191.87	1233.18	191.97	1238.77	192.35	1259.53	194.16
1271.39	195.08	1278.36	195.63	1279.12	195.67	1285.42	196.16	1288.2	196.33
1293.81	197.16	1314	199.6	1323.85	202.52	1324.93	202.84	1326.47	203.02
1331.27	203.52	1333.81	203.85	1339.62	209.96	1340.57	210.71	1341.32	211.26

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	624.55	.035	750.98	.035	1013.41	.035	1085	.038
1279.12	.038	1341.32	.038						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
624.55	1085	14.9	43.68	14.96	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 6195.54*

INPUT
Description:
Station Elevation Data num= 95

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	210.28	.12	210.26	.47	210.2	2.47	209.91	5.4	209.48
6.69	209.3	13.48	208.35	36.74	206.58	56.47	205.08	64.3	204.54
66.38	204.31	70.36	203.22	75.76	200.83	77.57	200.02	82.6	197.96
83.86	197.44	84.88	197.03	85.15	196.92	85.67	196.87	95.46	196
103.41	195.31	115.48	195.59	117.72	195.65	146.94	196.52	170.76	197.11
176.89	197.07	196.36	196.94	247.91	196.68	276.41	196.54	287.23	196.56
317.34	196.61	347.82	196.66	358.82	196.69	418.94	196.87	478.46	196.96
484.16	196.83	495.25	196.58	499.29	196.48	499.34	196.48	540.65	194.92
560.04	194.11	594.83	192.58	602.58	192.2	616.98	191.47	629.91	190.94
641.8	190.43	672	190.51	702.14	190.59	747.59	190.6	796.5	190.6
807.44	190.54	835.6	190.35	838.02	190.34	917.6	190.19	926.48	190.15
1020.12	190.03	1050.15	189.99	1076.39	190.35	1083.22	190.45	1088.89	190.51
1097.44	190.81	1100.77	190.97	1112.34	191.5	1118.37	192.37	1144.67	195.96

1151.25	195.99	1168.77	196.6	1179.53	195.87	1184.79	194.92	1204.17	191.23
1221.05	190.09	1223.75	190.11	1229.81	190.55	1238.53	191.1	1242.3	191.34
1242.81	191.38	1243.64	191.44	1244.76	191.52	1249.75	191.89	1268.3	193.69
1278.9	194.59	1285.14	195.12	1285.81	195.16	1291.44	195.56	1293.92	195.7
1298.94	196.57	1316.98	199.08	1325.78	202.28	1326.75	202.63	1328.12	202.82
1332.42	203.38	1334.69	203.71	1339.87	210.6	1340.73	211.44	1341.4	212.05

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	616.98	.035	752.99	.035	1035.33	.035	1112.34	.037
1285.81	.037	1341.4	.037						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
616.98	1112.34	14.9	43.68	14.96	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 6151.870

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 55

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	210.26	5.33	209.44	13.31	208.28	36.29	206.6	55.78	205.19
65.56	204.55	69.5	203.56	82.83	197.6	84.1	197.03	94.29	195.98
102.14	195.2	116.27	195.55	168.66	197.09	193.95	196.92	273.02	196.53
413.8	196.79	472.58	196.79	493.16	196.23	534.01	194.64	595.18	191.99
609.4	191.35	623.82	190.76	637.07	190.2	670.74	190.32	704.34	190.44
755	190.49	809.52	190.54	821.72	190.48	853.11	190.29	944.52	190.15
954.42	190.11	1092.28	189.97	1121.81	190.45	1139.69	191.38	1145	192.34
1168.17	196.32	1173.96	196.34	1189.4	196.99	1198.88	196.14	1203.51	195.06
1220.58	190.87	1235.45	189.55	1237.83	189.56	1243.17	190.04	1260.74	191.43
1277.08	193.22	1291.91	194.61	1299.65	195.08	1304.07	195.99	1319.96	198.56
1328.57	202.42	1335.56	203.58	1340.13	211.24	1340.88	212.17	1341.47	212.85

Manning's n Values num= 2

Sta	n Val	Sta	n Val
0	.05	755	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
609.4	1139.69	162.9	173.01	158.07	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 5978.856

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 50

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	210.11	4.59	209.45	7.39	209.03	36.89	207.17	39.32	207.01
62.22	205.02	71.39	203.83	82.12	198.91	85.52	197.45	87.11	197.28
109.32	195.18	172.51	197.01	172.84	197.02	172.91	197.02	173.21	197.02
214.62	195.89	258.41	195.9	271.12	195.47	424.63	194.69	491.91	192.94
520.46	191.9	589.97	189.76	600.38	189.64	601.23	189.63	661.34	188.48
703.05	188.74	755	188.35	766.28	188.26	813.22	188.44	823.84	188.21
860.44	188.08	952.43	187.97	966.99	187.9	997.98	189.59	1044.05	189.55
1101.22	190.77	1118.35	191.4	1144.21	193	1151.44	193.14	1165.05	193.42
1171.72	193.71	1206.89	195.27	1207.66	195.3	1207.91	195.35	1218.48	196.31
1219.51	196.75	1225.3	199.19	1225.56	199.41	1227.01	201.14	1229.5	203.84

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.035	36.89	.05	755	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
601.23	1044.05	197.39	190.73	235.69	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 5788.123

INPUT
Description:
Station Elevation Data num= 49

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	207.07	1.51	206.99	20.99	205.72	51	203.78	74.18	197.86
75.94	197.55	77.92	196.89	81.59	196.61	110	194.55	145.81	194.13
153.71	194.01	215.72	193.06	270.53	192.21	282.75	192.22	316.2	191.13
343.31	188.76	353.1	188.56	363.39	188.86	398.77	187.9	430.5	187.05
440.75	187.07	492.55	187.14	517.12	186.11	629.64	185.94	672.25	185.91
742.36	186.48	766.07	187.3	821.83	189.22	825.37	189.07	857.76	188.73
891.41	186.26	895.9	185.83	897.63	185.59	939.13	184.68	954.05	184.42
955.71	184.49	957.59	184.36	983.57	184.32	998.21	184.82	1003.23	185.06
1013.8	185.57	1024.53	187.88	1028.42	188.79	1028.93	188.91	1034.85	191.94
1041.83	198.73	1043.79	200.18	1047.69	203.43	1049.41	204.71		

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	20.99	.05	440.75	.035	629.64	.05	766.07	.035
1028.42	.05								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
492.55	1024.53	66.98	101.35	103.25	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 5686.773

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 49

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	206.16	28.01	204.67	35.04	204.27	45.47	202.77	46.63	202.42
50.68	201.05	63.15	196.89	98.34	194.23	100.52	194.07	105.69	193.69
194.58	192.71	226.32	192.36	229.62	192.02	235.83	191.61	256.98	190.25
274.8	187.43	299.49	183.68	322.22	184.63	328.62	184.88	338.04	185.24
355.37	187.45	364.15	187.38	421.15	187.46	451.15	186.26	470.47	185.4
590	185.23	658.52	185.13	678.18	185.1	682.42	185.11	693.45	186.03
699.97	186.26	803.82	191.43	812.9	190.83	824.14	189.77	846.63	185.46
851.78	184.15	854.81	184.03	872.48	183.41	872.82	183.42	873.3	183.44
910.58	184.33	913.38	184.35	920.86	184.41	932.08	186.07	936.98	187.29
944.81	189.91	948.92	192	953.35	195.84	966.54	207.31		

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	355.37	.035	590	.05	803.82	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
451.15	932.08	59.9	92.96	76.35	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 5593.814

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 50

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	205.85	36.85	203.74	41.08	203.13	57.44	198.12	60.97	196.92
70.24	195.76	71.69	195.47	74.47	194.94	108.91	190.51	112.36	190.27
119.95	190.51	193.48	191.97	196.14	191.81	197.28	191.59	208.62	190.15
209.1	189.93	210.3	189.54	223.64	185.02	225.74	184.98	237.21	183.52
248.16	184.04	290	185.66	296.1	185.9	296.45	185.91	349.11	188.04
366.67	187.2	385.69	186.77	436.22	184.7	531.5	184.6	565	184.55
577.61	184.53	661.26	183.92	713.89	183.82	730.46	184.89	744.92	184.8
778.7	184.34	787.22	183.76	815.45	184	832.31	183.73	849.08	184.29
855.93	184.86	880.21	186.7	892.02	187.67	901.17	188.39	909.48	189.31
917.59	193.76	917.71	193.78	918.13	194.29	930.1	209.14	931.13	210.22

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.05	290	.035	565	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
436.22	855.93	56.58	91.06	69.13	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 5502.751

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 43

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	204.86	23.16	203.6	25.75	203.38	31.88	201.52	68.63	191.81
73.08	191.15	77.5	190.87	89.97	190.12	94.16	190.24	142.37	191.72
148.12	191.28	157.99	190.92	162.57	190.33	167.45	188.16	175.3	183.74
176.57	183.43	220.71	185	235.75	185.43	243.46	185.65	247.54	185.85
282.35	187.55	333.43	185.37	372.21	184.06	425.72	184.01	459.6	183.62
478.95	183.58	516.84	183.34	625.42	182.66	629.53	182.66	667.96	183.04
689.12	183.06	691.69	183.07	791.93	183.77	795.32	183.81	826.73	185.25
837.26	185.9	851.15	187.78	855.96	188.36	871.31	190.21	873.39	190.54
888.49	195.1	890.57	195.44	906.74	203.24				

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	235.75	.035	516.84	.05	689.12	.035	826.73	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
333.43	826.73	78.34	115.61	55.34	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 5387.141

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 44

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	202.52	11.98	198.33	21.92	193.9	28.17	191.06	35.4	189.79
41.93	188.74	42.2	188.69	48.79	188.43	61.58	187.98	81.89	185.97
89.61	185.8	92.55	184.87	93.21	184.86	110.32	183.43	154.59	184.33
163.18	184.5	180.85	184.86	181.81	184.89	194.88	185.29	226.86	184.68
243.43	184.05	325.46	183.97	403.65	183.83	459.42	183.74	519.66	183.68
531.37	183.79	592.59	183.51	606.02	183.45	648.82	182.7	737.13	183.32
774.24	184.57	782.14	184.96	795	187.72	800.24	188.85	805.38	189.57
805.58	189.59	815.6	190.63	831.72	192.36	841	194.25	845.27	196.03
851.06	199.99	852.27	200.98	857.27	205.71	858.83	207.18		

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	154.59	.035	403.65	.05	592.59	.035	795	.05

```
Bank Sta: Left   Right     Lengths: Left Channel   Right      Coeff Contr.   Expan.
        226.86  774.24              129.7  137.48   67.44              .1        .3
Ineffective Flow      num=        1
   Sta L   Sta R    Elev  Permanent
888        F

CROSS SECTION           RIVER: San Juan
REACH: Upper               RS: 5249.660

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data     num=       36
     Sta    Elev      Sta    Elev      Sta    Elev      Sta    Elev      Sta    Elev
       0   202.7      .52   202.6     1.51  201.66     4.92  198.49    13.56  189.72
   14.07  189.49    22.09  185.24    27.89  183.66    37.64  182.92    59.97  181.47
   84.69  182.09    93.23  182.16      120  182.49   134.32  182.66   137.33   182.7
  173.64   183.5    182.5  183.61   184.05  183.55      285  183.48   424.26  183.39
  468.95  183.81      510  183.62   700.25  182.76   700.34  182.76   700.55  182.76
  700.74  182.77   743.86  184.17   750.42  184.62   777.35  187.16   792.49  188.58
  821.57  189.96   825.28  190.27   828.14  192.34   831.62  194.54   838.72  202.81
  839.47   203.7

Manning's n Values         num=        5
     Sta   n Val      Sta   n Val      Sta   n Val      Sta   n Val      Sta   n Val
       0     .05      120    .035      285     .05      510    .035   750.42     .05

Bank Sta: Left   Right     Lengths: Left Channel   Right      Coeff Contr.   Expan.
         27.89  743.86              141.78   155.8   79.91              .1        .3

CROSS SECTION           RIVER: San Juan
REACH: Upper               RS: 5093.864

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data     num=       38
     Sta    Elev      Sta    Elev      Sta    Elev      Sta    Elev      Sta    Elev
       0  203.51     2.37  203.35    24.51  198.72    28.54  198.21    35.45  196.19
   38.92  195.17    41.19   194.5    41.52  194.36    63.35   184.5    69.97  182.66
    74.4  182.44    83.85  181.79     99.5  180.73   134.04   181.4   155.14  182.12
   166.6  182.38   175.47  182.57      255  183.57   269.15  183.75   283.83  183.12
  365.41  183.11   393.38  183.09   473.08  183.82      505  183.68   620.62  183.17
  713.73  183.03   771.51  184.47   782.35  184.79   801.73  186.68   817.92  187.32
   830.9  187.84   859.17  189.33    865.1  191.19   867.36  191.45   869.67  192.85
  873.58  197.08    875.2  198.71   886.16  210.29

Manning's n Values         num=        6
     Sta   n Val      Sta   n Val      Sta   n Val      Sta   n Val      Sta   n Val
       0    .035    35.45     .05    166.6    .035      255     .05      505    .035
  782.35     .05

Bank Sta: Left   Right     Lengths: Left Channel   Right      Coeff Contr.   Expan.
         63.35  771.51              102.03  146.85   97.36              .1        .3

CROSS SECTION           RIVER: San Juan
REACH: Upper               RS: 4947.016

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data     num=       39
     Sta    Elev      Sta    Elev      Sta    Elev      Sta    Elev      Sta    Elev
       0  203.11     9.94  202.69    18.28  202.26     60.7  198.07    85.14  195.88
   95.51  193.74   105.31  190.47    115.7  187.38   120.69  186.24   126.13  185.04
  128.34  184.68   130.58  184.32   134.88  183.63   142.97   183.3   164.22  183.14
  167.76  183.16   174.18  183.19   188.89  183.26   224.49  183.02   268.68  181.99
  302.23  181.85   319.19  182.15   354.59  182.69   388.04  183.27   451.56  183.85
     475  183.75   485.44   183.7      665   183.4   701.57  183.34   750.45  184.55
  770.04  184.86   785.05   185.1   866.36  188.88   886.57  189.58   891.62  191.63
  907.53  202.02   907.69  202.13   908.09  202.44   916.71   209.1

Manning's n Values         num=        6
     Sta   n Val      Sta   n Val      Sta   n Val      Sta   n Val      Sta   n Val
       0     .07   128.34     .05   174.18    .035   302.23     .05      475    .035
     665     .05

Bank Sta: Left   Right     Lengths: Left Channel   Right      Coeff Contr.   Expan.
        128.34  750.45              101.25  101.15   96.58              .1        .3

CROSS SECTION           RIVER: San Juan
REACH: Upper               RS: 4845.863

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data     num=       37
     Sta    Elev      Sta    Elev      Sta    Elev      Sta    Elev      Sta    Elev
       0  203.27     2.7  203.05     22.2  200.57    39.38  198.64    45.86  197.73
   65.32  192.84   72.69  191.29    89.71  187.69   101.01  186.43   106.56  185.79
   138.3  185.07  139.26  185.08   156.93   183.8   157.18  183.78   230.93  181.97
  244.77   181.1  278.92  180.95      320  181.42   406.46  182.41   526.28   183.4
  575.56  183.75  663.99   183.6   676.22  183.91      690  184.13   700.75   184.3
  717.86  184.58  759.74  185.63   773.79   185.8   845.65  187.78   868.49  188.52
   871.5  189.01   874.3   189.1   881.19  189.68   885.07   191.8   889.09  194.41
  895.93  200.48  901.87  204.71

Manning's n Values         num=        6
     Sta   n Val      Sta   n Val      Sta   n Val      Sta   n Val      Sta   n Val
       0     .07   106.56     .05   156.93    .035      320     .05   575.56    .035
     690     .05
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Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
156.93	663.99	113.15	117.68	124.47	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 4728.187

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 45

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	203.37	9.53	202.76	20.4	202.06	36.42	201.09	50.8	199.14
71.17	195.99	100.99	189.01	102.85	188.51	113.07	187.21	123.91	185.57
136.12	183.73	139.59	183.33	145.56	183.36	163.61	182.2	176.37	181.39
182.05	181.29	203.03	180.94	215.67	180.8	238.29	180.69	305	180.39
370	180.09	380.93	180.04	397.55	180.08	568.85	182.24	649.68	183.55
671.96	184.11	733.05	185.63	801.23	188.49	804.55	188.63	808.66	188.57
852.92	188.6	857.61	189.59	864.28	190.59	866.35	192.27	881.76	203.91
882.65	204.4	886.3	206.66	890.93	209.34	894.01	210.39	927.95	221.47
945.35	228.82	946.78	229.36	946.92	229.4	947.13	229.45	953.14	231.35

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	9.53	.07	123.91	.05	238.29	.035	305	.05
370	.035	671.96	.05						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
163.61	568.85	103.68	96.65	85.93	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 4631.533

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 37

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	203.7	8.12	203.31	18.46	202.36	18.67	202.33	56.14	197.09
56.6	197.04	81.62	192.05	85.3	191.27	93.91	189.44	98.45	188.91
133.04	183.77	161.9	182.23	167.16	182.29	183.87	181.93	192.69	181.74
259.21	180.6	301.66	180.12	332.65	179.99	340	180.01	411.37	180.19
460.04	180.8	504.03	181.5	624.71	183.42	646.81	183.96	660	184.28
781.7	187.28	816.45	188.73	842.43	189.84	843.6	189.82	844.06	189.93
846.04	191.24	875.7	208.82	878.23	210.1	883.52	211.31	904.2	215.08
916.56	216.32	933.35	218.99						

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	18.67	.07	133.04	.05	340	.035	660	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
183.87	504.03	83.04	106.65	96.62	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 4524.879

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 42

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	203.49	8.73	202.84	36.07	200.83	53.14	199.51	70.23	197.68
83.18	196.14	121.15	189.14	127.15	187.91	127.61	187.81	157.72	184.03
165.37	183.73	172.29	183.81	190.55	183.45	198.19	183.31	273.27	181.93
283.53	181.72	286.23	181.62	291.78	181.48	305.84	180.44	314.99	180.99
321.12	180.85	329.3	180.71	350	178.47	356.33	177.79	364.66	177.19
379.38	177.67	394.96	177.76	425.04	178.51	471.14	180.69	491.33	181.67
592.54	183.25	618.14	183.87	640	184.4	809.52	188.49	831.63	188.9
834.06	189.26	838.59	189.88	841.25	191.07	849.43	194.04	864.99	201.64
869.63	203.45	873.08	204.07						

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	8.73	.07	165.37	.05	350	.035	640	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
286.23	491.33	102.46	90.4	106.95	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 4434.483

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 40

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	202.71	1.83	202.52	3.78	201.81	10.5	199.86	34.89	192.51
40.24	190.96	61.14	187.34	74.08	185.22	75.83	184.93	92.5	183.31
99.46	182.63	102.1	182.37	106.69	182.4	157.49	181.58	159.14	181.53
176.66	180.96	252.87	179.64	305.4	177.68	309.44	177.31	311.99	177.43
313.89	177.33	317.76	177.33	384.57	177.21	404.39	177.39	469.88	180.38
500.79	181.91	519.99	183.3	550.36	183.77	560	183.92	600.21	184.54
626.85	184.93	777.58	187.81	794.64	190.22	801.18	190.33	806.42	191.35
808.69	192.2	812.94	194.2	818	196.77	825.03	198.57	828.85	199.46

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.07	99.46	.05	317.76	.035	560	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
252.87	469.88	229.37	220.73	203.25	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 4213.757

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 40

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	200.81	5.26	198.89	8.08	197.81	12.49	196.17	28.49	190.98
37.55	187.18	44.54	184.77	53.68	182.73	67.4	182.76	93.9	181.55
134.36	179.7	143.82	179.39	152.85	179.17	215.97	177.58	217.28	177.55
238.51	177.6	290.3	177.71	365.47	177.34	390	177.26	413.09	177.18
445.34	176.41	472.97	177.11	483.44	177.6	497.22	179.2	517.55	181.23
537.8	183.7	537.88	183.71	547.73	183.71	567.09	184.07	625.37	184.51
700.46	185.13	733.35	186.02	760	186.68	792.43	187.48	806.68	187.89
811.25	188.05	812.52	188.39	827.71	190.67	831.02	192.4	853.65	202.22

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.07	93.9	.05	390	.035	537.8	.05	760	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
152.85	497.22	211.8	205.08	199.31	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 4008.681

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 45

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	201.88	6.03	199.17	12.95	196.64	35.87	186.57	36.93	186.03
45.91	183.57	49.77	182.45	50.49	182.24	50.74	182.17	51.67	181.92
52.26	181.86	119.93	178.37	132.49	177.84	136.23	177.87	153.26	177.82
257.16	177.53	349.61	177.27	391.37	176.26	410	176.09	474.15	175.49
481.6	175.85	495.72	176.02	498.86	175.98	499.79	176.12	504.54	177.37
507.19	177.88	511.21	180.96	513.35	182.9	513.95	183.14	519.28	184.66
520.13	184.65	527.43	184.55	542.2	184.47	588.47	185.67	660.87	185.2
708.48	184.85	754	185.73	764.5	185.9	789.79	189.86	794.92	190.26
796.59	190.68	801.16	193.59	805.97	196.28	824.38	203.17	829.56	203.83

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.07	49.77	.05	410	.035	519.28	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
119.93	507.19	243.81	216.85	190.05	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 3791.835

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 47

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	200.41	4.26	198.05	4.8	197.85	7.66	197.43	26.58	194.7
59.61	193.56	68.97	193.43	77.7	193.24	96.01	192.43	103.34	192.15
118.37	191.47	125.11	190.83	133.18	189.67	136.17	189.03	137.21	188.63
152.36	181.67	166.58	177.95	206.03	176.05	221.16	175.47	236.77	175.37
251.29	175.28	260.54	175.36	302.78	175.62	355	176.19	420.2	176.91
442.45	177.08	453.3	177.93	470	178.6	477.38	178.9	481.37	179.06
485.68	179.63	513.63	180.39	558.62	182.24	560.18	182.26	588.4	182.65
655.35	182.02	712	181.92	715.03	182.41	722.35	183.13	726.37	185.78
730.07	187.58	736.14	192.28	742.74	196.34	747.69	198.5	755.83	201.84
757.73	202.43	766.25	203.95						

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.07	7.66	.05	236.77	.035	260.54	.05	355	.035
470	.05								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
166.58	442.45	193.71	199.59	229.82	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 3592.245

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 51

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	205.95	.94	205.38	7.17	200.58	12.98	196.61	19.25	194.43
32.77	190.88	50.87	187.88	58.77	184.86	62.36	184.42	90.6	181.99
93.31	181.83	131.73	177.51	135.33	177.11	139.48	176.94	143.89	176.42
146.78	176.29	147.51	176.26	157.53	175.84	198.67	173.2	221.15	173.48
255	175.11	294.51	177.02	315	177.05	386.09	177.15	423.18	176.91
440.34	177.3	482.38	178.27	500.4	178.99	515.32	179.79	550.44	180.6
601.16	182.67	606.88	183.09	610.77	184.52	613.61	185.24	615.56	186.63
616.08	186.89	630.19	196.8	634.73	197.83	639.33	198.25	655	198.33
660.56	198.36	681.87	198.8	765.96	201.31	793.36	202.21	799.31	202.32
804.12	202.27	817.85	202.17	913.94	202.09	920.78	202.14	925.92	202.73
940.9	203.52								

Manning's n Values num= 8

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.07	131.73	.035	198.67	.05	255	.035	315	.05
386.09	.035	440.34	.05	655	.02				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.

135.33	423.18	227.98	216.09	205.8	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 3376.157

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 48

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	201.07	3.37	197.95	19.05	184.4	24.22	179.7	25.55	178.3
28.52	177.22	29.4	177.16	29.83	176.92	30.03	176.89	31.14	176.95
33.89	177.33	45.71	179.18	53.46	178.96	58.29	178.68	60.79	178.53
80.26	177.38	114.81	175.93	135	175.61	170	175.06	175.76	174.97
277.41	173.7	290	173.69	297.62	173.68	301.92	173.67	368.9	173.8
370	173.8	380.43	173.82	381.68	173.85	441.58	175.45	450.44	176.6
456.37	177.34	461.78	178.92	482.65	187.5	485.35	188.63	487.9	189.38
496.63	191.83	501.76	192.43	517.34	194.82	521.03	196	530	196.14
577.96	196.9	581.86	197.01	667.6	198.92	692.21	199.27	729.61	200.36
787.24	202.45	809.84	202.7	832.73	203.46				

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.07	58.29	.05	135	.035	170	.05	290	.035
370	.05	530	.02						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
114.81	441.58	213.06	206.59	170.09	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 3169.567

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 37

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	202.81	17.39	187.19	20.1	184.41	26.49	176.65	30.73	174.19
36.31	170.12	63.45	169.65	68.1	169.36	68.33	169.37	70.89	169.5
71.77	169.54	79.63	169.57	102.49	170.28	128.59	171.1	198.45	171.16
267.13	172.44	325	173.69	343.3	174.08	368.86	174.3	385	174.45
392.02	174.51	428.46	174.85	457.13	175.24	466.29	175.91	474.08	176.34
491.45	177.44	514.47	185.13	530.01	190.11	540.37	191.17	560.21	193.29
605.9	194.1	663.72	196.08	731.34	198.35	771.14	200.95	809.16	202.81
836.92	203.19	854.08	203.45						

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.07	68.33	.035	102.49	.05	325	.035	385	.05
540.37	.02								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
30.73	392.02	233.08	206.98	127.76	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 2962.583

INPUT
Description:
Station Elevation Data num= 48

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	196.65	1.21	194.95	2.74	193.19	7.39	187.41	9.04	185.53
9.93	184.66	15.36	180.15	18.49	177.74	21.12	176.24	27.45	172.63
29.96	170.67	32.82	170.12	40.32	169.22	42.53	169.14	53.73	169.83
66.24	170.54	73.41	170.96	88.51	172.01	95.45	172.5	112.8	173.7
119.62	174.18	151.76	174.34	174.26	174.29	181.79	174.04	238.12	172.4
298.06	170.72	355.76	171.99	382.05	172.57	393.11	173.1	418.99	174.35
421.7	174.38	425.17	174.42	502.17	175.22	524.26	175.57	529.87	175.94
555.35	177.47	582.7	184.53	590.04	186.21	602.82	189.14	610.81	190.23
628.44	192.16	664.5	193.75	706.88	195.82	743.83	197.24	795.3	198.69
826.88	201.82	849.91	203.31	867.7	203.18				

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.07	95.45	.035	112.8	.05	355.76	.035	425.17	.05
590.04	.02								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
27.45	355.76	219.26	216.54	187.47	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 2746.045

INPUT
Description:
Station Elevation Data num= 66

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	193.09	5.87	190.32	7.53	189.61	20.08	187.13	45.88	181.4
62.08	178.42	67.85	177.35	74.88	176.01	104.52	170.55	124.17	168.6
129.19	168.21	136.57	168.15	140.31	168.12	148.42	167.83	155.03	167.55
165.53	167.39	174.64	167.25	203.55	167.33	227.61	167.69	284.63	168.54
329.45	170.32	372.93	171.35	382.8	171.81	395.64	172.41	432.46	174.56
434.53	174.68	472.25	176.88	496.43	177.65	499.58	177.7	523.92	178.02
572.77	177.97	598.51	179.61	628.03	179.17	637.73	179.28	649.82	179.89
657.53	180.45	662.14	181.22	668.87	182.36	699.31	186.2	702.46	186.74
710.77	187.33	730.98	189.45	737.08	190.23	771.86	191.33	773.38	191.38
807.73	193.38	812.26	193.29	819.59	194.04	832.36	194.19	838.02	194.76
852.47	196.21	862.83	196.32	880.74	196.32	921.34	198.05	924.11	198.18
925.18	198.36	926.23	198.45	927.97	198.45	954.06	199.83	960.65	200.47
967.55	200.25	976.45	200.54	993.9	201.7	1015.04	203.9	1021.08	203.93

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 1034.59  204.46

Manning's n Values          num=       8
     Sta   n Val     Sta    n Val     Sta    n Val     Sta    n Val     Sta    n Val
       0     .02   62.08      .07  165.53     .035  227.61      .05   382.8     .035
  434.53     .05  662.14      .02  838.02     .035

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
        104.52  329.45            139.12  137.72  142.04              .1       .3

CROSS SECTION           RIVER: San Juan
REACH: Upper               RS: 2608.338

INPUT
Description:
Station Elevation Data      num=       45
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  197.52    1.98  197.16    8.23  195.57   20.39  192.61   44.27  186.73
    50.9  185.94   53.04  185.69   92.16  177.69      96  176.91  110.52  172.48
  114.02  171.41  116.04  171.24  130.76  168.57  130.88  168.57  145.73  167.82
  173.95  167.14  181.17  167.34  235.62  168.88  271.89  169.71  309.03  171.22
  322.92  171.78  327.21  172.04  403.24  176.68  403.38  176.68  404.98  176.75
  407.11  176.87  411.05  176.99  505.74  180.17  543.27  182.79  619.05  185.86
  621.92  185.99  623.65  186.15  625.34  186.23  646.06   187.2  651.27  187.46
  659.44  187.68  684.52  188.97   684.6  188.97  684.63  188.98  684.81  189.01
  697.48  191.28  697.49  191.28  714.77  198.08  718.68  199.93  727.14  204.25

Manning's n Values          num=       5
     Sta   n Val     Sta    n Val     Sta    n Val     Sta    n Val     Sta    n Val
       0     .02    50.9      .07  130.88     .035  327.21      .05  625.34      .02

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
        116.04  309.03            157.33  164.71  180.94              .3       .5

BRIDGE                  RIVER: San Juan
REACH: Upper               RS: 2580

INPUT
Description:
Distance from Upstream XS =       30
Deck/Roadway Width        =    62.99
Weir Coefficient          =      2.6
Upstream  Deck/Roadway Coordinates
    num=        4
     Sta Hi Cord Lo Cord      Sta Hi Cord Lo Cord      Sta Hi Cord Lo Cord
-47.6437  208.06       0-47.6437  208.06  200.56  728.35  235.94  228.44
  728.35  235.94       0

Upstream Bridge Cross Section Data
Station Elevation Data      num=       45
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  197.52    1.98  197.16    8.23  195.57   20.39  192.61   44.27  186.73
    50.9  185.94   53.04  185.69   92.16  177.69      96  176.91  110.52  172.48
  114.02  171.41  116.04  171.24  130.76  168.57  130.88  168.57  145.73  167.82
  173.95  167.14  181.17  167.34  235.62  168.88  271.89  169.71  309.03  171.22
  322.92  171.78  327.21  172.04  403.24  176.68  403.38  176.68  404.98  176.75
  407.11  176.87  411.05  176.99  505.74  180.17  543.27  182.79  619.05  185.86
  621.92  185.99  623.65  186.15  625.34  186.23  646.06   187.2  651.27  187.46
  659.44  187.68  684.52  188.97   684.6  188.97  684.63  188.98  684.81  189.01
  697.48  191.28  697.49  191.28  714.77  198.08  718.68  199.93  727.14  204.25

Manning's n Values          num=       5
     Sta   n Val     Sta    n Val     Sta    n Val     Sta    n Val     Sta    n Val
       0     .02    50.9      .07  130.88     .035  327.21      .05  625.34      .02

Bank Sta: Left   Right    Coeff Contr.   Expan.
        116.04  309.03              .3       .5

Downstream  Deck/Roadway Coordinates
    num=        4
     Sta Hi Cord Lo Cord      Sta Hi Cord Lo Cord      Sta Hi Cord Lo Cord
-47.6437  208.06       0-47.6437  208.06  200.56  728.35  235.94  228.44
  728.35  235.94       0

Downstream Bridge Cross Section Data
Station Elevation Data      num=       41
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  195.62     .85  195.36    3.42  194.45   20.23  187.93   21.53  187.55
   26.44  186.13   33.57  183.63   45.92  178.05   46.63  177.78   47.28  177.54
    60.9  176.79   78.94  173.17   79.06  173.15   84.86  172.18   86.84  171.91
   97.13   170.5  130.03   170.2  155.46  168.82     187  168.81  204.75  168.82
  216.73  168.71  237.91  168.51  281.75  169.76  349.25  171.27  381.38  173.34
  461.47  177.12  476.01  177.84  496.32  178.63  524.44  180.28  609.93  186.01
   645.4  187.24  655.65  189.33   672.2  190.78  674.49  190.75  687.77  190.65
  697.57  195.15  697.71  195.19  701.59  196.97  714.78  202.98  715.19  203.14
  717.65  204.28

Manning's n Values          num=       4
     Sta   n Val     Sta    n Val     Sta    n Val     Sta    n Val
       0     .05   21.53      .07   78.94     .035  204.75      .05

Bank Sta: Left   Right    Coeff Contr.   Expan.
        130.03  281.75              .3       .5

Upstream Embankment side slope              =       0 horiz. to 1.0 vertical
Downstream Embankment side slope            =       0 horiz. to 1.0 vertical
Maximum allowable submergence for weir flow =     .95
Elevation at which weir flow begins         =     210
```

Energy head used in spillway design =
Spillway height used in design =
Weir crest shape = Broad Crested

Number of Piers = 4

Pier Data
Pier Station Upstream= 79.36 Downstream= 79.36
Upstream num= 2

Width	Elev	Width	Elev
10.56	0	10.56	336

Downstream num= 2

Width	Elev	Width	Elev
10.56	0	10.56	336

Pier Data
Pier Station Upstream= 253.36 Downstream= 253.36
Upstream num= 2

Width	Elev	Width	Elev
10.56	0	10.56	336

Downstream num= 2

Width	Elev	Width	Elev
10.56	0	10.56	336

Pier Data
Pier Station Upstream= 427.36 Downstream= 427.36
Upstream num= 2

Width	Elev	Width	Elev
10.562	0	10.562	336

Downstream num= 2

Width	Elev	Width	Elev
10.562	0	10.562	336

Pier Data
Pier Station Upstream= 601.36 Downstream= 601.36
Upstream num= 2

Width	Elev	Width	Elev
10.562	0	10.562	336

Downstream num= 2

Width	Elev	Width	Elev
10.562	0	10.562	336

Number of Bridge Coefficient Sets = 1

Low Flow Methods and Data
Energy
Selected Low Flow Methods = Energy

High Flow Method
Energy Only

Additional Bridge Parameters
Add Friction component to Momentum
Do not add Weight component to Momentum
Class B flow critical depth computations use critical depth
inside the bridge at the upstream end
Criteria to check for pressure flow = Upstream energy grade line

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 2443.625

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 41

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	195.62	.85	195.36	3.42	194.45	20.23	187.93	21.53	187.55
26.44	186.13	33.57	183.63	45.92	178.05	46.63	177.78	47.28	177.54
60.9	176.79	78.94	173.17	79.06	173.15	84.86	172.18	86.84	171.91
97.13	170.5	130.03	170.2	155.46	168.82	187	168.81	204.75	168.82
216.73	168.71	237.91	168.51	281.75	169.76	349.25	171.27	381.38	173.34
461.47	177.12	476.01	177.84	496.32	178.63	524.44	180.28	609.93	186.01
645.4	187.24	655.65	189.33	672.2	190.78	674.49	190.75	687.77	190.65
697.57	195.15	697.71	195.19	701.59	196.97	714.78	202.98	715.19	203.14
717.65	204.28								

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	21.53	.07	78.94	.035	204.75	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
130.03	281.75	22.78	37.03	49.81	.3	.5

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 2406.59*

INPUT
Description:
Station Elevation Data num= 67

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	193.29	.14	193.25	.83	193.06	3.34	192.24	6.67	191.07
19.78	186.6	21.05	186.26	25.85	185.02	32.82	182.85	44.9	178.1
45.59	177.87	46.23	177.66	48.13	177.53	50.54	177.39	51.48	177.34
59.55	176.79	77.18	173.51	77.3	173.49	82.97	172.59	84.91	172.33
86.5	172.11	89.49	171.67	94.97	170.92	127.14	169.88	128.48	169.8
141.12	169.04	144.5	168.86	149.33	168.57	176.86	168.26	184.65	168.18
192.35	168.11	202.81	167.91	202.85	167.91	217.15	167.64	221.29	167.6
243.49	168.45	257.95	169	268.3	169.45	287.61	169.8	338.33	170.72
371.66	172.4	375.12	172.53	375.76	172.55	419.15	174.17	454.75	175.6

469.84	176.24	483.9	176.72	490.91	176.96	510.21	177.91	520.08	178.4
551.88	180.17	603.28	183.67	608.18	183.97	608.78	184.01	632.92	185.04
645.58	185.57	656.21	187.4	673.38	188.81	675.75	188.82	689.53	188.94
698.57	192.27	699.7	192.68	699.84	192.72	703.87	194.18	717.55	199.11
717.98	199.24	720.53	200.18						

Manning's n Values num= 9

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	21.05	.066	77.18	.038	127.14	.047	196.66	.047
223.37	.035	268.3	.05	375.12	.05	720.53	.05		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
127.14	268.3	22.78	37.03	49.81	.3	.5

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 2369.55*

INPUT
Description:
Station Elevation Data num= 67

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	190.96	.14	190.93	.81	190.75	3.27	190.03	6.51	189.01
19.33	185.27	20.57	184.98	25.26	183.9	32.08	182.07	43.88	178.15
44.56	177.96	45.18	177.79	47.03	177.63	49.39	177.48	50.31	177.43
58.19	176.8	75.43	173.84	75.54	173.83	81.09	172.99	82.98	172.74
84.53	172.54	87.46	172.08	92.81	171.35	124.25	169.56	125.39	169.48
136.19	168.75	139.08	168.6	143.21	168.32	166.72	167.71	173.37	167.55
179.95	167.39	188.89	167.11	188.92	167.11	201.13	166.72	204.68	166.68
228.37	167.79	243.8	168.51	254.85	169.15	274.86	169.43	327.41	170.17
361.95	171.46	365.53	171.56	366.19	171.58	411.15	172.84	448.04	174.09
463.67	174.64	478.23	175.06	485.5	175.28	505.49	176.1	515.73	176.51
548.68	178	601.93	181.68	607.01	181.96	607.62	182	632.64	183.27
645.75	183.89	656.77	185.46	674.56	186.83	677.02	186.89	691.29	187.23
700.66	189.9	701.83	190.21	701.98	190.24	706.15	191.38	720.33	195.24
720.77	195.34	723.41	196.07						

Manning's n Values num= 9

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	20.57	.062	75.43	.041	124.25	.044	188.57	.044
213.28	.035	254.85	.05	365.53	.05	723.41	.05		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
124.25	254.85	22.78	37.03	49.81	.3	.5

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 2332.52*

INPUT
Description:
Station Elevation Data num= 67

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	188.63	.14	188.61	.79	188.45	3.19	187.82	6.36	186.94
18.88	183.94	20.09	183.69	24.68	182.79	31.33	181.29	42.86	178.21
43.52	178.05	44.13	177.91	45.94	177.73	48.24	177.57	49.14	177.52
56.84	176.8	73.67	174.18	73.78	174.16	79.2	173.4	81.05	173.16
82.57	172.97	85.42	172.49	90.65	171.77	121.35	169.24	122.31	169.16
131.26	168.46	133.66	168.34	137.08	168.06	156.58	167.16	162.1	166.91
167.56	166.68	174.97	166.31	175	166.31	185.12	165.81	188.06	165.77
213.25	167.14	229.65	168.02	241.4	168.84	262.11	169.06	316.49	169.62
352.23	170.52	355.93	170.59	356.62	170.61	403.14	171.5	441.32	172.57
457.5	173.04	472.57	173.41	480.09	173.61	500.78	174.28	511.37	174.63
545.47	175.84	600.57	179.69	605.83	179.95	606.47	180	632.35	181.5
645.92	182.22	657.33	183.53	675.74	184.86	678.28	184.95	693.06	185.52
702.75	187.52	703.96	187.75	704.11	187.77	708.43	188.59	723.1	191.37
723.56	191.44	726.3	191.97						

Manning's n Values num= 9

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	20.09	.058	73.67	.044	121.35	.041	180.47	.041
203.19	.035	241.4	.05	355.93	.05	726.3	.05		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
121.35	241.4	22.78	37.03	49.81	.3	.5

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 2295.48*

INPUT
Description:
Station Elevation Data num= 67

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	186.3	.13	186.28	.77	186.14	3.12	185.61	6.21	184.88
18.43	182.6	19.61	182.41	24.09	181.67	30.58	180.51	41.83	178.26
42.48	178.14	43.07	178.03	44.84	177.83	47.09	177.67	47.97	177.61
55.48	176.8	71.92	174.52	72.03	174.5	77.31	173.8	79.11	173.58
80.6	173.39	83.39	172.89	88.49	172.19	118.46	168.92	119.22	168.84
126.33	168.17	128.23	168.08	130.95	167.81	146.44	166.61	150.82	166.28
155.16	165.96	161.04	165.51	161.07	165.51	169.11	164.89	171.45	164.85
198.13	166.48	215.51	167.54	227.95	168.54	249.35	168.68	305.57	169.06
342.51	169.58	346.34	169.63	347.05	169.63	395.14	170.17	434.6	171.05
451.32	171.44	466.9	171.76	474.68	171.93	496.06	172.47	507.01	172.75
542.26	173.67	599.22	177.7	604.66	177.95	605.31	177.99	632.07	179.72
646.1	180.55	657.89	181.59	676.92	182.89	679.55	183.02	694.82	183.81
704.84	185.14	706.09	185.28	706.25	185.29	710.71	185.79	725.88	187.5
726.35	187.54	729.18	187.86						

Manning's n Values num= 9

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val

0	.05	19.61	.054	71.92	.047	118.46	.038	172.38	.038
193.1	.035	227.95	.05	346.34	.05	729.18	.05		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
118.46	227.95	22.78	37.03	49.81	.3	.5

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 2258.454

INPUT
Description:
Station Elevation Data num= 31

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	183.97	.13	183.96	6.06	182.82	43.75	177.93	45.94	177.76
46.8	177.7	78.63	173.82	81.35	173.3	115.57	168.6	116.13	168.52
121.4	167.88	122.81	167.82	139.55	165.64	147.14	164.71	153.1	163.98
154.83	163.94	183.01	165.83	201.36	167.05	214.5	168.23	236.6	168.31
336.75	168.66	337.48	168.66	387.14	168.84	461.24	170.11	491.35	170.66
539.05	171.51	597.87	175.71	603.48	175.94	631.79	177.95	706.93	182.76
732.06	183.76								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.05	183.01	.035	336.75	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
115.57	214.5	37.15	40.69	38.12	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 2217.76*

INPUT
Description:
Station Elevation Data num= 72

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	184.18	.17	184.16	3.03	183.69	4.81	183.4	5	183.35
5.55	183.24	5.92	183.16	8.13	182.68	17.8	180.92	27.6	179.98
45.33	178.12	58.67	177.02	61.6	176.87	62.76	176.81	62.96	176.79
67.27	176.38	68.2	176.29	78.67	175.34	89.94	174.13	105.02	173.02
105.44	172.98	109.09	172.53	117.49	171.76	148.36	168.94	154.98	168.31
155.52	168.24	160.65	167.64	162.02	167.57	168.49	166.77	178.31	165.56
185.7	164.7	191.12	164.07	191.5	164.02	193.18	163.95	225.26	165.56
227.4	165.67	246.15	166.83	261.11	167.99	283.96	168.1	354.64	168.42
380.78	168.5	387.48	168.52	388.23	168.52	394.07	168.54	408.98	168.7
417.08	168.8	437.69	169.03	439.56	169.04	492.08	169.93	499.67	170.03
516.16	170.25	547.28	170.71	565.05	170.96	571.43	171.11	580.09	171.37
596.59	171.68	633.84	173.81	637.12	174.04	651.71	174.72	657.38	175.02
659.26	175.07	663.18	175.39	672.23	176.32	676.03	176.78	683.59	177.16
687.85	177.6	692.45	178.03	700.99	178.79	735.99	180.99	753.41	181.97
770.11	182.84	796.09	183.74						

Manning's n Values num= 10

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.046	67.27	.039	154.98	.035	182.51	.035	227.33	.035
261.11	.05	354.64	.05	387.48	.05	408.98	.05	796.09	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
154.98	261.11	37.15	40.69	38.12	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 2177.07*

INPUT
Description:
Station Elevation Data num= 72

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	184.39	.22	184.37	3.81	183.83	6.03	183.5	6.28	183.43
6.97	183.29	7.42	183.18	10.19	182.54	22.32	179.95	34.62	179.03
56.86	177.01	73.59	176.11	77.27	175.97	78.72	175.92	78.97	175.91
84.37	175.48	85.54	175.38	98.68	174.42	112.81	173.04	131.72	172.17
132.25	172.14	136.83	171.77	147.36	171.07	186.08	168.6	194.39	168.02
194.91	167.96	199.9	167.4	201.23	167.31	207.52	166.59	217.07	165.49
224.25	164.69	229.53	164.1	229.89	164.06	231.53	163.96	267.52	165.3
269.91	165.39	290.95	166.62	307.73	167.76	331.32	167.89	404.3	168.28
431.29	168.36	438.21	168.38	438.99	168.38	445.01	168.4	460.41	168.68
468.78	168.83	490.05	169.22	491.99	169.24	546.21	170.15	554.05	170.22
571.07	170.4	603.21	170.75	621.56	170.95	628.15	171.14	637.09	171.52
654.12	171.84	692.58	173.54	695.97	173.78	711.04	174.13	716.9	174.32
718.84	174.36	722.89	174.84	732.22	176.07	736.15	176.75	743.95	176.99
748.36	177.56	753.1	178.11	761.92	179.1	798.06	181.33	816.05	182.22
833.3	182.93	860.12	183.71						

Manning's n Values num= 10

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.043	84.37	.043	194.39	.035	223.79	.035	271.65	.035
307.73	.05	404.3	.05	438.21	.05	460.41	.05	860.12	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
194.39	307.73	37.15	40.69	38.12	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 2136.38*

INPUT
Description:
Station Elevation Data num= 72

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	184.6	.26	184.57	4.58	183.98	7.26	183.6	7.55	183.51

8.38	183.34	8.93	183.21	12.26	182.4	26.85	178.99	41.63	178.07
68.38	175.91	88.5	175.2	92.93	175.08	94.67	175.03	94.98	175.02
101.48	174.57	102.88	174.47	118.68	173.51	135.68	171.94	158.43	171.33
159.06	171.3	164.57	171	177.24	170.39	223.81	168.26	233.79	167.73
234.31	167.67	239.15	167.17	240.45	167.06	246.56	166.4	255.83	165.41
262.81	164.68	267.93	164.14	268.29	164.1	269.88	163.98	309.77	165.03
312.43	165.1	335.74	166.4	354.35	167.52	378.68	167.67	453.96	168.15
481.8	168.23	488.94	168.24	489.74	168.25	495.96	168.26	511.84	168.65
520.47	168.87	542.42	169.41	544.41	169.44	600.35	170.36	608.43	170.41
625.99	170.54	659.14	170.8	678.07	170.94	684.86	171.17	694.09	171.66
711.66	172.01	751.33	173.26	754.83	173.51	770.37	173.53	776.41	173.63
778.41	173.64	782.59	174.28	792.22	175.83	796.27	176.71	804.32	176.81
808.86	177.52	813.76	178.19	822.86	179.42	860.14	181.67	878.69	182.47
896.48	183.01	924.15	183.69						

Manning's n Values num= 10

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.039	101.48	.046	233.79	.035	265.06	.035	315.97	.035
354.35	.05	453.96	.05	488.94	.05	511.84	.05	924.15	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
233.79	354.35	37.15	40.69	38.12	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 2095.690

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 47

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	184.81	5.35	184.12	8.48	183.7	8.82	183.59	9.79	183.39
10.43	183.23	31.37	178.02	48.65	177.12	79.91	174.8	110.99	174.13
118.58	173.66	120.22	173.56	138.69	172.59	158.55	170.85	185.13	170.49
207.11	169.71	261.53	167.92	273.2	167.44	285.59	166.22	306.34	164.18
308.23	163.99	354.94	164.82	400.96	167.28	490	167.92	503.62	168.02
532.31	168.09	546.9	168.12	563.27	168.62	572.16	168.9	594.78	169.6
654.48	170.58	662.81	170.6	734.58	170.93	741.58	171.2	751.09	171.81
810.08	172.99	813.68	173.25	829.7	172.94	837.99	172.93	852.22	175.58
856.39	176.67	864.69	176.63	869.37	177.48	883.79	179.73	922.21	182.01
941.33	182.72	988.18	183.67						

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	118.58	.05	306.34	.035	490	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
273.2	400.96	97.79	280.21	315.49	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 1815.468

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 45

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	179.36	2.08	178.85	6.28	177.56	30.14	175.76	32.7	175.46
86.02	175.1	87.39	175.09	87.62	175.08	87.99	175.06	132	173.2
202.5	170.23	250.96	169.57	285	167.82	293.94	167.36	330.88	165.46
377.12	164.1	414.9	163.81	477.77	163.14	573.83	163.32	603.6	163.51
604.68	163.38	620.57	162.55	631.33	160.3	637.44	158.18	641.68	157.71
646.53	157.13	649.75	156.78	654.61	156.93	665.23	158.28	666.56	158.49
667.62	158.75	684.92	162.64	695.21	164.31	700.31	164.76	703.34	166.78
707.45	170.49	710	170.97	714.12	171.75	723.72	172.17	724.25	172.17
738.75	172.16	744.8	172.26	867.33	173.98	923.67	175.76	1010.11	177.35

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	202.5	.05	285	.035	620.57	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
620.57	684.92	157.35	199.5	221.7	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 1615.906

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 44

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	177.11	44.42	176.08	68.41	175.81	81.79	175.66	117.53	174.86
132.29	174.76	186.79	173.08	192.24	172.93	218.39	172.08	239.31	171.94
334.71	169.35	345	169	437.24	165.85	443.29	165.68	452	165.43
477.2	164.71	492.81	164.25	648.25	163.06	676.88	162.9	682.45	162.6
714.81	162.27	768.99	161.61	800.23	159.03	822.19	157.53	838.02	157.67
860.36	161.95	866.99	162.84	882.33	164.88	894.26	166.49	902.99	167.17
918.58	168.4	947.9	170.66	948.47	170.67	962.33	171	1035.59	171.38
1115.66	171.7	1141.92	171.77	1192.22	172.45	1201.31	172.59	1223.41	173.39
1257.31	174.05	1310.92	176.14	1344.33	176.54	1368.17	177.12		

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	68.41	.02	345	.05	452	.035	918.58	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
768.99	860.36	158.82	235.44	273.12	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 1380.475

INPUT
Description:
Station Elevation Data num= 56

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	177.79	4.62	176.59	9.63	176.35	32.39	175.14	35.77	175.09
50.4	174.87	115.45	172.82	173.47	171.49	228.38	171	243.14	170.89
324.6	170.78	396.47	170.44	439.48	170.52	447.14	170.26	481.59	169.11
527.7	167.7	542.55	166.99	599.17	164.47	608.12	164.07	622.33	163.44
643.38	163.09	679.46	162.19	699.01	161.78	722.2	161.31	812.09	159.88
879.06	158.93	921.4	158.33	927.64	157.96	929.02	157.63	934.75	154.08
936.57	153.2	940.51	151.34	942.47	151.04	948.13	151.76	963.53	159.99
969.15	161.85	971.84	163.3	973.16	163.99	993.78	165.11	1004.59	165.98
1006.97	165.96	1019.49	165.84	1075.03	165.33	1155.65	164.57	1190.39	164.24
1195.11	164.23	1197.13	164.29	1211.81	164.25	1356.61	165.58	1581	171
1619.13	172.04	1626.05	172.09	1637.76	172.47	1694.72	174.38	1695.02	174.4
1788.58	177.19								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	35.77	.02	447.14	.05	608.12	.035	1019.49	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
812.09	963.53	32.45	39.81	46.27	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 1340.66*

INPUT
Description:
Station Elevation Data num= 107

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	177.75	2.11	177.22	4.63	176.64	9.65	176.37	32.46	175.03
35.31	174.96	35.85	174.94	50.51	174.55	77.39	173.46	78.91	173.4
79.6	173.37	80.14	173.35	115.69	172.25	141.34	171.64	164.14	171.19
173.84	171.01	216.56	170.7	228.86	170.64	229.15	170.64	243.65	170.55
321.39	170.47	325.29	170.46	397.31	170.11	422.04	170.13	440.41	170.12
448.09	169.89	482.61	168.85	521.41	167.79	528.82	167.57	543.7	166.91
595.64	164.77	600.21	164.59	600.44	164.58	609.41	164.23	623.65	163.68
644.74	163.35	680.9	162.53	694.93	162.26	700.49	162.15	703.66	162.09
709.06	161.97	723.73	161.63	812.05	159.9	813.81	159.87	843.79	159.24
856.66	159.09	885.23	158.81	891.63	158.75	908.82	158.58	930.35	158.37
940.82	158.18	948.07	157.82	949.68	157.53	956.33	154.52	958.45	153.77
960.01	153.23	963.03	152.18	965.3	151.92	967.71	152.17	969.69	152.4
971.52	152.6	981.67	156.83	988.43	159.88	992.97	161.34	993.87	161.62
996.48	162.91	997.70	163.52	999.78	163.68	1012.74	164.59	1017.74	164.85
1024.41	165.34	1028.21	165.59	1030.52	165.57	1041.9	165.46	1042.65	165.45
1042.72	165.45	1065.27	165.27	1074.9	165.2	1094.86	165.04	1096.46	165.03
1118.91	164.86	1131.34	164.81	1165.59	164.52	1174.57	164.44	1208.23	164.14
1212.8	164.13	1214.76	164.18	1228.98	164.14	1247.45	164.27	1291.01	164.49
1369.28	164.87	1383.75	165.12	1495.01	167.42	1510.91	167.78	1529.97	168.26
1586.69	169.66	1623.63	170.68	1630.34	170.75	1641.68	171.11	1646.71	171.27
1696.87	173.03	1697.16	173.05	1698.34	173.09	1728.51	174.05	1730.35	174.14
1759.03	175.15	1787.81	176.24						

Manning's n Values num= 12

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	35.31	.032	35.85	.02	448.09	.045	600.21	.025
609.41	.038	812.05	.047	813.81	.05	988.43	.05	1042.65	.05
1065.27	.05	1787.81	.05						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
813.81	988.43	32.45	39.81	46.27	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 1300.86*

INPUT
Description:
Station Elevation Data num= 107

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	177.72	2.11	177.2	4.64	176.69	9.67	176.39	32.53	174.93
35.38	174.82	35.92	174.79	50.61	174.23	77.56	172.89	79.07	172.81
79.77	172.78	80.31	172.77	115.94	171.68	141.64	171.05	164.48	170.66
174.2	170.52	217.02	170.3	229.35	170.28	229.63	170.28	244.17	170.21
322.07	170.16	325.98	170.15	398.15	169.79	422.93	169.77	441.34	169.72
449.03	169.51	483.63	168.6	522.51	167.65	529.94	167.43	544.85	166.84
596.89	164.86	601.48	164.71	601.71	164.7	610.7	164.4	624.97	163.93
646.11	163.61	682.34	162.88	696.4	162.63	701.97	162.52	705.15	162.46
710.56	162.34	725.26	161.96	813.76	159.9	815.53	159.86	849.69	158.97
864.36	158.82	896.91	158.61	904.19	158.56	923.78	158.44	948.32	158.29
960.25	158.04	968.51	157.68	970.33	157.43	977.92	154.96	980.33	154.34
982.11	153.89	985.55	153.03	988.14	152.8	990.76	153.02	992.92	153.25
994.91	153.43	1005.96	156.96	1013.32	159.77	1017.72	161.13	1018.59	161.39
1021.12	162.52	1022.35	163.06	1024.31	163.25	1036.86	164.35	1041.69	164.58
1048.15	165.01	1051.83	165.21	1054.06	165.19	1065.08	165.07	1065.8	165.06
1065.88	165.06	1087.7	164.92	1097.02	164.86	1116.34	164.73	1117.89	164.72
1139.62	164.6	1151.65	164.64	1184.79	164.38	1193.49	164.31	1226.07	164.05
1230.5	164.04	1232.39	164.07	1246.16	164.03	1264.03	164.12	1306.19	164.14
1381.95	164.15	1395.95	164.3	1503.64	166.12	1519.03	166.46	1537.48	166.93
1592.38	168.33	1628.14	169.32	1634.63	169.4	1645.61	169.75	1650.47	169.9
1699.02	171.68	1699.3	171.7	1700.44	171.74	1729.65	172.73	1731.42	172.85
1759.19	173.99	1787.04	175.29						

Manning's n Values num= 12

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	35.38	.03	35.92	.02	449.03	.04	601.48	.03
610.7	.04	813.76	.045	815.53	.05	1013.32	.05	1065.8	.05

1087.7	.05	1787.04	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
815.53	1013.32		32.45	39.81	46.27	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 1261.05*

INPUT
Description:
Station Elevation Data num= 107

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	177.68	2.12	177.18	4.65	176.75	9.69	176.41	32.6	174.82
35.46	174.67	36	174.65	50.72	173.9	77.72	172.32	79.24	172.23
79.94	172.2	80.48	172.18	116.18	171.11	141.93	170.45	164.83	170.14
174.57	170.04	217.48	169.89	229.83	169.92	230.12	169.92	244.68	169.87
322.75	169.85	326.66	169.83	398.99	169.46	423.82	169.41	442.27	169.31
449.98	169.14	484.65	168.34	523.61	167.51	531.05	167.3	546	166.76
598.15	164.95	602.74	164.82	602.98	164.81	611.98	164.56	626.28	164.17
647.47	163.88	683.78	163.22	697.86	163	703.45	162.89	706.64	162.83
712.05	162.71	726.79	162.28	815.48	159.89	817.25	159.85	855.59	158.7
872.05	158.55	908.58	158.41	916.76	158.38	938.74	158.3	966.28	158.2
979.67	157.89	988.94	157.53	990.99	157.33	999.5	155.4	1002.21	154.91
1004.21	154.55	1008.06	153.87	1010.97	153.68	1013.81	153.87	1016.14	154.1
1018.3	154.27	1030.26	157.1	1038.22	159.65	1042.47	160.93	1043.32	161.17
1045.75	162.13	1046.95	162.59	1048.84	162.83	1060.97	164.11	1065.65	164.32
1071.9	164.69	1075.45	164.82	1077.61	164.8	1088.26	164.68	1088.96	164.68
1089.03	164.67	1110.13	164.57	1119.14	164.52	1137.82	164.43	1139.31	164.42
1160.33	164.35	1171.95	164.46	1204	164.25	1212.41	164.19	1243.91	163.95
1248.19	163.94	1250.02	163.97	1263.33	163.92	1280.61	163.97	1321.37	163.78
1394.62	163.44	1408.16	163.49	1512.27	164.82	1527.15	165.13	1544.99	165.6
1598.07	166.99	1632.64	167.95	1638.91	168.06	1649.53	168.38	1654.23	168.53
1701.17	170.33	1701.45	170.35	1702.55	170.39	1730.78	171.41	1732.5	171.57
1759.34	172.84	1786.27	174.33						

Manning's n Values num= 12

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	35.46	.027	36	.02	449.98	.035	602.74	.035
611.98	.043	815.48	.043	817.25	.05	1038.22	.05	1088.96	.05
1110.13	.05	1786.27	.05						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
817.25	1038.22		32.45	39.81	46.27	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 1221.24*

INPUT
Description:
Station Elevation Data num= 107

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	177.65	2.12	177.16	4.66	176.8	9.71	176.43	32.66	174.71
35.53	174.53	36.07	174.5	50.83	173.58	77.88	171.75	79.41	171.65
80.1	171.61	80.65	171.59	116.43	170.54	142.23	169.86	165.18	169.61
174.94	169.55	217.93	169.49	230.31	169.56	230.6	169.56	245.2	169.53
323.43	169.54	327.35	169.52	399.83	169.13	424.72	169.06	443.2	168.91
450.93	168.76	485.67	168.09	524.72	167.37	532.17	167.17	547.15	166.68
599.41	165.03	604.01	164.93	604.25	164.93	613.27	164.73	627.6	164.41
648.83	164.14	685.22	163.57	699.33	163.37	704.93	163.26	708.13	163.21
713.55	163.08	728.32	162.6	817.2	159.89	818.97	159.83	861.48	158.43
879.74	158.28	920.26	158.21	929.32	158.2	953.71	158.16	984.24	158.12
999.09	157.74	1009.37	157.39	1011.65	157.23	1021.09	155.84	1024.09	155.48
1026.31	155.21	1030.58	154.72	1033.81	154.55	1036.86	154.73	1039.37	154.95
1041.69	155.11	1054.55	157.23	1063.12	159.54	1067.22	160.73	1068.04	160.94
1070.39	161.74	1071.55	162.12	1073.38	162.4	1085.09	163.87	1089.6	164.05
1095.64	164.36	1099.07	164.44	1101.15	164.42	1111.44	164.3	1112.11	164.29
1112.18	164.29	1132.56	164.22	1141.26	164.18	1159.3	164.12	1160.74	164.12
1181.04	164.09	1192.26	164.28	1223.21	164.11	1231.33	164.06	1261.75	163.86
1265.88	163.84	1267.65	163.86	1280.5	163.81	1297.19	163.82	1336.56	163.43
1407.29	162.72	1420.36	162.67	1520.91	163.52	1535.28	163.8	1552.5	164.28
1603.76	165.65	1637.14	166.59	1643.2	166.71	1653.45	167.02	1658	167.16
1703.33	168.98	1703.59	169	1704.65	169.04	1731.92	170.09	1733.58	170.29
1759.5	171.68	1785.51	173.38						

Manning's n Values num= 12

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	35.53	.025	36.07	.02	450.93	.03	604.01	.04
613.27	.045	817.2	.04	818.97	.05	1063.12	.05	1112.11	.05
1132.56	.05	1785.51	.05						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
818.97	1063.12		32.45	39.81	46.27	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 1181.44*

INPUT
Description:
Station Elevation Data num= 107

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	177.62	2.13	177.14	4.67	176.85	9.73	176.45	32.73	174.6
35.61	174.39	36.15	174.35	50.93	173.26	78.05	171.19	79.57	171.07
80.27	171.03	80.82	171.01	116.67	169.97	142.53	169.26	165.52	169.09
175.31	169.07	218.39	169.08	230.8	169.2	231.09	169.2	245.71	169.19
324.11	169.22	328.04	169.2	400.67	168.81	425.61	168.7	444.13	168.51
451.88	168.39	486.69	167.83	525.82	167.23	533.29	167.04	548.3	166.6
600.67	165.12	605.28	165.05	605.52	165.04	614.56	164.89	628.92	164.65
650.19	164.4	686.66	163.91	700.8	163.73	706.41	163.63	709.61	163.58

715.05	163.44	729.85	162.93	818.91	159.88	820.69	159.82	867.38	158.16
887.44	158.01	931.93	158.01	941.89	158.01	968.67	158.02	1002.21	158.03
1018.51	157.6	1029.81	157.25	1032.3	157.13	1042.67	156.28	1045.97	156.05
1048.4	155.88	1053.1	155.56	1056.65	155.43	1059.91	155.58	1062.59	155.8
1065.08	155.94	1078.85	157.36	1088.01	159.43	1091.97	160.52	1092.76	160.71
1095.03	161.35	1096.15	161.65	1097.91	161.98	1109.2	163.63	1113.56	163.79
1119.38	164.04	1122.69	164.05	1124.7	164.03	1134.62	163.91	1135.27	163.9
1135.34	163.9	1154.99	163.86	1163.38	163.85	1180.78	163.82	1182.17	163.82
1201.74	163.84	1212.57	164.11	1242.42	163.98	1250.25	163.93	1279.59	163.76
1283.57	163.75	1285.28	163.75	1297.68	163.7	1313.77	163.66	1351.74	163.08
1419.96	162.01	1432.57	161.85	1529.54	162.23	1543.4	162.48	1560.01	162.95
1609.44	164.32	1641.64	165.23	1647.49	165.37	1657.38	165.66	1661.76	165.79
1705.48	167.63	1705.73	167.65	1706.76	167.69	1733.05	168.78	1734.65	169
1759.65	170.53	1784.74	172.43						

Manning's n Values num= 12

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	35.61	.022	36.15	.02	451.88	.025	605.28	.045
614.56	.047	818.91	.038	820.69	.05	1088.01	.05	1135.27	.05
1154.99	.05	1784.74	.05						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
820.69	1088.01	32.45	39.81	46.27	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 1141.636

INPUT
Description:
Station Elevation Data num= 56

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	177.58	2.13	177.12	35.68	174.25	78.21	170.62	79.74	170.49
80.44	170.44	80.99	170.42	142.83	168.67	165.87	168.56	218.85	168.68
231.57	168.84	324.79	168.91	426.5	168.34	526.92	167.09	601.93	165.21
606.55	165.16	702.27	164.1	711.1	163.95	716.55	163.81	820.63	159.88
822.41	159.81	873.28	157.89	895.13	157.74	943.61	157.81	983.63	157.88
1020.17	157.95	1070.5	156.54	1079.48	156.31	1082.96	156.43	1085.82	156.65
1103.14	157.49	1112.91	159.32	1116.72	160.32	1122.44	161.55	1133.32	163.39
1143.12	163.71	1157.8	163.52	1158.49	163.51	1177.42	163.51	1185.5	163.51
1202.26	163.51	1222.45	163.58	1232.88	163.93	1261.63	163.84	1330.35	163.51
1366.92	162.73	1444.77	161.03	1538.17	160.93	1551.52	161.15	1567.52	161.62
1665.52	164.42	1708.86	166.34	1734.19	167.46	1735.73	167.72	1759.81	169.37
1783.97	171.48								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	35.68	.02	606.55	.05	820.63	.035	1177.42	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
822.41	1112.91	36.67	37.86	38.56	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 1103.77*

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	176.41	2.12	175.99	4.72	175.77	12.67	175.24	32.9	173.68
35.47	173.49	76.05	170.35	77.76	170.23	79.28	170.12	79.97	170.08
80.52	170.06	136.97	168.64	142	168.51	164.7	168.38	164.91	168.37
188.19	168.42	217.58	168.48	230.23	168.61	269.28	168.64	322.9	168.67
338.09	168.6	424.02	167.99	479.79	167.27	523.86	166.71	541.47	166.3
598.44	165.13	603.03	165.09	606.34	165.06	698.19	164.09	699.55	164.07
706.97	163.91	711.7	163.78	712.39	163.76	815.87	159.79	817.64	159.72
863.44	158	883.11	157.82	915.15	157.78	926.77	157.78	962.8	157.8
992.19	157.83	995.71	157.83	1041.02	156.62	1049.11	156.42	1053.57	156.48
1057.53	156.53	1058.55	156.56	1060.84	156.62	1064.46	156.72	1069.38	156.8
1071.93	156.86	1095.33	157.39	1106.39	157.51	1118.1	158.2	1118.63	158.23
1130.04	159.28	1133.62	160.13	1139	161.18	1149.22	162.76	1156.63	163.01
1158.44	163.07	1172.24	162.98	1172.88	162.98	1181.59	163.02	1190.68	163.04
1198.27	163.05	1214.03	163.09	1222.78	163.14	1233	163.19	1234.23	163.23
1242.81	163.54	1269.83	163.63	1274.69	163.64	1334.43	163.52	1364.16	163.03
1367.14	162.98	1368.8	162.94	1441.98	161.19	1485.11	160.95	1495.64	160.92
1529.77	160.92	1542.32	161.12	1557.36	161.52	1561.09	161.62	1572.95	161.94
1574.45	161.98	1649.48	164.39	1673.86	165.51	1689.46	166.26	1690.22	166.29
1701.82	166.88	1703.73	166.97	1714.02	167.49	1715.47	167.72	1738.11	169.34
1760.82	171.35								

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.032	35.47	.02	603.03	.045	711.7	.025	815.87	.038
817.64	.047	960.74	.035	1130.04	.05	1156.63	.05	1190.68	.05
1760.82	.05								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
817.64	1130.04	36.67	37.86	38.56	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 1065.90*

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	175.24	2.11	174.87	4.69	174.63	12.6	174.26	32.71	172.9
35.27	172.72	75.61	169.94	77.3	169.84	78.81	169.75	79.51	169.71
80.05	169.7	136.17	168.46	141.17	168.35	163.74	168.19	163.94	168.19

187.09	168.22	216.31	168.27	228.88	168.38	267.71	168.41	321.02	168.44
336.12	168.38	421.55	167.64	476.99	166.9	520.8	166.33	538.31	165.95
594.94	165.05	599.51	165.02	602.79	165	694.12	164.07	695.46	164.05
702.84	163.87	707.55	163.73	708.23	163.71	811.1	159.71	812.86	159.64
853.6	158.11	871.1	157.9	899.59	157.76	909.93	157.75	941.98	157.73
968.12	157.71	971.24	157.71	1011.55	156.7	1018.74	156.54	1025.81	156.59
1032.11	156.63	1033.72	156.65	1037.36	156.7	1043.1	156.78	1050.9	156.86
1054.95	156.92	1092.08	157.51	1109.64	157.53	1128.22	158	1129.06	158.02
1147.17	159.24	1150.52	159.94	1155.56	160.81	1165.13	162.14	1172.06	162.38
1173.75	162.44	1186.67	162.44	1187.28	162.44	1195.43	162.52	1203.94	162.56
1211.04	162.6	1225.79	162.67	1233.99	162.73	1243.56	162.8	1244.71	162.84
1252.74	163.15	1278.03	163.43	1282.58	163.47	1338.5	163.54	1366.34	163.22
1369.13	163.19	1370.68	163.15	1439.19	161.35	1479.56	160.93	1489.42	160.87
1521.37	160.91	1533.12	161.08	1547.2	161.43	1550.69	161.51	1561.79	161.78
1563.19	161.82	1633.43	164.36	1656.26	165.45	1670.87	166.21	1671.57	166.25
1682.43	166.87	1684.22	166.97	1693.86	167.52	1695.21	167.73	1716.4	169.32
1737.66	171.22								

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.03	35.27	.02	599.51	.04	707.55	.03	811.1	.04
812.86	.045	965.99	.035	1147.17	.05	1172.06	.05	1203.94	.05
1737.66	.05								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
812.86	1147.17	36.67	37.86	38.56	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 1028.04*

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	174.08	2.09	173.74	4.66	173.5	12.52	173.28	32.52	172.11
35.06	171.96	75.16	169.53	76.85	169.45	78.35	169.38	79.04	169.35
79.58	169.34	135.37	168.29	140.34	168.19	162.78	168.01	162.98	168
185.99	168.03	215.04	168.07	227.54	168.15	266.14	168.17	319.13	168.2
334.14	168.16	419.07	167.28	474.19	166.53	517.74	165.95	535.15	165.6
591.45	164.97	595.98	164.95	599.25	164.94	690.04	164.06	691.38	164.04
698.71	163.83	703.39	163.68	704.07	163.66	806.34	159.62	808.08	159.55
843.76	158.22	859.08	157.98	884.03	157.75	893.08	157.72	921.15	157.65
944.04	157.59	946.78	157.59	982.07	156.78	988.37	156.65	998.06	156.69
1006.68	156.73	1008.88	156.75	1013.87	156.79	1021.73	156.85	1032.43	156.91
1037.97	156.98	1088.84	157.62	1112.88	157.55	1138.34	157.8	1139.49	157.81
1164.3	159.2	1167.42	159.75	1172.11	160.44	1181.03	161.51	1187.49	161.74
1189.07	161.8	1201.11	161.9	1201.67	161.91	1209.27	162.03	1217.19	162.09
1223.82	162.14	1237.56	162.25	1245.2	162.32	1254.11	162.42	1255.18	162.45
1262.66	162.76	1286.24	163.22	1290.47	163.3	1342.58	163.55	1368.51	163.41
1371.12	163.4	1372.57	163.36	1436.4	161.51	1474.02	160.9	1483.21	160.81
1512.98	160.9	1523.92	161.05	1537.04	161.33	1540.29	161.4	1550.64	161.62
1551.94	161.65	1617.39	164.32	1638.66	165.39	1652.27	166.16	1652.93	166.2
1663.05	166.86	1664.71	166.97	1673.69	167.55	1674.96	167.73	1694.7	169.29
1714.51	171.09								

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.027	35.06	.02	595.98	.035	703.39	.035	806.34	.043
808.08	.043	971.25	.035	1164.3	.05	1187.49	.05	1217.19	.05
1714.51	.05								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
808.08	1164.3	36.67	37.86	38.56	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 990.179*

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	172.91	2.08	172.62	4.64	172.37	12.45	172.3	32.32	171.32
34.85	171.19	74.72	169.12	76.39	169.06	77.89	169	78.57	168.98
79.11	168.97	134.57	168.11	139.51	168.03	161.81	167.82	162.02	167.82
184.89	167.83	213.77	167.86	226.19	167.92	264.57	167.94	317.25	167.96
332.17	167.93	416.59	166.93	471.38	166.15	514.68	165.57	531.98	165.26
587.95	164.89	592.46	164.89	595.71	164.88	685.96	164.05	687.29	164.03
694.59	163.79	699.23	163.63	699.91	163.6	801.57	159.53	803.31	159.46
833.92	158.33	847.07	158.07	868.47	157.74	876.24	157.7	900.32	157.57
919.96	157.47	922.31	157.47	952.6	156.86	958	156.76	970.31	156.8
981.26	156.83	984.05	156.84	990.39	156.87	1000.37	156.92	1013.96	156.96
1020.99	157.04	1085.59	157.74	1116.13	157.56	1148.46	157.6	1149.93	157.61
1181.43	159.16	1184.33	159.56	1188.67	160.07	1196.94	160.88	1202.93	161.11
1204.39	161.16	1215.54	161.36	1216.07	161.37	1223.1	161.54	1230.45	161.62
1236.59	161.69	1249.33	161.83	1256.41	161.91	1264.67	162.03	1265.66	162.05
1272.59	162.37	1294.44	163.02	1298.37	163.13	1346.66	163.56	1370.69	163.61
1373.1	163.61	1374.45	163.57	1433.6	161.67	1468.47	160.87	1476.99	160.76
1504.58	160.89	1514.72	161.02	1526.88	161.24	1529.9	161.29	1539.48	161.46
1540.69	161.49	1601.35	164.29	1621.06	165.34	1633.67	166.11	1634.28	166.16
1643.66	166.85	1645.2	166.97	1653.53	167.58	1654.7	167.73	1673	169.27
1691.36	170.96								

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.025	34.85	.02	592.46	.03	699.23	.04	801.57	.045
803.31	.04	976.51	.035	1181.43	.05	1202.93	.05	1230.45	.05
1691.36	.05								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
803.31	1181.43	36.67	37.86	38.56	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 952.315*

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	171.74	2.07	171.49	4.61	171.24	12.37	171.33	32.13	170.54
34.64	170.43	74.27	168.7	75.94	168.67	77.43	168.63	78.1	168.62
78.64	168.61	133.77	167.94	138.68	167.86	160.85	167.64	161.05	167.63
183.79	167.64	212.5	167.66	224.85	167.69	262.99	167.71	315.36	167.72
330.19	167.71	414.12	166.58	468.58	165.78	511.62	165.18	528.82	164.91
584.46	164.81	588.94	164.82	592.17	164.82	681.88	164.03	683.21	164.02
690.46	163.76	695.08	163.58	695.75	163.55	796.81	159.45	798.53	159.38
824.08	158.44	835.05	158.15	852.92	157.72	859.4	157.67	879.5	157.5
895.89	157.36	897.85	157.35	923.12	156.94	927.63	156.88	942.55	156.9
955.83	156.93	959.22	156.94	966.9	156.96	979.01	156.99	995.48	157.02
1004.01	157.1	1082.34	157.86	1119.38	157.58	1158.58	157.4	1160.36	157.4
1198.56	159.12	1201.23	159.37	1205.23	159.71	1212.84	160.26	1218.36	160.47
1219.7	160.53	1229.98	160.82	1230.46	160.84	1236.94	161.04	1243.71	161.14
1249.36	161.23	1261.09	161.4	1267.61	161.51	1275.22	161.64	1276.13	161.66
1282.52	161.98	1302.64	162.81	1306.26	162.96	1350.74	163.58	1372.87	163.8
1375.09	163.82	1376.33	163.78	1430.81	161.83	1462.93	160.85	1470.77	160.71
1496.18	160.88	1505.52	160.99	1516.72	161.14	1519.5	161.18	1528.33	161.31
1529.44	161.33	1585.31	164.26	1603.46	165.28	1615.08	166.07	1615.64	166.11
1624.28	166.84	1625.7	166.97	1633.36	167.61	1634.44	167.73	1651.29	169.24
1668.2	170.83								

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.022	34.64	.02	588.94	.025	695.08	.045	796.81	.047
798.53	.038	981.77	.035	1198.56	.05	1218.36	.05	1243.71	.05
1668.2	.05								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
798.53	1198.56	36.67	37.86	38.56	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 914.451

INPUT
Description:
Station Elevation Data num= 45

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	170.57	4.58	170.11	12.3	170.35	31.94	169.75	73.83	168.29
132.97	167.76	159.89	167.45	182.69	167.44	261.42	167.48	328.22	167.49
465.78	165.41	525.66	164.56	588.63	164.76	679.12	164.01	690.92	163.53
793.76	159.29	837.36	157.71	871.81	157.24	897.26	156.99	914.8	157.01
934.39	157.03	943.42	157.04	977.01	157.07	987.03	157.16	1079.1	157.98
1168.7	157.2	1170.79	157.19	1215.69	159.08	1233.79	159.84	1250.78	160.55
1278.82	161.1	1286.61	161.27	1314.15	162.79	1375.05	163.99	1377.08	164.03
1457.38	160.82	1464.55	160.66	1509.1	161.07	1517.17	161.15	1518.19	161.17
1585.86	165.22	1596.48	166.02	1604.89	166.83	1606.19	166.97	1645.05	170.7

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.02	690.92	.05	987.03	.035	1233.79	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
793.76	1215.69	48.05	43.73	44.13	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 870.723*

INPUT
Description:
Station Elevation Data num= 83

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	170.8	4.75	170.19	6.57	170.14	9.82	170.12	12.76	170.19
33.13	169.67	64.92	168.77	75.34	168.46	76.59	168.43	84.47	168.42
90.66	168.37	99.45	168.32	137.94	167.98	165.87	167.68	179.14	167.65
189.52	167.58	199.11	167.53	239.93	167.38	271.19	167.29	307.05	167.17
340.49	167.05	377.37	166.48	429.35	165.86	483.19	165.2	524.55	164.73
545.31	164.49	606.72	164.61	610.63	164.61	620.18	164.55	704.51	163.9
706.98	163.82	716.75	163.51	726.45	163.21	728.18	163.14	778.76	161.12
788.35	160.54	811.13	159.49	823.43	158.98	842.16	158.28	865.18	157.51
886.65	157.19	892.83	157.12	898.17	157.06	922.54	156.85	939.94	156.91
959.38	156.97	968.34	157	985.73	157.05	1001.67	157.1	1006.2	157.15
1011.61	157.18	1102.96	157.76	1113.05	157.68	1167.02	157.33	1191.86	157.17
1193.93	157.16	1225.77	158.26	1226.21	158.28	1238.48	158.81	1253.79	159.48
1268.15	160.09	1283.58	160.43	1291.86	160.61	1298.45	160.77	1321.74	162.06
1324.34	162.11	1357.38	162.79	1373.23	163.18	1374.95	163.22	1393.32	162.62
1441.94	161.27	1442.84	161.24	1448.91	161.16	1486.58	161.78	1493.4	161.9
1494.26	161.92	1546.44	165.29	1551.48	165.68	1560.46	166.5	1567.57	167.29
1568.67	167.43	1576.92	168.34	1601.53	170.87				

Manning's n Values num= 9

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.02	716.75	.044	823.43	.038	976.31	.047	1013.55	.035
1238.48	.05	1253.79	.05	1283.58	.05	1601.53	.05		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
823.43	1238.48	48.05	43.73	44.13	.1	.3

CROSS SECTION RIVER: San Juan

REACH: Upper RS: 826.996*

INPUT
Description:
Station Elevation Data num= 83

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	171.02	4.92	170.26	6.81	170.11	10.18	169.98	13.22	170.02
34.33	169.6	67.26	168.85	78.06	168.59	79.35	168.57	87.52	168.61
93.93	168.58	103.04	168.54	142.91	168.2	171.84	167.9	185.59	167.85
196.35	167.73	206.29	167.62	248.57	167.29	280.96	167.09	318.12	166.85
352.76	166.6	390.97	166	444.82	165.53	500.6	165	543.45	164.61
564.96	164.42	628.58	164.46	632.64	164.47	642.53	164.41	729.89	163.79
732.45	163.72	742.58	163.5	752.63	163.27	754.42	163.21	806.82	161.17
816.76	160.4	840.36	159.2	853.1	158.66	871	157.98	893	157.3
913.52	156.98	919.43	156.93	924.53	156.88	947.82	156.71	965.09	156.8
984.37	156.91	993.26	156.96	1010.51	157.05	1026.32	157.14	1030.82	157.19
1036.19	157.21	1126.82	157.53	1136.83	157.46	1190.38	157.24	1215.02	157.14
1217.08	157.13	1248.66	157.98	1249.09	158	1261.27	158.55	1273.78	159.11
1285.53	159.64	1298.14	159.96	1304.9	160.13	1310.29	160.27	1329.32	161.33
1331.45	161.38	1358.46	161.97	1371.41	162.36	1372.81	162.4	1387.83	162.08
1427.57	161.67	1428.31	161.66	1433.26	161.66	1464.05	162.5	1469.63	162.65
1470.34	162.68	1512.98	165.72	1517.1	166.14	1524.44	166.98	1530.25	167.75
1531.15	167.88	1537.89	168.78	1558.01	171.04				

Manning's n Values num= 9

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.02	742.58	.038	853.1	.041	1003.45	.044	1040.07	.035
1261.27	.05	1273.78	.05	1298.14	.05	1558.01	.05		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
853.1	1261.27	48.05	43.73	44.13	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 783.268*

INPUT
Description:
Station Elevation Data num= 83

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	171.25	5.09	170.34	7.05	170.08	10.53	169.83	13.68	169.86
35.52	169.52	69.6	168.94	80.77	168.71	82.11	168.72	90.56	168.81
97.2	168.78	106.62	168.76	147.88	168.41	177.82	168.13	192.05	168.05
203.18	167.87	213.46	167.71	257.22	167.21	290.74	166.9	329.18	166.53
365.03	166.16	404.56	165.52	460.29	165.2	518.01	164.79	562.36	164.5
584.61	164.35	650.44	164.32	654.64	164.32	664.87	164.28	755.28	163.68
757.93	163.63	768.4	163.48	778.81	163.33	780.66	163.27	834.89	161.22
845.16	160.26	869.59	158.9	882.78	158.35	899.85	157.67	920.83	157.1
940.39	156.77	946.03	156.73	950.89	156.69	973.1	156.56	990.23	156.7
1009.36	156.85	1018.18	156.92	1035.3	157.05	1050.98	157.17	1055.44	157.22
1060.77	157.23	1150.68	157.31	1160.61	157.24	1213.73	157.15	1238.18	157.11
1240.22	157.1	1271.56	157.7	1271.98	157.72	1284.07	158.28	1293.78	158.75
1302.9	159.18	1312.69	159.49	1317.95	159.64	1322.13	159.77	1336.91	160.59
1338.56	160.64	1359.53	161.14	1369.59	161.55	1370.68	161.59	1382.34	161.54
1413.2	162.07	1413.77	162.08	1417.62	162.16	1441.53	163.21	1445.86	163.41
1446.41	163.43	1479.53	166.15	1482.72	166.59	1488.42	167.46	1492.94	168.22
1493.64	168.34	1498.87	169.22	1514.49	171.21				

Manning's n Values num= 9

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.02	768.4	.032	882.78	.044	1030.58	.041	1066.59	.035
1284.07	.05	1293.78	.05	1312.69	.05	1514.49	.05		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
882.78	1284.07	48.05	43.73	44.13	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 739.541*

INPUT
Description:
Station Elevation Data num= 83

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	171.47	5.26	170.42	7.28	170.06	10.89	169.69	14.14	169.69
36.72	169.44	71.94	169.02	83.49	168.84	84.87	168.86	93.61	169
100.46	168.99	110.21	168.99	152.85	168.63	183.8	168.36	198.5	168.26
210.01	168.01	220.64	167.79	265.86	167.12	300.51	166.7	340.25	166.22
377.3	165.71	418.16	165.05	475.76	164.86	535.43	164.59	581.26	164.38
604.26	164.28	672.31	164.18	676.65	164.18	687.22	164.14	780.67	163.57
783.4	163.53	794.23	163.47	804.98	163.4	806.9	163.34	862.95	161.28
873.57	160.11	898.82	158.61	912.45	158.03	928.69	157.37	948.65	156.9
967.26	156.56	972.62	156.54	977.25	156.51	998.38	156.42	1015.37	156.6
1034.35	156.79	1043.1	156.88	1060.08	157.05	1075.64	157.21	1080.06	157.26
1085.34	157.25	1174.54	157.08	1184.39	157.03	1237.09	157.06	1261.34	157.07
1263.36	157.08	1294.45	157.42	1294.87	157.44	1306.86	158.02	1313.78	158.38
1320.27	158.73	1327.25	159.01	1330.99	159.15	1333.97	159.27	1344.49	159.86
1345.67	159.91	1360.61	160.32	1367.77	160.73	1368.55	160.78	1376.85	161
1398.83	162.48	1399.24	162.5	1401.98	162.66	1419.01	163.93	1422.09	164.16
1422.48	164.19	1446.07	166.57	1448.35	167.05	1452.41	167.94	1455.62	168.68
1456.12	168.8	1459.84	169.65	1470.97	171.38				

Manning's n Values num= 9

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.02	794.23	.026	912.45	.047	1057.72	.038	1093.11	.035
1306.86	.05	1313.78	.05	1327.25	.05	1470.97	.05		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
912.45	1306.86	48.05	43.73	44.13	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 695.814

INPUT
Description:
Station Elevation Data num= 43

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	171.7	7.52	170.03	11.24	169.55	74.28	169.11	86.2	168.97
96.65	169.2	103.73	169.19	113.79	169.21	204.96	168.46	227.81	167.88
274.51	167.04	351.31	165.9	431.76	164.57	491.23	164.53	600.16	164.27
694.17	164.04	709.57	164.01	808.88	163.44	831.16	163.46	833.14	163.4
891.01	161.33	901.98	159.97	928.05	158.32	942.12	157.72	957.53	157.07
994.13	156.35	999.22	156.34	1023.66	156.28	1084.86	157.05	1104.68	157.3
1208.17	156.81	1260.44	156.97	1317.34	157.14	1317.76	157.16	1329.65	157.75
1341.8	158.54	1352.78	159.17	1361.68	159.49	1371.36	160.46	1384.46	162.88
1412.61	167	1420.82	170.09	1427.45	171.55				

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.02	942.12	.05	1084.86	.035	1341.8	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
942.12	1329.65	43.52	42.21	40.09	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 653.607*

INPUT
Description:
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	171.53	7.23	170.12	10.8	169.69	20.97	169.52	46.91	169.41
71.4	169.13	82.85	168.96	92.9	169.08	99.7	169.04	101.99	169.03
102.8	169.03	109.37	168.96	112.88	168.89	166.05	167.92	169.03	167.88
183.88	167.7	197	167.64	218.97	167.22	236.86	167	254.12	166.66
263.85	166.52	337.67	165.67	415	164.67	472.16	164.69	532.21	164.62
576.86	164.55	589.17	164.53	597.73	164.57	607.87	164.59	659.13	164.59
667.22	164.59	682.02	164.58	682.32	164.58	723.74	163.83	726.03	163.81
745.64	162.62	748.18	162.47	754.74	162.39	768.78	162.18	777.48	162.14
778.65	162.15	781.93	162.15	787.34	162.15	798.89	162.13	799.62	162.11
800.79	162.08	855.44	160.33	856.42	160.29	866.92	159.17	866.96	159.17
892.02	157.37	892.41	157.35	905.54	156.66	919.29	155.96	919.59	155.95
951.94	155.26	956.48	155.23	960.33	155.21	978.29	155.16	1004.26	155.48
1033.05	155.84	1050.79	156.06	1143.4	155.78	1162.12	155.85	1190.17	155.92
1216.15	155.99	1241.09	156.15	1241.47	156.17	1252.11	156.68	1255.27	156.84
1269.22	157.55	1276.94	157.91	1284.68	158.39	1292.51	158.79	1297.21	159.02
1299.65	159.23	1310.85	159.87	1321.05	160.94	1323.84	161.24	1329.3	161.82
1342.24	162.91	1352.87	163.74	1356.63	164.02	1361.24	164.22	1367.29	164.84
1368.94	165.04	1372.09	165.82	1375.03	166.76	1378.36	168.18	1378.48	168.23
1380.5	168.87	1382.19	169.25	1382.68	169.38	1383.69	169.62	1388.94	171.17
1389.48	171.31	1389.84	171.4						

Manning's n Values num= 8

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.02	905.54	.05	976.78	.05	1033.19	.038	1252.11	.047
1269.22	.047	1378.36	.038	1389.84	.05				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
905.54	1252.11	43.52	42.21	40.09	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 611.400*

INPUT
Description:
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	171.36	6.94	170.2	10.37	169.84	20.12	169.57	45.01	169.54
68.51	169.15	79.51	168.94	89.15	168.97	95.68	168.88	97.87	168.86
98.65	168.85	104.95	168.71	108.32	168.6	159.34	167.11	162.2	167.07
176.45	166.82	189.05	166.82	210.12	166.57	227.29	166.45	243.85	166.09
253.2	166	324.03	165.44	398.24	164.78	453.09	164.85	510.71	164.86
553.56	164.84	565.37	164.83	573.59	164.91	583.32	164.99	632.51	165.13
640.27	165.14	654.47	165.16	654.76	165.16	694.51	163.9	696.71	163.88
715.52	161.6	717.96	161.33	724.25	161.2	737.73	160.86	746.07	160.85
747.2	160.85	750.35	160.85	755.53	160.84	766.62	160.8	767.32	160.79
768.45	160.76	820.89	159.28	821.83	159.26	831.91	158.37	831.94	158.37
855.99	156.42	856.37	156.4	868.97	155.59	881.05	154.85	881.31	154.84
909.75	154.16	913.75	154.12	917.13	154.09	932.91	154.03	955.84	154.31
981.24	154.62	996.9	154.82	1078.63	154.74	1095.14	154.83	1119.9	154.88
1142.83	154.92	1164.84	155.16	1165.17	155.17	1174.56	155.61	1178.65	155.79
1196.63	156.57	1206.59	156.97	1216.58	157.62	1226.67	158.2	1232.75	158.55
1235.89	158.79	1250.33	159.28	1263.5	160.09	1267.1	160.31	1274.13	160.75
1290.83	161.59	1304.54	162.16	1309.38	162.31	1315.34	162.24	1323.14	162.85
1325.27	163.07	1329.33	163.8	1333.12	164.9	1337.42	166.84	1337.58	166.91
1340.18	167.64	1342.36	168.14	1343	168.33	1344.3	168.66	1351.07	170.93
1351.76	171.13	1352.23	171.24						

Manning's n Values num= 8

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.02	868.97	.05	931.78	.05	981.53	.041	1174.56	.044
1196.63	.044	1337.42	.041	1352.23	.05				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
868.97	1174.56	43.52	42.21	40.09	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 569.194*

INPUT
Description:
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	171.19	6.64	170.29	9.93	169.98	19.27	169.62	43.12	169.66
65.63	169.18	76.16	168.93	85.39	168.85	91.65	168.73	93.75	168.69
94.49	168.68	100.54	168.45	103.76	168.32	152.63	166.31	155.37	166.25
169.02	165.95	181.09	165.99	201.28	165.91	217.72	165.9	233.59	165.53
242.54	165.48	310.39	165.21	381.47	164.88	434.02	165.01	489.21	165.11
530.26	165.12	541.57	165.12	549.45	165.26	558.77	165.4	605.89	165.66
613.32	165.69	626.93	165.73	627.2	165.73	665.28	163.96	667.38	163.94
685.4	160.59	687.74	160.19	693.77	160.01	706.67	159.54	714.67	159.55
715.75	159.56	718.77	159.56	723.73	159.54	734.36	159.47	735.03	159.46
736.1	159.44	786.33	158.24	787.23	158.22	796.89	157.57	796.93	157.57
819.96	155.47	820.32	155.45	832.39	154.53	842.81	153.74	843.04	153.73
867.57	153.07	871.01	153.01	873.92	152.96	887.54	152.91	907.41	153.14
929.44	153.41	943	153.57	1013.85	153.71	1028.17	153.81	1049.64	153.83
1069.51	153.85	1088.59	154.17	1088.88	154.18	1097.02	154.53	1102.02	154.74
1124.05	155.58	1136.25	156.03	1148.48	156.84	1160.84	157.62	1168.28	158.08
1172.13	158.36	1189.82	158.69	1205.94	159.23	1210.35	159.39	1218.97	159.69
1239.42	160.27	1256.21	160.57	1262.14	160.61	1269.44	160.26	1279	160.87
1281.6	161.11	1286.57	161.79	1291.21	163.04	1296.48	165.5	1296.68	165.59
1299.86	166.42	1302.54	167.03	1303.31	167.27	1304.91	167.69	1313.19	170.69
1314.04	170.95	1314.61	171.09						

Manning's n Values num= 8

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.02	832.39	.05	886.78	.05	929.86	.044	1097.02	.041
1124.05	.041	1296.48	.044	1314.61	.05				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
832.39	1097.02	43.52	42.21	40.09	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 526.987*

INPUT
Description:
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	171.02	6.35	170.37	9.49	170.12	18.43	169.67	41.22	169.79
62.74	169.2	72.81	168.91	81.64	168.73	87.62	168.58	89.63	168.53
90.34	168.51	96.12	168.2	99.2	168.03	145.93	165.5	148.55	165.44
161.6	165.07	173.13	165.17	192.43	165.25	208.16	165.35	223.32	164.96
231.88	164.96	296.75	164.99	364.71	164.98	414.95	165.17	467.72	165.35
506.96	165.4	517.78	165.42	525.3	165.61	534.21	165.8	579.26	166.2
586.37	166.23	599.38	166.3	599.64	166.31	636.04	164.03	638.06	164.01
655.29	159.57	657.52	159.04	663.28	158.83	675.62	158.23	683.27	158.26
684.3	158.26	687.18	158.26	691.93	158.23	702.09	158.15	702.73	158.14
703.76	158.12	751.78	157.2	752.64	157.18	761.88	156.77	761.91	156.77
783.93	154.53	784.28	154.49	795.82	153.46	804.58	152.63	804.76	152.61
825.38	151.97	828.27	151.9	830.72	151.84	842.16	151.78	858.99	151.98
877.63	152.2	889.11	152.33	949.08	152.68	961.2	152.78	979.37	152.78
996.19	152.78	1012.34	153.17	1012.58	153.18	1019.47	153.46	1025.4	153.69
1051.47	154.6	1065.9	155.09	1080.38	156.07	1095.01	157.03	1103.82	157.61
1108.37	157.92	1129.31	158.1	1148.39	158.38	1153.61	158.46	1163.8	158.63
1188.01	158.95	1207.88	158.99	1214.9	158.9	1223.53	158.28	1234.85	158.88
1237.93	159.15	1243.81	159.77	1249.31	161.17	1255.54	164.16	1255.77	164.27
1259.54	165.19	1262.71	165.93	1263.63	166.22	1265.51	166.73	1275.32	170.45
1276.33	170.77	1277	170.93						

Manning's n Values num= 8

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.02	795.82	.05	841.79	.05	878.2	.047	1019.47	.038
1051.47	.038	1255.54	.047	1277	.05				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
795.82	1019.47	43.52	42.21	40.09	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 484.781

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 59

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	170.85	17.58	169.72	39.33	169.91	85.51	168.36	86.19	168.34
94.64	167.74	139.22	164.7	141.72	164.62	154.17	164.2	198.59	164.8
213.06	164.4	446.22	165.59	493.98	165.71	501.16	165.96	509.66	166.2
552.64	166.73	572.08	166.88	606.81	164.1	608.73	164.07	625.17	158.56
627.3	157.9	632.8	157.64	644.57	156.91	652.85	156.97	655.6	156.97
660.13	156.93	670.43	156.81	717.23	156.16	726.86	155.97	748.23	153.54
759.24	152.4	766.49	151.5	787.52	150.72	796.79	150.66	810.56	150.81
894.23	151.76	922.87	151.71	941.93	152.39	948.77	152.64	995.56	154.15
1029.18	156.45	1044.61	157.49	1090.83	157.52	1096.86	157.54	1136.6	157.63
1159.55	157.4	1167.66	157.2	1177.63	156.3	1190.7	156.89	1201.05	157.75
1207.4	159.31	1214.6	162.82	1214.87	162.95	1222.88	164.82	1223.94	165.17
1226.12	165.76	1237.45	170.21	1238.61	170.59	1239.39	170.78		

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.02	796.79	.05	941.93	.035	1214.6	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
759.24	941.93	43.18	43.96	42.55	.1	.3

CROSS SECTION RIVER: San Juan

REACH: Upper RS: 440.825*

INPUT
Description:
Station Elevation Data num= 92

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	170.09	14.82	169.21	30.72	169.37	33.15	169.38	72.07	168.1
72.64	168.09	79.76	167.6	117.33	165.13	119.44	165.06	129.93	164.71
167.37	165.15	171.54	165.04	179.57	164.81	338.08	165.09	340.44	165.08
343.52	165.05	376.07	164.85	416.32	164.51	422.37	164.64	423.36	164.66
429.54	164.76	458.18	164.8	465.76	164.84	482.14	164.85	511.42	162.42
513.03	162.38	526.89	157.88	528.68	157.34	533.32	157.1	543.24	156.45
550.22	156.45	552.53	156.43	556.35	156.37	565.03	156.22	604.48	155.42
612.59	155.21	630.6	153.15	639.88	152.17	642.02	151.91	642.1	151.9
647.52	151.36	669.66	150.57	673.21	150.53	678.18	150.44	679.12	150.43
679.42	150.42	683.89	150.49	694.92	150.66	722.98	151.08	730.16	151.13
738.72	151.22	768.78	151.45	789.11	151.61	821.35	151.56	835.49	151.92
842.81	152.17	848.92	152.42	890.71	153.94	890.94	153.95	920.74	156
926.58	156.39	934.52	156.94	968.46	157.24	975.8	157.29	981.19	157.33
984.95	157.36	987.02	157.37	1005.18	157.05	1006.37	157.1	1016.68	157.37
1018.77	157.4	1037.18	157.68	1044.42	157.7	1050.52	157.35	1053.33	157.28
1065	158.39	1074.24	159.58	1079.92	161.13	1082.78	162.53	1086.35	164.05
1086.59	164.15	1087.28	164.29	1091.44	165.02	1093.74	165.53	1094.69	165.82
1095.28	165.97	1096.64	166.3	1101.41	168	1106.76	170.08	1106.82	170.1
1107.79	170.43	1108.49	170.61						

Manning's n Values num= 8

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.026	639.88	.047	681.59	.047	766.25	.035	842.81	.038
1018.77	.05	1086.35	.05	1108.49	.05				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
639.88	842.81	43.18	43.96	42.55	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 396.869*

INPUT
Description:
Station Elevation Data num= 92

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	169.34	12.05	168.7	24.99	168.85	26.96	168.86	58.62	167.85
59.09	167.83	64.88	167.46	95.45	165.55	97.16	165.5	105.7	165.23
136.15	165.51	139.54	165.42	146.07	165.21	275.02	164.82	276.94	164.78
279.44	164.71	305.92	164.12	338.67	163.3	343.59	163.32	344.39	163.32
349.42	163.32	372.71	162.99	378.88	162.95	392.21	162.81	416.02	160.74
417.34	160.7	428.61	157.2	430.07	156.78	433.84	156.56	441.91	155.98
447.58	155.92	449.47	155.89	452.58	155.81	459.64	155.62	491.72	154.69
498.32	154.46	512.98	152.75	520.52	151.94	522.77	151.68	522.86	151.67
528.54	151.21	551.8	150.43	555.53	150.36	560.75	150.22	561.74	150.19
562.05	150.19	567.02	150.28	579.29	150.5	610.47	151.08	618.46	151.1
627.98	151.18	661.4	151.34	683.99	151.46	719.83	151.42	735.55	151.68
743.69	151.96	749.06	152.2	785.86	153.72	786.06	153.74	812.29	155.55
817.44	155.9	824.43	156.39	854.31	156.96	860.77	157.05	865.51	157.13
868.82	157.18	870.65	157.19	886.63	156.5	887.68	156.59	896.76	157.11
898.6	157.2	914.81	157.97	921.18	158.2	926.56	158.13	929.02	158.26
939.3	159.88	947.44	161.4	952.43	162.95	954.95	164.2	958.09	165.28
958.31	165.35	958.92	165.44	962.58	165.81	964.6	166.23	965.44	166.47
965.96	166.59	967.15	166.84	971.36	168.14	976.06	169.95	976.12	169.96
976.97	170.27	977.59	170.44						

Manning's n Values num= 8

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.032	520.52	.044	566.39	.044	659.5	.035	743.69	.041
898.6	.05	958.09	.05	977.59	.05				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
520.52	743.69	43.18	43.96	42.55	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 352.914*

INPUT
Description:
Station Elevation Data num= 92

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	168.58	9.29	168.19	19.26	168.33	20.78	168.33	45.18	167.59
45.54	167.58	50.01	167.32	73.56	165.98	74.88	165.94	81.46	165.74
104.93	165.86	107.55	165.8	112.58	165.62	211.95	164.55	213.44	164.48
215.36	164.37	235.77	163.38	261.01	162.1	264.8	162	265.42	161.98
269.29	161.88	287.25	161.17	292	161.06	302.27	160.78	320.63	159.06
321.64	159.01	330.33	156.52	331.45	156.22	334.36	156.02	340.58	155.52
344.95	155.4	346.4	155.35	348.8	155.26	354.24	155.03	378.97	153.95
384.06	153.7	395.35	152.36	401.17	151.71	403.52	151.44	403.61	151.44
409.57	151.07	433.94	150.28	437.85	150.2	443.32	149.99	444.36	149.96
444.69	149.95	450.15	150.07	463.65	150.35	497.97	151.07	506.75	151.07
517.23	151.14	554.01	151.24	578.87	151.31	618.32	151.27	635.61	151.44
644.56	151.74	649.21	151.98	681	153.51	681.18	153.52	703.85	155.1
708.3	155.4	714.33	155.84	740.15	156.68	745.74	156.82	749.84	156.92
752.7	156.99	754.27	157.01	768.09	155.94	768.99	156.08	776.84	156.85
778.43	156.99	792.43	158.25	797.94	158.7	802.59	158.9	804.72	159.24
813.6	161.38	820.63	163.23	824.95	164.77	827.12	165.86	829.84	166.5
830.02	166.55	830.55	166.59	833.72	166.61	835.47	166.94	836.19	167.11
836.63	167.21	837.67	167.39	841.3	168.27	845.37	169.81	845.41	169.83
846.15	170.1	846.68	170.28						

Manning's n Values num= 8

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val

0	.038	401.17	.041	451.19	.041	552.74	.035	644.56	.044
778.43	.05	829.84	.05	846.68	.05				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
401.17	644.56	43.18	43.96	42.55	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 308.958*

INPUT
Description:
Station Elevation Data num= 92

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	167.83	6.53	167.68	13.53	167.81	14.6	167.8	31.74	167.33
31.99	167.32	35.13	167.17	51.67	166.41	52.6	166.38	57.22	166.25
73.71	166.22	75.55	166.17	79.08	166.02	148.89	164.28	149.93	164.18
151.29	164.03	165.62	162.64	183.35	160.9	186.02	160.68	186.45	160.65
189.17	160.44	201.78	159.36	205.12	159.17	212.34	158.74	225.23	157.38
225.94	157.33	232.05	155.84	232.84	155.66	234.88	155.48	239.25	155.06
242.32	154.88	243.34	154.81	245.02	154.7	248.84	154.43	266.22	153.21
269.79	152.95	277.72	151.96	281.81	151.48	284.27	151.21	284.37	151.2
290.59	150.92	316.08	150.13	320.17	150.03	325.89	149.77	326.97	149.72
327.32	149.72	333.28	149.85	348.01	150.19	385.46	151.06	395.05	151.03
406.49	151.11	446.62	151.13	473.76	151.16	516.8	151.12	535.67	151.2
545.44	151.53	549.36	151.76	576.15	153.3	576.3	153.31	595.41	154.64
599.15	154.91	604.24	155.29	626	156.41	630.71	156.58	634.16	156.71
636.57	156.81	637.9	156.83	649.54	155.39	650.31	155.58	656.92	156.59
658.26	156.79	670.06	158.53	674.71	159.2	678.62	159.67	680.42	160.22
687.9	162.87	693.83	165.05	697.46	166.59	699.3	167.53	701.59	167.73
701.74	167.75	702.19	167.75	704.85	167.4	706.33	167.64	706.93	167.76
707.31	167.83	708.18	167.93	711.25	168.41	714.67	169.68	714.71	169.69
715.34	169.94	715.78	170.11						

Manning's n Values num= 8

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.044	281.81	.038	336	.038	445.99	.035	545.44	.047
658.26	.05	701.59	.05	715.78	.05				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
281.81	545.44	43.18	43.96	42.55	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 265.003

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 38

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	167.07	7.8	167.29	43.55	166.55	85.83	164.01	86.43	163.88
87.21	163.69	107.48	159.31	116.32	157.54	162.45	151.25	165.02	150.97
165.12	150.97	202.49	149.86	208.46	149.54	209.59	149.49	209.95	149.48
216.41	149.64	272.96	151.05	283.35	151	295.74	151.07	339.23	151.03
435.73	150.96	446.32	151.31	471.42	153.09	490.01	154.41	511.85	156.13
520.45	156.62	521.53	156.65	531	154.84	531.62	155.07	538.09	156.58
554.65	160.44	571.47	169.19	573.82	168.9	575.99	168.2	577.99	168.45
581.19	168.55	584.01	169.56	584.88	169.94				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.05	339.23	.035	538.09	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
162.45	446.32	122.99	265	54.95	.1	.3

Profile Output Table - Standard Table 1

Reach	River Sta	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
		(cfs)	(ft)	(ft)	(ft)	(ft)	(ft/ft)	(ft/s)	(sq ft)	(ft)	
Upper	11261.86	33597.00	214.32	227.99	225.42	228.83	0.003306	8.58	5228.16	962.45	0.45
Upper	11118.79	33597.00	216.23	225.59	225.59	227.91	0.011038	13.46	3132.41	678.46	0.79
Upper	10987.74	33597.00	215.95	224.94	223.37	225.93	0.005616	9.24	4559.60	849.43	0.56
Upper	10747.97	33597.00	215.06	222.96		223.88	0.004135	7.75	4406.45	661.49	0.51
Upper	10546.27	33597.00	213.13	221.46		222.78	0.006853	9.84	3790.08	681.41	0.69
Upper	10064.73	33597.00	207.79	220.89		221.51	0.001218	6.89	6061.01	889.69	0.38
Upper	9828.565	33597.00	207.84	220.64		221.19	0.001307	6.51	6293.82	876.98	0.35
Upper	9710.010	33597.00	207.81	220.38		221.02	0.001581	7.09	5993.58	872.89	0.39
Upper	9587.161	33597.00	208.82	220.01		220.79	0.002116	7.95	5551.20	881.22	0.44
Upper	9469.136	33597.00	209.82	219.90		220.50	0.001954	6.77	5894.56	899.09	0.39
Upper	9350.632	33597.00	209.90	219.58		220.25	0.002247	7.13	5578.63	834.77	0.41
Upper	9256.219	33597.00	209.51	218.92		219.96	0.003508	8.83	4580.26	753.55	0.52
Upper	9137.316	33597.00	207.79	218.57		219.56	0.003062	8.51	4750.10	799.74	0.49
Upper	9018.948	33597.00	208.76	217.58	215.28	219.07	0.004826	10.94	4063.51	801.88	0.67

Upper	8877.807	33597.00	204.51	217.07	215.29	218.43	0.004517	13.10	4227.33	842.89	0.68
Upper	8785.928	33597.00	202.85	216.46	216.46	217.98	0.004832	13.86	4069.57	855.09	0.69
Upper	8699.415	33597.00	202.95	215.07	212.84	216.25	0.002853	10.82	4191.19	591.93	0.56
Upper	8488.931	33597.00	202.72	215.05		215.76	0.001111	6.86	5049.03	461.70	0.36
Upper	8287.319	33597.00	203.83	212.95	212.12	214.98	0.007450	11.95	3017.57	474.47	0.76
Upper	8012.155	33597.00	202.47	211.29	209.27	212.67	0.004070	9.91	3686.20	510.63	0.63
Upper	7820.775	33597.00	202.05	208.76	208.76	211.36	0.013233	13.43	2661.86	536.49	0.98
Upper	7605.154	33597.00	197.44	204.99	204.99	207.36	0.009642	13.56	2976.25	666.24	0.90
Upper	7289.783	33597.00	196.27	203.86	201.50	204.60	0.003429	7.37	5083.44	831.62	0.48
Upper	7062.404	33597.00	196.41	203.24	200.89	203.85	0.003224	6.26	5604.10	968.87	0.44
Upper	6894.555	33597.00	189.63	201.46	201.46	203.16	0.006833	15.27	4175.56	1002.78	0.88
Upper	6705.202	33597.00	190.32	200.37		201.40	0.004008	9.67	4805.99	1056.31	0.58
Upper	6544.956	33597.00	190.14	199.55		200.39	0.003776	8.08	5138.66	1155.48	0.49
Upper	6151.870	34722.00	189.97	196.29		197.59	0.005392	9.47	3969.79	836.34	0.68
Upper	5978.856	34722.00	187.90	193.99	193.99	196.21	0.011163	12.53	3076.86	726.31	0.95
Upper	5788.123	34722.00	184.32	192.51	191.05	193.69	0.004840	9.11	4118.73	784.37	0.65
Upper	5686.773	34722.00	183.41	191.82	190.63	193.15	0.006376	9.68	3794.29	715.92	0.72
Upper	5593.814	34722.00	183.73	191.75	189.40	192.60	0.003753	7.78	4742.41	800.41	0.50
Upper	5502.751	34722.00	182.66	191.59	188.59	192.33	0.002311	7.25	5211.86	800.92	0.45
Upper	5387.141	34722.00	182.70	191.45	188.13	192.06	0.001918	6.57	5604.24	795.87	0.41
Upper	5249.660	34722.00	181.47	191.29		191.80	0.001542	5.81	6155.71	814.67	0.36
Upper	5093.864	34722.00	180.73	191.01		191.54	0.001732	5.94	6017.90	815.59	0.37
Upper	4947.016	34722.00	181.85	190.40		191.20	0.002956	7.34	5015.85	783.02	0.48
Upper	4845.863	34722.00	180.95	190.04		190.88	0.003173	7.77	4951.61	803.26	0.50
Upper	4728.187	34722.00	180.04	189.80		190.56	0.002076	7.47	5191.21	761.37	0.44
Upper	4631.533	34722.00	179.99	189.47		190.33	0.002665	8.04	4848.44	740.06	0.48
Upper	4524.879	34722.00	177.19	187.95		189.84	0.005867	12.64	3480.01	659.98	0.76
Upper	4434.483	34722.00	177.21	187.91		189.23	0.003558	10.62	4249.26	720.46	0.60
Upper	4213.757	34722.00	176.41	187.55		188.43	0.002647	8.10	4989.56	758.10	0.45
Upper	4008.681	34722.00	175.49	186.97		187.88	0.002642	7.98	4861.23	736.33	0.45
Upper	3791.835	34722.00	175.28	185.83		187.14	0.004038	10.01	4054.79	583.15	0.57
Upper	3592.245	34722.00	173.20	184.48		186.16	0.005240	11.20	3619.51	548.79	0.67
Upper	3376.157	34722.00	173.67	183.55		185.05	0.004612	10.23	3694.76	453.06	0.60
Upper	3169.567	34722.00	169.36	183.48		184.24	0.001971	7.24	5105.97	488.65	0.37
Upper	2962.583	34722.00	169.14	183.17		183.81	0.002094	6.33	5458.22	565.72	0.34
Upper	2746.045	34722.00	167.25	182.85		183.45	0.001369	6.93	5919.97	633.43	0.32
Upper	2608.338	34722.00	167.14	180.96	178.50	183.02	0.003248	12.37	3463.68	440.96	0.63
Upper	2580	Bridge									
Upper	2443.625	34722.00	168.51	177.83	177.83	181.01	0.010746	15.91	2641.71	429.27	0.94
Upper	2258.454	34722.00	163.94	176.63		177.99	0.004737	11.00	3846.27	557.62	0.60
Upper	2095.690	34722.00	163.99	172.89	173.87	176.36	0.014965	18.56	2725.84	672.40	1.19
Upper	1815.468	34722.00	156.78	168.41	169.40	172.59	0.019454	18.01	2144.62	431.70	1.04
Upper	1615.906	34722.00	157.53	168.80	168.80	171.27	0.006807	15.72	2975.69	572.84	0.90
Upper	1380.475	34722.00	151.04	166.42	167.17	169.61	0.009068	16.50	2923.05	836.25	1.00
Upper	1141.636	34722.00	156.31	166.06		167.28	0.003493	10.24	4978.76	1134.66	0.63
Upper	914.451	34722.00	156.99	165.77		166.52	0.002666	7.65	5553.93	1151.44	0.47
Upper	695.814	34722.00	156.28	162.92	162.92	165.48	0.010878	12.92	2736.83	538.33	0.93
Upper	484.781	34722.00	150.66	161.05		162.59	0.003296	10.22	3702.83	593.22	0.58
Upper	265.003	34722.00	149.48	159.56	158.03	161.42	0.006001	11.34	3251.85	444.56	0.67

HEC-RAS Version 3.0.1 Mar 2001
U.S. Army Corp of Engineers
Hydrologic Engineering Center
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(916) 756-1104

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X     X  XXXXXX    XXXX        XXXX       XX      XXXX
X     X  X        X    X      X   X     X  X    X
X     X  X        X           X   X    X    X   X
XXXXXXX  XXXX     X       XXX XXXX     XXXXXX    XXXX
X     X  X        X           X  X     X    X        X
X     X  X        X    X      X   X    X    X        X
X     X  XXXXXX    XXXX       X    X   X    X   XXXXX
```

PROJECT DATA
Project Title: Project Model - D4
Project File : PMD4.prj
Run Date and Time: 12/8/02 8:57:28 PM

Project in English units

Project Description:
A7C Alternative - San Juan Creek Crossing

PLAN DATA

Plan Title: Existing Flow/Proposed-Ultimate Geometry
Plan File : p:\2PDA0104\Hydr\LHS\Modeling\Model D\HecRas D\PMD4.p03

Geometry Title: Proposed Conditions - Ultimate
Geometry File : p:\2PDA0104\Hydr\LHS\Modeling\Model D\HecRas D\PMD4.g03

Flow Title : Existing Conditions
Flow File : p:\2PDA0104\Hydr\LHS\Modeling\Model D\HecRas D\PMD4.f01

Plan Summary Information:
Number of: Cross Sections = 143 Mulitple Openings = 0
Culverts = 0 Inline Weirs = 0
Bridges = 1

Computational Information
Water surface calculation tolerance = 0.01
Critical depth calculaton tolerance = 0.01
Maximum number of interations = 20
Maximum difference tolerance = 0.3
Flow tolerance factor = 0.001

Computation Options
Critical depth computed only where necessary
Conveyance Calculation Method: At breaks in n values only
Friction Slope Method: Average Conveyance
Computational Flow Regime: Mixed Flow

FLOW DATA

Flow Title: Existing Conditions
Flow File : p:\2PDA0104\Hydr\LHS\Modeling\Model D\HecRas D\PMD4.f01

Flow Data (cfs)

River	Reach	RS	Q2	Q5	Q10	Q25	Q50	Q100	Q100HC
San Juan	Upper	11261.86	399	2710	5235	13333	21312	33597	84230
San Juan	Upper	6151.870	422	2755	5241	13703	22162	34722	86997

Boundary Conditions

River	Reach	Profile	Upstream	Downstream
San Juan	Upper	Q2	Normal S = .007	Normal S = .006
San Juan	Upper	Q5	Normal S = .007	Normal S = .006
San Juan	Upper	Q10	Normal S = .007	Normal S = .006
San Juan	Upper	Q25	Normal S = .007	Normal S = .006
San Juan	Upper	Q50	Normal S = .007	Normal S = .006
San Juan	Upper	Q100	Normal S = .007	Normal S = .006
San Juan	Upper	Q100HC	Normal S = .007	Normal S = .006

GEOMETRY DATA

Geometry Title: Proposed Conditions - Ultimate

Geometry File : p:\2PDA0104\Hydr\LHS\Modeling\Model D\HecRas D\PMD4.g03

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 11261.86

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 77

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	242.54	4.3	242.24	17.83	241.34	54.62	239.7	59.18	239.5
123.46	236.63	252.74	235.97	254.58	235.92	258.01	235.88	345.45	235.75
381	235.91	416.15	236.08	421.47	236.09	444.76	236.48	616.89	237.54
635.95	236.85	686.17	237.78	686.35	237.78	686.66	237.76	705.96	236.3
708.32	235.71	712.55	234.41	719.34	230.57	733.27	223.18	741.67	221.95
761.26	220.33	764.68	220.33	795.12	220.3	799.34	220.3	801.34	220.35
818.73	221.46	873.43	224.78	896.84	225.07	943.86	225.66	963.45	225.9
1024.79	223.71	1034.82	223.73	1056.83	223.25	1126.76	222.61	1155.33	223.03
1185.38	223.52	1191.02	222.57	1192.05	222.48	1202.64	218.02	1206.6	216.44
1218.59	215.06	1223.77	214.46	1227.31	214.32	1282.3	216.37	1294.49	216.87
1330.81	218.33	1349.69	217.75	1364.3	217.74	1409.65	216.8	1415.9	217.4
1418.57	217.99	1426.08	219.58	1427.14	219.78	1440.15	223.77	1449.59	224.59
1452.99	224.9	1460.48	225.02	1497.36	225.89	1543.03	226.26	1544	226.23
1544.51	226.23	1545.71	226.27	1661.88	227.31	1687.17	228	1726.31	230.17
1731.68	230.61	1760.22	235.86	1764.18	236.51	1779.94	238.34	1809.73	240.73
1820.32	241.62	1820.66	241.64						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.07	54.62	.035	764.68	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
1202.64	1418.57	130.03	143.07	149.61	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 11118.79

INPUT
Description:
Station Elevation Data num= 73

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	236.28	6.22	236.08	23.39	235.63	72.28	235.01	95.7	234.71
116.39	234.76	145.25	235.39	253.54	235.79	296.34	235.95	305.3	236
306.56	236.01	307.67	236.01	517.86	235.46	582.18	235.91	651.6	235.74
682.29	234.27	691.5	233.97	727.73	228.91	734.54	228.53	741.74	227.01
761.35	223.21	771.59	222.64	772.91	222.56	777.01	222.33	793.57	221.41
795.23	221.26	799.6	221.41	818.65	222.32	835.77	223.06	838.02	223.54
858.58	230	868.91	230.97	873.43	231.61	877.11	231.89	921.97	231.07
922.09	231.07	922.12	231.07	969.56	227.62	975.21	226.75	1009.04	223.72
1016.91	223.3	1063.95	222.15	1075.79	222.76	1092.71	222.9	1162.63	223.35
1187.76	222.47	1242.01	217.99	1252.71	216.77	1255.07	216.57	1255.52	216.54
1317.4	216.46	1319.11	216.45	1372.17	216.23	1398.59	217.3	1421.05	217
1440.94	216.26	1453.06	216.41	1456.68	217.54	1457.61	217.97	1465.34	221.17
1469.74	223.55	1476.75	224.23	1483.58	225.18	1489.7	224.96	1548.76	224.65
1611.98	227.28	1707.68	229.93	1716.91	230.38	1728.83	231.47	1773.15	235.81
1777.73	236.17	1778.68	236.35	1807.01	237.16				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.07	72.28	.035	777.01	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
1242.01	1457.61	113.3	131.05	129.24	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 10987.74

INPUT
Description:
Station Elevation Data num= 86

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	236.29	4.65	236.1	17.71	235.99	40.01	235.81	61.33	235.71
108.51	235.52	135.11	236.1	160.74	235.99	218.01	234.83	278.02	233.69
285.21	233.54	392.39	233.47	443.26	233.45	562.6	232.91	589.54	232.87
600.16	232.54	647.72	231.1	683.46	231.18	692.86	230.59	705.84	229.38
708.6	228.65	713.49	226.92	723.65	223.34	726.23	222.95	734.77	221.65
736.86	221.37	742.25	220.66	781.95	221.62	787.48	221.88	789.8	222.37
802.82	224.27	805.64	225.65	808.72	227.16	812.84	229.18	814.74	230.22
815.95	230.46	827.13	232.22	835.58	232.69	842.86	232.81	865.03	230.7
874.42	229.56	880.31	228.4	884.46	227.12	897.57	223.21	899.81	222.46
900.69	222.26	920.38	221.07	924.94	220.81	935.4	220.22	943.09	220.04
1006.44	218.49	1014.33	219.06	1040.71	222.3	1049.72	223.1	1065.02	223
1092.15	221.8	1106.38	221.42	1157.88	218.22	1200.31	216.53	1236.43	216.46
1266.17	216.4	1271.79	216.38	1382.69	215.95	1401.69	216.34	1412.06	217.68
1439.71	217.96	1447.39	218.97	1452.82	219.2	1467.43	218.38	1501.43	219.15
1519.8	219.56	1548.43	221.03	1558.95	221.44	1589.62	222.71	1603.43	223.49
1604.51	223.52	1605.84	223.54	1625.44	223.62	1645.18	223.96	1647.53	224.07
1649.57	224.32	1723.55	231.37	1734.13	232.95	1747.54	235.46	1759.85	236.07
1771.3	236.43								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.07	17.71	.035	726.23	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
1157.88	1412.06	39.53	39.96	40.57	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 10947.7*

INPUT
Description:
Station Elevation Data num= 129

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	236.25	3.68	236.08	4.37	236.05	16.62	235.92	33.4	235.75
37.56	235.72	57.57	235.61	91.32	235.45	101.86	235.4	126.83	235.86
132.01	235.84	150.89	235.76	162.93	235.54	204.65	234.71	260.99	233.66
267.74	233.52	272.24	233.51	368.35	233.13	394.49	233.04	416.1	233.01
528.13	232.46	543.43	232.42	553.42	232.4	563.39	232.12	608.04	230.88
618.5	230.89	641.59	230.94	650.41	230.45	662.6	229.44	665.19	228.83
665.41	228.76	669.78	227.38	679.32	224.37	681.74	224.04	689.75	222.94
691.72	222.7	696.78	222.1	717.57	222.5	734.04	222.79	739.23	222.99
741.41	223.39	753.63	224.93	756.28	226.07	759.17	227.32	763.04	228.99
764.82	229.85	765.96	230.04	776.46	231.47	784.39	231.83	791.22	231.91
812.03	230.07	816.55	229.57	820.85	229.1	826.38	228.12	830.27	227.04
842.58	223.75	844.68	223.12	845.51	222.95	863.99	221.91	868.27	221.68
878.09	221.16	885.31	221	933.57	219.82	944.78	219.56	952.19	220.02
965.5	221.45	976.95	222.64	985.41	223.26	999.77	223.11	1025.24	221.98
1038.6	221.6	1039.69	221.53	1047.98	221.04	1051.73	220.71	1081.38	218.37
1086.94	217.93	1095.61	217.66	1098.09	217.54	1107.53	217.37	1132.22	216.73
1137.86	216.55	1154.51	216.46	1170.24	216.41	1181.21	216.37	1191.76	216.34
1216.9	216.35	1223.65	216.35	1227.13	216.34	1246.58	216.23	1281.13	216.02
1287.89	216	1290.8	216.01	1290.95	216.01	1324.47	215.97	1333.87	215.92
1356.74	215.8	1383.52	216.28	1398.13	217.48	1401.18	217.52	1422.49	218.07
1429.26	219.02	1434.04	219.29	1446.91	218.82	1452.22	219.02	1462.08	219.42
1476.87	219.88	1493.05	220.38	1503.38	220.98	1518.27	221.77	1527.54	222.16
1554.56	223.34	1566.73	224.05	1567.68	224.08	1568.85	224.1	1586.12	224.25
1603.51	224.62	1605.58	224.72	1607.38	224.94	1639.5	227.98	1651.75	229.14
1655.54	229.5	1672.55	231.28	1673.81	231.47	1681.87	232.86	1693.69	235.31
1695.56	235.46	1704.53	236.07	1704.64	236.08	1714.62	236.48		

Manning's n Values num= 10

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.067	16.62	.038	91.32	.047	681.74	.047	1081.38	.038
1086.94	.047	1166.67	.035	1239.74	.038	1398.13	.05	1714.62	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
1086.94	1398.13	39.53	39.96	40.57	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 10907.8*

INPUT
Description:
Station Elevation Data num= 129

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	236.21	3.44	236.03	4.08	236	15.54	235.86	31.22	235.66
35.11	235.63	53.82	235.51	85.36	235.34	95.21	235.29	118.55	235.62
123.39	235.6	141.04	235.53	152.29	235.35	191.3	234.6	243.95	233.62
250.26	233.5	254.47	233.48	344.31	232.79	368.74	232.61	388.95	232.57
493.66	232	507.97	231.96	517.3	231.93	526.62	231.7	568.35	230.66
578.13	230.66	599.71	230.7	607.96	230.3	619.35	229.49	621.77	229.01
621.98	228.95	626.07	227.83	634.98	225.4	637.24	225.13	644.74	224.23
646.57	224.04	651.3	223.54	670.74	223.8	686.14	223.97	690.99	224.1
693.02	224.41	704.45	225.59	706.92	226.49	709.63	227.48	713.24	228.79
714.91	229.47	715.97	229.63	725.78	230.72	733.2	230.98	739.58	231.01
759.04	229.45	763.25	229.03	767.28	228.63	772.44	227.83	776.09	226.96
787.59	224.29	789.55	223.78	790.33	223.64	807.6	222.75	811.61	222.55
820.78	222.11	827.53	221.95	872.65	220.86	883.12	220.63	890.04	220.98
902.49	222.09	913.19	222.98	921.1	223.43	934.52	223.22	958.33	222.17
970.81	221.78	971.84	221.72	979.58	221.29	983.09	220.86	1010.8	218.15
1016	217.64	1026.12	217.38	1029.01	217.24	1040.03	217.21	1068.84	216.75
1075.42	216.58	1094.84	216.41	1113.19	216.34	1125.99	216.28	1138.3	216.23
1167.64	216.3	1175.51	216.31	1179.57	216.32	1202.27	216.15	1242.57	215.85
1250.46	215.82	1253.86	215.85	1254.03	215.85	1293.14	215.89	1304.11	215.82
1330.8	215.65	1365.34	216.22	1384.2	217.28	1386.84	217.32	1405.27	218.18
1411.12	219.07	1415.26	219.38	1426.39	219.26	1430.98	219.52	1439.51	220.07
1452.3	220.61	1466.3	221.19	1475.23	221.79	1488.11	222.51	1496.13	222.88
1519.5	223.98	1530.03	224.61	1530.85	224.64	1531.86	224.67	1546.8	224.88
1561.84	225.28	1563.63	225.37	1565.18	225.55	1592.96	228.17	1603.57	229.15
1606.84	229.48	1621.56	231.18	1622.64	231.36	1629.62	232.77	1639.84	235.17
1641.45	235.35	1649.22	236.08	1649.31	236.08	1657.94	236.54		

Manning's n Values num= 10

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.063	15.54	.04	85.36	.045	637.24	.045	1010.8	.04
1016	.045	1110.33	.035	1196.79	.04	1384.2	.05	1657.94	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
1016	1384.2	39.53	39.96	40.57	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 10867.8*

INPUT
Description:
Station Elevation Data num= 129

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	236.16	3.2	235.97	3.8	235.95	14.45	235.79	29.04	235.57
32.66	235.54	50.06	235.42	79.4	235.23	88.57	235.17	110.28	235.39
114.78	235.36	131.2	235.3	141.66	235.17	177.94	234.48	226.92	233.59
232.79	233.48	236.7	233.45	320.27	232.46	343	232.19	361.79	232.13
459.2	231.55	472.5	231.5	481.18	231.46	489.85	231.27	528.67	230.44
537.77	230.43	557.84	230.45	565.51	230.16	576.11	229.55	578.36	229.19
578.55	229.14	582.35	228.29	590.65	226.44	592.75	226.23	599.72	225.52
601.43	225.37	605.83	224.98	623.9	225.11	638.23	225.14	642.74	225.21
644.64	225.43	655.26	226.25	657.57	226.91	660.08	227.63	663.44	228.6

664.99	229.1	665.98	229.21	675.11	229.97	682	230.12	687.94	230.11
706.04	228.82	709.96	228.48	713.7	228.17	718.51	227.55	721.9	226.88
732.6	224.83	734.43	224.44	735.15	224.33	751.22	223.59	754.94	223.43
763.48	223.05	769.75	222.91	811.72	221.9	821.46	221.69	827.9	221.94
839.48	222.74	849.43	223.32	856.78	223.59	869.27	223.33	891.42	222.35
903.03	221.96	903.98	221.91	911.19	221.53	914.45	221.02	940.23	217.93
945.07	217.35	956.63	217.11	959.93	216.93	972.52	217.05	1005.45	216.77
1012.97	216.6	1035.17	216.37	1056.14	216.26	1070.78	216.19	1084.84	216.13
1118.37	216.25	1127.37	216.28	1132	216.29	1157.95	216.07	1204.02	215.68
1213.03	215.64	1216.92	215.69	1217.11	215.69	1261.81	215.8	1274.34	215.72
1304.85	215.51	1347.17	216.16	1370.27	217.08	1372.5	217.13	1388.05	218.29
1392.99	219.13	1396.48	219.48	1405.87	219.7	1409.75	220.02	1416.94	220.72
1427.74	221.34	1439.55	222.01	1447.09	222.61	1457.96	223.26	1464.72	223.59
1484.44	224.61	1493.32	225.18	1494.02	225.2	1494.87	225.23	1507.48	225.52
1520.17	225.93	1521.68	226.02	1522.99	226.17	1546.43	228.36	1555.38	229.17
1558.15	229.45	1570.56	231.09	1571.48	231.25	1577.36	232.67	1585.99	235.02
1587.35	235.24	1593.9	236.08	1593.98	236.09	1601.27	236.59		

Manning's n Values num= 10

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.06	14.45	.043	79.4	.043	592.75	.043	940.23	.043
945.07	.043	1054	.035	1153.84	.043	1370.27	.05	1601.27	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
945.07	1370.27	39.53	39.96	40.57	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 10827.8*

INPUT
Description:
Station Elevation Data num= 129

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	236.12	2.96	235.92	3.51	235.91	13.37	235.72	26.86	235.48
30.21	235.44	46.3	235.32	73.44	235.12	81.92	235.06	102	235.15
106.16	235.12	121.35	235.07	131.03	234.98	164.58	234.36	209.89	233.56
215.32	233.45	218.93	233.42	296.23	232.12	317.25	231.77	334.63	231.68
424.73	231.1	437.03	231.04	445.07	231	453.08	230.85	488.99	230.22
497.4	230.19	515.97	230.21	523.07	230.01	532.86	229.61	534.95	229.36
535.12	229.34	538.64	228.75	546.31	227.47	548.26	227.32	554.71	226.81
556.28	226.7	560.35	226.42	577.07	226.41	590.32	226.31	594.5	226.32
596.25	226.45	606.08	226.91	608.21	227.33	610.53	227.79	613.64	228.41
615.08	228.73	615.99	228.79	624.43	229.23	630.81	229.27	636.31	229.21
653.04	228.2	656.67	227.94	660.13	227.71	664.58	227.26	667.71	226.8
677.61	225.37	679.3	225.09	679.96	225.02	694.83	224.43	698.27	224.3
706.17	224	711.97	223.86	750.79	222.94	759.8	222.76	765.76	222.9
776.47	223.38	785.67	223.65	792.47	223.75	804.02	223.44	824.5	222.53
835.25	222.14	836.13	222.1	842.79	221.77	845.81	221.17	869.65	217.71
874.13	217.06	887.13	216.83	890.85	216.62	905.02	216.89	942.06	216.79
950.52	216.62	975.5	216.32	999.1	216.19	1015.56	216.11	1031.38	216.02
1069.11	216.2	1079.22	216.25	1084.44	216.27	1113.63	216	1165.46	215.51
1175.6	215.46	1179.98	215.53	1180.19	215.53	1230.49	215.72	1244.58	215.61
1278.9	215.36	1329	216.1	1356.34	216.88	1358.15	216.93	1370.83	218.4
1374.85	219.18	1377.7	219.57	1385.35	220.13	1388.51	220.53	1394.37	221.37
1403.17	222.07	1412.8	222.83	1418.94	223.43	1427.8	224	1433.31	224.31
1449.38	225.25	1456.62	225.74	1457.19	225.77	1457.88	225.79	1468.15	226.15
1478.5	226.59	1479.73	226.67	1480.8	226.78	1499.9	228.55	1507.19	229.18
1509.45	229.42	1519.57	230.99	1520.31	231.13	1525.11	232.58	1532.14	234.87
1533.25	235.13	1538.59	236.08	1538.65	236.09	1544.59	236.64		

Manning's n Values num= 10

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.057	13.37	.045	73.44	.04	548.26	.04	869.65	.045
874.13	.04	997.67	.035	1110.89	.045	1356.34	.05	1544.59	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
874.13	1356.34	39.53	39.96	40.57	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 10787.9*

INPUT
Description:
Station Elevation Data num= 129

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	236.08	2.72	235.87	3.23	235.86	12.28	235.66	24.68	235.38
27.75	235.35	42.54	235.22	67.48	235	75.27	234.94	93.72	234.91
97.55	234.88	111.5	234.84	120.39	234.79	151.23	234.24	192.85	233.52
197.84	233.43	201.17	233.39	272.19	231.78	291.51	231.34	307.48	231.24
390.26	230.65	401.57	230.57	408.95	230.53	416.31	230.43	449.3	230
457.04	229.96	474.1	229.97	480.62	229.87	489.62	229.66	491.54	229.54
491.7	229.53	494.93	229.2	501.98	228.5	503.77	228.41	509.69	228.1
511.14	228.03	514.88	227.86	530.24	227.72	542.42	227.49	546.25	227.43
547.86	227.48	556.89	227.57	558.85	227.75	560.99	227.95	563.84	228.22
565.16	228.36	566	228.38	573.76	228.48	579.62	228.41	584.67	228.31
600.05	227.57	603.38	227.39	606.56	227.25	610.65	226.98	613.52	226.72
622.62	225.9	624.17	225.75	624.78	225.71	638.44	225.27	641.6	225.17
648.86	224.94	654.19	224.82	689.86	223.98	698.14	223.83	703.61	223.86
713.45	224.03	721.91	223.99	728.16	223.92	738.77	223.54	757.59	222.72
767.46	222.32	768.27	222.28	774.4	222.02	777.17	221.33	799.08	217.49
803.19	216.77	817.64	216.56	821.77	216.32	837.51	216.72	878.68	216.8
888.08	216.65	915.83	216.28	942.05	216.12	960.34	216.02	977.92	215.92
1019.84	216.15	1031.08	216.21	1036.88	216.24	1069.32	215.92	1126.91	215.34
1138.17	215.29	1143.03	215.38	1143.27	215.38	1199.16	215.63	1214.82	215.51
1252.96	215.21	1310.83	216.04	1342.41	216.68	1343.81	216.74	1353.61	218.51
1356.72	219.23	1358.92	219.66	1364.84	220.57	1367.28	221.03	1371.81	222.02
1378.61	222.8	1386.05	223.65	1390.8	224.24	1397.64	224.74	1401.9	225.03
1414.32	225.88	1419.92	226.3	1420.36	226.33	1420.89	226.36	1428.83	226.78

1436.83	227.25	1437.78	227.32	1438.61	227.4	1453.37	228.74	1459.01	229.2
1460.75	229.4	1468.57	230.9	1469.15	231.02	1472.85	232.49	1478.29	234.72
1479.14	235.03	1483.27	236.08	1483.32	236.1	1487.91	236.7		

Manning's n Values num= 10

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.053	12.28	.047	67.48	.038	503.77	.038	799.08	.047
803.19	.038	941.33	.035	1067.95	.047	1342.41	.05	1487.91	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
803.19	1342.41	39.53	39.96	40.57	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 10747.97

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 48

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	236.04	2.48	235.82	22.5	235.29	61.52	234.89	88.93	234.64
109.76	234.6	183.4	233.36	265.76	230.92	366.1	230.11	416.67	229.73
448.27	229.72	483.41	229.02	550.09	226.85	628.93	225.02	650.44	224.67
700.42	222.47	706	222.26	708.53	221.48	728.5	217.27	732.25	216.48
748.15	216.28	752.69	216.01	770.01	216.56	815.29	216.82	856.16	216.23
885	216.05	924.46	215.81	989.32	216.22	1025	215.84	1088.35	215.17
1100.74	215.11	1106.09	215.22	1106.35	215.22	1167.83	215.55	1185.06	215.41
1227.01	215.06	1328.48	216.48	1329.47	216.54	1346.04	221.53	1349.24	222.67
1362.65	225.06	1406.84	228.93	1410.82	229.21	1412.05	229.37	1417.98	230.91
1425.04	234.92	1427.99	236.1	1431.23	236.75				

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	61.52	.035	728.5	.05	885	.035	1025	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
732.25	1328.48	153.99	201.69	181.38	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 10546.27

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 49

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	236.22	15.31	236.1	82.15	233.76	145.91	232.57	204.39	230.63
237.53	229.94	279.43	229.37	322	228.82	357.76	228.36	467.04	225.64
498.68	225.16	542.5	225.53	555.23	225.12	584.32	224.17	590.62	223.73
603.48	222.96	611.71	223	624.09	219.15	633.77	216.5	636.62	216.16
639.41	216.26	650.3	215.4	651.87	215.27	680	214.57	731.07	213.3
734.14	213.24	736.27	213.13	738.91	213.14	785	213.22	794.25	213.24
855.69	215.03	860.69	215.18	900.15	215.88	949.77	216.48	1078.71	216.09
1087.61	216.06	1206.66	216.79	1213.61	217.18	1253.05	218.16	1274.66	219.45
1285.16	219.95	1314.1	223.32	1332.02	224.38	1339.94	224.86	1345.91	225.6
1361.48	227.69	1371.08	228.8	1373.43	229.44	1395.49	235.75		

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	322	.035	603.48	.05	680	.035	785	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
651.87	1078.71	193.88	481.55	278.86	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 10064.73

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 55

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	236.69	2.25	235.52	3.44	235.23	39.26	231	45.72	230.22
46.1	230.2	54.9	229.94	80	229.2	108.21	228.37	136.39	227.57
139.49	227.54	140.5	227.54	144.18	227.6	241.56	229.75	270.67	229.52
308.9	228.27	350.32	225.72	352.38	225.51	357.79	224.93	392.41	221.01
412.12	217.68	417.62	217.01	425.14	213.21	427.78	212	431.1	210.34
431.53	210.31	449.01	207.79	470.75	208.63	515.87	210.35	524.74	210.61
530.85	210.6	630	211.13	685.58	211.43	715.69	211.75	740.32	211.98
814.18	212.46	842.43	212.85	853.67	213.13	909.6	214.49	967.31	216.31
1043.73	216.78	1139.17	217.15	1168.86	217.63	1227.2	218.61	1249.1	218.99
1297.47	221.72	1310.51	222.39	1317.8	222.77	1323.48	223.09	1327.81	224.11
1341.36	226.67	1347.21	228.87	1363.43	234.6	1371.97	237.09	1372.46	237.17

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.07	54.9	.05	80	.035	270.67	.035	630	.035
853.67	.05								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
427.78	814.18	211.89	236.17	217.43	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 9828.565

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 61

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	236.98	1.55	236.3	7.74	234.46	13.66	232.4	19.63	230.85
48.1	227.01	55.82	225.9	61.58	225.47	89.19	224.43	90.37	224.38

102.46	224.18	103.69	224.17	208.98	223.05	239.58	223.07	242.07	223
253.69	222.62	275.8	223.24	279.3	223.44	284.47	221.81	285.5	221.47
288.04	219.66	289.78	218.35	299.1	212	299.55	211.26	305.25	209.37
310.18	208.19	314.04	208.02	316.25	207.91	317.91	207.84	329.99	208.42
340.14	208.91	355.77	209.46	366.15	209.81	377.03	210.22	433.19	210.2
507.35	210.17	548.46	210.16	566.82	210.11	595.74	210.14	686.65	212
715	212.59	721.13	212.72	803.83	214.42	873.18	215.71	887.08	216.05
902.38	216.51	983.81	216.5	1063.49	217.85	1084.26	218.24	1108.83	218.43
1118.78	218.6	1127.28	219.01	1142.48	219.66	1182	221.49	1216.79	222.99
1218.55	223.27	1225.94	226.07	1235.89	227.79	1243.42	229.53	1268.71	234.66
1274.08	235.96								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.07	89.19	.035	242.07	.05	433.19	.035	715	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
299.1	686.65	118.07	118.56	92.16	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 9710.010

INPUT
Description:
Station Elevation Data num= 49

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	237.56	9.65	233.67	16.71	230.9	24.72	229.13	28.53	228.26
47.4	226.46	73.88	223.9	78.37	223.7	81.58	223.63	105.5	223.15
122.06	222.81	128.27	222.82	178.12	222.64	188.98	222.6	240.96	219.54
286.21	216.75	293.2	216.54	298.11	213.76	302.07	212.02	304.78	210.35
306	209.73	310.33	208.75	319.5	207.93	327.69	207.81	340.97	208.4
381.78	209.58	396.96	210.19	422.01	210.14	445.07	210.09	486.21	210.12
570.66	210.19	637.15	211.58	656.46	211.95	802.19	214.72	833.25	215.49
866.72	216.5	916.71	216.49	1038.3	216.49	1044.5	216.6	1052.62	216.99
1075.97	218.25	1080.92	218.83	1086.83	219.53	1132.21	222.55	1137.29	223.24
1138.13	223.4	1140.89	224.99	1144.53	226.44	1172.25	237.73		

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	105.5	.05	422.01	.035	656.46	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
302.07	656.46	105.82	122.85	111.7	.1	.3

Blocked Obstructions num= 1

Sta L	Sta R	Elev
193.08	206.92	372.19

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 9587.161

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 51

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	235.13	.85	234.8	16.38	229.87	27.38	227.87	29.69	227.46
31.73	227.22	57.78	224.46	97.35	223.56	128.59	222.34	148.19	221.51
180	220.22	212.56	218.9	281.1	216.65	294.01	216.15	309.99	214.06
312.35	213.75	326.78	212.04	334.41	212.32	338.81	212.32	344.29	212.59
353.29	213.96	362.45	212.15	366.12	211.09	370.15	209.41	372.66	209.12
404.96	208.82	425	208.86	448.67	208.91	545.27	210.01	585	210.6
626.43	211.21	626.55	211.21	642.39	211.44	675.79	212.15	741.69	213.41
753.28	213.48	771.95	214.16	797.84	214.81	853.17	216.48	884.32	216.48
909.54	216.85	996.87	216.79	1043.26	216.64	1056.32	216.22	1058.79	216.57
1065.87	219.78	1069.48	221.22	1074.99	224.9	1086.45	230.37	1093.15	234.08
1095.36	235.39								

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	180	.05	425	.035	545.27	.05	585	.035
642.39	.05								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
362.45	675.79	123.08	118.02	93.39	.1	.3

Blocked Obstructions num= 1

Sta L	Sta R	Elev
93.08	106.92	372.19

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 9469.136

INPUT
Description:
Station Elevation Data num= 53

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	237.57	12.94	234.3	17.91	232.7	24.18	230.54	59.34	225.73
76.13	223.7	81.78	223.42	135.85	220.64	169.07	219.04	180.99	218.57
187.82	218.35	215.48	217.65	221.82	217.49	328.29	215	340.74	214.75
358	213.99	370.63	212.99	378.86	212.34	395.08	211.79	399.54	212.37
404.97	212.66	409.25	212.27	415.36	211.65	421.14	211.09	444.15	210.57
463.29	210.43	540.01	209.9	570.3	209.82	614.13	210.4	660.46	211
713.27	211.7	714.02	211.69	724.7	211.51	773.82	210.74	774.7	210.73
786.16	210.77	789.96	210.35	813.58	210.1	816.39	210.42	837.61	211.74
855.43	212.89	859.2	213.18	886.42	214.6	922.31	216.41	926.97	216.6
947.26	216.63	1039.24	216.13	1044.89	216.74	1052.81	221.3	1054.77	222
1061.39	227.39	1073.18	236.6	1077.41	239.66				

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val

```
       0    .035  215.48      .05  463.29    .035  614.13      .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
        415.36  837.61             89.26   118.5  115.68              .1       .3
Blocked Obstructions      num=        1
   Sta L   Sta R    Elev
  293.08  306.92  358.61

CROSS SECTION           RIVER: San Juan
REACH: Upper               RS: 9350.632

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data     num=       41
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  235.55   12.28  233.13   24.99  230.02   52.05  227.19   66.18  225.45
   90.05  224.42  117.19  223.07  181.12   219.9  202.42  218.92  220.15  218.12
  262.29  217.13  319.13   215.8  384.17  214.49  421.88  212.86  466.73  210.99
  480.59  210.33  480.81  210.31   481.1   210.3   481.5  210.29  482.43  210.29
  543.33  210.13  639.13   209.9     680  210.42  694.61  210.61  718.93  210.93
  772.78  210.62  777.09  210.59  809.31  210.02  871.62  211.73  895.72  212.94
   932.8  214.27  978.37  215.79  983.34  215.94  1006.1  216.52 1007.14  216.55
 1013.04  217.67 1021.96  219.37 1024.06  219.91 1061.51  230.84 1065.28  232.96
 1065.35  233.03

Manning's n Values         num=        5
     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val
       0     .07  117.19    .035  202.42     .05  543.33    .035     680     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
        466.73  871.62             84.67   94.41   83.86              .1       .3
Blocked Obstructions      num=        1
   Sta L   Sta R    Elev
  253.08  266.92  358.61

CROSS SECTION           RIVER: San Juan
REACH: Upper               RS: 9256.219

INPUT
Description:
Station Elevation Data     num=       47
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  235.56   11.33  233.02   23.65  230.11   36.67  228.78   56.57  226.31
   63.88     226  149.59  222.37  170.35  221.36  171.49  221.31  219.79  219.17
  253.31  217.64  300.03  216.55  413.44  214.26  454.77  212.48  458.88   212.3
   495.1  210.77  580.72  209.51  585.58  209.57  628.06   210.1  686.73  209.96
  716.31  210.34  716.54  210.34  723.99   210.3  788.11  209.93   818.2  209.76
  822.23  209.68  830.02   209.9  836.38  210.22  845.79  210.84  862.11  212.09
  871.59  212.66  876.13  212.99  884.78  213.94  909.99  216.15  920.78  216.71
  948.86  217.91  978.02  218.84  988.49  219.84 1001.47  220.78  1017.4  221.96
 1024.33  222.37 1030.22  223.76 1038.84  226.09 1044.05  229.23 1047.45  230.51
 1063.67  234.43  1064.7   234.9

Manning's n Values         num=        5
     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val
       0     .07   63.88    .035  170.35     .05  585.58    .035  723.99     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         495.1  845.79            101.89   118.9  108.87              .1       .3
Blocked Obstructions      num=        1
   Sta L   Sta R    Elev
  463.08  476.92  345.03

CROSS SECTION           RIVER: San Juan
REACH: Upper               RS: 9137.316

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data     num=       45
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  235.18   22.33  230.75   42.24   228.2   63.9  225.84  101.49  224.61
  150.55  222.89  167.63  221.32     180  220.74  235.15  218.14  244.78  218.25
  309.54  217.04  325.48  217.26  379.62  216.78  417.92  216.26  427.16  216.09
  488.07   212.8  495.35   212.5  507.55  211.99  537.37   210.2  581.23  209.62
  613.53  209.59     642  209.07  682.73  208.32  704.34  208.03  723.51  207.79
  727.77  208.32  756.83  209.99  773.79  209.62  780.18  209.47   835.8  209.21
  899.08  210.85  912.49  211.72   931.6  212.97  954.81   214.4  955.14  214.42
  991.54  215.27  999.52  215.73 1014.81  216.69 1035.94  220.35 1049.41  224.63
 1055.27  226.59 1067.37  231.66 1070.65  233.33 1074.77  235.81  1079.2  237.67

Manning's n Values         num=        4
     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val
       0    .035     180     .05     642    .035  773.79     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
        537.37  899.08             68.43  118.37  170.91              .1       .3
Blocked Obstructions      num=        2
   Sta L   Sta R    Elev   Sta L   Sta R    Elev
  418.08  431.92  345.03  683.08  696.92  347.84

CROSS SECTION           RIVER: San Juan
REACH: Upper               RS: 9018.948

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data     num=       48
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  236.19    5.61  234.34   19.05   230.7   22.32  229.92   34.98  228.26
```

58.81	225.12	71.59	224.56	125.23	222.86	136.34	221.54	175.03	217.95
186.19	216.91	194.69	216.65	239.64	216.66	295.33	217.21	331.31	216.54
349.96	216.78	393.11	217.37	395.15	217.35	434.37	217.01	456.94	215.29
464.98	214.87	479.59	211.99	496.75	209.99	501.41	209.82	519.32	209.15
581.79	209.78	592.3	209.97	596.43	209.99	600.8	209.99	617.29	209.94
675	209.57	799.23	208.76	846.63	209.31	856.61	209.49	865.04	209.64
867.03	209.63	887.36	209.5	899.78	209.99	949.51	212.86	954.98	213.65
966.37	215.05	971.53	215.74	976.9	216.45	994.13	221.26	1007.41	226.4
1013.51	229.18	1026.11	234.49	1029.58	236.16				

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	175.03	.05	675	.035	865.04	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
617.29	899.78	103.94	141.14	196.85	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888		F	

Blocked Obstructions num= 1

Sta L	Sta R	Elev
633.08	646.92	347.84

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 8877.807

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 50

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	235.47	16	230.13	23.53	228.82	43.04	226.02	53.75	225.26
97.11	223.1	121.98	220.27	148.33	216.92	149.86	216.85	175.44	216.02
182.43	215.79	264.01	215.76	359.16	215.66	400.91	215.23	404.49	215.19
423.94	214.49	448.47	213.08	478.83	211.44	485.24	211.18	487.34	210.83
536.77	209.27	566.36	209.8	576.89	209.87	666.14	210.47	670.81	210.46
763.6	210.34	781.64	210.19	791.65	210.67	805.26	211.21	820.04	212.02
844.24	213.88	847.94	213.98	871.25	211.93	872.2	211.87	873.1	211.78
885.93	208.92	895.03	204.91	901.36	204.51	923.65	204.73	925.5	204.75
935.26	204.92	948.14	206.25	961.4	208.7	974.67	211.59	982.85	214.28
989.46	216.85	1012.58	226.37	1021.32	230.5	1028.34	234.21	1032.01	235.71

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	175.44	.05	670.81	.035	935.26	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
885.93	961.4	90.38	91.88	97.21	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888		F	

Blocked Obstructions num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
808.08	821.92	350.02	1033.08	1046.92	353.82

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 8785.928

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 53

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	231.65	17.24	226.79	22.09	226.18	61.29	222.04	91.45	220.2
113.91	217.61	126.85	216.97	154.25	215.99	184.6	215.82	324.44	215.06
367.24	214.93	375.23	214.64	387.3	214.03	407.3	213.48	467.14	211.83
486.18	211.6	514.54	211.07	559.35	209.79	569.19	209.86	616.65	210.18
656.85	209.7	700.89	209.71	776.42	209.15	803.51	210.94	846.49	216.22
850.58	216.45	866.12	214.61	866.92	214.48	867.87	214.26	870.7	213.58
883.15	210.23	900.95	205.79	910.93	204.24	934.29	203.03	935.91	202.95
939.77	202.85	944.19	203.03	960.1	203.43	965.34	204.3	969.91	205.78
976.64	208.01	978.76	208.86	981.84	211.21	984.92	212.46	987.05	211.72
989.84	212.14	992.8	214.24	994.96	215.3	996.84	216.96	998.25	217.71
1017.83	230.92	1023.32	233.95	1025.57	235.44				

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	184.6	.05	656.85	.035	939.77	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
900.95	969.91	89.24	86.51	114.83	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888		F	

Blocked Obstructions num= 1

Sta L	Sta R	Elev
993.08	1006.92	353.82

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 8699.415

INPUT
Description:
Station Elevation Data num= 57

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	228.96	16.5	224.59	22.67	223.16	25.71	222.88	70.95	218.8
120.94	217.13	132.52	216.5	138.16	216.41	177.33	216.52	226.62	216.35
389.19	215.81	440.44	213.92	516.4	210.08	516.93	210.07	518.16	210.05
540.65	210.23	543.99	209.34	546.05	209.12	554.09	204.61	556.71	203.68
559.84	203.47	564.63	203.29	567.58	203.49	568.92	203.58	576.85	204.46

593.65	206.31	607.75	206.8	611.61	206.94	626.8	207.98	653.38	208
669.55	207.98	689.74	207.95	741.83	207.88	759.1	207.73	776.74	208.88
800.07	211.05	801.37	211.01	843.83	207.44	844.58	207.28	855.43	205.99
872.29	203.81	875.46	203.48	931.18	202.95	944.59	203.18	947.68	203.23
958.4	203.41	961.9	203.6	965.82	204.69	971.93	205.96	986	208.87
993.13	209.98	997.35	212.14	1012.4	223.31	1013.12	223.91	1013.28	224.02
1027.96	234.99	1030.08	236.14						

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	226.62	.05	576.85	.035	607.75	.05	669.55	.035
947.68	.05								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
855.43	971.93	196.8	210.5	198	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 8488.931

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 44

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	223.53	5.06	222.86	50.35	218.19	100.15	216.85	181.75	215.37
191.02	215.13	194.19	215.09	206.53	215.12	333.22	216.49	363.57	216.83
444.57	216.12	466.47	216.8	497.41	217.45	499.38	217.37	501.77	216.86
505	216.26	509.57	215.4	520.92	209.41	521.52	209.1	521.65	209.03
521.85	209	546.91	205.67	556.86	204.35	582	203.55	590.02	203.36
645	203.5	711.54	203.67	715	203.66	770.23	203.53	837.91	203.44
850.34	203.93	869.98	203.3	929.34	202.79	937.43	202.72	946.04	202.93
953.2	203.42	954.83	203.48	957.04	204.49	959.37	205.75	971.52	214.75
979.71	220.55	984.84	223.89	990.63	227.51	990.77	227.61		

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	505	.05	546.91	.035	645	.05	715	.035
971.52	.05								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
546.91	959.37	41.88	40.32	46.55	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 8448.60*

INPUT
Description:
Station Elevation Data num= 91

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	223.41	4.94	222.8	5.82	222.71	22.26	220.92	41.42	218.8
42.88	218.64	48.31	218.02	49.19	217.94	62.64	217.57	89.34	216.92
95.9	216.76	97.85	216.72	129.23	216.27	141.07	216.11	177.58	215.53
186.64	215.33	189.73	215.29	201.79	215.31	218.68	215.44	248.55	215.82
254.46	215.89	325.57	216.49	336.54	216.58	355.23	216.73	377.59	216.54
434.37	216.35	452.5	216.88	455.77	216.98	469.69	217.27	469.74	217.27
469.79	217.27	469.84	217.27	470.11	217.27	481.32	217.28	486	217
487.92	216.78	490.26	216.19	493.41	215.47	494.34	215.25	496.74	214.71
497.88	214.48	501.63	212.72	508.97	209.26	509.55	208.99	509.68	208.92
509.88	208.89	513.05	208.42	534.36	206.02	537.29	205.68	543.57	204.94
550.35	204.73	566.83	204.23	574.25	204.05	607.9	204.02	625.13	203.98
629.18	203.97	655.59	204.05	686.7	203.93	689.9	203.9	694.22	203.86
741.01	203.72	742.29	203.72	803.64	203.59	815.14	203.97	833.31	203.45
882.59	203.04	888.24	203	895.73	202.94	906.93	203.39	914.47	203.9
916.24	204.02	918.36	204.12	921.23	205	924.26	206.08	932.98	209.28
945.94	213.93	951.7	215.91	954.89	216.88	958.92	217.85	960.55	218.32
961.45	218.55	966.14	219.18	967.69	219.41	969.06	219.61	969.7	219.83
969.89	219.9	970.76	220.53	971.27	220.81	975.12	224.05	980.03	228.35
980.28	228.58								

Manning's n Values num= 14

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	41.42	.038	248.55	.047	452.5	.038	493.41	.05
534.36	.035	548.45	.035	627.09	.047	693.26	.035	717.6	.038
899.75	.047	924.26	.047	945.94	.047	980.28	.047		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
534.36	924.26	41.88	40.32	46.55	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 8408.28*

INPUT
Description:
Station Elevation Data num= 91

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	223.29	4.83	222.73	5.68	222.65	21.74	220.82	40.45	218.59
41.87	218.42	47.17	217.77	48.04	217.7	61.17	217.32	87.24	216.76
93.65	216.61	95.55	216.58	126.19	216.28	137.76	216.16	173.41	215.69
182.25	215.53	185.28	215.5	197.05	215.5	213.55	215.58	242.71	216
248.49	216.08	317.93	216.49	328.64	216.55	346.89	216.63	368.72	216.45
424.17	216.58	441.88	217.07	445.07	217.15	458.66	217.44	458.71	217.44
458.75	217.44	458.81	217.44	459.07	217.44	470.02	217.21	474.59	216.54
476.47	216.2	478.75	215.53	481.83	214.67	482.73	214.42	485.07	213.79
486.19	213.57	489.85	212.06	497.02	209.1	497.59	208.87	497.71	208.82
497.9	208.78	501	208.28	521.81	206.37	524.5	206.1	530.28	205.52
536.51	205.34	551.66	204.9	558.49	204.74	589.42	204.59	605.26	204.45

608.98	204.42	633.27	204.52	661.86	204.18	664.81	204.13	668.77	204.07
711.79	203.92	712.97	203.91	769.37	203.75	779.94	204.02	796.65	203.61
841.95	203.24	847.14	203.21	854.03	203.16	867.81	203.85	877.11	204.47
879.28	204.61	881.89	204.76	885.43	205.51	889.16	206.41	901.71	209.18
920.36	213.1	928.65	214.78	933.24	215.46	939.05	215.8	941.39	216.09
942.68	216.23	949.44	215.77	951.67	215.67	953.65	215.57	954.56	215.78
954.84	215.84	956.09	216.8	956.81	217.17	962.36	222.31	969.43	229.19
969.79	229.55								

Manning's n Values num= 14

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	40.45	.041	242.71	.044	441.88	.041	481.83	.05
521.81	.035	535.09	.035	609.17	.044	671.52	.035	694.45	.041
866.06	.044	889.16	.044	920.36	.044	969.79	.044		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
521.81	889.16	41.88	40.32	46.55	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 8367.96*

INPUT
Description:
Station Elevation Data num= 91

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	223.17	4.71	222.67	5.54	222.59	21.22	220.71	39.48	218.37
40.86	218.2	46.04	217.51	46.88	217.45	59.7	217.06	85.15	216.6
91.39	216.47	93.26	216.45	123.16	216.29	134.45	216.22	169.24	215.85
177.87	215.73	180.82	215.7	192.31	215.68	208.41	215.71	236.87	216.18
242.51	216.27	310.28	216.49	320.74	216.52	338.55	216.53	359.85	216.36
413.97	216.81	431.25	217.25	434.36	217.33	447.63	217.61	447.68	217.61
447.72	217.61	447.78	217.61	448.03	217.6	458.71	217.15	463.17	216.09
465.01	215.61	467.23	214.86	470.24	213.88	471.13	213.59	473.41	212.88
474.5	212.65	478.07	211.4	485.06	208.95	485.62	208.76	485.74	208.71
485.93	208.68	488.96	208.13	509.27	206.73	511.72	206.53	516.99	206.11
522.68	205.95	536.5	205.58	542.72	205.43	570.94	205.16	585.39	204.93
588.79	204.88	610.94	204.99	637.02	204.44	639.71	204.37	643.33	204.29
682.57	204.11	683.65	204.11	735.09	203.9	744.74	204.06	759.98	203.76
801.3	203.44	806.05	203.42	812.32	203.39	828.7	204.31	839.74	205.04
842.32	205.21	845.42	205.39	849.62	206.01	854.05	206.75	870.43	209.09
894.78	212.28	905.6	213.65	911.6	214.04	919.17	213.75	922.23	213.86
923.91	213.91	932.74	212.37	935.65	211.92	938.23	211.52	939.42	211.72
939.78	211.78	941.42	213.07	942.36	213.54	949.6	220.57	958.83	230.03
959.3	230.52								

Manning's n Values num= 14

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	39.48	.044	236.87	.041	431.25	.044	470.24	.05
509.27	.035	521.73	.035	591.26	.041	649.78	.035	671.3	.044
832.38	.041	854.05	.041	894.78	.041	959.3	.041		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
509.27	854.05	41.88	40.32	46.55	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 8327.64*

INPUT
Description:
Station Elevation Data num= 91

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	223.05	4.6	222.6	5.41	222.53	20.69	220.6	38.5	218.16
39.86	217.98	44.9	217.25	45.73	217.21	58.23	216.81	83.05	216.43
89.14	216.32	90.96	216.32	120.12	216.29	131.13	216.28	165.07	216.01
173.49	215.93	176.37	215.91	187.58	215.87	203.28	215.85	231.04	216.36
236.54	216.46	302.64	216.49	312.83	216.49	330.2	216.43	350.99	216.27
403.77	217.04	420.63	217.44	423.66	217.51	436.6	217.78	436.65	217.78
436.69	217.78	436.74	217.77	436.99	217.77	447.41	217.08	451.76	215.64
453.55	215.02	455.72	214.19	458.65	213.09	459.52	212.76	461.74	211.96
462.8	211.74	466.29	210.74	473.11	208.79	473.66	208.64	473.78	208.61
473.96	208.57	476.91	207.99	496.72	207.08	498.93	206.95	503.7	206.7
508.84	206.57	521.33	206.25	526.95	206.12	552.46	205.72	565.52	205.41
568.59	205.33	588.61	205.46	612.19	204.69	614.61	204.61	617.88	204.5
653.35	204.3	654.32	204.3	700.82	204.05	709.54	204.11	723.31	203.91
760.66	203.64	764.95	203.63	770.62	203.61	789.59	204.77	802.37	205.61
805.36	205.81	808.95	206.03	813.81	206.52	818.95	207.08	839.16	208.99
869.2	211.45	882.55	212.53	889.95	212.61	899.3	211.7	903.07	211.63
905.15	211.58	916.03	208.96	919.62	208.18	922.81	207.48	924.28	207.67
924.73	207.73	926.74	209.34	927.91	209.91	936.84	218.83	948.23	230.88
948.81	231.49								

Manning's n Values num= 14

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	38.5	.047	231.04	.038	420.63	.047	458.65	.05
496.72	.035	508.36	.035	573.35	.038	628.04	.035	648.15	.047
798.69	.038	818.95	.038	869.2	.038	948.81	.038		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
496.72	818.95	41.88	40.32	46.55	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 8287.319

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 52

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	222.93	5.27	222.47	20.17	220.49	37.53	217.95	38.85	217.76

43.77	216.99	56.76	216.56	80.95	216.27	86.89	216.18	117.09	216.3
127.82	216.34	198.14	215.98	225.2	216.54	230.56	216.65	304.93	216.46
342.12	216.18	410	217.62	425.57	217.95	425.62	217.95	425.66	217.95
425.71	217.94	425.95	217.93	436.11	217.01	447.91	211.93	450.08	211.05
454.51	210.08	464.86	207.84	484.17	207.43	486.15	207.38	495	207.18
533.98	206.29	548.39	205.79	566.28	205.93	592.44	204.71	625	204.49
720.02	203.84	728.92	203.83	765	206.18	783.84	207.41	807.88	208.9
859.5	211.4	868.3	211.19	879.42	209.65	886.38	209.26	899.33	205.55
903.6	204.43	907.39	203.43	909.67	203.67	912.07	205.61	913.46	206.28
924.08	217.09	938.32	232.46						

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	37.53	.05	225.2	.035	410	.05	495	.035
625	.05	765	.035						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
484.17	783.84	21.4	39.31	35.65	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888		F	

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 8248.00*

INPUT
Description:
Station Elevation Data num= 88

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	222.94	3.21	222.53	5.13	222.35	19.63	220.44	32.04	218.66
36.53	218	37.82	217.81	42.6	217.07	50.62	216.69	55.25	216.55
65.26	216.42	65.4	216.42	78.79	216.25	84.58	216.17	105.83	216.2
113.97	216.23	116.25	216.24	124.42	216.27	176.31	216.08	192.86	215.99
210.35	216.3	219.2	216.52	221.16	216.57	224.42	216.64	272.46	216.59
296.81	216.58	333.01	216.4	359.7	216.95	374.41	217.22	378.9	217.27
399.08	217.5	405.58	217.57	414.24	217.05	414.29	217.04	414.33	217.04
414.38	217.03	414.61	217	416.51	216.7	416.87	216.64	424.5	215.84
426.98	214.84	430.84	213.26	435.99	211.26	438.1	210.49	442.41	209.61
445.12	209.07	452.48	207.58	471.28	207.02	473.02	206.97	480.82	206.79
515.15	205.99	527.85	205.55	543.61	205.66	564.77	204.68	566.65	204.59
595.33	204.35	596.25	204.34	679.03	203.66	686.87	203.64	690.04	203.82
701.81	204.23	718.23	204.8	747.72	205.81	762.14	206.3	779.5	207.04
802.03	208.32	803.14	208.37	848.25	210.07	853.92	210.29	862.57	210.08
868.11	209.39	873.51	208.73	874.24	208.69	880.35	208.44	881.83	208.08
882.11	208.03	893.09	206.21	897.29	205.6	898.85	205.37	901.02	205.15
903.26	205.64	905.62	207.61	906.99	208.36	907.47	208.85	914.24	215.48
917.43	218.65	924.94	226.52	931.44	232.92				

Manning's n Values num= 15

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	36.53	.048	50.62	.037	219.2	.037	399.08	.05
471.28	.035	482.42	.035	491.46	.035	550.2	.037	598.66	.048
616.13	.048	760.12	.035	779.5	.037	802.03	.05	931.44	.037

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
471.28	779.5	21.4	39.31	35.65	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888		F	

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 8208.70*

INPUT
Description:
Station Elevation Data num= 88

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	222.95	3.12	222.42	4.99	222.24	19.1	220.39	31.16	218.69
35.53	218.05	36.78	217.86	41.44	217.14	49.23	216.66	53.74	216.53
63.47	216.41	63.61	216.41	76.64	216.24	82.26	216.15	102.93	216.13
110.86	216.16	113.07	216.17	121.01	216.21	171.49	216.09	187.59	216
204.6	216.24	213.21	216.51	215.12	216.57	218.28	216.62	265.01	216.66
288.69	216.7	323.9	216.63	349.86	217.14	364.17	217.36	368.54	217.36
388.17	217.37	394.48	217.38	402.91	216.14	402.96	216.14	403	216.13
403.04	216.11	403.27	216.07	405.12	215.64	405.47	215.57	412.89	214.68
415.3	213.77	419.06	212.33	424.06	210.6	426.12	209.93	430.31	209.15
432.94	208.66	440.11	207.32	458.39	206.6	459.9	206.56	466.64	206.4
496.33	205.7	507.31	205.32	520.93	205.39	539.23	204.54	540.86	204.47
565.66	204.21	566.45	204.2	638.04	203.47	644.81	203.44	649.29	203.68
665.84	204.05	688.94	204.56	730.45	205.43	750.73	205.86	775.16	206.66
797.31	207.8	798.41	207.84	842.76	209.01	848.33	209.18	856.84	208.97
862.29	208.38	867.6	207.8	868.31	207.77	874.33	207.61	875.78	207.33
876.05	207.32	886.85	206.87	890.98	206.77	892.51	206.73	894.64	206.87
896.85	207.62	899.17	209.61	900.52	210.44	900.99	210.92	907.65	217.16
910.79	220.21	918.16	227.71	924.56	233.37				

Manning's n Values num= 15

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	35.53	.046	49.23	.039	213.21	.039	388.17	.05
458.39	.035	469.84	.035	479.13	.035	539.5	.039	589.3	.046
607.26	.046	755.24	.035	775.16	.039	797.31	.05	924.56	.039

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
458.39	775.16	21.4	39.31	35.65	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888		F	

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 8169.39*

INPUT
Description:
Station Elevation Data num= 88

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	222.96	3.03	222.3	4.85	222.12	18.56	220.34	30.29	218.72
34.53	218.09	35.75	217.92	40.27	217.22	47.85	216.63	52.23	216.52
61.69	216.4	61.83	216.39	74.48	216.22	79.95	216.14	100.04	216.07
107.74	216.1	109.89	216.1	117.61	216.14	166.67	216.11	182.31	216.02
198.84	216.18	207.21	216.49	209.07	216.56	212.15	216.61	257.56	216.73
280.58	216.82	314.8	216.85	340.02	217.33	353.93	217.49	358.17	217.45
377.25	217.25	383.39	217.18	391.58	215.24	391.63	215.23	391.66	215.22
391.71	215.2	391.93	215.14	393.73	214.59	394.07	214.49	401.28	213.51
403.62	212.7	407.28	211.39	412.14	209.93	414.13	209.36	418.21	208.68
420.77	208.25	427.73	207.06	445.5	206.19	446.77	206.15	452.46	206.02
477.5	205.4	486.76	205.08	498.26	205.11	513.69	204.41	515.07	204.34
535.99	204.07	536.66	204.07	597.04	203.29	602.76	203.25	608.53	203.55
629.87	203.87	659.66	204.32	713.17	205.06	739.33	205.41	770.82	206.29
792.6	207.29	793.67	207.32	837.27	207.96	842.75	208.06	851.11	207.86
856.47	207.36	861.68	206.88	862.39	206.84	868.3	206.79	869.73	206.58
870	206.6	880.61	207.52	884.67	207.94	886.18	208.09	888.27	208.59
890.44	209.59	892.72	211.61	894.04	212.52	894.51	213	901.06	218.85
904.14	221.77	911.39	228.91	917.68	233.83				

Manning's n Values num= 15

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	34.53	.044	47.85	.041	207.21	.041	377.25	.05
445.5	.035	457.26	.035	466.8	.035	528.8	.041	579.95	.044
598.38	.044	750.37	.035	770.82	.041	792.6	.05	917.68	.041

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
445.5	770.82	21.4	39.31	35.65	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 8130.08*

INPUT
Description:
Station Elevation Data num= 88

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	222.92	2.94	222.19	4.71	222	18.02	220.29	29.41	218.75
33.53	218.14	34.71	217.97	39.11	217.3	46.46	216.6	50.72	216.5
59.9	216.38	60.04	216.38	72.33	216.21	77.64	216.13	97.14	216
104.62	216.03	106.71	216.04	114.21	216.07	161.85	216.12	177.04	216.03
193.09	216.13	201.22	216.48	203.02	216.55	206.01	216.6	250.11	216.8
272.46	216.94	305.69	217.08	330.18	217.51	343.69	217.63	347.81	217.53
366.34	217.12	372.3	216.99	380.25	214.34	380.3	214.32	380.33	214.31
380.38	214.29	380.59	214.21	382.34	213.53	382.67	213.41	389.67	212.35
391.95	211.63	395.49	210.45	400.21	209.26	402.15	208.8	406.11	208.21
408.59	207.84	415.36	206.81	432.61	205.77	433.65	205.74	438.28	205.63
458.68	205.11	466.22	204.85	475.59	204.84	488.16	204.28	489.28	204.22
506.32	203.94	506.86	203.93	556.05	203.11	560.71	203.05	567.77	203.41
593.91	203.69	630.37	204.09	695.89	204.68	727.92	204.97	766.48	205.91
787.88	206.78	788.94	206.79	831.78	206.9	837.16	206.95	845.38	206.75
850.65	206.35	855.77	205.95	856.46	205.92	862.27	205.97	863.67	205.83
863.94	205.89	874.37	208.18	878.36	209.1	879.84	209.45	881.9	210.31
884.03	211.57	886.27	213.61	887.57	214.6	888.03	215.07	894.46	220.54
897.49	223.33	904.62	230.1	910.79	234.29				

Manning's n Values num= 15

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	33.53	.041	46.46	.044	201.22	.044	366.34	.05
432.61	.035	444.68	.035	454.47	.035	518.1	.044	570.59	.041
589.51	.041	745.49	.035	766.48	.044	787.88	.05	910.79	.044

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
432.61	766.48	21.4	39.31	35.65	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 8090.77*

INPUT
Description:
Station Elevation Data num= 88

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	222.99	2.86	222.08	4.57	221.88	17.49	220.24	28.53	218.79
32.53	218.19	33.68	218.02	37.94	217.37	45.08	216.58	49.2	216.49
58.12	216.37	58.25	216.37	70.17	216.19	75.32	216.11	94.25	215.93
101.5	215.96	103.53	215.97	110.81	216.01	157.02	216.13	171.76	216.04
187.34	216.07	195.22	216.46	196.97	216.54	199.87	216.59	242.65	216.86
264.34	217.06	296.58	217.3	320.35	217.7	333.45	217.77	337.45	217.62
355.42	217	361.21	216.8	368.92	213.43	368.96	213.41	369	213.4
369.04	213.38	369.25	213.28	370.94	212.48	371.26	212.33	378.06	211.18
380.27	210.56	383.71	209.51	388.29	208.6	390.17	208.24	394.01	207.75
396.42	207.44	402.98	206.55	419.72	205.36	420.52	205.34	424.1	205.24
439.85	204.81	445.68	204.61	452.91	204.57	462.62	204.15	463.49	204.1
476.65	203.8	477.07	203.79	515.06	202.93	518.66	202.86	527.01	203.28
557.94	203.52	601.09	203.85	678.61	204.31	716.51	204.53	762.14	205.54
783.16	206.27	784.2	206.26	826.29	205.85	831.58	205.84	839.65	205.64
844.82	205.33	849.86	205.03	850.54	205	856.25	205.14	857.62	205.08

857.88	205.17	868.13	208.84	872.05	210.27	873.5	210.8	875.53	212.03
877.62	213.54	879.82	215.61	881.1	216.68	881.55	217.14	887.87	222.23
890.84	224.89	897.85	231.29	903.91	234.75				

Manning's n Values num= 15

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	32.53	.039	45.08	.046	195.22	.046	355.42	.05
419.72	.035	432.09	.035	442.14	.035	507.4	.046	561.23	.039
580.64	.039	740.61	.035	762.14	.046	783.16	.05	903.91	.046

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
419.72	762.14	21.4	39.31	35.65	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 8051.46*

INPUT
Description:
Station Elevation Data num= 88

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	223	2.77	221.96	4.43	221.77	16.95	220.19	27.66	218.82
31.54	218.24	32.64	218.07	36.78	217.45	43.69	216.55	47.69	216.48
56.33	216.35	56.46	216.35	68.02	216.18	73.01	216.1	91.35	215.87
98.39	215.89	100.35	215.9	107.4	215.94	152.2	216.15	166.49	216.05
181.58	216.02	189.23	216.44	190.92	216.54	193.73	216.57	235.2	216.93
256.22	217.18	287.47	217.53	310.51	217.89	323.21	217.9	327.08	217.71
344.51	216.87	350.11	216.6	357.59	212.53	357.63	212.51	357.67	212.49
357.71	212.46	357.91	212.35	359.55	211.42	359.86	211.26	366.45	210.02
368.59	209.49	371.92	208.57	376.36	207.93	378.19	207.68	381.91	207.28
384.24	207.03	390.6	206.29	406.83	204.94	407.39	204.93	409.92	204.85
421.03	204.52	425.14	204.37	430.24	204.3	437.09	204.01	437.7	203.98
446.98	203.66	447.27	203.65	474.07	202.74	476.6	202.66	486.25	203.14
521.97	203.34	571.8	203.61	661.34	203.93	705.11	204.09	757.8	205.16
778.45	205.75	779.47	205.73	820.8	204.79	825.99	204.73	833.92	204.53
839	204.32	843.95	204.1	844.61	204.08	850.22	204.32	851.57	204.33
851.83	204.46	861.89	209.5	865.74	211.44	867.17	212.16	869.15	213.75
871.21	215.52	873.37	217.61	874.63	218.76	875.07	219.21	881.27	223.91
884.2	226.45	891.07	232.49	897.03	235.2				

Manning's n Values num= 15

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	31.54	.037	43.69	.048	189.23	.048	344.51	.05
406.83	.035	419.51	.035	429.81	.035	496.7	.048	551.88	.037
571.77	.037	735.73	.035	757.8	.048	778.45	.05	897.03	.048

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
406.83	757.8	21.4	39.31	35.65	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 8012.155

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 41

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	223.01	2.68	221.85	26.78	218.85	42.31	216.52	54.55	216.34
54.67	216.34	88.46	215.8	97.17	215.83	147.38	216.16	175.83	215.96
184.87	216.53	227.75	217	300.67	218.08	312.97	218.04	316.72	217.8
339.02	216.41	348.16	210.37	348.46	210.18	356.91	208.42	360.14	207.63
372.07	206.62	393.94	204.53	411.55	203.88	417.48	203.51	434.55	202.47
445.49	203.01	486	203.16	542.52	203.37	693.7	203.65	753.46	204.79
773.73	205.24	815.31	203.74	833.18	203.3	838.69	203.16	845.52	203.58
845.77	203.74	860.83	213.52	868.59	221.28	874.68	225.6	884.3	233.68
890.15	235.66								

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	42.31	.05	417.48	.035	486	.05	542.52	.035
773.73	.05								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
393.94	753.46	39.95	38.28	37.37	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 7973.87*

INPUT
Description:
Station Elevation Data num= 95

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	223.14	2.66	222.09	2.75	222.07	4.18	221.89	8.43	221.4
16.25	220.46	26.54	219.2	41.94	217	48.44	216.79	54.07	216.6
54.19	216.6	74.46	215.9	78.73	215.69	87.68	215.22	96.32	214.9
99.97	214.78	109.04	214.68	116.16	214.61	123.58	214.54	132.03	214.51
146.08	214.64	156.36	214.63	174.28	214.69	180.64	215.07	183.24	215.28
195.25	215.74	222.09	216.5	225.75	216.57	255.87	217.22	257.11	217.23
273.03	217.19	273.28	217.19	284.49	217.09	294.4	216.92	298.02	216.89
310.22	216.61	313.93	216.34	336.04	214.78	345.1	209.76	345.39	209.6
346.98	209.3	353.52	208	353.77	207.95	356.97	207.14	358.34	206.97

360.16	206.83	368.8	206.18	390.47	204.34	406.6	203.72	409.47	203.63
415.87	203.3	423.93	202.9	427.94	202.7	434.28	202.39	445.04	202.85
479.02	203.04	484.9	203.07	517.71	203.26	530.78	203.36	540.51	203.38
611.7	203.47	618.15	203.47	683.78	203.53	684.89	203.52	689.25	203.51
702.04	203.66	715.42	203.88	732.07	204.19	748.04	204.54	768.71	205.07
778.88	204.86	795.05	204.31	811.1	203.75	825.2	203.4	829.32	203.29
830.67	203.25	831.35	203.29	834.94	203.55	836.13	203.72	836.15	203.72
841.91	205.28	842.16	205.47	846.37	208.55	849.47	210.76	852.01	212.53
856.16	215.02	857.52	215.82	858.15	216.37	858.89	216.96	864.57	221.9
865.43	222.59	868.85	224.59	871.64	226.14	881.45	232.6	887.41	234.18

Manning's n Values num= 14

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	41.94	.047	109.04	.038	390.47	.035	413.89	.035
439.94	.035	482.03	.047	491.06	.038	538.25	.038	623.96	.047
748.04	.05	768.71	.05	795.05	.05	887.41	.05		

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
390.47 748.04 39.95 38.28 37.37 .1 .3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 7935.60*

INPUT
Description:
Station Elevation Data num= 95

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	223.28	2.63	222.33	2.72	222.31	4.14	222.13	8.35	221.68
16.1	220.77	26.31	219.55	41.57	217.49	48.01	217.15	53.59	216.86
53.71	216.85	73.8	215.78	78.03	215.44	86.9	214.64	95.46	213.98
99.08	213.7	108.07	213.45	115.13	213.26	122.48	213.07	130.86	212.94
144.79	213.12	154.97	213.17	172.74	213.42	179.04	213.78	181.62	214.03
193.52	214.83	220.11	216.04	223.74	216.14	253.6	216.99	254.83	217
270.61	216.67	270.86	216.66	281.97	216.3	291.79	215.82	295.38	215.71
307.46	215.18	311.15	214.88	333.05	213.14	342.03	209.14	342.33	209.02
343.9	208.75	350.38	207.53	350.63	207.47	353.8	206.65	355.16	206.43
356.96	206.31	365.52	205.73	387.01	204.15	404.31	203.45	407.39	203.37
414.25	203.09	422.9	202.74	427.2	202.57	434.01	202.3	444.59	202.68
478.02	202.94	483.8	202.99	516.07	203.23	528.92	203.38	538.49	203.4
608.52	203.43	614.86	203.43	679.42	203.42	680.51	203.41	684.8	203.38
697.38	203.43	710.54	203.59	726.91	203.89	742.63	204.3	763.69	204.9
774.05	204.84	790.54	204.3	806.9	203.77	821.26	203.39	825.47	203.27
826.84	203.23	827.53	203.34	831.2	203.95	832.4	204.21	832.42	204.22
838.29	206.98	838.55	207.19	842.84	210.67	846.01	213.11	848.59	215.05
852.82	217.39	854.2	218.12	854.85	218.59	855.6	219.05	861.4	223.35
862.27	223.9	865.75	225.51	868.59	226.68	878.59	231.52	884.67	232.71

Manning's n Values num= 14

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	41.57	.044	108.07	.041	387.01	.035	410.29	.035
436.21	.035	478.07	.044	487.04	.041	533.98	.041	619.22	.044
742.63	.05	763.69	.05	790.54	.05	884.67	.05		

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
387.01 742.63 39.95 38.28 37.37 .1 .3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 7897.32*

INPUT
Description:
Station Elevation Data num= 95

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	223.41	2.61	222.57	2.7	222.55	4.1	222.36	8.28	221.95
15.96	221.08	26.07	219.9	41.19	217.97	47.58	217.51	53.11	217.12
53.23	217.11	73.14	215.66	77.33	215.19	86.13	214.07	94.61	213.05
98.19	212.62	107.11	212.22	114.1	211.91	121.38	211.59	129.68	211.38
143.49	211.61	153.59	211.71	171.19	212.15	177.44	212.49	179.99	212.78
191.79	213.91	218.14	215.58	221.74	215.7	251.33	216.76	252.54	216.77
268.19	216.15	268.43	216.14	279.44	215.51	289.18	214.72	292.73	214.52
304.71	213.75	308.36	213.43	330.07	211.51	338.97	208.53	339.26	208.44
340.82	208.2	347.25	207.06	347.49	207	350.63	206.16	351.98	205.89
353.76	205.78	362.25	205.29	383.54	203.95	402.02	203.19	405.31	203.12
412.64	202.88	421.87	202.59	426.47	202.45	433.73	202.22	444.14	202.52
477.01	202.85	482.69	202.9	514.43	203.21	527.07	203.4	536.48	203.41
605.34	203.4	611.57	203.39	675.05	203.3	676.13	203.29	680.34	203.24
692.71	203.19	705.66	203.31	721.76	203.6	737.21	204.05	758.67	204.73
769.23	204.83	786.03	204.3	802.69	203.78	817.33	203.39	821.61	203.26
823.01	203.21	823.71	203.38	827.45	204.34	828.68	204.7	828.7	204.71
834.68	208.69	834.94	208.92	839.32	212.8	842.54	215.47	845.17	217.56
849.48	219.76	850.89	220.42	851.54	220.82	852.32	221.15	858.22	224.8
859.1	225.21	862.65	226.44	865.55	227.22	875.74	230.44	881.93	231.23

Manning's n Values num= 14

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	41.19	.041	107.11	.044	383.54	.035	406.7	.035
432.47	.035	474.1	.041	483.03	.044	529.7	.044	614.48	.041
737.21	.05	758.67	.05	786.03	.05	881.93	.05		

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
383.54 737.21 39.95 38.28 37.37 .1 .3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 7859.05*

INPUT
Description:
Station Elevation Data num= 95

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	223.55	2.59	222.8	2.67	222.78	4.07	222.6	8.2	222.23
15.81	221.4	25.84	220.25	40.82	218.46	47.15	217.88	52.63	217.37
52.75	217.36	72.48	215.55	76.63	214.94	85.35	213.49	93.75	212.12
97.31	211.55	106.14	210.99	113.07	210.56	120.29	210.12	128.51	209.82
142.19	210.09	152.2	210.26	169.64	210.88	175.83	211.19	178.36	211.53
190.05	212.99	216.17	215.12	219.73	215.27	249.06	216.53	250.26	216.53
265.76	215.63	266.01	215.61	276.92	214.72	286.56	213.62	290.09	213.33
301.96	212.32	305.57	211.97	327.09	209.87	335.91	207.92	336.2	207.85
337.74	207.66	344.11	206.59	344.35	206.53	347.47	205.67	348.8	205.35
350.57	205.26	358.98	204.84	380.08	203.76	399.73	202.93	403.23	202.86
411.02	202.67	420.85	202.43	425.73	202.32	433.46	202.13	443.7	202.36
476.01	202.75	481.59	202.81	512.79	203.18	525.21	203.43	534.47	203.42
602.16	203.36	608.29	203.35	670.69	203.19	671.75	203.17	675.89	203.1
688.05	202.96	700.78	203.03	716.6	203.3	731.8	203.81	753.65	204.56
764.4	204.81	781.51	204.3	798.49	203.8	813.39	203.38	817.76	203.24
819.18	203.2	819.9	203.43	823.7	204.74	824.95	205.19	824.97	205.2
831.07	210.39	831.33	210.65	835.79	214.92	839.07	217.83	841.75	220.08
846.14	222.12	847.57	222.72	848.24	223.04	849.03	223.24	855.04	226.26
855.94	226.52	859.56	227.37	862.51	227.76	872.88	229.37	879.19	229.76

Manning's n Values num= 14

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	40.82	.038	106.14	.047	380.08	.035	403.11	.035
428.74	.035	470.14	.038	479.01	.047	525.43	.047	609.74	.038
731.8	.05	753.65	.05	781.51	.05	879.19	.05		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
380.08	731.8	39.95	38.28	37.37	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 7820.775

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 59

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	223.68	2.65	223.02	4.03	222.83	8.13	222.5	15.67	221.71
46.72	218.24	71.82	215.43	75.93	214.69	96.42	210.47	105.17	209.76
112.04	209.21	119.19	208.65	127.34	208.26	150.81	208.8	174.23	209.9
188.32	212.07	214.2	214.66	246.79	216.3	247.98	216.3	263.34	215.11
263.58	215.09	274.39	213.93	283.95	212.52	334.66	207.11	340.97	206.12
345.62	204.81	347.37	204.73	376.61	203.57	397.44	202.67	419.82	202.28
425	202.19	433.19	202.05	475	202.65	511.15	203.16	523.36	203.45
598.98	203.33	605	203.31	666.33	203.08	667.37	203.05	683.39	202.72
695.9	202.75	711.45	203.01	726.38	203.56	759.58	204.79	777	204.3
809.46	203.38	815.35	203.18	816.08	203.47	821.23	205.68	821.25	205.69
832.26	217.05	835.6	220.19	838.33	222.6	842.8	224.49	844.94	225.27
845.74	225.33	851.86	227.71	856.46	228.3	876.45	228.28		

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	105.17	.05	425	.035	475	.05	605	.035
777	.05								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
376.61	726.38	42.15	43.12	43.34	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 7777.65*

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	223.49	3.25	222.74	4.95	222.47	9.99	221.86	16.37	220.99
19.25	220.7	34.19	219.13	42.72	218.24	45.2	218.04	57.38	217.02
74.94	215.55	88.21	214.43	89.94	214.21	93.26	213.79	97.53	213.17
108.47	211.58	116.16	210.41	118.42	210.05	129.17	209.23	137.6	208.59
145.41	208	146.39	207.94	156.4	207.49	177.72	207.97	199.01	208.91
200.62	209.13	211.81	210.64	235.33	212.7	264.94	213.99	266.03	213.99
284.17	212.94	284.45	212.92	297.21	211.92	308.5	210.73	314.62	210.25
368.39	206	375.84	205.16	381.33	204.07	383.4	204	395.83	203.58
400.9	203.4	417.93	202.81	422.37	202.64	441.94	201.9	460.66	201.53
467.75	201.4	473.72	201.29	483.16	201.13	504.63	201.4	520.8	201.61
541.39	201.87	553.35	202.02	564.34	202.25	632.42	202.16	637.84	202.15
693.04	201.97	693.06	201.97	693.99	201.94	708.42	201.69	712.57	201.7
719.68	201.76	733.68	202.06	747.12	202.6	761.63	203.3	768.1	203.61
780.55	203.65	786.66	203.36	798.09	202.85	798.77	202.82	818.65	202.37
820.51	202.33	826.15	202.23	830.78	202.65	831.82	202.74	833.02	202.84
834.93	203.07	836.71	203.29	837.45	203.63	842.63	206.19	842.65	206.21
843.4	206.93	848.01	211.23	853.1	215.85	853.74	216.42	857.1	219.2
859.85	221.35	864.35	223.22	865.09	223.5	866.51	223.96	867.31	224.03

871.03	225.31	873.47	226.21	878.11	226.95	885.16	227.36	895.32	227.88
898.24	228.05								

Manning's n Values num= 14

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	116.71	.047	121.82	.038	392.38	.047	417.93	.038
426.98	.05	463.47	.038	510.53	.05	566.99	.047	632.88	.035
747.12	.05	761.63	.05	798.09	.05	898.24	.05		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
417.93	747.12	42.15	43.12	43.34	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 7734.52*

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	223.29	3.86	222.45	5.87	222.11	11.84	221.22	19.41	220.02
22.82	219.69	40.54	217.9	50.66	216.9	53.6	216.73	68.04	215.8
88.86	214.46	104.6	213.43	106.64	213.24	110.58	212.88	115.64	212.36
128.62	211.03	137.75	209.97	140.42	209.64	153.16	208.7	163.17	207.96
172.43	207.29	173.58	207.22	185.45	206.72	204.64	207.15	223.78	207.91
225.24	208.08	235.3	209.21	256.46	210.74	283.1	211.69	284.07	211.68
304.99	210.76	305.32	210.75	320.04	209.91	333.06	208.93	340.11	208.53
402.12	204.89	410.71	204.2	417.05	203.34	419.43	203.26	433.76	202.84
439.62	202.66	459.25	202.04	464.27	201.87	486.45	201.13	507.64	200.66
515.67	200.52	522.44	200.4	533.13	200.21	552.22	200.42	566.6	200.57
584.91	200.77	595.55	200.88	605.32	201.06	665.86	200.99	670.68	200.98
719.77	200.85	719.79	200.85	720.62	200.84	733.45	200.65	737.14	200.67
743.46	200.77	755.91	201.12	767.86	201.63	782.47	202.5	788.99	202.88
801.53	202.51	807.67	202.1	819.19	201.41	819.87	201.36	839.88	201.02
841.76	200.99	847.44	200.94	852.1	201.92	853.15	202.13	854.35	202.38
856.27	202.89	858.07	203.4	858.81	203.8	864.03	206.71	864.05	206.72
864.81	207.41	869.45	211.28	874.58	215.3	875.22	215.79	878.6	218.21
881.37	220.1	885.9	221.96	886.65	222.23	888.07	222.64	888.88	222.73
892.63	223.85	895.09	224.71	899.75	225.61	906.85	226.43	917.08	227.48
920.02	227.81								

Manning's n Values num= 14

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	128.25	.044	133.87	.041	431.18	044	459.25	.041
467.74	.05	501.95	.041	546.06	.05	598.99	.044	660.77	.035
767.86	.05	782.47	.05	819.19	.05	920.02	.05		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
459.25	767.86	42.15	43.12	43.34	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 7691.40*

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	223.1	4.46	222.17	6.79	221.74	13.7	220.58	22.46	219.05
26.4	218.68	46.89	216.68	58.6	215.57	62	215.42	78.7	214.58
102.78	213.38	120.98	212.44	123.35	212.27	127.91	211.98	133.76	211.55
148.78	210.47	159.33	209.54	162.42	209.22	177.16	208.16	188.73	207.34
199.44	206.57	200.78	206.51	214.51	205.95	231.55	206.32	248.56	206.92
249.85	207.04	258.79	207.78	277.59	208.77	301.25	209.38	302.12	209.38
325.82	208.59	326.19	208.58	342.86	207.9	357.61	207.14	365.6	206.82
435.85	203.78	445.58	203.24	452.76	202.6	455.46	202.53	471.69	202.11
478.33	201.91	500.57	201.28	506.18	201.11	530.95	200.36	554.63	199.8
563.6	199.64	571.15	199.5	583.1	199.28	599.81	199.43	612.41	199.53
628.44	199.67	637.74	199.74	646.3	199.86	699.31	199.83	703.53	199.82
746.5	199.74	746.52	199.74	747.24	199.73	758.47	199.62	761.7	199.63
767.24	199.79	778.14	200.17	788.61	200.67	803.32	201.7	809.88	202.16
822.5	201.38	828.69	200.83	840.28	199.96	840.97	199.91	861.12	199.67
863.01	199.65	868.72	199.66	873.42	201.18	874.48	201.52	875.69	201.92
877.62	202.72	879.43	203.51	880.18	203.96	885.44	207.22	885.46	207.24
886.22	207.89	890.89	211.33	896.05	214.75	896.7	215.16	900.11	217.23
902.89	218.85	907.46	220.69	908.21	220.97	909.64	221.33	910.46	221.44
914.22	222.4	916.7	223.21	921.4	224.26	928.55	225.5	938.85	227.08
941.81	227.58								

Manning's n Values num= 14

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	139.79	.041	145.91	.044	469.97	.041	500.57	.044
508.49	.05	540.42	.044	581.59	.05	631	.041	688.65	.035
788.61	.05	803.32	.05	840.28	.05	941.81	.05		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
500.57	788.61	42.15	43.12	43.34	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 7648.27*

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	222.9	5.07	221.88	7.71	221.38	15.55	219.94	25.5	218.09
29.97	217.67	53.24	215.45	66.53	214.23	70.39	214.11	89.36	213.36
116.71	212.29	137.37	211.44	140.06	211.31	145.23	211.07	151.88	210.75
168.93	209.92	180.91	209.1	184.42	208.81	201.16	207.63	214.3	206.71
226.46	205.86	227.98	205.8	243.56	205.18	258.47	205.5	273.34	205.92
274.47	205.99	282.28	206.35	298.72	206.81	319.41	207.07	320.16	207.07
346.64	206.42	347.05	206.41	365.69	205.89	382.17	205.35	391.09	205.1
469.58	202.67	480.46	202.28	488.47	201.87	491.49	201.79	509.63	201.37
517.04	201.17	541.89	200.51	548.09	200.34	575.46	199.58	601.61	198.94
611.52	198.76	619.87	198.6	633.07	198.36	647.41	198.44	658.21	198.49
671.96	198.56	679.94	198.6	687.28	198.66	732.75	198.66	736.37	198.66
773.23	198.62	773.24	198.62	773.87	198.62	783.5	198.59	786.27	198.6
791.02	198.8	800.37	199.23	809.35	199.7	824.16	200.9	830.76	201.43
843.47	200.24	849.7	199.57	861.38	198.51	862.07	198.45	882.35	198.32
884.26	198.31	890.01	198.37	894.74	200.45	895.8	200.92	897.02	201.45
898.97	202.54	900.79	203.62	901.54	204.13	906.84	207.74	906.86	207.75
907.62	208.36	912.33	211.37	917.53	214.2	918.17	214.53	921.61	216.24
924.41	217.6	929.01	219.42	929.76	219.71	931.21	220.01	932.03	220.14
935.82	220.94	938.32	221.71	943.05	222.91	950.24	224.56	960.61	226.67
963.59	227.34								

Manning's n Values num= 14

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	151.33	.038	157.96	.047	508.77	.038	541.89	.047
549.25	.05	578.89	.047	617.13	.05	663	.038	716.53	.035
809.35	.05	824.16	.05	861.38	.05	963.59	.05		

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
541.89 809.35 42.15 43.12 43.34 .1 .3
Ineffective Flow num= 1
Sta L Sta R Elev Permanent
888 F

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 7605.154

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 44

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	222.71	28.54	217.12	59.59	214.23	74.47	212.9	78.79	212.8
130.63	211.2	156.77	210.34	170	209.94	189.08	209.36	202.49	208.66
253.47	205.15	272.62	204.41	299.08	204.95	338.21	204.76	416.58	203.38
547.56	200.64	555.75	200.43	583.21	199.75	590	199.58	648.6	198.08
683.04	197.44	695	197.45	715.48	197.46	799.96	197.51	810.84	197.57
830.09	198.74	845	200.1	851.65	200.71	870.72	198.31	883.17	196.99
903.59	196.97	905.51	196.97	911.3	197.09	917.13	200.31	918.36	200.99
920.32	202.37	929.03	208.84	933.77	211.42	939	213.65	951.32	218.45
957.42	219.49	971.94	223.63	982.38	226.27	985.38	227.11		

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	170	.05	547.56	.035	590	.05	695	.035
845	.05								

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
583.21 830.09 34.01 45.05 44.87 .1 .3
Ineffective Flow num= 1
Sta L Sta R Elev Permanent
888 F

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 7560.10*

INPUT
Description:
Station Elevation Data num= 89

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	222.65	2.95	222.07	28.15	217.12	33.9	216.5	56.48	214.42
58.77	214.22	70.02	213.24	73.45	212.95	77.71	212.84	119.72	211.48
128.84	211.21	133.84	211.06	144.11	210.74	154.62	210.42	167.67	210.04
169.54	209.99	186.48	209.3	187.63	209.23	199.71	208.44	202	208.26
221.15	206.63	234.91	205.71	249.99	204.67	258.25	204.32	268.88	203.91
294.97	204.26	303.41	204.18	333.56	204.01	388.81	203.1	410.86	202.73
525.48	200.52	540.04	200.23	548.12	200.04	575.2	199.43	583.14	199.25
600.18	198.87	651.64	197.86	672.67	197.55	675.79	197.51	691.91	197.27
703.7	197.29	723.91	197.31	740.85	197.32	774.55	197.36	776.26	197.36
793.18	197.39	807.24	197.42	817.97	197.48	828.06	198.03	836.96	198.51
841.94	198.87	845.41	199.11	849.08	199.38	852.99	199.65	855.87	199.85
860.14	200.15	876.81	198.44	880.64	198.05	894.02	196.89	894.63	196.89
907.37	196.85	915.98	196.82	918.04	196.81	918.77	196.82	924.26	196.91
925.21	197.32	926.71	198.02	930.53	199.8	931.85	200.41	933.96	201.64
934.21	201.79	940.21	205.91	943.33	208.01	943.4	208.05	943.72	208.21
947.24	209.91	948.42	210.48	954.04	212.68	954.97	213.02	967.29	217.15
971.12	217.76	973.85	218.24	980.09	219.91	987.25	222.03	989.46	222.67
994.66	224.03	1000.36	225.66	1000.68	225.75	1003.91	226.71		

Manning's n Values num= 16

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	133.84	.037	167.67	.05	540.04	.037	575.2	.048
582.4	.048	693.73	.035	715.29	.035	771.22	.037	807.01	.048
830.87	.037	836.96	.048	852.99	.048	855.87	.035	894.63	.037
1003.91	.05								

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
575.2 836.96 34.01 45.05 44.87 .1 .3
Ineffective Flow num= 1
Sta L Sta R Elev Permanent
888 F

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 7515.04*

INPUT
Description:
Station Elevation Data num= 89

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	222.59	2.91	222.01	27.76	217.11	33.43	216.42	55.69	214.4
57.95	214.2	69.05	213.26	72.42	213	76.63	212.88	118.06	211.47
127.04	211.23	131.98	211.08	142.1	210.79	152.46	210.49	165.33	210.15
167.17	210.1	183.89	209.24	185.01	209.16	196.93	208.23	199.18	208.03
218.07	206.11	231.64	205.22	246.51	204.19	254.65	203.81	265.13	203.42
290.86	203.56	299.19	203.45	328.92	203.27	383.39	202.42	405.14	202.09
518.16	200.08	532.52	199.83	540.48	199.66	567.19	199.11	576.28	198.93
595.79	198.53	654.69	197.64	678.75	197.36	682.32	197.32	700.77	197.11
712.41	197.13	732.33	197.15	749.04	197.18	782.28	197.23	783.96	197.23
800.65	197.28	814.51	197.32	825.1	197.39	835.05	197.86	843.82	198.27
849.15	198.58	852.86	198.77	856.79	198.98	860.97	199.2	864.06	199.36
868.62	199.6	886.46	198.12	890.56	197.78	904.88	196.79	905.52	196.79
919.16	196.73	928.36	196.67	930.57	196.65	931.35	196.66	937.23	196.72
938.24	197.07	939.85	197.7	943.94	199.28	945.35	199.83	947.6	200.92
947.86	201.05	954.29	205.14	957.62	207.18	957.7	207.22	958.04	207.39
961.81	209	963.07	209.55	969.09	211.72	970.07	212.05	983.26	215.84
987.35	216.46	990.28	216.99	996.95	218.68	1004.61	221.03	1006.98	221.71
1012.54	223.21	1018.63	225.13	1018.98	225.23	1022.43	226.32		

Manning's n Values num= 16

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	131.98	.039	165.33	.05	532.52	.039	567.19	.046
574.8	.046	692.45	.035	715.24	.035	774.35	.039	812.17	.046
837.39	.039	843.82	.046	860.97	.046	864.06	.035	905.52	.039
1022.43	.05								

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
567.19 843.82 34.01 45.05 44.87 .1 .3
Ineffective Flow num= 1
Sta L Sta R Elev Permanent
888 F

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 7469.99*

INPUT
Description:
Station Elevation Data num= 89

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	222.53	2.86	221.95	27.36	217.11	32.96	216.35	54.91	214.38
57.13	214.19	68.07	213.29	71.4	213.05	75.54	212.92	116.39	211.47
125.25	211.24	130.12	211.11	140.1	210.84	150.31	210.57	163	210.25
164.81	210.2	181.29	209.17	182.4	209.09	194.15	208.01	196.37	207.79
214.99	205.58	228.36	204.73	243.03	203.72	251.05	203.31	261.39	202.92
286.76	202.87	294.96	202.73	324.27	202.52	377.98	201.74	399.42	201.44
510.84	199.65	525	199.42	532.85	199.27	559.18	198.79	569.41	198.6
591.39	198.2	657.73	197.41	684.84	197.16	688.86	197.13	709.64	196.94
721.11	196.96	740.76	197	757.23	197.03	790.01	197.1	791.66	197.1
808.12	197.17	821.79	197.23	832.23	197.3	842.04	197.69	850.69	198.04
856.37	198.3	860.32	198.43	864.51	198.59	868.96	198.75	872.25	198.87
877.11	199.04	896.11	197.8	900.47	197.52	915.73	196.69	916.42	196.69
930.94	196.6	940.75	196.52	943.1	196.5	943.94	196.5	950.19	196.54
951.28	196.81	952.99	197.37	957.34	198.77	958.84	199.25	961.25	200.19
961.52	200.3	968.37	204.37	971.92	206.35	972	206.39	972.37	206.56
976.38	208.09	977.73	208.61	984.13	210.75	985.18	211.09	999.23	214.54
1003.59	215.17	1006.7	215.74	1013.82	217.44	1021.98	220.02	1024.49	220.75
1030.42	222.39	1036.91	224.6	1037.29	224.71	1040.96	225.92		

Manning's n Values num= 16

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	130.12	.041	163	.05	525	.041	559.18	.044
567.2	.044	691.18	.035	715.19	.035	777.48	.041	817.34	.044
843.91	.041	850.69	.044	868.96	.044	872.25	.035	916.42	.041
1040.96	.05								

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
559.18 850.69 34.01 45.05 44.87 .1 .3
Ineffective Flow num= 1
Sta L Sta R Elev Permanent
888 F

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 7424.94*

INPUT
Description:
Station Elevation Data num= 89

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	222.48	2.82	221.89	26.97	217.11	32.49	216.27	54.12	214.36
56.32	214.18	67.1	213.31	70.38	213.1	74.46	212.96	114.72	211.46
123.45	211.25	128.25	211.13	138.09	210.89	148.16	210.64	160.66	210.35
162.45	210.31	178.69	209.11	179.79	209.02	191.37	207.8	193.56	207.55
211.91	205.05	225.09	204.24	239.55	203.24	247.46	202.8	257.64	202.43
282.65	202.17	290.74	202	319.63	201.78	372.56	201.06	393.69	200.79
503.52	199.22	517.48	199.02	525.22	198.89	551.17	198.47	562.55	198.28

586.99	197.86	660.78	197.19	690.92	196.97	695.39	196.94	718.51	196.77
729.82	196.8	749.18	196.85	765.42	196.89	797.74	196.96	799.37	196.97
815.59	197.06	829.07	197.13	839.36	197.21	849.03	197.53	857.56	197.81
863.58	198.01	867.78	198.09	872.22	198.2	876.95	198.3	880.44	198.38
885.59	198.49	905.76	197.48	910.39	197.26	926.58	196.59	927.31	196.58
942.73	196.48	953.13	196.37	955.63	196.34	956.52	196.34	963.16	196.35
964.31	196.56	966.12	197.05	970.74	198.25	972.34	198.67	974.89	199.46
975.18	199.56	982.44	203.59	986.21	205.52	986.31	205.56	986.69	205.74
990.95	207.18	992.38	207.68	999.18	209.79	1000.29	210.12	1015.2	213.24
1019.83	213.87	1023.13	214.49	1030.68	216.21	1039.34	219.01	1042.01	219.79
1048.31	221.57	1055.19	224.07	1055.59	224.2	1059.49	225.52		

Manning's n Values num= 16

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	128.25	.044	160.66	.05	517.48	.044	551.17	.041
559.6	.041	689.91	.035	715.14	.035	780.61	.044	822.5	.041
850.44	.044	857.56	.041	876.95	.041	880.44	.035	927.31	.044
1059.49	.05								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
551.17	857.56	34.01	45.05	44.87	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 7379.88*

INPUT
Description:
Station Elevation Data num= 89

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	222.42	2.78	221.83	26.58	217.1	32.01	216.19	53.33	214.33
55.5	214.16	66.12	213.34	69.36	213.15	73.38	213.01	113.05	211.45
121.66	211.27	126.39	211.16	136.08	210.94	146	210.72	158.33	210.45
160.09	210.42	176.1	209.05	177.18	208.95	188.58	207.58	190.75	207.31
208.83	204.52	221.82	203.74	236.06	202.76	243.86	202.29	253.9	201.93
278.54	201.48	286.51	201.27	314.98	201.03	367.15	200.39	387.97	200.14
496.21	198.79	509.96	198.61	517.59	198.5	543.16	198.15	555.69	197.95
582.59	197.52	663.82	196.97	697.01	196.78	701.93	196.75	727.38	196.6
738.52	196.64	757.61	196.69	773.62	196.74	805.46	196.83	807.07	196.84
823.06	196.95	836.34	197.04	846.48	197.12	856.02	197.36	864.43	197.58
870.8	197.72	875.24	197.74	879.93	197.81	884.93	197.85	888.62	197.88
894.08	197.93	915.41	197.16	920.31	196.99	937.43	196.49	938.21	196.48
954.51	196.35	965.52	196.21	968.16	196.18	969.1	196.17	976.12	196.17
977.34	196.3	979.26	196.72	984.14	197.74	985.83	198.09	988.53	198.73
988.84	198.81	996.52	202.82	1000.51	204.69	1000.61	204.73	1001.01	204.91
1005.52	206.27	1007.03	206.74	1014.22	208.82	1015.4	209.15	1031.17	211.93
1036.07	212.57	1039.56	213.24	1047.54	214.97	1056.7	218	1059.53	218.83
1066.19	220.75	1073.47	223.53	1073.89	223.68	1078.02	225.12		

Manning's n Values num= 16

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	126.39	.046	158.33	.05	509.96	.046	543.16	.039
552	.039	688.63	.035	715.1	.035	783.74	.046	827.67	.039
856.96	.046	864.43	.039	884.93	.039	888.62	.035	938.21	.046
1078.02	.05								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
543.16	864.43	34.01	45.05	44.87	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 7334.83*

INPUT
Description:
Station Elevation Data num= 89

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	222.36	2.74	221.77	26.19	217.1	31.54	216.12	52.55	214.31
54.68	214.15	65.15	213.36	68.33	213.2	72.3	213.05	111.39	211.45
119.87	211.28	124.52	211.18	134.08	210.99	143.85	210.79	155.99	210.56
157.73	210.52	173.5	208.99	174.56	208.88	185.8	207.37	187.93	207.08
205.75	203.99	218.55	203.25	232.58	202.28	240.27	201.79	250.15	201.43
274.43	200.79	282.29	200.55	310.34	200.29	361.73	199.71	382.25	199.5
488.89	198.35	502.44	198.21	509.95	198.12	535.15	197.83	548.83	197.63
578.2	197.19	666.87	196.75	703.09	196.58	708.46	196.56	736.24	196.44
747.23	196.48	766.04	196.54	781.81	196.6	813.19	196.7	814.78	196.71
830.53	196.84	843.62	196.95	853.61	197.03	863.01	197.2	871.29	197.34
878.01	197.43	882.69	197.4	887.65	197.41	892.92	197.4	896.81	197.39
902.57	197.38	925.06	196.84	930.23	196.73	948.29	196.39	949.1	196.38
966.3	196.23	977.91	196.06	980.69	196.02	981.68	196.01	989.09	195.98
990.37	196.05	992.39	196.4	997.55	197.22	999.33	197.51	1002.17	198.01
1002.5	198.07	1010.6	202.04	1014.81	203.86	1014.91	203.9	1015.34	204.09
1020.09	205.36	1021.68	205.81	1029.27	207.86	1030.51	208.19	1047.14	210.63
1052.3	211.28	1055.99	212	1064.41	213.74	1074.07	216.99	1077.05	217.87
1084.07	219.93	1091.75	223	1092.19	223.16	1096.54	224.73		

Manning's n Values num= 16

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	124.52	.048	155.99	.05	502.44	.048	535.15	.037
544.4	.037	687.36	.035	715.05	.035	786.87	.048	832.83	.037
863.48	.048	871.29	.037	892.92	.037	896.81	.035	949.1	.048
1096.54	.05								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.

535.15 871.29 34.01 45.05 44.87 .1 .3
Ineffective Flow num= 1
Sta L Sta R Elev Permanent
888 F

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 7289.783

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 50

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	222.3	2.7	221.71	31.07	216.04	51.76	214.29	64.17	213.39
109.72	211.44	122.66	211.21	132.07	211.04	155.37	210.63	171.95	208.81
185.12	206.84	202.67	203.46	215.28	202.76	236.67	201.28	278.06	199.82
356.32	199.03	481.57	197.92	527.14	197.51	573.8	196.85	709.18	196.39
715	196.37	745.11	196.27	790	196.45	820.92	196.57	822.48	196.58
838	196.73	870	197.03	878.16	197.11	885.23	197.14	890.15	197.06
895.36	197.02	905	196.9	934.71	196.52	960	196.28	978.08	196.1
994.26	195.85	1003.4	195.79	1005.53	196.07	1016.16	197.32	1024.68	201.27
1029.21	203.07	1029.66	203.26	1034.66	204.45	1045.62	207.22	1068.54	209.98
1081.27	212.5	1091.43	215.98	1101.95	219.11	1110.03	222.47	1115.07	224.33

Manning's n Values num= 8

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	122.66	.05	715	.035	790	.05	838	.035
870	.05	905	.035	960	.05				

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
527.14 878.16 31.39 37.9 42.85 .1 .3
Ineffective Flow num= 1
Sta L Sta R Elev Permanent
888 F

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 7251.88*

INPUT
Description:
Station Elevation Data num= 76

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	221.43	2.73	220.88	31.41	215.54	46.49	214.16	52.33	213.64
59.28	213.08	64.88	212.5	71.1	212	81.54	211.27	95.37	210.6
110.93	209.86	119.23	209.64	124.01	209.52	133.52	209.28	134.69	209.25
157.08	208.86	173.84	207.3	187.15	205.62	204.9	202.76	217.65	202.14
239.27	200.85	247.62	200.58	281.12	199.54	360.23	198.73	397.59	198.39
463.38	197.94	486.86	197.78	532.93	197.46	577.25	196.85	583.83	196.82
705.82	196.41	711.35	196.39	731.37	196.32	739.95	196.29	783.46	196.52
784.3	196.52	794.69	196.58	814.85	196.67	816.39	196.68	831.72	196.83
863.34	197.13	871.4	197.2	878.61	197.21	883.52	197.13	883.63	197.13
888.94	197.08	898.77	196.95	914.62	196.73	929.07	196.54	954.85	196.25
973.29	196.04	989.79	195.78	999.11	195.7	1001.28	195.93	1007.74	196.53
1012.12	196.97	1020.81	200.3	1022.76	200.95	1025.43	201.83	1025.89	201.99
1030.99	203.01	1042.16	205.38	1051.65	206.36	1055.47	206.76	1065.53	207.76
1073.8	209.11	1078.51	210.55	1080.18	211.26	1083.19	212.5	1088.87	214.66
1091.53	215.57	1099.6	218.31	1100.36	218.64	1105.75	220.96	1107.84	221.79
1112.98	223.65								

Manning's n Values num= 16

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	46.49	.038	124.01	.05	532.93	.035	712.07	.035
714.08	.035	769.99	.038	786.39	.05	832.68	.038	863.53	.05
871.4	.035	898.77	.035	914.62	.035	954.85	.047	1007.74	.038
1112.98	.05								

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
532.93 871.4 31.39 37.9 42.85 .1 .3
Ineffective Flow num= 1
Sta L Sta R Elev Permanent
888 F

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 7213.99*

INPUT
Description:
Station Elevation Data num= 76

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	220.57	2.76	220.06	31.75	215.04	47	213.55	52.9	212.99
59.92	212.37	65.58	211.61	71.87	210.88	82.43	209.86	96.4	209.11
112.13	208.29	120.53	207.98	125.36	207.83	134.97	207.51	136.15	207.47
158.78	207.09	175.73	205.79	189.19	204.4	207.12	202.05	220.01	201.52
241.87	200.42	250.31	200.18	284.17	199.27	364.15	198.43	401.91	198.07
468.42	197.76	492.15	197.64	538.72	197.42	580.69	196.85	586.93	196.81
702.46	196.42	707.7	196.41	726.66	196.34	734.78	196.32	777.77	196.59
778.6	196.6	788.86	196.66	808.78	196.77	810.3	196.79	825.45	196.93
856.68	197.22	864.64	197.3	871.99	197.28	877	197.2	877.11	197.2
882.52	197.14	892.54	197	908.69	196.76	923.42	196.55	949.71	196.23
968.5	195.99	985.32	195.72	994.82	195.62	997.03	195.79	1003.61	196.25
1008.08	196.62	1016.94	199.34	1018.92	199.86	1021.65	200.59	1022.11	200.72
1027.31	201.57	1038.7	203.53	1048.37	204.38	1052.27	204.73	1062.53	205.55
1070.95	206.64	1075.76	208.61	1077.46	209.46	1080.52	210.92	1086.32	213.33
1089.03	214.38	1097.25	217.5	1098.03	217.86	1103.52	220.3	1105.65	221.12
1110.89	222.96								

Manning's n Values num= 16

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	47	.04	125.36	.05	538.72	.035	711.22	.035

713.15	.035	766.99	.04	782.79	.05	827.36	.04	857.07	.05
864.64	.035	892.54	.035	908.69	.035	949.71	.045	1003.61	.04
1110.89	.05								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
538.72	864.64	31.39	37.9	42.85	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 7176.09*

INPUT
Description:
Station Elevation Data num= 76

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	219.7	2.79	219.23	32.09	214.54	47.5	212.93	53.47	212.34
60.57	211.67	66.29	210.72	72.64	209.75	83.31	208.44	97.44	207.61
113.34	206.71	121.82	206.33	126.7	206.13	136.42	205.75	137.62	205.7
160.49	205.32	177.62	204.28	191.22	203.18	209.35	201.35	222.38	200.9
244.47	199.98	253	199.77	287.23	198.99	368.06	198.14	406.23	197.76
473.45	197.57	497.44	197.51	544.52	197.37	584.14	196.84	590.03	196.8
699.11	196.44	704.05	196.42	721.95	196.36	729.62	196.34	772.07	196.67
772.9	196.67	783.03	196.75	802.7	196.88	804.21	196.89	819.17	197.03
850.02	197.32	857.89	197.39	865.37	197.35	870.47	197.27	870.58	197.27
876.1	197.2	886.31	197.05	902.77	196.8	917.78	196.57	944.56	196.2
963.71	195.93	980.85	195.65	990.53	195.53	992.78	195.65	999.49	195.96
1004.04	196.28	1013.07	198.37	1015.09	198.78	1017.86	199.34	1018.34	199.45
1023.64	200.12	1035.24	201.69	1045.1	202.41	1049.06	202.7	1059.52	203.33
1068.1	204.16	1073	206.66	1074.73	207.66	1077.86	209.35	1083.76	212.01
1086.52	213.19	1094.9	216.7	1095.69	217.07	1101.29	219.65	1103.46	220.44
1108.8	222.27								

Manning's n Values num= 16

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	47.5	.043	126.7	.05	544.52	.035	710.37	.035
712.23	.035	763.99	.043	779.18	.05	822.03	.043	850.6	.05
857.89	.035	886.31	.035	902.77	.035	944.56	.043	999.49	.043
1108.8	.05								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
544.52	857.89	31.39	37.9	42.85	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 7138.19*

INPUT
Description:
Station Elevation Data num= 76

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	218.83	2.82	218.4	32.44	214.04	48.01	212.32	54.03	211.69
61.21	210.96	66.99	209.83	73.41	208.63	84.2	207.03	98.48	206.12
114.54	205.13	123.12	204.67	128.05	204.44	137.87	203.98	139.08	203.93
162.2	203.55	179.51	202.77	193.26	201.97	211.58	200.65	224.74	200.28
247.07	199.55	255.69	199.36	290.28	198.71	371.98	197.84	410.55	197.44
478.49	197.39	502.73	197.37	550.31	197.32	587.59	196.84	593.12	196.8
695.75	196.46	700.4	196.44	717.24	196.39	724.46	196.36	766.38	196.74
767.19	196.75	777.21	196.84	796.63	196.98	798.12	196.99	812.89	197.13
843.36	197.41	851.13	197.48	858.75	197.42	863.95	197.34	864.06	197.34
869.68	197.26	880.08	197.09	896.85	196.83	912.13	196.58	939.42	196.17
958.92	195.88	976.38	195.59	986.24	195.45	988.54	195.51	995.37	195.68
1000	195.93	1009.2	197.41	1011.26	197.7	1014.08	198.1	1014.57	198.17
1019.96	198.68	1031.79	199.85	1041.82	200.43	1045.86	200.66	1056.51	201.11
1065.25	201.69	1070.25	204.71	1072.01	205.86	1075.19	207.77	1081.21	210.68
1084.02	212.01	1092.56	215.9	1093.36	216.29	1099.06	218.99	1101.27	219.77
1106.71	221.59								

Manning's n Values num= 16

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	48.01	.045	128.05	.05	550.31	.035	709.52	.035
711.3	.035	761	.045	775.57	.05	816.71	.045	844.13	.05
851.13	.035	880.08	.035	896.85	.035	939.42	.04	995.37	.045
1106.71	.05								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
550.31	851.13	31.39	37.9	42.85	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 7100.30*

INPUT
Description:
Station Elevation Data num= 76

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	217.97	2.85	217.57	32.78	213.54	48.51	211.7	54.6	211.03
61.86	210.25	67.7	208.93	74.19	207.5	85.08	205.61	99.51	204.62
115.75	203.55	124.41	203.02	129.4	202.75	139.33	202.22	140.55	202.15
163.91	201.79	181.4	201.26	195.29	200.75	213.8	199.95	227.11	199.66
249.67	199.12	258.38	198.96	293.34	198.44	375.89	197.54	414.87	197.13
483.52	197.2	508.02	197.23	556.1	197.28	591.03	196.84	596.22	196.79
692.39	196.47	696.75	196.46	712.53	196.41	719.29	196.39	760.69	196.82

761.49	196.82	771.38	196.92	790.56	197.08	792.03	197.09	806.62	197.23
836.7	197.51	844.37	197.58	852.13	197.49	857.42	197.41	857.54	197.41
863.26	197.32	873.85	197.14	890.92	196.86	906.49	196.6	934.27	196.15
954.13	195.82	971.91	195.52	981.95	195.36	984.29	195.37	991.24	195.39
995.96	195.58	1005.32	196.44	1007.42	196.61	1010.3	196.86	1010.8	196.9
1016.29	197.24	1028.33	198	1038.55	198.45	1042.66	198.63	1053.51	198.89
1062.41	199.21	1067.49	202.77	1069.28	204.06	1072.53	206.2	1078.65	209.36
1081.51	210.82	1090.21	215.1	1091.02	215.51	1096.83	218.34	1099.08	219.09
1104.62	220.9								

Manning's n Values num= 16

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	48.51	.047	129.4	.05	556.1	.035	708.67	.035
710.38	.035	758	.047	771.97	.05	811.39	.047	837.67	.05
844.37	.035	873.85	.035	890.92	.035	934.27	.038	991.24	.047
1104.62	.05								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
556.1	844.37	31.38	37.9	42.85	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 7062.404

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 31

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	217.1	49.02	211.09	62.5	209.54	74.96	206.38	85.97	204.2
100.55	203.13	125.71	201.36	142.01	200.38	261.07	198.55	419.19	196.81
488.56	197.02	561.89	197.23	599.32	196.78	707.82	196.43	714.13	196.41
755	196.89	765.55	197.01	837.61	197.67	850.9	197.48	885	196.89
987.12	195.11	1003.59	195.53	1035.27	196.47	1039.46	196.6	1059.56	196.74
1066.56	202.26	1069.86	204.62	1079.01	209.63	1088.69	214.73	1094.6	217.68
1102.53	220.22								

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	49.02	.05	707.82	.035	755	.05	885	.035
987.12	.05								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
561.89	837.61	45.82	41.96	42.85	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 7020.44*

INPUT
Description:
Station Elevation Data num= 71

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	216.93	6.78	216.13	39.98	212.16	43.64	211.64	51.94	210.08
56.86	209.19	60.67	208.48	63.56	208.16	66.23	207.87	76.93	205.64
79.43	205.1	81.7	204.71	91.1	203.34	106.55	202.47	133.21	201.01
150.48	200.19	213.17	199.21	263.74	198.43	276.64	198.24	300.48	197.97
444.18	197	467.19	197.07	517.69	197.16	519.88	197.17	576.49	197.31
584.28	197.38	595.39	197.02	607.6	196.84	624.67	196.31	666.68	195.35
667.9	195.32	683.08	194.99	693.71	194.92	709.54	194.76	714.47	194.71
740.55	195.12	746.36	195.2	749.89	195.27	750.16	195.28	759.37	195.54
822.29	197.15	830.62	197.21	836.95	197.18	874.57	196.94	894.74	196.8
907.14	196.82	915.56	196.82	943.93	196.49	987.23	195.57	1005.4	195.72
1016.58	195.84	1026.62	195.96	1027.98	195.99	1032.79	196.11	1035.98	196.2
1040.35	196.31	1044.98	196.43	1058.22	196.57	1059.91	196.67	1065.47	197.22
1067.15	197.47	1074.87	202.71	1077.38	204.29	1078.51	205.01	1085.03	208.38
1088.47	209.84	1088.61	209.9	1099.23	214.62	1099.29	214.65	1105.81	217.08
1114.56	219.29								

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.039	51.94	.05	595.39	.035	715.48	.035	754.31	.046
822.29	.039	874.57	.039	907.14	.046	987.23	.046	1035.98	.039
1114.56	.05								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
595.39	822.29	45.82	41.96	42.85	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 6978.47*

INPUT
Description:
Station Elevation Data num= 71

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	216.75	7.16	215.94	42.23	211.84	46.1	211.23	54.87	209.08
60.06	207.82	64.08	206.82	67.14	206.49	69.95	206.2	81.26	204.29
83.9	203.82	86.3	203.46	96.22	202.49	112.54	201.8	140.7	200.66
158.94	200	225.16	198.94	278.58	198.11	292.2	197.93	317.38	197.65
469.18	197.18	493.48	197.26	546.82	197.31	549.13	197.31	608.93	197.44
617.16	197.56	628.9	196.81	637.7	196.64	650.02	195.84	680.34	194.09
681.21	194.04	692.17	193.45	699.83	193.35	711.26	193.1	714.82	193.02
737.1	193.47	742.07	193.55	745.09	193.66	745.32	193.67	753.2	194.06
806.97	196.62	816.09	196.85	823.01	196.88	864.15	196.98	886.2	197.04
899.76	197.26	908.96	197.41	939.99	197.19	987.35	196.04	1007.22	195.91

1019.44	195.85	1030.42	195.82	1031.91	195.85	1037.17	195.96	1040.65	196.04
1045.44	196.15	1050.49	196.26	1064.97	196.45	1066.82	196.65	1072.9	197.72
1074.74	198.2	1083.19	203.17	1085.93	204.69	1087.17	205.39	1094.29	208.91
1098.05	210.12	1098.2	210.18	1109.82	214.55	1109.88	214.56	1117.01	216.49
1126.58	218.36								

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.043	54.87	.05	628.9	.035	723.15	.035	753.62	.043
806.97	.043	864.15	.043	899.76	.043	987.35	.043	1040.65	.043
1126.58	.05								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
628.9	806.97	45.82	41.96	42.85	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 6936.51*

INPUT
Description:
Station Elevation Data num= 71

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	216.57	7.54	215.76	44.48	211.53	48.55	210.82	57.79	208.07
63.26	206.46	67.5	205.16	70.71	204.83	73.68	204.52	85.59	202.95
88.37	202.55	90.89	202.21	101.35	201.63	118.54	201.14	148.2	200.31
167.41	199.81	237.16	198.68	293.42	197.8	307.77	197.62	334.29	197.32
494.17	197.37	519.77	197.45	575.95	197.45	578.39	197.45	641.37	197.57
650.03	197.74	662.4	196.6	667.81	196.44	675.37	195.36	693.99	192.83
694.53	192.75	701.25	191.9	705.96	191.77	712.98	191.43	715.17	191.33
733.66	191.83	737.79	191.91	740.29	192.05	740.48	192.07	747.02	192.59
791.66	196.1	801.55	196.5	809.06	196.58	853.72	197.03	877.66	197.27
892.38	197.7	902.37	197.99	936.06	197.89	987.46	196.5	1009.03	196.09
1022.3	195.85	1034.22	195.67	1035.83	195.7	1041.54	195.81	1045.33	195.89
1050.52	195.99	1056.01	196.09	1071.73	196.33	1073.74	196.62	1080.34	198.21
1082.33	198.94	1091.5	203.62	1094.47	205.1	1095.82	205.78	1103.56	209.43
1107.64	210.4	1107.8	210.45	1120.41	214.47	1120.48	214.48	1128.22	215.89
1138.6	217.42								

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.046	57.79	.05	662.4	.035	730.81	.035	752.93	.039
791.66	.046	853.72	.046	892.38	.039	987.46	.039	1045.33	.046
1138.6	.05								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
662.4	791.66	45.82	41.96	42.85	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 6894.555

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 45

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	216.4	7.92	215.57	46.73	211.21	51.01	210.41	66.46	205.09
70.91	203.5	74.29	203.16	89.92	201.61	95.49	200.96	249.15	198.41
308.26	197.49	351.2	196.99	546.06	197.64	607.64	197.59	673.81	197.7
682.91	197.92	695.9	196.39	697.91	196.24	707.64	191.57	707.84	191.47
710.34	190.36	712.09	190.2	715.51	189.63	730.22	190.18	733.5	190.27
735.49	190.44	776.34	195.57	787.01	196.14	869.12	197.5	885	198.14
895.78	198.57	932.12	198.59	1025.16	195.86	1038.02	195.53	1039.76	195.56
1045.92	195.66	1050	195.73	1078.48	196.21	1080.65	196.6	1087.77	198.71
1103.02	205.5	1112.82	209.96	1117.22	210.68	1131	214.39	1150.63	216.49

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	695.9	.035	776.34	.05	885	.035	1050	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
695.9	776.34	30.23	37.87	37.36	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 6856.68*

INPUT
Description:
Station Elevation Data num= 82

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	215.08	3.48	214.72	7.87	214.22	11.93	213.75	44.79	209.95
46.45	209.76	50.71	209.02	65.86	204.47	65.89	204.46	65.96	204.44
66.06	204.41	70.49	203.1	73.85	202.8	89.38	201.42	94.92	200.85
120.58	200.29	131.98	200.15	162.95	199.65	247.66	198.19	247.99	198.19
306.42	197.39	327.07	197.17	349.1	197	403.66	197.25	536.88	197.51
542.8	197.52	604.01	197.44	613.69	197.45	669.78	197.1	678.83	197.21
691.74	195.88	694.79	195.69	695.21	195.67	695.53	195.65	701.46	194.25
707.84	192.68	710.51	192.04	713.86	191.35	714.24	191.27	718.95	190.37
719.36	190.36	720.26	190.32	722.25	190.24	728.69	189.77	744.59	190.36
748.13	190.46	750.28	190.62	777.68	193.43	794.41	195.15	804.97	195.69
810.61	195.81	814.03	195.87	826.01	196.06	886.21	197	901.93	197.55
912.59	197.92	941.78	198	948.55	198.02	979.76	197.33	1034.62	196.02
1040.6	195.87	1048.56	195.7	1053.33	195.6	1055.05	195.63	1057.41	195.66
1061.14	195.82	1065.18	195.99	1078.81	196.58	1080.43	196.61	1084.3	196.69
1093.36	197.14	1095.51	197.53	1102.55	199.48	1106.01	200.84	1107.46	201.41
1108.96	202.01	1117.64	205.33	1127.34	209.13	1131.69	209.81	1145.33	213.1
1148.94	213.5	1164.75	215.34						

Manning's n Values num= 10

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val

0	.05	691.74	.035	696.44	.035	735.7	.038	782.78	.047
794.41	.05	901.93	.038	1048.56	.05	1065.18	.05	1164.75	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
691.74	794.41	30.23	37.87	37.36	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 6818.81*

INPUT
Description:
Station Elevation Data num= 82

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	213.76	3.46	213.4	7.83	212.88	11.86	212.38	44.52	208.5
46.17	208.31	50.4	207.63	65.47	203.78	65.5	203.77	65.56	203.75
65.67	203.73	70.06	202.7	73.4	202.43	88.85	201.23	94.35	200.75
119.85	200.04	131.19	199.95	161.97	199.47	246.17	197.97	246.5	197.97
304.58	197.29	325.11	197.09	347	197.02	401.23	197.32	533.65	197.4
539.53	197.41	600.38	197.3	610	197.29	665.76	196.5	674.75	196.49
687.58	195.38	692.06	195.11	692.69	195.08	693.15	195.05	701.86	193.77
711.24	192.25	715.15	191.65	720.09	191.13	720.64	191.07	727.56	190.39
728.17	190.38	729.48	190.35	732.41	190.28	741.88	189.91	758.95	190.54
762.76	190.66	765.07	190.8	794.51	193.24	812.49	194.72	822.93	195.23
828.51	195.38	831.9	195.46	843.75	195.62	903.31	196.5	918.85	196.96
929.4	197.27	958.28	197.42	964.97	197.44	995.86	197	1050.13	195.99
1056.05	195.88	1063.92	195.76	1068.64	195.68	1070.34	195.7	1072.68	195.72
1076.37	195.98	1080.36	196.26	1093.84	197.21	1095.44	197.23	1099.28	197.33
1108.24	198.08	1110.37	198.47	1117.33	200.24	1120.75	201.42	1122.19	201.91
1123.68	202.42	1132.26	205.17	1141.86	208.3	1146.16	208.94	1159.65	211.81
1163.23	212.22	1178.87	214.2						

Manning's n Values num= 10

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	687.58	.035	693.3	.035	741.07	.041	798.34	.044
812.49	.05	918.85	.041	1063.92	.05	1080.36	.05	1178.87	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
687.58	812.49	30.23	37.87	37.36	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 6780.94*

INPUT
Description:
Station Elevation Data num= 82

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	212.44	3.44	212.08	7.78	211.53	11.78	211.01	44.25	207.05
45.89	206.86	50.1	206.24	65.07	203.08	65.1	203.07	65.16	203.06
65.27	203.05	69.64	202.3	72.96	202.07	88.31	201.04	93.78	200.64
119.13	199.79	130.4	199.76	160.99	199.29	244.68	197.75	245.01	197.75
302.73	197.18	323.14	197.02	344.9	197.03	398.8	197.4	530.42	197.3
536.27	197.29	596.75	197.15	606.31	197.13	661.73	195.9	670.67	195.78
683.43	194.87	689.34	194.54	690.16	194.49	690.77	194.46	702.26	193.3
714.64	191.83	719.8	191.26	726.31	190.9	727.04	190.86	736.18	190.4
736.97	190.39	738.7	190.37	742.57	190.32	755.06	190.04	773.32	190.72
777.39	190.85	779.86	190.98	811.34	193.04	830.56	194.3	840.89	194.78
846.41	194.95	849.76	195.04	861.49	195.18	920.4	196.01	935.78	196.37
946.21	196.62	974.78	196.83	981.4	196.87	1011.95	196.67	1065.63	195.97
1071.49	195.9	1079.28	195.81	1083.94	195.75	1085.63	195.77	1087.94	195.78
1091.59	196.14	1095.54	196.52	1108.88	197.83	1110.46	197.86	1114.26	197.97
1123.12	199.01	1125.22	199.4	1132.12	201.01	1135.5	202	1136.92	202.41
1138.39	202.83	1146.88	205	1156.37	207.48	1160.63	208.07	1173.98	210.52
1177.52	210.93	1192.98	213.05						

Manning's n Values num= 10

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	683.43	.035	690.16	.035	746.43	.044	813.89	.041
830.56	.05	935.78	.044	1079.28	.05	1095.54	.05	1192.98	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
683.43	830.56	30.23	37.87	37.36	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 6743.07*

INPUT
Description:
Station Elevation Data num= 82

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	211.12	3.42	210.77	7.73	210.19	11.71	209.65	43.98	205.6
45.61	205.41	49.79	204.85	64.68	202.39	64.71	202.38	64.77	202.38
64.87	202.37	69.22	201.89	72.51	201.71	87.77	200.85	93.21	200.53
118.4	199.55	129.6	199.56	160.01	199.12	243.2	197.54	243.52	197.53
300.89	197.08	321.18	196.94	342.81	197.04	396.38	197.47	527.2	197.19
533.01	197.18	593.12	197	602.62	196.98	657.71	195.29	666.59	195.06
679.27	194.37	686.61	193.96	687.63	193.91	688.39	193.86	702.67	192.82
718.03	191.4	724.45	190.87	732.54	190.68	733.44	190.66	744.79	190.42
745.78	190.41	747.93	190.4	752.73	190.36	768.25	190.18	787.69	190.9
792.02	191.05	794.65	191.17	828.17	192.85	848.64	193.87	858.85	194.32
864.31	194.52	867.63	194.62	879.22	194.75	937.49	195.51	952.7	195.78
963.03	195.97	991.28	196.25	997.83	196.3	1028.05	196.34	1081.14	195.95
1086.94	195.91	1094.64	195.86	1099.25	195.83	1100.92	195.83	1103.21	195.84
1106.82	196.29	1110.73	196.79	1123.91	198.45	1125.48	198.48	1129.23	198.61
1138	199.95	1140.08	200.33	1146.9	201.77	1150.24	202.58	1151.65	202.9
1153.11	203.24	1161.5	204.84	1170.89	206.65	1175.1	207.2	1188.3	209.23
1191.8	209.65	1207.1	211.91						

Manning's n Values num= 10

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	679.27	.035	687.02	.035	751.79	.047	829.45	.038
848.64	.05	952.7	.047	1094.64	.05	1110.73	.05	1207.1	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
679.27	848.64	30.23	37.87	37.36	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 6705.202

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 42

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	209.8	3.4	209.45	11.64	208.28	43.71	204.15	64.28	201.7
64.31	201.69	64.37	201.69	117.68	199.3	128.81	199.37	159.03	198.94
242.03	197.31	319.21	196.86	393.95	197.55	523.97	197.08	598.93	196.82
675.11	193.86	683.88	193.38	685.1	193.32	703.07	192.34	721.43	190.98
729.1	190.48	754.58	190.43	757.15	190.42	781.43	190.32	845	192.65
866.71	193.45	882.21	194.09	885.49	194.2	896.96	194.31	1007.78	195.66
1044.14	196.01	1096.65	195.93	1110	195.91	1118.47	195.9	1138.95	199.07
1140.5	199.1	1144.21	199.25	1164.99	203.16	1166.38	203.4	1167.82	203.65
1206.09	208.37	1221.22	210.76						

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	683.88	.035	757.15	.05	845	.035	1110	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
675.11	866.71	35.92	40.06	40.02	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 6665.14*

INPUT
Description:
Station Elevation Data num= 82

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	209.96	.13	209.93	.52	209.89	2.7	209.67	3.4	209.6
7.33	209.09	11.65	208.52	43.75	204.62	64.34	202.27	64.37	202.26
64.43	202.26	70.43	201.91	82.97	200.15	84.96	199.87	90.46	199.49
92.96	199.32	93.83	199.29	117.79	198.54	126.47	198.61	128.93	198.64
159.18	198.57	160.94	198.56	193.74	198.01	242.25	197.23	271.51	197.06
314.58	196.82	319.5	196.8	347.56	197.01	380.94	197.24	392.99	197.35
394.31	197.37	524.45	197.38	530.27	197.38	542.42	197.38	546.89	197.37
599.48	196.85	613.37	196.35	651.48	194.76	675.73	193.51	683.04	193.08
684.06	193.03	699.03	192.15	714.34	190.99	720.73	190.55	720.95	190.55
741.96	190.44	744.11	190.42	758.2	190.32	764.34	190.28	810.38	191.43
822.35	191.74	845.66	192.24	847.29	192.27	853.13	192.48	873.43	193.21
889.94	193.73	893.44	193.82	905.66	193.94	1023.72	195.28	1062.46	195.65
1081.5	195.68	1087.71	195.68	1088.56	195.69	1089.93	195.7	1091.77	195.74
1118.4	196.12	1132.62	196.33	1141.65	196.46	1148.07	197.26	1159.46	198.68
1163.47	199.24	1165.12	199.32	1168.75	199.53	1169.07	199.55	1191.21	202.85
1192.69	203.06	1194.22	203.27	1225.37	206.5	1229.22	206.88	1235	207.39
1236.31	207.54	1251.11	209.49						

Manning's n Values num= 10

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	675.73	.035	684.78	.035	760.38	.046	842.69	.035
851.03	.035	873.43	.05	1132.62	.05	1159.46	.05	1251.11	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
675.73	873.43	35.92	40.06	40.02	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 6625.07*

INPUT
Description:
Station Elevation Data num= 82

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	210.11	.13	210.08	.52	210.03	2.71	209.83	3.41	209.76
7.34	209.28	11.66	208.76	43.79	205.09	64.4	202.84	64.43	202.83
64.49	202.83	70.49	202.4	83.05	199.43	85.03	198.98	90.54	198.45
93.05	198.24	93.92	198.2	117.9	197.79	126.59	197.86	129.05	197.91
159.32	198.2	161.08	198.21	193.91	197.76	242.47	197.14	271.76	196.97
314.87	196.75	319.8	196.74	347.88	196.89	381.29	197.05	393.35	197.17
394.67	197.18	524.93	197.69	530.76	197.71	542.91	197.75	547.4	197.73
600.03	196.88	613.93	196.42	652.07	194.71	676.35	193.15	682.2	192.78
683.01	192.73	695	191.96	707.24	191	712.36	190.63	712.53	190.62
729.35	190.45	731.06	190.43	742.34	190.29	747.26	190.23	803.33	191.23
817.92	191.49	846.31	191.82	848.3	191.85	855.42	192.1	880.15	192.96
897.67	193.37	901.38	193.45	914.35	193.57	1039.66	194.89	1080.78	195.28
1100.99	195.37	1107.58	195.38	1108.48	195.41	1109.93	195.44	1111.89	195.51
1140.15	196.32	1155.25	196.75	1164.82	197.02	1171.64	197.69	1183.73	198.87
1187.98	199.41	1189.74	199.53	1193.59	199.83	1193.93	199.85	1217.43	202.55
1219	202.72	1220.63	202.89	1253.68	205.74	1257.78	206.07	1263.9	206.42
1265.3	206.52	1281.01	208.23						

Manning's n Values num= 10

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	676.35	.035	685.68	.035	763.61	.043	848.46	.035
857.05	.035	880.15	.05	1155.25	.05	1183.73	.05	1281.01	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
676.35	880.15	35.92	40.06	40.02	.1	.3

CROSS SECTION RIVER: San Juan

REACH: Upper RS: 6585.01*

INPUT
Description:
Station Elevation Data num= 82

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	210.26	.13	210.23	.52	210.17	2.71	209.98	3.41	209.91
7.34	209.48	11.67	209	43.83	205.56	64.46	203.41	64.49	203.4
64.55	203.4	70.56	202.88	83.12	198.72	85.11	198.08	90.63	197.42
93.13	197.15	94	197.12	118	197.03	126.7	197.12	129.16	197.18
159.47	197.83	161.23	197.87	194.09	197.5	242.7	197.06	272.01	196.89
315.16	196.68	320.09	196.68	348.2	196.78	381.64	196.86	393.71	196.98
395.04	197	525.41	197.99	531.24	198.03	543.41	198.11	547.9	198.1
600.58	196.92	614.5	196.48	652.67	194.67	676.97	192.8	681.36	192.48
681.97	192.44	690.96	191.77	700.15	191.01	703.98	190.7	704.12	190.7
716.73	190.46	718.02	190.43	726.48	190.26	730.17	190.18	796.29	191.02
813.49	191.25	846.97	191.41	849.32	191.42	857.71	191.71	886.86	192.71
905.4	193.01	909.33	193.07	923.05	193.2	1055.6	194.51	1099.09	194.92
1120.47	195.07	1127.44	195.08	1128.4	195.13	1129.94	195.17	1132	195.29
1161.9	196.51	1177.87	197.17	1188	197.58	1195.21	198.11	1208	199.06
1212.5	199.58	1214.35	199.75	1218.43	200.12	1218.79	200.14	1243.65	202.24
1245.31	202.37	1247.03	202.51	1282	204.99	1286.33	205.25	1292.81	205.44
1294.28	205.49	1310.91	206.96						

Manning's n Values num= 10

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	676.97	.035	686.58	.035	766.84	.039	854.23	.035
863.08	.035	886.86	.05	1177.87	.05	1208	.05	1310.91	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
676.97	886.86	35.92	40.06	40.02	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 6544.956

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 45

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	210.42	.13	210.38	.52	210.31	2.71	210.13	7.35	209.67
70.62	203.37	83.2	198.01	85.19	197.18	90.71	196.38	93.22	196.06
94.09	196.03	126.82	196.37	161.38	197.52	194.27	197.25	272.26	196.81
315.45	196.61	348.52	196.67	381.99	196.67	394.07	196.8	531.73	198.36
543.91	198.48	548.4	198.46	615.06	196.55	653.27	194.62	677.59	192.45
695.7	190.77	710.62	190.23	713.08	190.14	789.25	190.82	809.06	191
850.33	191	860	191.33	893.58	192.47	1139.96	194.76	1147.31	194.78
1148.32	194.85	1149.94	194.9	1152.12	195.06	1218.78	198.54	1232.27	199.25
1243.27	200.42	1310.31	204.23	1314.88	204.43	1323.27	204.47	1340.8	205.69

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.05	860	.035	1232.27	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
677.59	893.58	14.9	43.68	14.96	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 6501.27*

INPUT
Description:
Station Elevation Data num= 95

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	210.4	.13	210.36	.51	210.3	2.68	210.1	5.86	209.77
7.27	209.62	14.63	208.86	39.9	206.41	61.33	204.33	69.83	203.52
72.08	202.64	76.41	200.87	82.27	198.36	84.24	197.54	89.7	196.58
91.07	196.36	92.18	196.18	92.46	196.16	93.04	196.14	103.67	196.12
112.3	196.12	125.4	196.27	127.83	196.35	159.58	197.4	185.44	197.28
192.1	197.23	213.24	197.11	269.22	196.79	300.18	196.65	311.92	196.6
344.62	196.66	377.72	196.67	389.66	196.79	454.96	197.46	519.58	198.12
525.78	198.17	537.83	198.24	542.21	198.21	542.27	198.21	587.12	196.88
608.18	196.25	645.97	194.36	654.38	193.65	670.01	192.33	672.56	192.17
674.9	192.03	680.84	191.84	686.76	191.65	695.7	191.35	705.32	191.02
707.48	190.94	713.01	190.73	713.49	190.72	729.14	190.49	730.89	190.46
749.31	190.2	755.21	190.12	825.14	190.76	843.33	190.93	858.43	190.94
881.22	190.98	890.1	191.28	920.93	192.35	931.98	192.55	980.2	193.42
992.25	193.53	1024.38	193.88	1044.11	193.96	1053.75	193.93	1089.28	193.77
1120.22	193.9	1125.18	193.94	1136.29	194.09	1152.28	194.3	1159.18	194.35
1160.13	194.42	1161.65	194.47	1163.7	194.62	1172.86	195.11	1206.86	196.99
1226.3	198.05	1237.73	198.67	1238.96	198.74	1249.29	199.81	1253.84	200.07
1263.04	200.67	1296.11	202.73	1312.24	203.99	1314.03	204.1	1316.54	204.23
1324.41	204.33	1328.57	204.65	1338.09	206.12	1339.65	206.33	1340.87	206.49

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	670.01	.035	738.91	.035	881.92	.035	920.93	.048
1238.96	.048	1340.87	.048						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
670.01	920.93	14.9	43.68	14.96	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 6457.60*

INPUT
Description:
Station Elevation Data num= 95

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev

0	210.38	.13	210.35	.51	210.28	2.65	210.08	5.79	209.73
7.19	209.58	14.47	208.78	39.45	206.43	60.63	204.44	69.04	203.66
71.27	202.88	75.55	201.21	81.34	198.71	83.28	197.89	88.68	196.78
90.04	196.51	91.14	196.3	91.42	196.27	91.99	196.24	102.5	196.11
111.03	196	123.98	196.18	126.39	196.25	157.77	197.27	183.34	197.26
189.93	197.21	210.83	197.08	266.17	196.78	296.78	196.64	308.4	196.6
340.73	196.66	373.45	196.67	385.26	196.77	449.81	197.38	513.71	197.96
519.84	197.98	531.75	198	536.08	197.96	536.14	197.96	580.49	196.6
601.31	195.94	638.66	194.11	646.98	193.45	662.44	192.21	666.47	192
670.17	191.8	679.57	191.65	688.96	191.5	703.12	191.24	718.35	190.96
721.76	190.89	730.53	190.68	731.28	190.66	756.06	190.45	758.83	190.42
788	190.18	797.35	190.1	861.04	190.7	877.6	190.86	891.35	190.88
912.11	190.95	920.19	191.24	948.27	192.23	958.6	192.53	1003.7	193.78
1014.96	193.88	1045.01	194.27	1063.46	194.23	1072.47	194.07	1105.69	193.41
1134.63	193.36	1139.26	193.4	1149.65	193.59	1164.6	193.85	1171.06	193.92
1171.94	193.98	1173.37	194.03	1175.28	194.18	1183.84	194.65	1215.64	196.52
1233.81	197.55	1244.5	198.17	1245.66	198.23	1255.31	199.2	1259.56	199.45
1268.17	200.08	1299.09	202.21	1314.18	203.74	1315.84	203.89	1318.19	204.03
1325.56	204.2	1329.45	204.51	1338.34	206.76	1339.8	207.06	1340.95	207.28

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	662.44	.035	740.92	.035	903.83	.035	948.27	.047
1245.66	.047	1340.95	.047						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
662.44	948.27	14.9	43.68	14.96	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 6413.92*

INPUT
Description:
Station Elevation Data num= 95

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	210.37	.13	210.33	.5	210.27	2.62	210.05	5.73	209.69
7.1	209.53	14.3	208.71	39	206.46	59.94	204.55	68.25	203.81
70.45	203.12	74.68	201.54	80.41	199.07	82.33	198.25	87.67	196.97
89.01	196.67	90.09	196.42	90.37	196.38	90.93	196.35	101.32	196.09
109.76	195.89	122.57	196.08	124.94	196.15	155.97	197.15	181.24	197.23
187.75	197.18	208.42	197.06	263.13	196.76	293.39	196.62	304.87	196.59
336.83	196.65	369.18	196.67	380.85	196.76	444.67	197.3	507.83	197.79
513.89	197.79	525.66	197.77	529.95	197.72	530	197.72	573.85	196.32
594.43	195.64	631.36	193.85	639.58	193.24	654.86	192.08	660.37	191.82
665.44	191.57	678.31	191.46	691.16	191.35	710.53	191.13	731.37	190.9
736.04	190.83	748.04	190.62	749.07	190.61	782.99	190.41	786.77	190.38
826.68	190.15	839.48	190.08	896.93	190.65	911.87	190.79	924.27	190.82
943	190.93	950.29	191.19	975.62	192.11	985.23	192.5	1027.19	194.14
1037.68	194.23	1065.64	194.66	1082.8	194.51	1091.19	194.21	1122.1	193.05
1149.03	192.81	1153.34	192.85	1163.01	193.08	1176.92	193.39	1182.93	193.49
1183.76	193.55	1185.08	193.6	1186.86	193.73	1194.83	194.19	1224.42	196.05
1241.33	197.06	1251.27	197.66	1252.35	197.72	1261.34	198.6	1265.29	198.82
1273.3	199.5	1302.07	201.69	1316.11	203.5	1317.66	203.68	1319.85	203.83
1326.7	204.06	1330.32	204.38	1338.6	207.4	1339.95	207.79	1341.02	208.08

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	654.86	.035	742.93	.035	925.75	.035	975.62	.045
1252.35	.045	1341.02	.045						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
654.86	975.62	14.9	43.68	14.96	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 6370.25*

INPUT
Description:
Station Elevation Data num= 95

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	210.35	.12	210.32	.5	210.26	2.59	210.02	5.66	209.65
7.02	209.49	14.14	208.64	38.55	206.48	59.25	204.65	67.46	203.95
69.64	203.36	73.82	201.88	79.48	199.42	81.38	198.6	86.65	197.17
87.98	196.82	89.05	196.54	89.33	196.49	89.88	196.45	100.15	196.07
108.49	195.77	121.15	195.98	123.5	196.05	154.16	197.02	179.14	197.21
185.58	197.16	206.01	197.04	260.08	196.75	289.99	196.61	301.34	196.58
332.93	196.64	364.9	196.67	376.44	196.75	439.52	197.21	501.96	197.62
507.95	197.59	519.58	197.53	523.82	197.47	523.87	197.47	567.21	196.04
587.55	195.33	624.05	193.6	632.18	193.03	647.28	191.96	654.28	191.64
660.71	191.35	677.05	191.27	693.36	191.2	717.94	191.03	744.4	190.84
750.32	190.77	765.55	190.57	766.86	190.55	809.91	190.36	814.71	190.33
865.37	190.13	881.61	190.06	932.82	190.59	946.14	190.72	957.2	190.76
973.89	190.91	980.39	191.15	1002.96	191.99	1011.86	192.47	1050.69	194.51
1060.39	194.58	1086.26	195.05	1102.15	194.78	1109.91	194.35	1138.51	192.68
1163.43	192.27	1167.42	192.3	1176.37	192.57	1189.25	192.93	1194.8	193.06
1195.57	193.12	1196.79	193.17	1198.44	193.29	1205.81	193.73	1233.2	195.58
1248.84	196.56	1258.05	197.15	1259.04	197.2	1267.36	197.99	1271.02	198.2
1278.42	198.91	1305.05	201.17	1318.04	203.25	1319.48	203.47	1321.5	203.63
1327.84	203.93	1331.19	204.25	1338.85	208.04	1340.11	208.52	1341.1	208.87

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	647.28	.035	744.94	.035	947.66	.035	1002.96	.043
1259.04	.043	1341.1	.043						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
647.28	1002.96	14.9	43.68	14.96	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 6326.57*

INPUT
Description:
Station Elevation Data num= 95

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	210.33	.12	210.3	.49	210.24	2.56	209.99	5.6	209.6
6.94	209.44	13.97	208.57	38.09	206.5	58.55	204.76	66.67	204.1
68.82	203.59	72.96	202.21	78.55	199.77	80.43	198.96	85.64	197.37
86.95	196.98	88.01	196.66	88.28	196.59	88.83	196.56	98.98	196.05
107.22	195.66	119.73	195.88	122.05	195.95	152.36	196.9	177.05	197.19
183.41	197.14	203.6	197.01	257.04	196.73	286.6	196.59	297.81	196.58
329.03	196.63	360.63	196.66	372.04	196.73	434.38	197.13	496.08	197.46
502	197.4	513.5	197.29	517.69	197.22	517.74	197.22	560.57	195.76
580.67	195.03	616.75	193.34	624.78	192.82	639.71	191.84	648.19	191.47
655.98	191.12	675.79	191.08	695.55	191.05	725.35	190.92	757.42	190.78
764.6	190.71	783.06	190.51	784.65	190.5	836.83	190.32	842.65	190.29
904.06	190.1	923.75	190.05	968.71	190.53	980.41	190.66	990.12	190.69
1004.77	190.88	1010.48	191.1	1030.31	191.86	1038.49	192.45	1074.18	194.87
1083.1	194.93	1106.89	195.44	1121.5	195.05	1128.63	194.49	1154.93	192.32
1177.84	191.72	1181.5	191.75	1189.73	192.07	1201.57	192.48	1206.68	192.63
1207.38	192.68	1208.5	192.74	1210.02	192.85	1216.8	193.27	1241.97	195.1
1256.36	196.07	1264.82	196.64	1265.73	196.69	1273.38	197.38	1276.74	197.58
1283.55	198.33	1308.03	200.65	1319.98	203.01	1321.3	203.26	1323.16	203.42
1328.99	203.79	1332.07	204.11	1339.11	208.68	1340.26	209.25	1341.17	209.67

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	639.71	.035	746.95	.035	969.58	.035	1030.31	.042
1265.73	.042	1341.17	.042						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
639.71	1030.31	14.9	43.68	14.96	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 6282.89*

INPUT
Description:
Station Elevation Data num= 95

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	210.31	.12	210.29	.49	210.23	2.53	209.97	5.53	209.56
6.86	209.39	13.81	208.5	37.64	206.53	57.86	204.87	65.88	204.25
68.01	203.83	72.09	202.55	77.62	200.12	79.47	199.31	84.62	197.57
85.92	197.13	86.97	196.78	87.24	196.7	87.78	196.66	97.81	196.03
105.95	195.54	118.31	195.79	120.61	195.85	150.55	196.77	174.95	197.16
181.24	197.12	201.18	196.99	253.99	196.72	283.2	196.57	294.29	196.57
325.14	196.63	356.36	196.66	367.63	196.72	429.23	197.04	490.21	197.29
496.06	197.21	507.42	197.05	511.55	196.97	511.61	196.97	553.93	195.48
573.8	194.72	609.44	193.09	617.38	192.61	632.13	191.72	642.1	191.29
651.25	190.89	674.53	190.89	697.75	190.89	732.76	190.81	770.45	190.72
778.88	190.65	800.57	190.46	802.44	190.45	863.75	190.28	870.6	190.24
942.75	190.08	965.88	190.03	1004.61	190.47	1014.68	190.59	1023.04	190.63
1035.66	190.86	1040.58	191.06	1057.65	191.74	1065.12	192.42	1097.68	195.23
1105.82	195.29	1127.52	195.82	1140.84	195.32	1147.35	194.63	1171.34	191.96
1192.24	191.18	1195.58	191.2	1203.09	191.56	1213.89	192.02	1218.55	192.2
1219.19	192.25	1220.22	192.3	1221.6	192.41	1227.78	192.81	1250.75	194.63
1263.87	195.58	1271.59	196.13	1272.43	196.18	1279.4	196.77	1282.47	196.95
1288.68	197.74	1311.02	200.12	1321.91	202.77	1323.12	203.05	1324.81	203.22
1330.13	203.66	1332.94	203.98	1339.36	209.32	1340.42	209.98	1341.25	210.46

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	632.13	.035	748.96	.035	991.5	.035	1057.65	.04
1272.43	.04	1341.25	.04						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
632.13	1057.65	14.9	43.68	14.96	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 6239.22*

INPUT
Description:
Station Elevation Data num= 95

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	210.3	.12	210.27	.48	210.22	2.5	209.94	5.46	209.52
6.77	209.35	13.64	208.42	37.19	206.55	57.17	204.98	65.09	204.39
67.19	204.07	71.23	202.89	76.69	200.47	78.52	199.67	83.61	197.76
84.89	197.29	85.92	196.91	86.19	196.81	86.73	196.77	96.63	196.02
104.68	195.43	116.89	195.69	119.16	195.75	148.75	196.65	172.85	197.14
179.06	197.09	198.77	196.97	250.95	196.7	279.81	196.56	290.76	196.56
321.24	196.62	352.09	196.66	363.23	196.71	424.09	196.96	484.33	197.12
490.11	197.02	501.34	196.81	505.42	196.73	505.48	196.72	547.29	195.2
566.92	194.42	602.14	192.83	609.98	192.41	624.55	191.59	636	191.11
646.53	190.66	673.26	190.7	699.95	190.74	740.18	190.7	783.47	190.66
793.16	190.6	818.09	190.4	820.23	190.39	890.68	190.24	898.54	190.2
981.43	190.05	1008.01	190.01	1040.5	190.41	1048.95	190.52	1055.96	190.57
1066.55	190.84	1070.68	191.01	1085	191.62	1091.74	192.39	1121.18	195.59
1128.53	195.64	1148.15	196.21	1160.19	195.6	1166.07	194.78	1187.75	191.6
1206.64	190.64	1209.67	190.66	1216.45	191.05	1226.21	191.56	1230.42	191.77
1231	191.81	1231.93	191.87	1233.18	191.97	1238.77	192.35	1259.53	194.16
1271.39	195.08	1278.36	195.63	1279.12	195.67	1285.42	196.16	1288.2	196.33
1293.81	197.16	1314	199.6	1323.85	202.52	1324.93	202.84	1326.47	203.02
1331.27	203.52	1333.81	203.85	1339.62	209.96	1340.57	210.71	1341.32	211.26

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	624.55	.035	750.98	.035	1013.41	.035	1085	.038
1279.12	.038	1341.32	.038						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
624.55	1085	14.9	43.68	14.96	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 6195.54*

INPUT
Description:
Station Elevation Data num= 95

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	210.28	.12	210.26	.47	210.2	2.47	209.91	5.4	209.48
6.69	209.3	13.48	208.35	36.74	206.58	56.47	205.08	64.3	204.54
66.38	204.31	70.36	203.22	75.76	200.83	77.57	200.02	82.6	197.96
83.86	197.44	84.88	197.03	85.15	196.92	85.67	196.87	95.46	196
103.41	195.31	115.48	195.59	117.72	195.65	146.94	196.52	170.76	197.11
176.89	197.07	196.36	196.94	247.91	196.68	276.41	196.54	287.23	196.56
317.34	196.61	347.82	196.66	358.82	196.69	418.94	196.87	478.46	196.96
484.16	196.83	495.25	196.58	499.29	196.48	499.34	196.48	540.65	194.92
560.04	194.11	594.83	192.58	602.58	192.2	616.98	191.47	629.91	190.94
641.8	190.43	672	190.51	702.14	190.59	747.59	190.6	796.5	190.6
807.44	190.54	835.6	190.35	838.02	190.34	917.6	190.19	926.48	190.15
1020.12	190.03	1050.15	189.99	1076.39	190.35	1083.22	190.45	1088.89	190.51
1097.44	190.81	1100.77	190.97	1112.34	191.5	1118.37	192.37	1144.67	195.96
1151.25	195.99	1168.77	196.6	1179.53	195.87	1184.79	194.92	1204.17	191.23
1221.05	190.09	1223.75	190.11	1229.81	190.55	1238.53	191.1	1242.3	191.34
1242.81	191.38	1243.64	191.44	1244.76	191.52	1249.75	191.89	1268.3	193.69
1278.9	194.59	1285.14	195.12	1285.81	195.16	1291.44	195.56	1293.92	195.7
1298.94	196.57	1316.98	199.08	1325.78	202.28	1326.75	202.63	1328.12	202.82
1332.42	203.38	1334.69	203.71	1339.87	210.6	1340.73	211.44	1341.4	212.05

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	616.98	.035	752.99	.035	1035.33	.035	1112.34	.037
1285.81	.037	1341.4	.037						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
616.98	1112.34	14.9	43.68	14.96	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 6151.870

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 55

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	210.26	5.33	209.44	13.31	208.28	36.29	206.6	55.78	205.19
65.56	204.55	69.5	203.56	82.83	197.6	84.1	197.03	94.29	195.98
102.14	195.2	116.27	195.55	168.66	197.09	193.95	196.92	273.02	196.53
413.8	196.79	472.58	196.79	493.16	196.23	534.01	194.64	595.18	191.99
609.4	191.35	623.82	190.76	637.07	190.2	670.74	190.32	704.34	190.44
755	190.49	809.52	190.54	821.72	190.48	853.11	190.29	944.52	190.15
954.42	190.11	1092.28	189.97	1121.81	190.45	1139.69	191.38	1145	192.34
1168.17	196.32	1173.96	196.34	1189.4	196.99	1198.88	196.14	1203.51	195.06
1220.58	190.87	1235.45	189.55	1237.83	189.56	1243.17	190.04	1260.74	191.43
1277.08	193.22	1291.91	194.61	1299.65	195.08	1304.07	195.99	1319.96	198.56
1328.57	202.42	1335.56	203.58	1340.13	211.24	1340.88	212.17	1341.47	212.85

Manning's n Values num= 2

Sta	n Val	Sta	n Val
0	.05	755	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
609.4	1139.69	162.9	173.01	158.07	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 5978.856

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 50

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	210.11	4.59	209.45	7.39	209.03	36.89	207.17	39.32	207.01
62.22	205.02	71.39	203.83	82.12	198.91	85.52	197.45	87.11	197.28
109.32	195.18	172.51	197.01	172.84	197.02	172.91	197.02	173.21	197.02
214.62	195.89	258.41	195.9	271.12	195.47	424.63	194.69	491.91	192.94
520.46	191.9	589.97	189.76	600.38	189.64	601.23	189.63	661.34	188.48
703.05	188.74	755	188.35	766.28	188.26	813.22	188.44	823.84	188.21
860.44	188.08	952.43	187.97	966.99	187.9	997.98	189.59	1044.05	189.55
1101.22	190.77	1118.35	191.4	1144.21	193	1151.44	193.14	1165.05	193.42
1171.72	193.71	1206.89	195.27	1207.66	195.3	1207.91	195.35	1218.48	196.31
1219.51	196.75	1225.3	199.19	1225.56	199.41	1227.01	201.14	1229.5	203.84

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.035	36.89	.05	755	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
601.23	1044.05	197.39	190.73	235.69	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 5788.123

INPUT
Description:

Station Elevation Data num= 49

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	207.07	1.51	206.99	20.99	205.72	51	203.78	74.18	197.86
75.94	197.55	77.92	196.89	81.59	196.61	110	194.55	145.81	194.13
153.71	194.01	215.72	193.06	270.53	192.21	282.75	192.22	316.2	191.13
343.31	188.76	353.1	188.56	363.39	188.86	398.77	187.9	430.5	187.05
440.75	187.07	492.55	187.14	517.12	186.11	629.64	185.94	672.25	185.91
742.36	186.48	766.07	187.3	821.83	189.22	825.37	189.07	857.76	188.73
891.41	186.26	895.9	185.83	897.63	185.59	939.13	184.68	954.05	184.42
955.71	184.49	957.59	184.36	983.57	184.32	998.21	184.82	1003.23	185.06
1013.8	185.57	1024.53	187.88	1028.42	188.79	1028.93	188.91	1034.85	191.94
1041.83	198.73	1043.79	200.18	1047.69	203.43	1049.41	204.71		

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	20.99	.05	440.75	.035	629.64	.05	766.07	.035
1028.42	.05								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
492.55	1024.53	66.98	101.35	103.25	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 5686.773

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 49

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	206.16	28.01	204.67	35.04	204.27	45.47	202.77	46.63	202.42
50.68	201.05	63.15	196.89	98.34	194.23	100.52	194.07	105.69	193.69
194.58	192.71	226.32	192.36	229.62	192.02	235.83	191.61	256.98	190.25
274.8	187.43	299.49	183.68	322.22	184.63	328.62	184.88	338.04	185.24
355.37	187.45	364.15	187.38	421.15	187.46	451.15	186.26	470.47	185.4
590	185.23	658.52	185.13	678.18	185.1	682.42	185.11	693.45	186.03
699.97	186.26	803.82	191.43	812.9	190.83	824.14	189.77	846.63	185.46
851.78	184.15	854.81	184.03	872.48	183.41	872.82	183.42	873.3	183.44
910.58	184.33	913.38	184.35	920.86	184.41	932.08	186.07	936.98	187.29
944.81	189.91	948.92	192	953.35	195.84	966.54	207.31		

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	355.37	.035	590	.05	803.82	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
451.15	932.08	59.9	92.96	76.35	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 5593.814

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 50

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	205.85	36.85	203.74	41.08	203.13	57.44	198.12	60.97	196.92
70.24	195.76	71.69	195.47	74.47	194.94	108.91	190.51	112.36	190.27
119.95	190.51	193.48	191.97	196.14	191.81	197.28	191.59	208.62	190.15
209.1	189.93	210.3	189.54	223.64	185.02	225.74	184.98	237.21	183.52
248.16	184.04	290	185.66	296.1	185.9	296.45	185.91	349.11	188.04
366.67	187.2	385.69	186.77	436.22	184.7	531.5	184.6	565	184.55
577.61	184.53	661.26	183.92	713.89	183.82	730.46	184.89	744.92	184.8
778.7	184.34	787.22	183.76	815.45	184	832.31	183.73	849.08	184.29
855.93	184.86	880.21	186.7	892.02	187.67	901.17	188.39	909.48	189.31
917.59	193.76	917.71	193.78	918.13	194.29	930.1	209.14	931.13	210.22

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.05	290	.035	565	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
436.22	855.93	56.58	91.06	69.13	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 5502.751

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 43

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	204.86	23.16	203.6	25.75	203.38	31.88	201.52	68.63	191.81
73.08	191.15	77.5	190.87	89.97	190.12	94.16	190.24	142.37	191.72
148.12	191.28	157.99	190.92	162.57	190.33	167.45	188.16	175.3	183.74
176.57	183.43	220.71	185	235.75	185.43	243.46	185.65	247.54	185.85
282.35	187.55	333.43	185.37	372.21	184.06	425.72	184.01	459.6	183.62
478.95	183.58	516.84	183.34	625.42	182.66	629.53	182.66	667.96	183.04
689.12	183.06	691.69	183.07	791.93	183.77	795.32	183.81	826.73	185.25
837.26	185.9	851.15	187.78	855.96	188.36	871.31	190.21	873.39	190.54
888.49	195.1	890.57	195.44	906.74	203.24				

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	235.75	.035	516.84	.05	689.12	.035	826.73	.05

```
Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
        333.43  826.73             78.34  115.61   55.34              .1       .3
Ineffective Flow      num=        1
   Sta L   Sta R    Elev  Permanent
888        F

CROSS SECTION           RIVER: San Juan
REACH: Upper               RS: 5387.141

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data     num=      44
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  202.52   11.98  198.33   21.92   193.9   28.17  191.06    35.4  189.79
   41.93  188.74    42.2  188.69   48.79  188.43   61.58  187.98   81.89  185.97
   89.61   185.8   92.55  184.87   93.21  184.86  110.32  183.43  154.59  184.33
  163.18   184.5  180.85  184.86  181.81  184.89  194.88  185.29  226.86  184.68
  243.43  184.05  325.46  183.97  403.65  183.83  459.42  183.74  519.66  183.68
  531.37  183.79  592.59  183.51  606.02  183.45  648.82   182.7  737.13  183.32
  774.24  184.57  782.14  184.96     795  187.72  800.24  188.85  805.38  189.57
  805.58  189.59   815.6  190.63  831.72  192.36     841  194.25  845.27  196.03
  851.06  199.99  852.27  200.98  857.27  205.71  858.83  207.18

Manning's n Values         num=       5
     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val
       0     .05  154.59    .035  403.65     .05  592.59    .035     795     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
        226.86  774.24            129.7  137.48   67.44              .1       .3
Ineffective Flow      num=        1
   Sta L   Sta R    Elev  Permanent
888        F

CROSS SECTION           RIVER: San Juan
REACH: Upper               RS: 5249.660

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data     num=      36
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0   202.7     .52   202.6    1.51  201.66    4.92  198.49   13.56  189.72
   14.07  189.49   22.09  185.24   27.89  183.66   37.64  182.92   59.97  181.47
   84.69  182.09   93.23  182.16     120  182.49  134.32  182.66  137.33   182.7
  173.64   183.5   182.5  183.61  184.05  183.55     285  183.48  424.26  183.39
  468.95  183.81     510  183.62  700.25  182.76  700.34  182.76  700.55  182.76
  700.74  182.77  743.86  184.17  750.42  184.62  777.35  187.16  792.49  183.58
  821.57  189.96  825.28  190.27  828.14  192.34  831.62  194.54  838.72  202.81
  839.47   203.7

Manning's n Values         num=       5
     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val
       0     .05     120    .035     285     .05     510    .035  750.42     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         27.89  743.86            141.78   155.8   79.91              .1       .3

CROSS SECTION           RIVER: San Juan
REACH: Upper               RS: 5093.864

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data     num=      38
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  203.51    2.37  203.35   24.51  198.72   28.54  198.21   35.45  196.19
   38.92  195.17   41.19   194.5   41.52  194.36   63.35   184.5   69.97  182.66
    74.4  182.44   83.85  181.79    99.5  180.73  134.04   181.4  155.14  182.12
   166.6  182.38  175.47  182.57     255  183.57  269.15  183.75  283.83  183.12
  365.41  183.11  393.38  183.09  473.08  183.82     505  183.68  620.62  183.17
  713.73  183.03  771.51  184.47  782.35  184.79  801.73  186.68  817.92  187.32
   830.9  187.84  859.17  189.33   865.1  191.19  867.36  191.45  869.67  192.85
  873.58  197.08   875.2  198.71  886.16  210.29

Manning's n Values         num=       6
     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val
       0    .035   35.45     .05   166.6    .035     255     .05     505    .035
  782.35     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         63.35  771.51            102.03  146.85   97.36              .1       .3

CROSS SECTION           RIVER: San Juan
REACH: Upper               RS: 4947.016

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data     num=      39
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  203.11    9.94  202.69   18.28  202.26    60.7  198.07   85.14  195.88
   95.51  193.74  105.31  190.47   115.7  187.38  120.69  186.24  126.13  185.04
  128.34  184.68  130.58  184.32  134.88  183.63  142.97   183.3  164.22  183.14
  167.76  183.16  174.18  183.19  188.89  183.26  224.49  183.02  268.68  181.99
  302.23  181.85  319.19  182.15  354.59  182.69  388.04  183.27  451.56  183.85
     475  183.75  485.44   183.7     665   183.4  701.57  183.34  750.45  184.55
  770.04  184.86  785.05   185.1  866.36  188.88  886.57  189.58  891.62  191.63
  907.53  202.02  907.69  202.13  908.09  202.44  916.71   209.1

Manning's n Values         num=       6
     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val
```

0	.07	128.34	.05	174.18	.035	302.23	.05	475	.035
665	.05								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
128.34	750.45	101.25	101.15	96.58	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 4845.863

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 37

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	203.27	2.7	203.05	22.2	200.57	39.38	198.64	45.86	197.73
65.32	192.84	72.69	191.29	89.71	187.69	101.01	186.43	106.56	185.79
138.3	185.07	139.26	185.08	156.93	183.8	157.18	183.78	230.93	181.97
244.77	181.1	278.92	180.95	320	181.42	406.46	182.41	526.28	183.4
575.56	183.75	663.99	183.6	676.22	183.91	690	184.13	700.75	184.3
717.86	184.58	759.74	185.63	773.79	185.8	845.65	187.78	868.49	188.52
871.5	189.01	874.3	189.1	881.19	189.68	885.07	191.8	889.09	194.41
895.93	200.48	901.87	204.71						

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.07	106.56	.05	156.93	.035	320	.05	575.56	.035
690	.05								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
156.93	663.99	113.15	117.68	124.47	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 4728.187

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 45

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	203.37	9.53	202.76	20.4	202.06	36.42	201.09	50.8	199.14
71.17	195.99	100.99	189.01	102.85	188.51	113.07	187.21	123.91	185.57
136.12	183.73	139.59	183.33	145.56	183.36	163.61	182.2	176.37	181.39
182.05	181.29	203.03	180.94	215.67	180.8	238.29	180.69	305	180.39
370	180.09	380.93	180.04	397.55	180.08	568.85	182.24	649.68	183.55
671.96	184.11	733.05	185.63	801.23	188.49	804.55	188.63	808.66	188.57
852.92	188.6	857.61	189.59	864.28	190.59	866.35	192.27	881.76	203.91
882.65	204.4	886.3	206.66	890.93	209.34	894.01	210.39	927.95	221.47
945.35	228.82	946.78	229.36	946.92	229.4	947.13	229.45	953.14	231.35

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	9.53	.07	123.91	.05	238.29	.035	305	.05
370	.035	671.96	.05						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
163.61	568.85	103.68	96.65	85.93	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 4631.533

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 37

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	203.7	8.12	203.31	18.46	202.36	18.67	202.33	56.14	197.09
56.6	197.04	81.62	192.05	85.3	191.27	93.91	189.44	98.45	188.91
133.04	183.77	161.9	182.23	167.16	182.29	183.87	181.93	192.69	181.74
259.21	180.6	301.66	180.12	332.65	179.99	340	180.01	411.37	180.19
460.04	180.8	504.03	181.5	624.71	183.42	646.81	183.96	660	184.28
781.7	187.28	816.45	188.73	842.43	189.84	843.6	189.82	844.06	189.93
846.04	191.24	875.7	208.82	878.23	210.1	883.52	211.31	904.2	215.08
916.56	216.32	933.35	218.99						

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	18.67	.07	133.04	.05	340	.035	660	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
183.87	504.03	83.04	106.65	96.62	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 4524.879

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 42

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	203.49	8.73	202.84	36.07	200.83	53.14	199.51	70.23	197.68
83.18	196.14	121.15	189.14	127.15	187.91	127.61	187.81	157.72	184.03
165.37	183.73	172.29	183.81	190.55	183.45	198.19	183.31	273.27	181.93
283.53	181.72	286.23	181.62	291.78	181.48	305.84	180.44	314.99	180.99
321.12	180.85	329.3	180.71	350	178.47	356.33	177.79	364.66	177.19
379.38	177.67	394.96	177.76	425.04	178.51	471.14	180.69	491.33	181.67
592.54	183.25	618.14	183.87	640	184.4	809.52	188.49	831.63	188.9
834.06	189.26	838.59	189.88	841.25	191.07	849.43	194.04	864.99	201.64
869.63	203.45	873.08	204.07						

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	8.73	.07	165.37	.05	350	.035	640	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
286.23	491.33	102.46	90.4	106.95	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 4434.483

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 40

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	202.71	1.83	202.52	3.78	201.81	10.5	199.86	34.89	192.51
40.24	190.96	61.14	187.34	74.08	185.22	75.83	184.93	92.5	183.31
99.46	182.63	102.1	182.37	106.69	182.4	157.49	181.58	159.14	181.53
176.66	180.96	252.87	179.64	305.4	177.68	309.44	177.31	311.99	177.43
313.89	177.33	317.76	177.33	384.57	177.21	404.39	177.39	469.88	180.38
500.79	181.91	519.99	183.3	550.36	183.77	560	183.92	600.21	184.54
626.85	184.93	777.58	187.81	794.64	190.22	801.18	190.33	806.42	191.35
808.69	192.2	812.94	194.2	818	196.77	825.03	198.57	828.85	199.46

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.07	99.46	.05	317.76	.035	560	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
252.87	469.88	229.37	220.73	203.25	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 4213.757

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 40

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	200.81	5.26	198.89	8.08	197.81	12.49	196.17	28.49	190.98
37.55	187.18	44.54	184.77	53.68	182.73	67.4	182.76	93.9	181.55
134.36	179.7	143.82	179.39	152.85	179.17	215.97	177.58	217.28	177.55
238.51	177.6	290.3	177.71	365.47	177.34	390	177.26	413.09	177.18
445.34	176.41	472.97	177.11	483.44	177.6	497.22	179.2	517.55	181.23
537.8	183.7	537.88	183.71	547.73	183.71	567.09	184.07	625.37	184.51
700.46	185.13	733.35	186.02	760	186.68	792.43	187.48	806.68	187.89
811.25	188.05	812.52	188.39	827.71	190.67	831.02	192.4	853.65	202.22

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.07	93.9	.05	390	.035	437.8	.05	760	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
152.85	497.22	211.8	205.08	199.31	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 4008.681

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 45

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	201.88	6.03	199.17	12.95	196.64	35.87	186.57	36.93	186.03
45.91	183.57	49.77	182.45	50.49	182.24	50.74	182.17	51.67	181.92
52.26	181.86	119.93	178.37	132.49	177.84	136.23	177.87	153.26	177.82
257.16	177.53	349.61	177.27	391.37	176.26	410	176.09	474.15	175.49
481.6	175.85	495.72	176.02	498.86	175.98	499.79	176.12	504.54	177.37
507.19	177.88	511.21	180.96	513.35	182.9	513.95	183.14	519.28	184.66
520.13	184.65	527.43	184.55	542.2	184.47	588.47	185.67	660.87	185.2
708.48	184.85	754	185.73	764.5	185.9	789.79	189.86	794.92	190.26
796.59	190.68	801.16	193.59	805.97	196.28	824.38	203.17	829.56	203.83

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.07	49.77	.05	410	.035	519.28	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
119.93	507.19	243.81	216.85	190.05	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 3791.835

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 47

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	200.41	4.26	198.05	4.8	197.85	7.66	197.43	26.58	194.7
59.61	193.56	68.97	193.43	77.7	193.24	96.01	192.43	103.34	192.15
118.37	191.47	125.11	190.83	133.18	189.67	136.17	189.03	137.21	188.63
152.36	181.67	166.58	177.95	206.03	176.05	221.16	175.47	236.77	175.37
251.29	175.28	260.54	175.36	302.78	175.62	355	176.19	420.2	176.91
442.45	177.08	453.3	177.93	470	178.6	477.38	178.9	481.37	179.06
485.68	179.63	513.63	180.39	558.62	182.24	560.18	182.26	588.4	182.65
655.35	182.02	712	181.92	715.03	182.41	722.35	183.13	726.37	185.78
730.07	187.58	736.14	192.28	742.74	196.34	747.69	198.5	755.83	201.84
757.73	202.43	766.25	203.95						

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.07	7.66	.05	236.77	.035	260.54	.05	355	.035
470	.05								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.

166.58	442.45	193.71	199.59	229.82	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 3592.245

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 51

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	205.95	.94	205.38	7.17	200.58	12.98	196.61	19.25	194.43
32.77	190.88	50.87	187.88	58.77	184.86	62.36	184.42	90.6	181.99
93.31	181.83	131.73	177.51	135.33	177.11	139.48	176.94	143.89	176.42
146.78	176.29	147.51	176.26	157.53	175.84	198.67	173.2	221.15	173.48
255	175.11	294.51	177.02	315	177.05	386.09	177.15	423.18	176.91
440.34	177.3	482.38	178.27	500.4	178.99	515.32	179.79	550.44	180.6
601.16	182.67	606.88	183.09	610.77	184.52	613.61	185.24	615.56	186.63
616.08	186.89	630.19	196.8	634.73	197.83	639.33	198.25	655	198.33
660.56	198.36	681.87	198.8	765.96	201.31	793.36	202.21	799.31	202.32
804.12	202.27	817.85	202.17	913.94	202.09	920.78	202.14	925.92	202.73
940.9	203.52								

Manning's n Values num= 8

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.07	131.73	.035	198.67	.05	255	.035	315	.05
386.09	.035	440.34	.05	655	.02				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
135.33	423.18	227.98	216.09	205.8	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 3376.157

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 48

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	201.07	3.37	197.95	19.05	184.4	24.22	179.7	25.55	178.3
28.52	177.22	29.4	177.16	29.83	176.92	30.03	176.89	31.14	176.95
33.89	177.33	45.71	179.18	53.46	178.96	58.29	178.68	60.79	178.53
80.26	177.38	114.81	175.93	135	175.61	170	175.06	175.76	174.97
277.41	173.7	290	173.69	297.62	173.68	301.92	173.67	368.9	173.8
370	173.8	380.43	173.82	381.68	173.85	441.58	175.45	450.44	176.6
456.37	177.34	461.78	178.92	482.65	187.5	485.35	188.63	487.9	189.38
496.63	191.83	501.76	192.43	517.34	194.82	521.03	196	530	196.14
577.96	196.9	581.86	197.01	667.6	198.92	692.21	199.27	729.61	200.36
787.24	202.45	809.84	202.7	832.73	203.46				

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.07	58.29	.05	135	.035	170	.05	290	.035
370	.05	530	.02						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
114.81	441.58	213.06	206.59	170.09	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 3169.567

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 37

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	202.81	17.39	187.19	20.1	184.41	26.49	176.65	30.73	174.19
36.31	170.12	63.45	169.65	68.1	169.36	68.33	169.37	70.89	169.5
71.77	169.54	79.63	169.57	102.49	170.28	128.59	171.1	198.45	171.16
267.13	172.44	325	173.69	343.3	174.08	368.86	174.3	385	174.45
392.02	174.51	428.46	174.85	457.13	175.24	466.29	175.91	474.08	176.34
491.45	177.44	514.47	185.13	530.01	190.11	540.37	191.17	560.21	193.29
605.9	194.1	663.72	196.08	731.34	198.35	771.14	200.95	809.16	202.81
836.92	203.19	854.08	203.45						

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.07	68.33	.035	102.49	.05	325	.035	385	.05
540.37	.02								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
30.73	392.02	233.08	206.98	127.76	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 2962.583

INPUT
Description:
Station Elevation Data num= 48

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	196.65	1.21	194.95	2.74	193.19	7.39	187.41	9.04	185.53
9.93	184.66	15.36	180.15	18.49	177.74	21.12	176.24	27.45	172.63
29.96	170.67	32.82	170.12	40.32	169.22	42.53	169.14	53.73	169.83
66.24	170.54	73.41	170.96	88.51	172.01	95.45	172.5	112.8	173.7
119.62	174.18	151.76	174.34	174.26	174.29	181.79	174.04	238.12	172.4
298.06	170.72	355.76	171.99	382.05	172.57	393.11	173.1	418.99	174.35
421.7	174.38	425.17	174.42	502.17	175.22	524.26	175.57	529.87	175.94
555.35	177.47	582.7	184.53	590.04	186.21	602.82	189.14	610.81	190.23
628.44	192.16	664.5	193.75	706.88	195.82	743.83	197.24	795.3	198.69
826.88	201.82	849.91	203.31	867.7	203.18				

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.07	95.45	.035	112.8	.05	355.76	.035	425.17	.05
590.04	.02								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
27.45	355.76	219.26	216.54	187.47	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 2746.045

INPUT
Description:
Station Elevation Data num= 66

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	193.09	5.87	190.32	7.53	189.61	20.08	187.13	45.88	181.4
62.08	178.42	67.85	177.35	74.88	176.01	104.52	170.55	124.17	168.6
129.19	168.21	136.57	168.15	140.31	168.12	148.42	167.83	155.03	167.55
165.53	167.39	174.64	167.25	203.55	167.33	227.61	167.69	284.63	168.54
329.45	170.32	372.93	171.35	382.8	171.81	395.64	172.41	432.46	174.56
434.53	174.68	472.25	176.88	496.43	177.65	499.58	177.7	523.92	178.02
572.77	177.97	598.51	179.61	628.03	179.17	637.73	179.28	649.82	179.89
657.53	180.45	662.14	181.22	668.87	182.36	699.31	186.2	702.46	186.74
710.77	187.33	730.98	189.45	737.08	190.23	771.86	191.33	773.38	191.38
807.73	193.38	812.26	193.29	819.59	194.04	832.36	194.19	838.02	194.76
852.47	196.21	862.83	196.32	880.74	196.32	921.34	198.05	924.11	198.18
925.18	198.36	926.23	198.45	927.97	198.45	954.06	199.83	960.65	200.47
967.55	200.25	976.45	200.54	993.9	201.7	1015.04	203.9	1021.08	203.93
1034.59	204.46								

Manning's n Values num= 8

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.02	62.08	.07	165.53	.035	227.61	.05	382.8	.035
434.53	.05	662.14	.02	838.02	.035				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
104.52	329.45	139.12	137.72	142.04	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 2608.338

INPUT
Description:
Station Elevation Data num= 45

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	197.52	1.98	197.16	8.23	195.57	20.39	192.61	44.27	186.73
50.9	185.94	53.04	185.69	92.16	177.69	96	176.91	110.52	172.48
114.02	171.41	116.04	171.24	130.76	168.57	130.88	168.57	145.73	167.82
173.95	167.14	181.17	167.34	235.62	168.88	271.89	169.71	309.03	171.22
322.92	171.78	327.21	172.04	403.24	176.68	403.38	176.68	404.98	176.75
407.11	176.87	411.05	176.99	505.74	180.17	543.27	182.79	619.05	185.86
621.92	185.99	623.65	186.15	625.34	186.23	646.06	187.2	651.27	187.46
659.44	187.68	684.52	188.97	684.6	188.97	684.63	188.98	684.81	189.01
697.48	191.28	697.49	191.28	714.77	198.08	718.68	199.93	727.14	204.25

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.02	50.9	.07	130.88	.035	327.21	.05	625.34	.02

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
116.04	309.03	157.33	164.71	180.94	.3	.5

BRIDGE RIVER: San Juan
REACH: Upper RS: 2580

INPUT
Description:
Distance from Upstream XS = 30
Deck/Roadway Width = 62.99
Weir Coefficient = 2.6
Upstream Deck/Roadway Coordinates
num= 4

Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord
-47.6437	208.06	0	-47.6437	208.06	200.56	728.35	235.94	228.44
728.35	235.94	0						

Upstream Bridge Cross Section Data
Station Elevation Data num= 45

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	197.52	1.98	197.16	8.23	195.57	20.39	192.61	44.27	186.73
50.9	185.94	53.04	185.69	92.16	177.69	96	176.91	110.52	172.48
114.02	171.41	116.04	171.24	130.76	168.57	130.88	168.57	145.73	167.82
173.95	167.14	181.17	167.34	235.62	168.88	271.89	169.71	309.03	171.22
322.92	171.78	327.21	172.04	403.24	176.68	403.38	176.68	404.98	176.75
407.11	176.87	411.05	176.99	505.74	180.17	543.27	182.79	619.05	185.86
621.92	185.99	623.65	186.15	625.34	186.23	646.06	187.2	651.27	187.46
659.44	187.68	684.52	188.97	684.6	188.97	684.63	188.98	684.81	189.01
697.48	191.28	697.49	191.28	714.77	198.08	718.68	199.93	727.14	204.25

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.02	50.9	.07	130.88	.035	327.21	.05	625.34	.02

Bank Sta: Left	Right	Coeff Contr.	Expan.
116.04	309.03	.3	.5

Downstream Deck/Roadway Coordinates
num= 4

Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord

```
-47.6437  208.06        0-47.6437  208.06  200.56  728.35  235.94  228.44
  728.35  235.94        0

Downstream Bridge Cross Section Data
Station Elevation Data     num=      41
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  195.62     .85  195.36    3.42  194.45   20.23  187.93   21.53  187.55
   26.44  186.13   33.57  183.63   45.92  178.05   46.63  177.78   47.28  177.54
    60.9  176.79   78.94  173.17   79.06  173.15   84.86  172.18   86.84  171.91
   97.13   170.5  130.03   170.2  155.46  168.82     187  168.81  204.75  168.82
  216.73  168.71  237.91  168.51  281.75  169.76  349.25  171.27  381.38  173.34
  461.47  177.12  476.01  177.84  496.32  178.63  524.44  180.28  609.93  186.01
   645.4  187.24  655.65  189.33   672.2  190.78  674.49  190.75  687.77  190.65
  697.57  195.15  697.71  195.19  701.59  196.97  714.78  202.98  715.19  203.14
  717.65  204.28

Manning's n Values         num=       4
     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val
       0     .05   21.53     .07   78.94    .035  204.75     .05

Bank Sta: Left   Right    Coeff Contr.   Expan.
        130.03  281.75              .3       .5

Upstream Embankment side slope              =       0 horiz. to 1.0 vertical
Downstream Embankment side slope            =       0 horiz. to 1.0 vertical
Maximum allowable submergence for weir flow =     .95
Elevation at which weir flow begins         =     210
Energy head used in spillway design         =
Spillway height used in design              =
Weir crest shape                            = Broad Crested

Number of Piers =  4

Pier Data
Pier Station     Upstream=   79.36    Downstream=   79.36
Upstream     num=       2
    Width   Elev    Width   Elev
    10.56      0    10.56    336
Downstream     num=       2
    Width   Elev    Width   Elev
    10.56      0    10.56    336

Pier Data
Pier Station     Upstream=  253.36    Downstream=  253.36
Upstream     num=       2
    Width   Ele     Width   Elev
    10.56      0    10.56    336
Downstream     num=       2
    Width   Elev    Width   Elev
    10.56      0    10.56    336

Pier Data
Pier Station     Upstream=  427.36    Downstream=  427.36
Upstream     num=       2
    Width   Elev    Width   Elev
   10.562      0   10.562    336
Downstream     num=       2
    Width   Elev    Width   Elev
   10.562      0   10.562    336

Pier Data
Pier Station     Upstream=  601.36    Downstream=  601.36
Upstream     num=       2
    Width   Elev    Width   Elev
   10.562      0   10.562    336
Downstream     num=       2
    Width   Elev    Width   Elev
   10.562      0   10.562    336

Number of Bridge Coefficient Sets =  1

Low Flow Methods and Data
       Energy
Selected Low Flow Methods = Energy

High Flow Method
       Energy Only

Additional Bridge Parameters
       Add Friction component to Momentum
       Do not add Weight component to Momentum
       Class B flow critical depth computations use critical depth
           inside the bridge at the upstream end
       Criteria to check for pressure flow = Upstream energy grade line

CROSS SECTION          RIVER: San Juan
REACH: Upper              RS: 2443.625

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data     num=      41
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  195.62     .85  195.36    3.42  194.45   20.23  187.93   21.53  187.55
   26.44  186.13   33.57  183.63   45.92  178.05   46.63  177.78   47.28  177.54
    60.9  176.79   78.94  173.17   79.06  173.15   84.86  172.18   86.84  171.91
   97.13   170.5  130.03   170.2  155.46  168.82     187  168.81  204.75  168.82
  216.73  168.71  237.91  168.51  281.75  169.76  349.25  171.27  381.38  173.34
  461.47  177.12  476.01  177.84  496.32  178.63  524.44  180.28  609.93  186.01
```

645.4	187.24	655.65	189.33	672.2	190.78	674.49	190.75	687.77	190.65
697.57	195.15	697.71	195.19	701.59	196.97	714.78	202.98	715.19	203.14
717.65	204.28								

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	21.53	.07	78.94	.035	204.75	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
130.03	281.75	22.78	37.03	49.81	.3	.5

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 2406.59*

INPUT
Description:
Station Elevation Data num= 67

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	193.29	.14	193.25	.83	193.06	3.34	192.24	6.67	191.07
19.78	186.6	21.05	186.26	25.85	185.02	32.82	182.85	44.9	178.1
45.59	177.87	46.23	177.66	48.13	177.53	50.54	177.39	51.48	177.34
59.55	176.79	77.18	173.51	77.3	173.49	82.97	172.59	84.91	172.33
86.5	172.11	89.49	171.67	94.97	170.92	127.14	169.88	128.48	169.8
141.12	169.04	144.5	168.86	149.33	168.57	176.86	168.26	184.65	168.18
192.35	168.11	202.81	167.91	202.85	167.91	217.15	167.64	221.29	167.6
243.49	168.45	257.95	169	268.3	169.45	287.61	169.8	338.33	170.72
371.66	172.4	375.12	172.53	375.76	172.55	419.15	174.17	454.75	175.6
469.84	176.24	483.9	176.72	490.91	176.96	510.21	177.91	520.08	178.4
551.88	180.17	603.28	183.67	608.18	183.97	608.78	184.01	632.92	185.04
645.58	185.57	656.21	187.4	673.38	188.81	675.75	188.82	689.53	188.94
698.57	192.27	699.7	192.68	699.84	192.72	703.87	194.18	717.55	199.11
717.98	199.24	720.53	200.18						

Manning's n Values num= 9

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	21.05	.066	77.18	.038	127.14	.047	196.66	.047
223.37	.035	268.3	.05	375.12	.05	720.53	.05		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
127.14	268.3	22.78	37.03	49.81	.3	.5

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 2369.55*

INPUT
Description:
Station Elevation Data num= 67

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	190.96	.14	190.93	.81	190.75	3.27	190.03	6.51	189.01
19.33	185.27	20.57	184.98	25.26	183.9	32.08	182.07	43.88	178.15
44.56	177.96	45.18	177.79	47.03	177.63	49.39	177.48	50.31	177.43
58.19	176.8	75.43	173.84	75.54	173.83	81.09	172.99	82.98	172.74
84.53	172.54	87.46	172.08	92.81	171.35	124.25	169.56	125.39	169.48
136.19	168.75	139.08	168.6	143.21	168.32	166.72	167.71	173.37	167.55
179.95	167.39	188.89	167.11	188.92	167.11	201.13	166.72	204.68	166.68
228.37	167.79	243.8	168.51	254.85	169.15	274.86	169.43	327.41	170.17
361.95	171.46	365.53	171.56	366.19	171.58	411.15	172.84	448.04	174.09
463.67	174.64	478.23	175.06	485.5	175.28	505.49	176.1	515.73	176.51
548.68	178	601.93	181.68	607.01	181.96	607.62	182	632.64	183.27
645.75	183.89	656.77	185.46	674.56	186.83	677.02	186.89	691.29	187.23
700.66	189.9	701.83	190.21	701.98	190.24	706.15	191.38	720.33	195.24
720.77	195.34	723.41	196.07						

Manning's n Values num= 9

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	20.57	.062	75.43	.041	124.25	.044	188.57	.044
213.28	.035	254.85	.05	365.53	.05	723.41	.05		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
124.25	254.85	22.78	37.03	49.81	.3	.5

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 2332.52*

INPUT
Description:
Station Elevation Data num= 67

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	188.63	.14	188.61	.79	188.45	3.19	187.82	6.36	186.94
18.88	183.94	20.09	183.69	24.68	182.79	31.33	181.29	42.86	178.21
43.52	178.05	44.13	177.91	45.94	177.73	48.24	177.57	49.14	177.52
56.84	176.8	73.67	174.18	73.78	174.16	79.2	173.4	81.05	173.16
82.57	172.97	85.42	172.49	90.65	171.77	121.35	169.24	122.31	169.16
131.26	168.46	133.66	168.34	137.08	168.06	156.58	167.16	162.1	166.91
167.56	166.68	174.97	166.31	175	166.31	185.12	165.81	188.06	165.77
213.25	167.14	229.65	168.02	241.4	168.84	262.11	169.06	316.49	169.62
352.23	170.52	355.93	170.59	356.62	170.61	403.14	171.5	441.32	172.57
457.5	173.04	472.57	173.41	480.09	173.61	500.78	174.28	511.37	174.63
545.47	175.84	600.57	179.69	605.83	179.95	606.47	180	632.35	181.5
645.92	182.22	657.33	183.53	675.74	184.86	678.28	184.95	693.06	185.52
702.75	187.52	703.96	187.75	704.11	187.77	708.43	188.59	723.1	191.37
723.56	191.44	726.3	191.97						

Manning's n Values num= 9

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	20.09	.058	73.67	.044	121.35	.041	180.47	.041
203.19	.035	241.4	.05	355.93	.05	726.3	.05		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
121.35	241.4	22.78	37.03	49.81	.3	.5

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 2295.48*

INPUT
Description:
Station Elevation Data num= 67

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	186.3	.13	186.28	.77	186.14	3.12	185.61	6.21	184.88
18.43	182.6	19.61	182.41	24.09	181.67	30.58	180.51	41.83	178.26
42.48	178.14	43.07	178.03	44.84	177.83	47.09	177.67	47.97	177.61
55.48	176.8	71.92	174.52	72.03	174.5	77.31	173.8	79.11	173.58
80.6	173.39	83.39	172.89	88.49	172.19	118.46	168.92	119.22	168.84
126.33	168.17	128.23	168.08	130.95	167.81	146.44	166.61	150.82	166.28
155.16	165.96	161.04	165.51	161.07	165.51	169.11	164.89	171.45	164.85
198.13	166.48	215.51	167.54	227.95	168.54	249.35	168.68	305.57	169.06
342.51	169.58	346.34	169.63	347.05	169.63	395.14	170.17	434.6	171.05
451.32	171.44	466.9	171.76	474.68	171.93	496.06	172.47	507.01	172.75
542.26	173.67	599.22	177.7	604.66	177.95	605.31	177.99	632.07	179.72
646.1	180.55	657.89	181.59	676.92	182.89	679.55	183.02	694.82	183.81
704.84	185.14	706.09	185.28	706.25	185.29	710.71	185.79	725.88	187.5
726.35	187.54	729.18	187.86						

Manning's n Values num= 9

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	19.61	.054	71.92	.047	118.46	.038	172.38	.038
193.1	.035	227.95	.05	346.34	.05	729.18	.05		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
118.46	227.95	22.78	37.03	49.81	.3	.5

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 2258.454

INPUT
Description:
Station Elevation Data num= 31

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	183.97	.13	183.96	6.06	182.82	43.75	177.93	45.94	177.76
46.8	177.7	78.63	173.82	81.35	173.3	115.57	168.6	116.13	168.52
121.4	167.88	122.81	167.82	139.55	165.64	147.14	164.71	153.1	163.98
154.83	163.94	183.01	165.83	201.36	167.05	214.5	168.23	236.6	168.31
336.75	168.66	337.48	168.66	387.14	168.84	461.24	170.11	491.35	170.66
539.05	171.51	597.87	175.71	603.48	175.94	631.79	177.95	706.93	182.76
732.06	183.76								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.05	183.01	.035	336.75	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
115.57	214.5	37.15	40.69	38.12	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 2217.76*

INPUT
Description:
Station Elevation Data num= 72

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	184.18	.17	184.16	3.03	183.69	4.81	183.4	5	183.35
5.55	183.24	5.92	183.16	8.13	182.68	17.8	180.92	27.6	179.98
45.33	178.12	58.67	177.02	61.6	176.87	62.76	176.81	62.96	176.79
67.27	176.38	68.2	176.29	78.67	175.34	89.94	174.13	105.02	173.02
105.44	172.98	109.09	172.53	117.49	171.76	148.36	168.94	154.98	168.31
155.52	168.24	160.65	167.64	162.02	167.57	168.49	166.77	178.31	165.56
185.7	164.7	191.12	164.07	191.5	164.02	193.18	163.95	225.26	165.56
227.4	165.67	246.15	166.83	261.11	167.99	283.96	168.1	354.64	168.42
380.78	168.5	387.48	168.52	388.23	168.52	394.07	168.54	408.98	168.7
417.08	168.8	437.69	169.03	439.56	169.04	492.08	169.93	499.67	170.03
516.16	170.25	547.28	170.71	565.05	170.96	571.43	171.11	580.09	171.37
596.59	171.68	633.84	173.81	637.12	174.04	651.71	174.72	657.38	175.02
659.26	175.07	663.18	175.39	672.23	176.32	676.03	176.78	683.59	177.16
687.85	177.6	692.45	178.03	700.99	178.79	735.99	180.99	753.41	181.97
770.11	182.84	796.09	183.74						

Manning's n Values num= 10

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.046	67.27	.039	154.98	.035	182.51	.035	227.33	.035
261.11	.05	354.64	.05	387.48	.05	408.98	.05	796.09	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
154.98	261.11	37.15	40.69	38.12	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 2177.07*

INPUT
Description:
Station Elevation Data num= 72

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	184.39	.22	184.37	3.81	183.83	6.03	183.5	6.28	183.43
6.97	183.29	7.42	183.18	10.19	182.54	22.32	179.95	34.62	179.03
56.86	177.01	73.59	176.11	77.27	175.97	78.72	175.92	78.97	175.91
84.37	175.48	85.54	175.38	98.68	174.42	112.81	173.04	131.72	172.17
132.25	172.14	136.83	171.77	147.36	171.07	186.08	168.6	194.39	168.02

194.91	167.96	199.9	167.4	201.23	167.31	207.52	166.59	217.07	165.49
224.25	164.69	229.53	164.1	229.89	164.06	231.53	163.96	267.52	165.3
269.91	165.39	290.95	166.62	307.73	167.76	331.32	167.89	404.3	168.28
431.29	168.36	438.21	168.38	438.99	168.38	445.01	168.4	460.41	168.68
468.78	168.83	490.05	169.22	491.99	169.24	546.21	170.15	554.05	170.22
571.07	170.4	603.21	170.75	621.56	170.95	628.15	171.14	637.09	171.52
654.12	171.84	692.58	173.54	695.97	173.78	711.04	174.13	716.9	174.32
718.84	174.36	722.89	174.84	732.22	176.07	736.15	176.75	743.95	176.99
748.36	177.56	753.1	178.11	761.92	179.1	798.06	181.33	816.05	182.22
833.3	182.93	860.12	183.71						

Manning's n Values num= 10

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.043	84.37	.043	194.39	.035	223.79	.035	271.65	.035
307.73	.05	404.3	.05	438.21	.05	460.41	.05	860.12	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
194.39	307.73	37.15	40.69	38.12	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 2136.38*

INPUT
Description:
Station Elevation Data num= 72

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	184.6	.26	184.57	4.58	183.98	7.26	183.6	7.55	183.51
8.38	183.34	8.93	183.21	12.26	182.4	26.85	178.99	41.63	178.07
68.38	175.91	88.5	175.2	92.93	175.08	94.67	175.03	94.98	175.02
101.48	174.57	102.88	174.47	118.68	173.51	135.68	171.94	158.43	171.33
159.06	171.3	164.57	171	177.24	170.39	223.81	168.26	233.79	167.73
234.31	167.67	239.15	167.17	240.45	167.06	246.56	166.4	255.83	165.41
262.81	164.68	267.93	164.14	268.29	164.1	269.88	163.98	309.77	165.03
312.43	165.1	335.74	166.4	354.35	167.52	378.68	167.67	453.96	168.15
481.8	168.23	488.94	168.24	489.74	168.25	495.96	168.26	511.84	168.65
520.47	168.87	542.42	169.41	544.41	169.44	600.35	170.36	608.43	170.41
625.99	170.54	659.14	170.8	678.07	170.94	684.86	171.17	694.09	171.66
711.66	172.01	751.33	173.26	754.83	173.51	770.37	173.53	776.41	173.63
778.41	173.64	782.59	174.28	792.22	175.83	796.27	176.71	804.32	176.81
808.86	177.52	813.76	178.19	822.86	179.42	860.14	181.67	878.69	182.47
896.48	183.01	924.15	183.69						

Manning's n Values num= 10

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.039	101.48	.046	233.79	.035	265.06	.035	315.97	.035
354.35	.05	453.96	.05	488.94	.05	511.84	.05	924.15	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
233.79	354.35	37.15	40.69	38.12	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 2095.690

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 47

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	184.81	5.35	184.12	8.48	183.7	8.82	183.59	9.79	183.39
10.43	183.23	31.37	178.02	48.65	177.12	79.91	174.8	110.99	174.13
118.58	173.66	120.22	173.56	138.69	172.59	158.55	170.85	185.13	170.49
207.11	169.71	261.53	167.92	273.2	167.44	285.59	166.22	306.34	164.18
308.23	163.99	354.94	164.82	400.96	167.28	490	167.92	503.62	168.02
532.31	168.09	546.9	168.12	563.27	168.62	572.16	168.9	594.78	169.6
654.48	170.58	662.81	170.6	734.58	170.93	741.58	171.2	751.09	171.81
810.08	172.99	813.68	173.25	829.7	172.94	837.99	172.93	852.22	175.58
856.39	176.67	864.69	176.63	869.37	177.48	883.79	179.73	922.21	182.01
941.33	182.72	988.18	183.67						

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	118.58	.05	306.34	.035	490	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
273.2	400.96	97.79	280.21	315.49	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 1815.468

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 45

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	179.36	2.08	178.85	6.28	177.56	30.14	175.76	32.7	175.46
86.02	175.1	87.39	175.09	87.62	175.08	87.99	175.06	132	173.2
202.5	170.23	250.96	169.57	285	167.82	293.94	167.36	330.88	165.46
377.12	164.1	414.9	163.81	477.77	163.14	573.83	163.32	603.6	163.51
604.68	163.38	620.57	162.55	631.33	160.3	637.44	158.18	641.68	157.71
646.53	157.13	649.75	156.78	654.61	156.93	665.23	158.28	666.56	158.49
667.62	158.75	684.92	162.64	695.21	164.31	700.31	164.76	703.34	166.78
707.45	170.49	710	170.97	714.12	171.75	723.72	172.17	724.25	172.17
738.75	172.16	744.8	172.26	867.33	173.98	923.67	175.76	1010.11	177.35

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	202.5	.05	285	.035	620.57	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
620.57	684.92	157.35	199.5	221.7	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 1615.906

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 44

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	177.11	44.42	176.08	68.41	175.81	81.79	175.66	117.53	174.86
132.29	174.76	186.79	173.08	192.24	172.93	218.39	172.08	239.31	171.94
334.71	169.35	345	169	437.24	165.85	443.29	165.68	452	165.43
477.2	164.71	492.81	164.25	648.25	163.06	676.88	162.9	682.45	162.6
714.81	162.27	768.99	161.61	800.23	159.03	822.19	157.53	838.02	157.67
860.36	161.95	866.99	162.84	882.33	164.88	894.26	166.49	902.99	167.17
918.58	168.4	947.9	170.66	948.47	170.67	962.33	171	1035.59	171.38
1115.66	171.7	1141.92	171.77	1192.22	172.45	1201.31	172.59	1223.41	173.39
1257.31	174.05	1310.92	176.14	1344.33	176.54	1368.17	177.12		

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	68.41	.02	345	.05	452	.035	918.58	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
768.99	860.36	158.82	235.44	273.12	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 1380.475

INPUT
Description:
Station Elevation Data num= 56

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	177.79	4.62	176.59	9.63	176.35	32.39	175.14	35.77	175.09
50.4	174.87	115.45	172.82	173.47	171.49	228.38	171	243.14	170.89
324.6	170.78	396.47	170.44	439.48	170.52	447.14	170.26	481.59	169.11
527.7	167.7	542.55	166.99	599.17	164.47	608.12	164.07	622.33	163.44
643.38	163.09	679.46	162.19	699.01	161.78	722.2	161.31	812.09	159.88
879.06	158.93	921.4	158.33	927.64	157.96	929.02	157.63	934.75	154.08
936.57	153.2	940.51	151.34	942.47	151.04	948.13	151.76	963.53	159.99
969.15	161.85	971.84	163.3	973.16	163.99	993.78	165.11	1004.59	165.98
1006.97	165.96	1019.49	165.84	1075.03	165.33	1155.65	164.57	1190.39	164.24
1195.11	164.23	1197.13	164.29	1211.81	164.25	1356.61	165.58	1581	171
1619.13	172.04	1626.05	172.09	1637.76	172.47	1694.72	174.38	1695.02	174.4
1788.58	177.19								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	35.77	.02	447.14	.05	608.12	.035	1019.49	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
812.09	963.53	32.45	39.81	46.27	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 1340.66*

INPUT
Description:
Station Elevation Data num= 107

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	177.75	2.11	177.22	4.63	176.64	9.65	176.37	32.46	175.03
35.31	174.96	35.85	174.94	50.51	174.55	77.39	173.46	78.91	173.4
79.6	173.37	80.14	173.35	115.69	172.25	141.34	171.64	164.14	171.19
173.84	171.01	216.56	170.7	228.86	170.64	229.15	170.64	243.65	170.55
321.39	170.47	325.29	170.46	397.31	170.11	422.04	170.13	440.41	170.12
448.09	169.89	482.61	168.85	521.41	167.79	528.82	167.57	543.7	166.91
595.64	164.77	600.21	164.59	600.44	164.58	609.41	164.23	623.65	163.68
644.74	163.35	680.9	162.53	694.93	162.26	700.49	162.15	703.66	162.09
709.06	161.97	723.73	161.63	812.05	159.9	813.81	159.87	843.79	159.24
856.66	159.09	885.23	158.81	891.63	158.75	908.82	158.58	930.35	158.37
940.82	158.18	948.07	157.82	949.68	157.53	956.33	154.52	958.45	153.77
960.01	153.23	963.03	152.18	965.3	151.92	967.71	152.17	969.69	152.4
971.52	152.6	981.67	156.83	988.43	159.88	992.97	161.34	993.87	161.62
996.48	162.91	997.76	163.52	999.78	163.68	1012.74	164.59	1017.74	164.85
1024.41	165.34	1028.21	165.59	1030.52	165.57	1041.9	165.46	1042.65	165.45
1042.72	165.45	1065.27	165.27	1074.9	165.2	1094.86	165.04	1096.46	165.03
1118.91	164.86	1131.34	164.81	1165.59	164.52	1174.57	164.44	1208.23	164.14
1212.8	164.13	1214.76	164.18	1228.98	164.14	1247.45	164.27	1291.01	164.49
1369.28	164.87	1383.75	165.12	1495.01	167.42	1510.91	167.78	1529.97	168.26
1586.69	169.66	1623.63	170.68	1630.34	170.75	1641.68	171.11	1646.71	171.27
1696.87	173.03	1697.16	173.05	1698.34	173.09	1728.51	174.05	1730.35	174.14
1759.03	175.15	1787.81	176.24						

Manning's n Values num= 12

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	35.31	.032	35.85	.02	448.09	.045	600.21	.025
609.41	.038	812.05	.047	813.81	.05	988.43	.05	1042.65	.05
1065.27	.05	1787.81	.05						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
813.81	988.43	32.45	39.81	46.27	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 1300.86*

INPUT
Description:
Station Elevation Data num= 107

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev

0	177.72	2.11	177.2	4.64	176.69	9.67	176.39	32.53	174.93
35.38	174.82	35.92	174.79	50.61	174.23	77.56	172.89	79.07	172.81
79.77	172.78	80.31	172.77	115.94	171.68	141.64	171.05	164.48	170.66
174.2	170.52	217.02	170.3	229.35	170.28	229.63	170.28	244.17	170.21
322.07	170.16	325.98	170.15	398.15	169.79	422.93	169.77	441.34	169.72
449.03	169.51	483.63	168.6	522.51	167.65	529.94	167.43	544.85	166.84
596.89	164.86	601.48	164.71	601.71	164.7	610.7	164.4	624.97	163.93
646.11	163.61	682.34	162.88	696.4	162.63	701.97	162.52	705.15	162.46
710.56	162.34	725.26	161.96	813.76	159.9	815.53	159.86	849.69	158.97
864.36	158.82	896.91	158.61	904.19	158.56	923.78	158.44	948.32	158.29
960.25	158.04	968.51	157.68	970.33	157.43	977.92	154.96	980.33	154.34
982.11	153.89	985.55	153.03	988.14	152.8	990.76	153.02	992.92	153.25
994.91	153.43	1005.96	156.96	1013.32	159.77	1017.72	161.13	1018.59	161.39
1021.12	162.52	1022.35	163.06	1024.31	163.25	1036.86	164.35	1041.69	164.58
1048.15	165.01	1051.83	165.21	1054.06	165.19	1065.08	165.07	1065.8	165.06
1065.88	165.06	1087.7	164.92	1097.02	164.86	1116.34	164.73	1117.89	164.72
1139.62	164.6	1151.65	164.64	1184.79	164.38	1193.49	164.31	1226.07	164.05
1230.5	164.04	1232.39	164.07	1246.16	164.03	1264.03	164.12	1306.19	164.14
1381.95	164.15	1395.95	164.3	1503.64	166.12	1519.03	166.46	1537.48	166.93
1592.38	168.33	1628.14	169.32	1634.63	169.4	1645.61	169.75	1650.47	169.9
1699.02	171.68	1699.3	171.7	1700.44	171.74	1729.65	172.73	1731.42	172.85
1759.19	173.99	1787.04	175.29						

Manning's n Values num= 12

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	35.38	.03	35.92	.02	449.03	.04	601.48	.03
610.7	.04	813.76	.045	815.53	.05	1013.32	.05	1065.8	.05
1087.7	.05	1787.04	.05						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
815.53	1013.32	32.45	39.81	46.27	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 1261.05*

INPUT
Description:
Station Elevation Data num= 107

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	177.68	2.12	177.18	4.65	176.75	9.69	176.41	32.6	174.82
35.46	174.67	36	174.65	50.72	173.9	77.72	172.32	79.24	172.23
79.94	172.2	80.48	172.18	116.18	171.11	141.93	170.45	164.83	170.14
174.57	170.04	217.48	169.89	229.83	169.92	230.12	169.92	244.68	169.87
322.75	169.85	326.66	169.83	398.99	169.46	423.82	169.41	442.27	169.31
449.98	169.14	484.65	168.34	523.61	167.51	531.05	167.3	546	166.76
598.15	164.95	602.74	164.82	602.98	164.81	611.98	164.56	626.28	164.17
647.47	163.88	683.78	163.22	697.86	163	703.45	162.89	706.64	162.83
712.05	162.71	726.79	162.28	815.48	159.89	817.25	159.85	855.59	158.7
872.05	158.55	908.58	158.41	916.76	158.38	938.74	158.3	966.28	158.2
979.67	157.89	988.94	157.53	990.99	157.33	999.5	155.4	1002.21	154.91
1004.21	154.55	1008.06	153.87	1010.97	153.68	1013.81	153.87	1016.14	154.1
1018.3	154.27	1030.26	157.1	1038.22	159.65	1042.47	160.93	1043.32	161.17
1045.75	162.13	1046.95	162.59	1048.84	162.83	1060.97	164.11	1065.65	164.32
1071.9	164.69	1075.45	164.82	1077.61	164.8	1088.26	164.68	1088.96	164.68
1089.03	164.67	1110.13	164.57	1119.14	164.52	1137.82	164.43	1139.31	164.42
1160.33	164.35	1171.95	164.46	1204	164.25	1212.41	164.19	1243.91	163.95
1248.19	163.94	1250.02	163.97	1263.33	163.92	1280.61	163.97	1321.37	163.78
1394.62	163.44	1408.16	163.49	1512.27	164.82	1527.15	165.13	1544.99	165.6
1598.07	166.99	1632.64	167.95	1638.91	168.06	1649.53	168.38	1654.23	168.53
1701.17	170.33	1701.45	170.35	1702.55	170.39	1730.78	171.41	1732.5	171.57
1759.34	172.84	1786.27	174.33						

Manning's n Values num= 12

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	35.46	.027	36	.02	449.98	.035	602.74	.035
611.98	.043	815.48	.043	817.25	.05	1038.22	.05	1088.96	.05
1110.13	.05	1786.27	.05						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
817.25	1038.22	32.45	39.81	46.27	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 1221.24*

INPUT
Description:
Station Elevation Data num= 107

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	177.65	2.12	177.16	4.66	176.8	9.71	176.43	32.66	174.71
35.53	174.53	36.07	174.5	50.83	173.58	77.88	171.75	79.41	171.65
80.1	171.61	80.65	171.59	116.43	170.54	142.23	169.86	165.18	169.61
174.94	169.55	217.93	169.49	230.31	169.56	230.6	169.56	245.2	169.53
323.43	169.54	327.35	169.52	399.83	169.13	424.72	169.06	443.2	168.91
450.93	168.76	485.67	168.09	524.72	167.37	532.17	167.17	547.15	166.68
599.41	165.03	604.01	164.93	604.25	164.93	613.27	164.73	627.6	164.41
648.83	164.14	685.22	163.57	699.33	163.37	704.93	163.26	708.13	163.21
713.55	163.08	728.32	162.6	817.2	159.89	818.97	159.83	861.48	158.43
879.74	158.28	920.26	158.21	929.32	158.2	953.71	158.16	984.24	158.12
999.09	157.74	1009.37	157.39	1011.65	157.23	1021.09	155.84	1024.09	155.48
1026.31	155.21	1030.58	154.72	1033.81	154.55	1036.86	154.73	1039.37	154.95
1041.69	155.11	1054.55	157.23	1063.12	159.54	1067.22	160.73	1068.04	160.94
1070.39	161.74	1071.55	162.12	1073.38	162.4	1085.09	163.87	1089.6	164.05
1095.64	164.36	1099.07	164.44	1101.15	164.42	1111.44	164.3	1112.11	164.29
1112.18	164.29	1132.56	164.22	1141.26	164.18	1159.3	164.12	1160.74	164.12
1181.04	164.09	1192.26	164.28	1223.21	164.11	1231.33	164.06	1261.75	163.86
1265.88	163.84	1267.65	163.86	1280.5	163.81	1297.19	163.82	1336.56	163.43
1407.29	162.72	1420.36	162.67	1520.91	163.52	1535.28	163.8	1552.5	164.28
1603.76	165.65	1637.14	166.59	1643.2	166.71	1653.45	167.02	1658	167.16

1703.33	168.98	1703.59	169	1704.65	169.04	1731.92	170.09	1733.58	170.29
1759.5	171.68	1785.51	173.38						

Manning's n Values num= 12

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	35.53	.025	36.07	.02	450.93	.03	604.01	.04
613.27	.045	817.2	.04	818.97	.05	1063.12	.05	1112.11	.05
1132.56	.05	1785.51	.05						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
818.97	1063.12	32.45	39.81	46.27	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 1181.44*

INPUT
Description:
Station Elevation Data num= 107

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	177.62	2.13	177.14	4.67	176.85	9.73	176.45	32.73	174.6
35.61	174.39	36.15	174.35	50.93	173.26	78.05	171.19	79.57	171.07
80.27	171.03	80.82	171.01	116.67	169.97	142.53	169.26	165.52	169.09
175.31	169.07	218.39	169.08	230.8	169.2	231.09	169.2	245.71	169.19
324.11	169.22	328.04	169.2	400.67	168.81	425.61	168.7	444.13	168.51
451.88	168.39	486.69	167.83	525.82	167.23	533.29	167.04	548.3	166.6
600.67	165.12	605.28	165.05	605.52	165.04	614.56	164.89	628.92	164.65
650.19	164.4	686.66	163.91	700.8	163.73	706.41	163.63	709.61	163.58
715.05	163.44	729.85	162.93	818.91	159.88	820.69	159.82	867.38	158.16
887.44	158.01	931.93	158.01	941.89	158.01	968.67	158.02	1002.21	158.03
1018.51	157.6	1029.81	157.25	1032.3	157.13	1042.67	156.28	1045.97	156.05
1048.4	155.88	1053.1	155.56	1056.65	155.43	1059.91	155.58	1062.59	155.8
1065.08	155.94	1078.85	157.36	1088.01	159.43	1091.97	160.52	1092.76	160.71
1095.03	161.35	1096.15	161.65	1097.91	161.98	1109.2	163.63	1113.56	163.79
1119.38	164.04	1122.69	164.05	1124.7	164.03	1134.62	163.91	1135.27	163.9
1135.34	163.9	1154.99	163.86	1163.38	163.85	1180.78	163.82	1182.17	163.82
1201.74	163.84	1212.57	164.11	1242.42	163.98	1250.25	163.93	1279.59	163.76
1283.57	163.75	1285.28	163.75	1297.68	163.7	1313.77	163.66	1351.74	163.08
1419.96	162.01	1432.57	161.85	1529.54	162.23	1543.4	162.48	1560.01	162.95
1609.44	164.32	1641.64	165.23	1647.49	165.37	1657.38	165.66	1661.76	165.79
1705.48	167.63	1705.73	167.65	1706.76	167.69	1733.05	168.78	1734.65	169
1759.65	170.53	1784.74	172.43						

Manning's n Values num= 12

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	35.61	.022	36.15	.02	451.88	.025	605.28	.045
614.56	.047	818.91	.038	820.69	.05	1088.01	.05	1135.27	.05
1154.99	.05	1784.74	.05						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
820.69	1088.01	32.45	39.81	46.27	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 1141.636

INPUT
Description:
Station Elevation Data num= 56

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	177.58	2.13	177.12	35.68	174.25	78.21	170.62	79.74	170.49
80.44	170.44	80.99	170.42	142.83	168.67	165.87	168.56	218.85	168.68
231.57	168.84	324.79	168.91	426.5	168.34	526.92	167.09	601.93	165.21
606.55	165.16	702.27	164.1	711.1	163.95	716.55	163.81	820.63	159.88
822.41	159.81	873.28	157.89	895.13	157.74	943.61	157.81	983.63	157.88
1020.17	157.95	1070.5	156.54	1079.48	156.31	1082.96	156.43	1085.82	156.65
1103.14	157.49	1112.91	159.32	1116.72	160.32	1122.44	161.55	1133.32	163.39
1143.12	163.71	1157.8	163.52	1158.49	163.51	1177.42	163.51	1185.5	163.51
1202.26	163.51	1222.45	163.58	1232.88	163.93	1261.63	163.84	1330.35	163.51
1366.92	162.73	1444.77	161.03	1538.17	160.93	1551.52	161.15	1567.52	161.62
1665.52	164.42	1708.86	166.34	1734.19	167.46	1735.73	167.72	1759.81	169.37
1783.97	171.48								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	35.68	.02	606.55	.05	820.63	.035	1177.42	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
822.41	1112.91	36.67	37.86	38.56	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 1103.77*

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	176.41	2.12	175.99	4.72	175.77	12.67	175.24	32.9	173.68
35.47	173.49	76.05	170.35	77.76	170.23	79.28	170.12	79.97	170.08
80.52	170.06	136.97	168.64	142	168.51	164.7	168.38	164.91	168.37
188.19	168.42	217.58	168.48	230.23	168.61	269.28	168.64	322.9	168.67
338.09	168.6	424.02	167.99	479.79	167.27	523.86	166.71	541.47	166.3
598.44	165.13	603.03	165.09	606.34	165.06	698.19	164.09	699.55	164.07
706.97	163.91	711.7	163.78	712.39	163.76	815.87	159.79	817.64	159.72
863.44	158	883.11	157.82	915.15	157.78	926.77	157.78	962.8	157.8
992.19	157.83	995.71	157.83	1041.02	156.62	1049.11	156.42	1053.57	156.48
1057.53	156.53	1058.55	156.56	1060.84	156.62	1064.46	156.72	1069.38	156.8
1071.93	156.86	1095.33	157.39	1106.39	157.51	1118.1	158.2	1118.63	158.23
1130.04	159.28	1133.62	160.13	1139	161.18	1149.22	162.76	1156.63	163.01
1158.44	163.07	1172.24	162.98	1172.88	162.98	1181.59	163.02	1190.68	163.04

1198.27	163.05	1214.03	163.09	1222.78	163.14	1233	163.19	1234.23	163.23
1242.81	163.54	1269.83	163.63	1274.69	163.64	1334.43	163.52	1364.16	163.03
1367.14	162.98	1368.8	162.94	1441.98	161.19	1485.11	160.95	1495.64	160.92
1529.77	160.92	1542.32	161.12	1557.36	161.52	1561.09	161.62	1572.95	161.94
1574.45	161.98	1649.48	164.39	1673.86	165.51	1689.46	166.26	1690.22	166.29
1701.82	166.88	1703.73	166.97	1714.02	167.49	1715.47	167.72	1738.11	169.34
1760.82	171.35								

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.032	35.47	.02	603.03	.045	711.7	.025	815.87	.038
817.64	.047	960.74	.035	1130.04	.05	1156.63	.05	1190.68	.05
1760.82	.05								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
817.64	1130.04	36.67	37.86	38.56	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 1065.90*

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	175.24	2.11	174.87	4.69	174.63	12.6	174.26	32.71	172.9
35.27	172.72	75.61	169.94	77.3	169.84	78.81	169.75	79.51	169.71
80.05	169.7	136.17	168.46	141.17	168.35	163.74	168.19	163.94	168.19
187.09	168.22	216.31	168.27	228.88	168.38	267.71	168.41	321.02	168.44
336.12	168.38	421.55	167.64	476.99	166.9	520.8	166.33	538.31	165.95
594.94	165.05	599.51	165.02	602.79	165	694.12	164.07	695.46	164.05
702.84	163.87	707.55	163.73	708.23	163.71	811.1	159.71	812.86	159.64
853.6	158.11	871.1	157.9	899.59	157.76	909.93	157.75	941.98	157.73
968.12	157.71	971.24	157.71	1011.55	156.7	1018.74	156.54	1025.81	156.59
1032.11	156.63	1033.72	156.65	1037.36	156.7	1043.1	156.78	1050.9	156.86
1054.95	156.92	1092.08	157.51	1109.64	157.53	1128.22	158	1129.06	158.02
1147.17	159.24	1150.52	159.94	1155.56	160.81	1165.13	162.14	1172.06	162.38
1173.75	162.44	1186.67	162.44	1187.28	162.44	1195.43	162.52	1203.94	162.56
1211.04	162.6	1225.79	162.67	1233.99	162.73	1243.56	162.8	1244.71	162.84
1252.74	163.15	1278.03	163.43	1282.58	163.47	1338.5	163.54	1366.34	163.22
1369.13	163.19	1370.68	163.15	1439.19	161.35	1479.56	160.93	1489.42	160.87
1521.37	160.91	1533.12	161.08	1547.2	161.43	1550.69	161.51	1561.79	161.78
1563.19	161.82	1633.43	164.36	1656.26	165.45	1670.87	166.21	1671.57	166.25
1682.43	166.87	1684.22	166.97	1693.86	167.52	1695.21	167.73	1716.4	169.32
1737.66	171.22								

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.03	35.27	.02	599.51	.04	707.55	.03	811.1	.04
812.86	.045	965.99	.035	1147.17	.05	1172.06	.05	1203.94	.05
1737.66	.05								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
812.86	1147.17	36.67	37.86	38.56	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 1028.04*

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	174.08	2.09	173.74	4.66	173.5	12.52	173.28	32.52	172.11
35.06	171.96	75.16	169.53	76.85	169.45	78.35	169.38	79.04	169.35
79.58	169.34	135.37	168.29	140.34	168.19	162.78	168.01	162.98	168
185.99	168.03	215.04	168.07	227.54	168.15	266.14	168.17	319.13	168.2
334.14	168.16	419.07	167.28	474.19	166.53	517.74	165.95	535.15	165.6
591.45	164.97	595.98	164.95	599.25	164.94	690.04	164.06	691.38	164.04
698.71	163.83	703.39	163.68	704.07	163.66	806.34	159.62	808.08	159.55
843.76	158.22	859.08	157.98	884.03	157.75	893.08	157.72	921.15	157.65
944.04	157.59	946.78	157.59	982.07	156.78	988.37	156.65	998.06	156.69
1006.68	156.73	1008.88	156.75	1013.87	156.79	1021.73	156.85	1032.43	156.91
1037.97	156.98	1088.84	157.62	1112.88	157.55	1138.34	157.8	1139.49	157.81
1164.3	159.2	1167.42	159.75	1172.11	160.44	1181.03	161.51	1187.49	161.74
1189.07	161.8	1201.11	161.9	1201.67	161.91	1209.27	162.03	1217.19	162.09
1223.82	162.14	1237.56	162.25	1245.2	162.32	1254.11	162.42	1255.18	162.45
1262.66	162.76	1286.24	163.22	1290.47	163.3	1342.58	163.55	1368.51	163.41
1371.12	163.4	1372.57	163.36	1436.4	161.51	1474.02	160.9	1483.21	160.81
1512.98	160.9	1523.92	161.05	1537.04	161.33	1540.29	161.4	1550.64	161.62
1551.94	161.65	1617.39	164.32	1638.66	165.39	1652.27	166.16	1652.93	166.2
1663.05	166.86	1664.71	166.97	1673.69	167.55	1674.96	167.73	1694.7	169.29
1714.51	171.09								

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.027	35.06	.02	595.98	.035	703.39	.035	806.34	.043
808.08	.043	971.25	.035	1164.3	.05	1187.49	.05	1217.19	.05
1714.51	.05								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
808.08	1164.3	36.67	37.86	38.56	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 990.179*

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev

0	172.91	2.08	172.62	4.64	172.37	12.45	172.3	32.32	171.32
34.85	171.19	74.72	169.12	76.39	169.06	77.89	169	78.57	168.98
79.11	168.97	134.57	168.11	139.51	168.03	161.81	167.82	162.02	167.82
184.89	167.83	213.77	167.86	226.19	167.92	264.57	167.94	317.25	167.96
332.17	167.93	416.59	166.93	471.38	166.15	514.68	165.57	531.98	165.26
587.95	164.89	592.46	164.89	595.71	164.88	685.96	164.05	687.29	164.03
694.59	163.79	699.23	163.63	699.91	163.6	801.57	159.53	803.31	159.46
833.92	158.33	847.07	158.07	868.47	157.74	876.24	157.7	900.32	157.57
919.96	157.47	922.31	157.47	952.6	156.86	958	156.76	970.31	156.8
981.26	156.83	984.05	156.84	990.39	156.87	1000.37	156.92	1013.96	156.96
1020.99	157.04	1085.59	157.74	1116.13	157.56	1148.46	157.6	1149.93	157.61
1181.43	159.16	1184.33	159.56	1188.67	160.07	1196.94	160.88	1202.93	161.11
1204.39	161.16	1215.54	161.36	1216.07	161.37	1223.1	161.54	1230.45	161.62
1236.59	161.69	1249.33	161.83	1256.41	161.91	1264.67	162.03	1265.66	162.05
1272.59	162.37	1294.44	163.02	1298.37	163.13	1346.66	163.56	1370.69	163.61
1373.1	163.61	1374.45	163.57	1433.6	161.67	1468.47	160.87	1476.99	160.76
1504.58	160.89	1514.72	161.02	1526.88	161.24	1529.9	161.29	1539.48	161.46
1540.69	161.49	1601.35	164.29	1621.06	165.34	1633.67	166.11	1634.28	166.16
1643.66	166.85	1645.2	166.97	1653.53	167.58	1654.7	167.73	1673	169.27
1691.36	170.96								

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.025	34.85	.02	592.46	.03	699.23	.04	801.57	.045
803.31	.04	976.51	.035	1181.43	.05	1202.93	.05	1230.45	.05
1691.36	.05								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
803.31	1181.43	36.67	37.86	38.56	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 952.315*

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	171.74	2.07	171.49	4.61	171.24	12.37	171.33	32.13	170.54
34.64	170.43	74.27	168.7	75.94	168.67	77.43	168.63	78.1	168.62
78.64	168.61	133.77	167.94	138.68	167.86	160.85	167.64	161.05	167.63
183.79	167.64	212.5	167.66	224.85	167.69	262.99	167.71	315.36	167.72
330.19	167.71	414.12	166.58	468.58	165.78	511.62	165.18	528.82	164.91
584.46	164.81	588.94	164.82	592.17	164.82	681.88	164.03	683.21	164.02
690.46	163.76	695.08	163.58	695.75	163.55	796.81	159.45	798.53	159.38
824.08	158.44	835.05	158.15	852.92	157.72	859.4	157.67	879.5	157.5
895.89	157.36	897.85	157.35	923.12	156.94	927.63	156.88	942.55	156.9
955.83	156.93	959.22	156.94	966.9	156.96	979.01	156.99	995.48	157.02
1004.01	157.1	1082.34	157.86	1119.38	157.58	1158.58	157.4	1160.36	157.4
1198.56	159.12	1201.23	159.37	1205.23	159.71	1212.84	160.26	1218.36	160.47
1219.7	160.53	1229.98	160.82	1230.46	160.84	1236.94	161.04	1243.71	161.14
1249.36	161.23	1261.09	161.4	1267.61	161.51	1275.22	161.64	1276.13	161.66
1282.52	161.98	1302.64	162.81	1306.26	162.96	1350.74	163.58	1372.87	163.8
1375.09	163.82	1376.33	163.78	1430.81	161.83	1462.93	160.85	1470.77	160.71
1496.18	160.88	1505.52	160.99	1516.72	161.14	1519.5	161.18	1528.33	161.31
1529.44	161.33	1585.31	164.26	1603.46	165.28	1615.08	166.07	1615.64	166.11
1624.28	166.84	1625.7	166.97	1633.36	167.61	1634.44	167.73	1651.29	169.24
1668.2	170.83								

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.022	34.64	.02	588.94	.025	695.08	.045	796.81	.047
798.53	.038	981.77	.035	1198.56	.05	1218.36	.05	1243.71	.05
1668.2	.05								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
798.53	1198.56	36.67	37.86	38.56	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 914.451

INPUT
Description:
Station Elevation Data num= 45

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	170.57	4.58	170.11	12.3	170.35	31.94	169.75	73.83	168.29
132.97	167.76	159.89	167.45	182.69	167.44	261.42	167.48	328.22	167.49
465.78	165.41	525.66	164.56	588.63	164.76	679.12	164.01	690.92	163.53
793.76	159.29	837.36	157.71	871.81	157.24	897.26	156.99	914.8	157.01
934.39	157.03	943.42	157.04	977.01	157.07	987.03	157.16	1079.1	157.98
1168.7	157.2	1170.79	157.19	1215.69	159.08	1233.79	159.84	1250.78	160.55
1278.82	161.1	1286.61	161.27	1314.15	162.79	1375.05	163.99	1377.08	164.03
1457.38	160.82	1464.55	160.66	1509.1	161.07	1517.17	161.15	1518.19	161.17
1585.86	165.22	1596.48	166.02	1604.89	166.83	1606.19	166.97	1645.05	170.7

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.02	690.92	.05	987.03	.035	1233.79	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
793.76	1215.69	48.05	43.73	44.13	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 870.723*

INPUT
Description:
Station Elevation Data num= 83

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev

0	170.8	4.75	170.19	6.57	170.14	9.82	170.12	12.76	170.19
33.13	169.67	64.92	168.77	75.34	168.46	76.59	168.43	84.47	168.42
90.66	168.37	99.45	168.32	137.94	167.98	165.87	167.68	179.14	167.65
189.52	167.58	199.11	167.53	239.93	167.38	271.19	167.29	307.05	167.17
340.49	167.05	377.37	166.48	429.35	165.86	483.19	165.2	524.55	164.73
545.31	164.49	606.72	164.61	610.63	164.61	620.18	164.55	704.51	163.9
706.98	163.82	716.75	163.51	726.45	163.21	728.18	163.14	778.76	161.12
788.35	160.54	811.13	159.49	823.43	158.98	842.16	158.28	865.18	157.51
886.65	157.19	892.83	157.12	898.17	157.06	922.54	156.85	939.94	156.91
959.38	156.97	968.34	157	985.73	157.05	1001.67	157.1	1006.2	157.15
1011.61	157.18	1102.96	157.76	1113.05	157.68	1167.02	157.33	1191.86	157.17
1193.93	157.16	1225.77	158.26	1226.21	158.28	1238.48	158.81	1253.79	159.48
1268.15	160.09	1283.58	160.43	1291.86	160.61	1298.45	160.77	1321.74	162.06
1324.34	162.11	1357.38	162.79	1373.23	163.18	1374.95	163.22	1393.32	162.62
1441.94	161.27	1442.84	161.24	1448.91	161.16	1486.58	161.78	1493.4	161.9
1494.26	161.92	1546.44	165.29	1551.48	165.68	1560.46	166.5	1567.57	167.29
1568.67	167.43	1576.92	168.34	1601.53	170.87				

Manning's n Values num= 9

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.02	716.75	.044	823.43	.038	976.31	.047	1013.55	.035
1238.48	.05	1253.79	.05	1283.58	.05	1601.53	.05		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
823.43	1238.48	48.05	43.73	44.13	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 826.996*

INPUT
Description:
Station Elevation Data num= 83

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	171.02	4.92	170.26	6.81	170.11	10.18	169.98	13.22	170.02
34.33	169.6	67.26	168.85	78.06	168.59	79.35	168.57	87.52	168.61
93.93	168.58	103.04	168.54	142.91	168.2	171.84	167.9	185.59	167.85
196.35	167.73	206.29	167.62	248.57	167.29	280.96	167.09	318.12	166.85
352.76	166.6	390.97	166	444.82	165.53	500.6	165	543.45	164.61
564.96	164.42	628.58	164.46	632.64	164.47	642.53	164.41	729.89	163.79
732.45	163.72	742.58	163.5	752.63	163.27	754.42	163.21	806.82	161.17
816.76	160.4	840.36	159.2	853.1	158.66	871	157.98	893	157.3
913.52	156.98	919.43	156.93	924.53	156.88	947.82	156.71	965.09	156.8
984.37	156.91	993.26	156.96	1010.51	157.05	1026.32	157.14	1030.82	157.19
1036.19	157.21	1126.82	157.53	1136.83	157.46	1190.38	157.24	1215.02	157.14
1217.08	157.13	1248.66	157.98	1249.09	158	1261.27	158.55	1273.78	159.11
1285.53	159.64	1298.14	159.96	1304.9	160.13	1310.29	160.27	1329.32	161.33
1331.45	161.38	1358.46	161.97	1371.41	162.36	1372.81	162.4	1387.83	162.08
1427.57	161.67	1428.31	161.66	1433.26	161.66	1464.05	162.5	1469.63	162.65
1470.34	162.68	1512.98	165.72	1517.1	166.14	1524.44	166.98	1530.25	167.75
1531.15	167.88	1537.89	168.78	1558.01	171.04				

Manning's n Values num= 9

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.02	742.58	.038	853.1	.041	1003.45	.044	1040.07	.035
1261.27	.05	1273.78	.05	1298.14	.05	1558.01	.05		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
853.1	1261.27	48.05	43.73	44.13	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 783.268*

INPUT
Description:
Station Elevation Data num= 83

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	171.25	5.09	170.34	7.05	170.08	10.53	169.83	13.68	169.86
35.52	169.52	69.6	168.94	80.77	168.71	82.11	168.72	90.56	168.81
97.2	168.78	106.62	168.76	147.88	168.41	177.82	168.13	192.05	168.05
203.18	167.87	213.46	167.71	257.22	167.21	290.74	166.9	329.18	166.53
365.03	166.16	404.56	165.52	460.29	165.2	518.01	164.79	562.36	164.5
584.61	164.35	650.44	164.32	654.64	164.32	664.87	164.28	755.28	163.68
757.93	163.63	768.4	163.48	778.81	163.33	780.66	163.27	834.89	161.22
845.16	160.26	869.59	158.9	882.78	158.35	899.85	157.67	920.83	157.1
940.39	156.77	946.03	156.73	950.89	156.69	973.1	156.56	990.23	156.7
1009.36	156.85	1018.18	156.92	1035.3	157.05	1050.98	157.17	1055.44	157.22
1060.77	157.23	1150.68	157.31	1160.61	157.24	1213.73	157.15	1238.18	157.11
1240.22	157.1	1271.56	157.7	1271.98	157.72	1284.07	158.28	1293.78	158.75
1302.9	159.18	1312.69	159.49	1317.95	159.64	1322.13	159.77	1336.91	160.59
1338.56	160.64	1359.53	161.14	1369.59	161.55	1370.68	161.59	1382.34	161.54
1413.2	162.07	1413.77	162.08	1417.62	162.16	1441.53	163.21	1445.86	163.41
1446.41	163.43	1479.53	166.15	1482.72	166.59	1488.42	167.46	1492.94	168.22
1493.64	168.34	1498.87	169.22	1514.49	171.21				

Manning's n Values num= 9

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.02	768.4	.032	882.78	.044	1030.58	.041	1066.59	.035
1284.07	.05	1293.78	.05	1312.69	.05	1514.49	.05		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
882.78	1284.07	48.05	43.73	44.13	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 739.541*

INPUT
Description:
Station Elevation Data num= 83

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	171.47	5.26	170.42	7.28	170.06	10.89	169.69	14.14	169.69
36.72	169.44	71.94	169.02	83.49	168.84	84.87	168.86	93.61	169
100.46	168.99	110.21	168.99	152.85	168.63	183.8	168.36	198.5	168.26
210.01	168.01	220.64	167.79	265.86	167.12	300.51	166.7	340.25	166.22
377.3	165.71	418.16	165.05	475.76	164.86	535.43	164.59	581.26	164.38
604.26	164.28	672.31	164.18	676.65	164.18	687.22	164.14	780.67	163.57
783.4	163.53	794.23	163.47	804.98	163.4	806.9	163.34	862.95	161.28
873.57	160.11	898.82	158.61	912.45	158.03	928.69	157.37	948.65	156.9
967.26	156.56	972.62	156.54	977.25	156.51	998.38	156.42	1015.37	156.6
1034.35	156.79	1043.1	156.88	1060.08	157.05	1075.64	157.21	1080.06	157.26
1085.34	157.25	1174.54	157.08	1184.39	157.03	1237.09	157.06	1261.34	157.07
1263.36	157.08	1294.45	157.42	1294.87	157.44	1306.86	158.02	1313.78	158.38
1320.27	158.73	1327.25	159.01	1330.99	159.15	1333.97	159.27	1344.49	159.86
1345.67	159.91	1360.61	160.32	1367.77	160.73	1368.55	160.78	1376.85	161
1398.83	162.48	1399.24	162.5	1401.98	162.66	1419.01	163.93	1422.09	164.16
1422.48	164.19	1446.07	166.57	1448.35	167.05	1452.41	167.94	1455.62	168.68
1456.12	168.8	1459.84	169.65	1470.97	171.38				

Manning's n Values num= 9

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.02	794.23	.026	912.45	.047	1057.72	.038	1093.11	.035
1306.86	.05	1313.78	.05	1327.25	.05	1470.97	.05		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
912.45	1306.86	48.05	43.73	44.13	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 695.814

INPUT
Description:
Station Elevation Data num= 43

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	171.7	7.52	170.03	11.24	169.55	74.28	169.11	86.2	168.97
96.65	169.2	103.73	169.19	113.79	169.21	204.96	168.46	227.81	167.88
274.51	167.04	351.31	165.9	431.76	164.57	491.23	164.53	600.16	164.27
694.17	164.04	709.57	164.01	808.88	163.44	831.16	163.46	833.14	163.4
891.01	161.33	901.98	159.97	928.05	158.32	942.12	157.72	957.53	157.07
994.13	156.35	999.22	156.34	1023.66	156.28	1084.86	157.05	1104.68	157.3
1208.17	156.81	1260.44	156.97	1317.34	157.14	1317.76	157.16	1329.65	157.75
1341.8	158.54	1352.78	159.17	1361.68	159.49	1371.36	160.46	1384.46	162.88
1412.61	167	1420.82	170.09	1427.45	171.55				

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.02	942.12	.05	1084.86	.035	1341.8	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
942.12	1329.65	43.52	42.21	40.09	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 653.607*

INPUT
Description:
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	171.53	7.23	170.12	10.8	169.69	20.97	169.52	46.91	169.41
71.4	169.13	82.85	168.96	92.9	169.08	99.7	169.04	101.99	169.03
102.8	169.03	109.37	168.96	112.88	168.89	166.05	167.92	169.03	167.88
183.88	167.7	197	167.64	218.97	167.22	236.86	167	254.12	166.66
263.85	166.52	337.67	165.67	415	164.67	472.16	164.69	532.21	164.62
576.86	164.55	589.17	164.53	597.73	164.57	607.87	164.59	659.13	164.59
667.22	164.59	682.02	164.58	682.32	164.58	723.74	163.83	726.03	163.81
745.64	162.62	748.18	162.47	754.74	162.39	768.78	162.18	777.48	162.14
778.65	162.15	781.93	162.15	787.34	162.15	798.89	162.13	799.62	162.11
800.79	162.08	855.44	160.33	856.42	160.29	866.92	159.17	866.96	159.17
892.02	157.37	892.41	157.35	905.54	156.66	919.29	155.96	919.59	155.95
951.94	155.26	956.48	155.23	960.33	155.21	978.29	155.16	1004.26	155.48
1033.05	155.84	1050.79	156.06	1143.4	155.78	1162.12	155.85	1190.17	155.92
1216.15	155.99	1241.09	156.15	1241.47	156.17	1252.11	156.68	1255.27	156.84
1269.22	157.55	1276.94	157.91	1284.68	158.39	1292.51	158.79	1297.21	159.02
1299.65	159.23	1310.85	159.87	1321.05	160.94	1323.84	161.24	1329.3	161.82
1342.24	162.91	1352.87	163.74	1356.63	164.02	1361.24	164.22	1367.29	164.84
1368.94	165.04	1372.09	165.82	1375.03	166.76	1378.36	168.18	1378.48	168.23
1380.5	168.87	1382.19	169.25	1382.68	169.38	1383.69	169.62	1388.94	171.17
1389.48	171.31	1389.84	171.4						

Manning's n Values num= 8

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.02	905.54	.05	976.78	.05	1033.19	.038	1252.11	.047
1269.22	.047	1378.36	.038	1389.84	.05				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
905.54	1252.11	43.52	42.21	40.09	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 611.400*

INPUT
Description:
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	171.36	6.94	170.2	10.37	169.84	20.12	169.57	45.01	169.54
68.51	169.15	79.51	168.94	89.15	168.97	95.68	168.88	97.87	168.86
98.65	168.85	104.95	168.71	108.32	168.6	159.34	167.11	162.2	167.07
176.45	166.82	189.05	166.82	210.12	166.57	227.29	166.45	243.85	166.09

253.2	166	324.03	165.44	398.24	164.78	453.09	164.85	510.71	164.86
553.56	164.84	565.37	164.83	573.59	164.91	583.32	164.99	632.51	165.13
640.27	165.14	654.47	165.16	654.76	165.16	694.51	163.9	696.71	163.88
715.52	161.6	717.96	161.33	724.25	161.2	737.73	160.86	746.07	160.85
747.2	160.85	750.35	160.85	755.53	160.84	766.62	160.8	767.32	160.79
768.45	160.76	820.89	159.28	821.83	159.26	831.91	158.37	831.94	158.37
855.99	156.42	856.37	156.4	868.97	155.59	881.05	154.85	881.31	154.84
909.75	154.16	913.75	154.12	917.13	154.09	932.91	154.03	955.84	154.31
981.24	154.62	996.9	154.82	1078.63	154.74	1095.14	154.83	1119.9	154.88
1142.83	154.92	1164.84	155.16	1165.17	155.17	1174.56	155.61	1178.65	155.79
1196.63	156.57	1206.59	156.97	1216.58	157.62	1226.67	158.2	1232.75	158.55
1235.89	158.79	1250.33	159.28	1263.5	160.09	1267.1	160.31	1274.13	160.75
1290.83	161.59	1304.54	162.16	1309.38	162.31	1315.34	162.24	1323.14	162.85
1325.27	163.07	1329.33	163.8	1333.12	164.9	1337.42	166.84	1337.58	166.91
1340.18	167.64	1342.36	168.14	1343	168.33	1344.3	168.66	1351.07	170.93
1351.76	171.13	1352.23	171.24						

Manning's n Values num= 8

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.02	868.97	.05	931.78	.05	981.53	.041	1174.56	.044
1196.63	.044	1337.42	.041	1352.23	.05				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
868.97	1174.56	43.52	42.21	40.09	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 569.194*

INPUT
Description:
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	171.19	6.64	170.29	9.93	169.98	19.27	169.62	43.12	169.66
65.63	169.18	76.16	168.93	85.39	168.85	91.65	168.73	93.75	168.69
94.49	168.68	100.54	168.45	103.76	168.32	152.63	166.31	155.37	166.25
169.02	165.95	181.09	165.99	201.28	165.91	217.72	165.9	233.59	165.53
242.54	165.48	310.39	165.21	381.47	164.88	434.02	165.01	489.21	165.11
530.26	165.12	541.57	165.12	549.45	165.26	558.77	165.4	605.89	165.66
613.32	165.69	626.93	165.73	627.2	165.73	665.28	163.96	667.38	163.94
685.4	160.59	687.74	160.19	693.77	160.01	706.67	159.54	714.67	159.55
715.75	159.56	718.77	159.56	723.73	159.54	734.36	159.47	735.03	159.46
736.1	159.44	786.33	158.24	787.23	158.22	796.89	157.57	796.93	157.57
819.96	155.47	820.32	155.45	832.39	154.53	842.81	153.74	843.04	153.73
867.57	153.07	871.01	153.01	873.92	152.96	887.54	152.91	907.41	153.14
929.44	153.41	943	153.57	1013.85	153.71	1028.17	153.81	1049.64	153.83
1069.51	153.85	1088.59	154.17	1088.88	154.18	1097.02	154.53	1102.02	154.74
1124.05	155.58	1136.25	156.03	1148.48	156.84	1160.84	157.62	1168.28	158.08
1172.13	158.36	1189.82	158.69	1205.94	159.23	1210.35	159.39	1218.97	159.69
1239.42	160.27	1256.21	160.57	1262.14	160.61	1269.44	160.26	1279	160.87
1281.6	161.11	1286.57	161.79	1291.21	163.04	1296.48	165.5	1296.68	165.59
1299.86	166.42	1302.54	167.03	1303.31	167.27	1304.91	167.69	1313.19	170.69
1314.04	170.95	1314.61	171.09						

Manning's n Values num= 8

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.02	832.39	.05	886.78	.05	929.86	.044	1097.02	.041
1124.05	.041	1296.48	.044	1314.61	.05				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
832.39	1097.02	43.52	42.21	40.09	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 526.987*

INPUT
Description:
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	171.02	6.35	170.37	9.49	170.12	18.43	169.67	41.22	169.79
62.74	169.2	72.81	168.91	81.64	168.73	87.62	168.58	89.63	168.53
90.34	168.51	96.12	168.2	99.2	168.03	145.93	165.5	148.55	165.44
161.6	165.07	173.13	165.17	192.43	165.25	208.16	165.35	223.32	164.96
231.88	164.96	296.75	164.99	364.71	164.98	414.95	165.17	467.72	165.35
506.96	165.4	517.78	165.42	525.3	165.61	534.21	165.8	579.26	166.2
586.37	166.23	599.38	166.3	599.64	166.31	636.04	164.03	638.06	164.01
655.29	159.57	657.52	159.04	663.28	158.83	675.62	158.23	683.27	158.26
684.3	158.26	687.18	158.26	691.93	158.23	702.09	158.15	702.73	158.14
703.76	158.12	751.78	157.2	752.64	157.18	761.88	156.77	761.91	156.77
783.93	154.53	784.28	154.49	795.82	153.46	804.58	152.63	804.76	152.61
825.38	151.97	828.27	151.9	830.72	151.84	842.16	151.78	858.99	151.98
877.63	152.2	889.11	152.33	949.08	152.68	961.2	152.78	979.37	152.78
996.19	152.78	1012.34	153.17	1012.58	153.18	1019.47	153.46	1025.4	153.69
1051.47	154.6	1065.9	155.09	1080.38	156.07	1095.01	157.03	1103.82	157.61
1108.37	157.92	1129.31	158.1	1148.39	158.38	1153.61	158.46	1163.8	158.63
1188.01	158.95	1207.88	158.99	1214.9	158.9	1223.53	158.28	1234.85	158.88
1237.93	159.15	1243.81	159.77	1249.31	161.17	1255.54	164.16	1255.77	164.27
1259.54	165.19	1262.71	165.93	1263.63	166.22	1265.51	166.73	1275.32	170.45
1276.33	170.77	1277	170.93						

Manning's n Values num= 8

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.02	795.82	.05	841.79	.05	878.2	.047	1019.47	.038
1051.47	.038	1255.54	.047	1277	.05				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
795.82	1019.47	43.52	42.21	40.09	.1	.3

CROSS SECTION RIVER: San Juan

REACH: Upper RS: 484.781

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 59

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	170.85	17.58	169.72	39.33	169.91	85.51	168.36	86.19	168.34
94.64	167.74	139.22	164.7	141.72	164.62	154.17	164.2	198.59	164.8
213.06	164.4	446.22	165.59	493.98	165.71	501.16	165.96	509.66	166.2
552.64	166.73	572.08	166.88	606.81	164.1	608.73	164.07	625.17	158.56
627.3	157.9	632.8	157.64	644.57	156.91	652.85	156.97	655.6	156.97
660.13	156.93	670.43	156.81	717.23	156.16	726.86	155.97	748.23	153.54
759.24	152.4	766.49	151.5	787.52	150.72	796.79	150.66	810.56	150.81
894.23	151.76	922.87	151.71	941.93	152.39	948.77	152.64	995.56	154.15
1029.18	156.45	1044.61	157.49	1090.83	157.52	1096.86	157.54	1136.6	157.63
1159.55	157.4	1167.66	157.2	1177.63	156.3	1190.7	156.89	1201.05	157.75
1207.4	159.31	1214.6	162.82	1214.87	162.95	1222.88	164.82	1223.94	165.17
1226.12	165.76	1237.45	170.21	1238.61	170.59	1239.39	170.78		

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.02	796.79	.05	941.93	.035	1214.6	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
759.24	941.93	43.18	43.96	42.55	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 440.825*

INPUT
Description:
Station Elevation Data num= 92

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	170.09	14.82	169.21	30.72	169.37	33.15	169.38	72.07	168.1
72.64	168.09	79.76	167.6	117.33	165.13	119.44	165.06	129.93	164.71
167.37	165.15	171.54	165.04	179.57	164.81	338.08	165.09	340.44	165.08
343.52	165.05	376.07	164.85	416.32	164.51	422.37	164.64	423.36	164.66
429.54	164.76	458.18	164.8	465.76	164.84	482.14	164.85	511.42	162.42
513.03	162.38	526.89	157.88	528.68	157.34	533.32	157.1	543.24	156.45
550.22	156.45	552.53	156.43	556.35	156.37	565.03	156.22	604.48	155.42
612.59	155.21	630.6	153.15	639.88	152.17	642.02	151.91	642.1	151.9
647.52	151.36	669.66	150.57	673.21	150.53	678.18	150.44	679.12	150.43
679.42	150.42	683.89	150.49	694.92	150.66	722.98	151.08	730.16	151.13
738.72	151.22	768.78	151.45	789.11	151.61	821.35	151.56	835.49	151.92
842.81	152.17	848.92	152.42	890.71	153.94	890.94	153.95	920.74	156
926.58	156.39	934.52	156.94	968.46	157.24	975.8	157.29	981.19	157.33
984.95	157.36	987.02	157.37	1005.18	157.05	1006.37	157.1	1016.68	157.37
1018.77	157.4	1037.18	157.68	1044.42	157.7	1050.52	157.35	1053.33	157.28
1065	158.39	1074.24	159.58	1079.92	161.13	1082.78	162.53	1086.35	164.05
1086.59	164.15	1087.28	164.29	1091.44	165.02	1093.74	165.53	1094.69	165.82
1095.28	165.97	1096.64	166.3	1101.41	168	1106.76	170.08	1106.82	170.1
1107.79	170.43	1108.49	170.61						

Manning's n Values num= 8

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.026	639.88	.047	681.59	.047	766.25	.035	842.81	.038
1018.77	.05	1086.35	.05	1108.49	.05				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
639.88	842.81	43.18	43.96	42.55	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 396.869*

INPUT
Description:
Station Elevation Data num= 92

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	169.34	12.05	168.7	24.99	168.85	26.96	168.86	58.62	167.85
59.09	167.83	64.88	167.46	95.45	165.55	97.16	165.5	105.7	165.23
136.15	165.51	139.54	165.42	146.07	165.21	275.02	164.82	276.94	164.78
279.44	164.71	305.92	164.12	338.67	163.3	343.59	163.32	344.39	163.32
349.42	163.32	372.71	162.99	378.88	162.95	392.21	162.81	416.02	160.74
417.34	160.7	428.61	157.2	430.07	156.78	433.84	156.56	441.91	155.98
447.58	155.92	449.47	155.89	452.58	155.81	459.64	155.62	491.72	154.69
498.32	154.46	512.98	152.75	520.52	151.94	522.77	151.68	522.86	151.67
528.54	151.21	551.8	150.43	555.53	150.36	560.75	150.22	561.74	150.19
562.05	150.19	567.02	150.28	579.29	150.5	610.47	151.08	618.46	151.1
627.98	151.18	661.4	151.34	683.99	151.46	719.83	151.42	735.55	151.68
743.69	151.96	749.06	152.2	785.86	153.72	786.06	153.74	812.29	155.55
817.44	155.9	824.43	156.39	854.31	156.96	860.77	157.05	865.51	157.13
868.82	157.18	870.65	157.19	886.63	156.5	887.68	156.59	896.76	157.11
898.6	157.2	914.81	157.97	921.18	158.2	926.56	158.13	929.02	158.26
939.3	159.88	947.44	161.4	952.43	162.95	954.95	164.2	958.09	165.28
958.31	165.35	958.92	165.44	962.58	165.81	964.6	166.23	965.44	166.47
965.96	166.59	967.15	166.84	971.36	168.14	976.06	169.95	976.12	169.96
976.97	170.27	977.59	170.44						

Manning's n Values num= 8

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.032	520.52	.044	566.39	.044	659.5	.035	743.69	.041
898.6	.05	958.09	.05	977.59	.05				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
520.52	743.69	43.18	43.96	42.55	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 352.914*

INPUT
Description:
Station Elevation Data num= 92

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	168.58	9.29	168.19	19.26	168.33	20.78	168.33	45.18	167.59
45.54	167.58	50.01	167.32	73.56	165.98	74.88	165.94	81.46	165.74
104.93	165.86	107.55	165.8	112.58	165.62	211.95	164.55	213.44	164.48
215.36	164.37	235.77	163.38	261.01	162.1	264.8	162	265.42	161.98
269.29	161.88	287.25	161.17	292	161.06	302.27	160.78	320.63	159.06
321.64	159.01	330.33	156.52	331.45	156.22	334.36	156.02	340.58	155.52
344.95	155.4	346.4	155.35	348.8	155.26	354.24	155.03	378.97	153.95
384.06	153.7	395.35	152.36	401.17	151.71	403.52	151.44	403.61	151.44
409.57	151.07	433.94	150.28	437.85	150.2	443.32	149.99	444.36	149.96
444.69	149.95	450.15	150.07	463.65	150.35	497.97	151.07	506.75	151.07
517.23	151.14	554.01	151.24	578.87	151.31	618.32	151.27	635.61	151.44
644.56	151.74	649.21	151.98	681	153.51	681.18	153.52	703.85	155.1
708.3	155.4	714.33	155.84	740.15	156.68	745.74	156.82	749.84	156.92
752.7	156.99	754.27	157.01	768.09	155.94	768.99	156.08	776.84	156.85
778.43	156.99	792.43	158.25	797.94	158.7	802.59	158.9	804.72	159.24
813.6	161.38	820.63	163.23	824.95	164.77	827.12	165.86	829.84	166.5
830.02	166.55	830.55	166.59	833.72	166.61	835.47	166.94	836.19	167.11
836.63	167.21	837.67	167.39	841.3	168.27	845.37	169.81	845.41	169.83
846.15	170.1	846.68	170.28						

Manning's n Values num= 8

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.038	401.17	.041	451.19	.041	552.74	.035	644.56	.044
778.43	.05	829.84	.05	846.68	.05				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
401.17	644.56	43.18	43.96	42.55	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 308.958*

INPUT
Description:
Station Elevation Data num= 92

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	167.83	6.53	167.68	13.53	167.81	14.6	167.8	31.74	167.33
31.99	167.32	35.13	167.17	51.67	166.41	52.6	166.38	57.22	166.25
73.71	166.22	75.55	166.17	79.08	166.02	148.89	164.28	149.93	164.18
151.29	164.03	165.62	162.64	183.35	160.9	186.02	160.68	186.45	160.65
189.17	160.44	201.78	159.36	205.12	159.17	212.34	158.74	225.23	157.38
225.94	157.33	232.05	155.84	232.84	155.66	234.88	155.48	239.25	155.06
242.32	154.88	243.34	154.81	245.02	154.7	248.84	154.43	266.22	153.21
269.79	152.95	277.72	151.96	281.81	151.48	284.27	151.21	284.37	151.2
290.59	150.92	316.08	150.13	320.17	150.03	325.89	149.77	326.97	149.72
327.32	149.72	333.28	149.85	348.01	150.19	385.46	151.06	395.05	151.03
406.49	151.11	446.62	151.13	473.76	151.16	516.8	151.12	535.67	151.2
545.44	151.53	549.36	151.76	576.15	153.3	576.3	153.31	595.41	154.64
599.15	154.91	604.24	155.29	626	156.41	630.71	156.58	634.16	156.71
636.57	156.81	637.9	156.83	649.54	155.39	650.31	155.58	656.92	156.59
658.26	156.79	670.06	158.53	674.71	159.2	678.62	159.67	680.42	160.22
687.9	162.87	693.83	165.05	697.46	166.59	699.3	167.53	701.59	167.73
701.74	167.75	702.19	167.75	704.85	167.4	706.33	167.64	706.93	167.76
707.31	167.83	708.18	167.93	711.25	168.41	714.67	169.68	714.71	169.69
715.34	169.94	715.78	170.11						

Manning's n Values num= 8

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.044	281.81	.038	336	.038	445.99	.035	545.44	.047
658.26	.05	701.59	.05	715.78	.05				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
281.81	545.44	43.18	43.96	42.55	.1	.3

CROSS SECTION RIVER: San Juan
REACH: Upper RS: 265.003

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 38

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	167.07	7.8	167.29	43.55	166.55	85.83	164.01	86.43	163.88
87.21	163.69	107.48	159.31	116.32	157.54	162.45	151.25	165.02	150.97
165.12	150.97	202.49	149.86	208.46	149.54	209.59	149.49	209.95	149.48
216.41	149.64	272.96	151.05	283.35	151	295.74	151.07	339.23	151.03
435.73	150.96	446.32	151.31	471.42	153.09	490.01	154.41	511.85	156.13
520.45	156.62	521.53	156.65	531	154.84	531.62	155.07	538.09	156.58
554.65	160.44	571.47	169.19	573.82	168.9	575.99	168.2	577.99	168.45
581.19	168.55	584.01	169.56	584.88	169.94				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.05	339.23	.035	538.09	.05

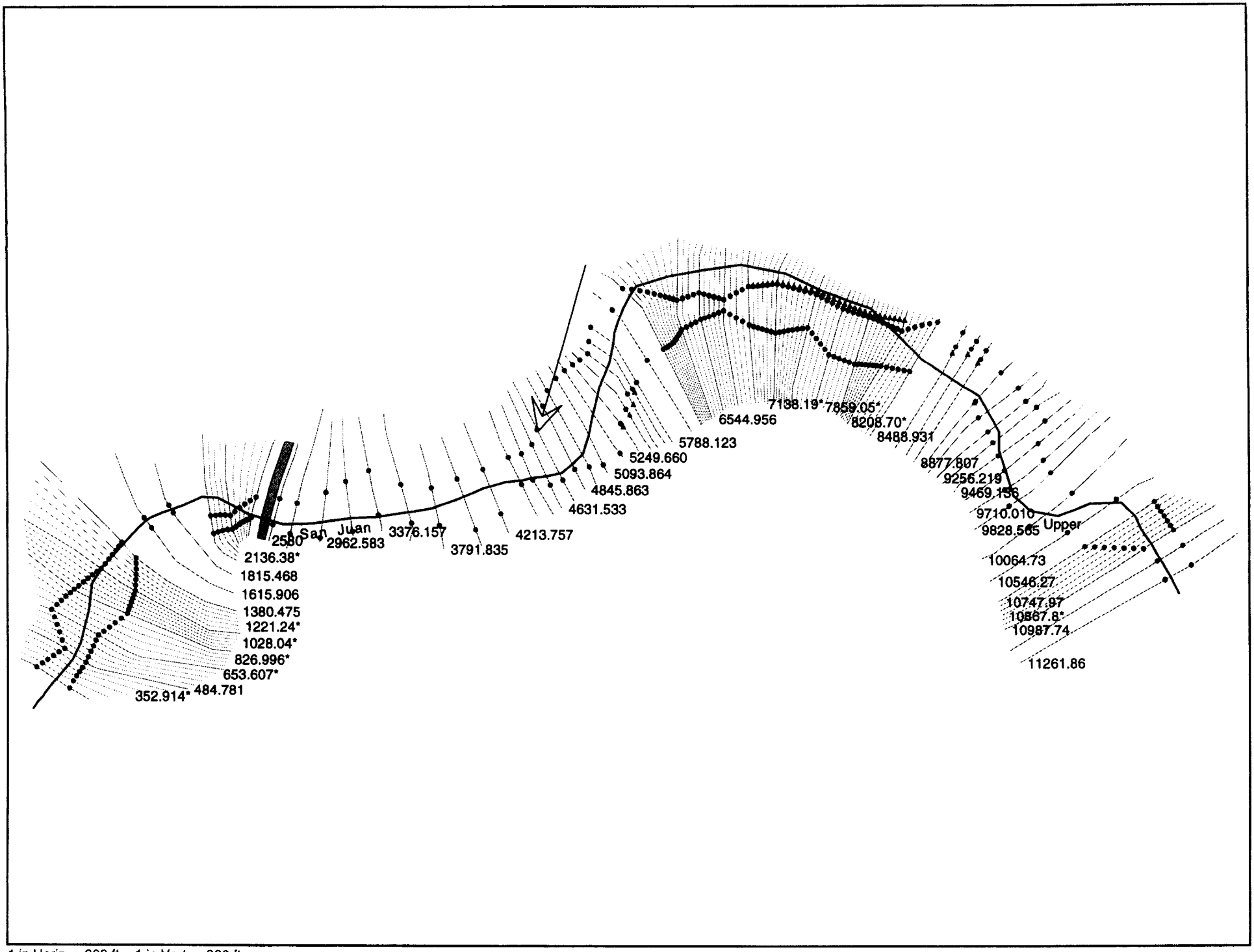
Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
162.45	446.32	122.99	265	54.95	.1	.3

Profile Output Table - Standard Table 1

Reach	River Sta	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
		(cfs)	(ft)	(ft)	(ft)	(ft)	(ft/ft)	(ft/s)	(sq ft)	(ft)	
Upper	11261.86	33597.00	214.32	227.99	225.42	228.83	0.003306	8.58	5228.19	962.46	

0.45										
Upper	11118.79	33597.00	216.23	225.59	225.59	227.91	0.011038	13.46	3132.41	678.46
0.79										
Upper	10987.74	33597.00	215.95	224.94	223.37	225.93	0.005634	9.25	4554.68	849.32
0.56										
Upper	10747.97	33597.00	215.06	222.97		223.89	0.004110	7.74	4415.03	661.85
0.51										
Upper	10546.27	33597.00	213.13	221.51		222.81	0.006642	9.74	3828.98	682.08
0.68										
Upper	10064.73	33597.00	207.79	220.98		221.58	0.001178	6.82	6135.61	891.67
0.38										
Upper	9828.565	33597.00	207.84	220.73		221.27	0.001260	6.43	6376.69	879.15
0.35										
Upper	9710.010	33597.00	207.81	220.49		221.11	0.001515	6.99	6086.93	876.30
0.38										
Upper	9587.161	33597.00	208.82	220.14		220.89	0.001998	7.79	5668.12	884.82
0.43										
Upper	9469.136	33597.00	209.82	220.03		220.62	0.001856	6.67	5955.50	888.28
0.38										
Upper	9350.632	33597.00	209.90	219.75		220.39	0.002068	6.92	5687.00	825.34
0.40										
Upper	9256.219	33597.00	209.51	219.06		220.10	0.003413	8.80	4588.67	744.36
0.52										
Upper	9137.316	33597.00	207.79	218.75		219.68	0.003265	8.35	4708.06	776.78
0.48										
Upper	9018.948	33597.00	208.76	217.52	215.44	219.14	0.005399	11.42	3914.69	787.29
0.70										
Upper	8877.807	33597.00	204.51	216.89	215.29	218.44	0.005267	13.99	3998.98	826.68
0.73										
Upper	8785.928	33597.00	202.85	216.46	216.46	217.98	0.004832	13.86	4065.76	851.90
0.69										
Upper	8699.415	33597.00	202.95	215.07	212.84	216.25	0.002853	10.82	4191.19	591.93
0.56										
Upper	8488.931	33597.00	202.72	215.05		215.76	0.001111	6.86	5049.03	461.70
0.36										
Upper	8287.319	33597.00	203.83	212.95	212.12	214.98	0.007450	11.95	3017.57	474.47
0.76										
Upper	8012.155	33597.00	202.47	211.29	209.27	212.67	0.004070	9.91	3686.20	510.63
0.63										
Upper	7820.775	33597.00	202.05	208.76	208.76	211.36	0.013233	13.43	2661.86	536.49
0.98										
Upper	7605.154	33597.00	197.44	204.99	204.99	207.36	0.009642	13.56	2976.25	666.24
0.90										
Upper	7289.783	33597.00	196.27	203.86	201.50	204.60	0.003429	7.37	5083.44	831.62
0.48										
Upper	7062.404	33597.00	196.41	203.24	200.89	203.85	0.003224	6.26	5604.10	968.87
0.44										
Upper	6894.555	33597.00	189.63	201.46	201.46	203.16	0.006833	15.27	4175.56	1002.78
0.88										
Upper	6705.202	33597.00	190.32	200.37		201.40	0.004008	9.67	4805.99	1056.31
0.58										
Upper	6544.956	33597.00	190.14	199.55		200.39	0.003776	8.08	5138.66	1155.48
0.49										
Upper	6151.870	34722.00	189.97	196.29		197.59	0.005392	9.47	3969.79	836.34
0.68										
Upper	5978.856	34722.00	187.90	193.99	193.99	196.21	0.011163	12.53	3076.86	726.31
0.95										
Upper	5788.123	34722.00	184.32	192.51	191.05	193.69	0.004840	9.11	4118.73	784.37
0.65										
Upper	5686.773	34722.00	183.41	191.82	190.63	193.15	0.006376	9.68	3794.29	715.92
0.72										
Upper	5593.814	34722.00	183.73	191.75	189.40	192.60	0.003753	7.78	4742.41	800.41
0.50										
Upper	5502.751	34722.00	182.66	191.59	188.59	192.33	0.002311	7.25	5211.86	800.92
0.45										
Upper	5387.141	34722.00	182.70	191.45	188.13	192.06	0.001918	6.57	5604.24	795.87
0.41										
Upper	5249.660	34722.00	181.47	191.29		191.80	0.001542	5.81	6155.71	814.67
0.36										
Upper	5093.864	34722.00	180.73	191.01		191.54	0.001732	5.94	6017.90	815.59
0.37										
Upper	4947.016	34722.00	181.85	190.40		191.20	0.002956	7.34	5015.85	783.02
0.48										
Upper	4845.863	34722.00	180.95	190.04		190.88	0.003173	7.77	4951.61	803.26
0.50										
Upper	4728.187	34722.00	180.04	189.80		190.56	0.002076	7.47	5191.21	761.37
0.44										
Upper	4631.533	34722.00	179.99	189.47		190.33	0.002665	8.04	4848.44	740.06
0.48										
Upper	4524.879	34722.00	177.19	187.95		189.84	0.005867	12.64	3480.01	659.98
0.76										
Upper	4434.483	34722.00	177.21	187.91		189.23	0.003558	10.62	4249.26	720.46
0.60										
Upper	4213.757	34722.00	176.41	187.55		188.43	0.002647	8.10	4989.56	758.10
0.45										
Upper	4008.681	34722.00	175.49	186.97		187.88	0.002642	7.98	4861.23	736.33
0.45										
Upper	3791.835	34722.00	175.28	185.83		187.14	0.004038	10.01	4054.79	583.15
0.57										
Upper	3592.245	34722.00	173.20	184.48		186.16	0.005240	11.20	3619.51	548.79
0.67										
Upper	3376.157	34722.00	173.67	183.55		185.05	0.004612	10.23	3694.76	453.06
0.60										
Upper	3169.567	34722.00	169.36	183.48		184.24	0.001971	7.24	5105.97	488.65
0.37										
Upper	2962.583	34722.00	169.14	183.17		183.81	0.002094	6.33	5458.22	565.72
0.34										
Upper	2746.045	34722.00	167.25	182.85		183.45	0.001369	6.93	5919.97	633.43

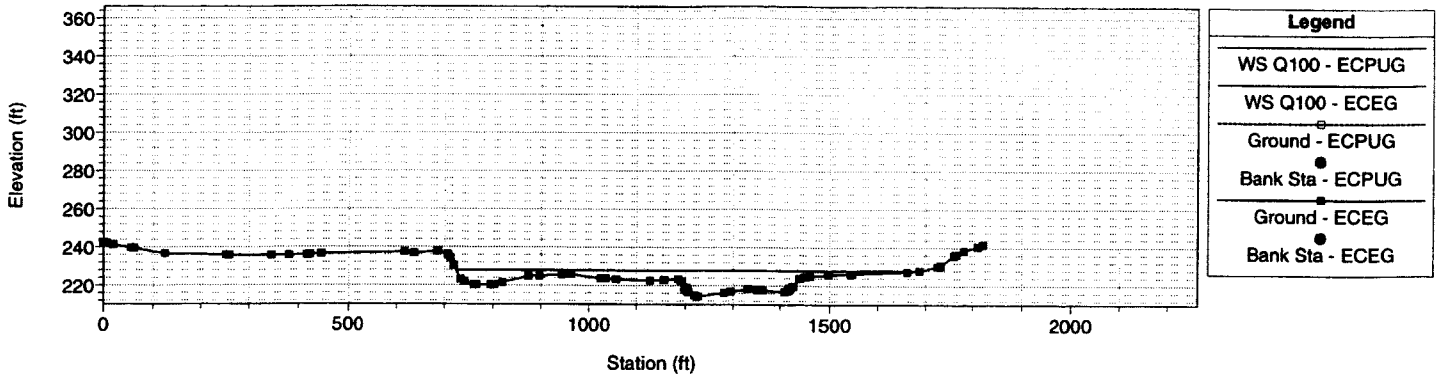
0.32										
Upper	2608.338	34722.00	167.14	180.96	178.50	183.02	0.003248	12.37	3463.68	440.96
0.63										
Upper	2580	Bridge								
Upper	2443.625	34722.00	168.51	177.83	177.83	181.01	0.010746	15.91	2641.71	429.27
0.94										
Upper	2258.454	34722.00	163.94	176.63		177.99	0.004737	11.00	3846.27	557.62
0.60										
Upper	2095.690	34722.00	163.99	172.89	173.87	176.36	0.014965	18.56	2725.84	672.40
1.19										
Upper	1815.468	34722.00	156.78	168.41	169.40	172.59	0.019454	18.01	2144.62	431.70
1.04										
Upper	1615.906	34722.00	157.53	168.80	168.80	171.27	0.006807	15.72	2975.69	572.84
0.90										
Upper	1380.475	34722.00	151.04	166.42	167.17	169.61	0.009068	16.50	2923.05	836.25
1.00										
Upper	1141.636	34722.00	156.31	166.06		167.28	0.003493	10.24	4978.76	1134.66
0.63										
Upper	914.451	34722.00	156.99	165.77		166.52	0.002666	7.65	5553.93	1151.44
0.47										
Upper	695.814	34722.00	156.28	162.92	162.92	165.48	0.010878	12.92	2736.83	538.33
0.93										
Upper	484.781	34722.00	150.66	161.05		162.59	0.003296	10.22	3702.83	593.22
0.58										
Upper	265.003	34722.00	149.48	159.56	158.03	161.42	0.006001	11.34	3251.85	444.56
0.67										



1 in Horiz. = 900 ft 1 in Vert. = 800 ft

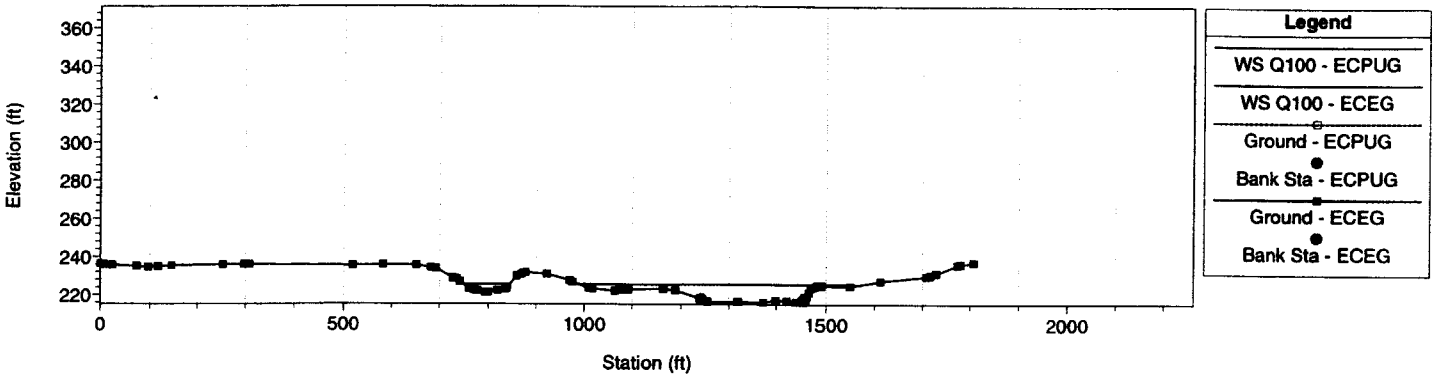
Project Model - D4

RS = 11261.86 A7C Alternative - San Juan Creek Crossing



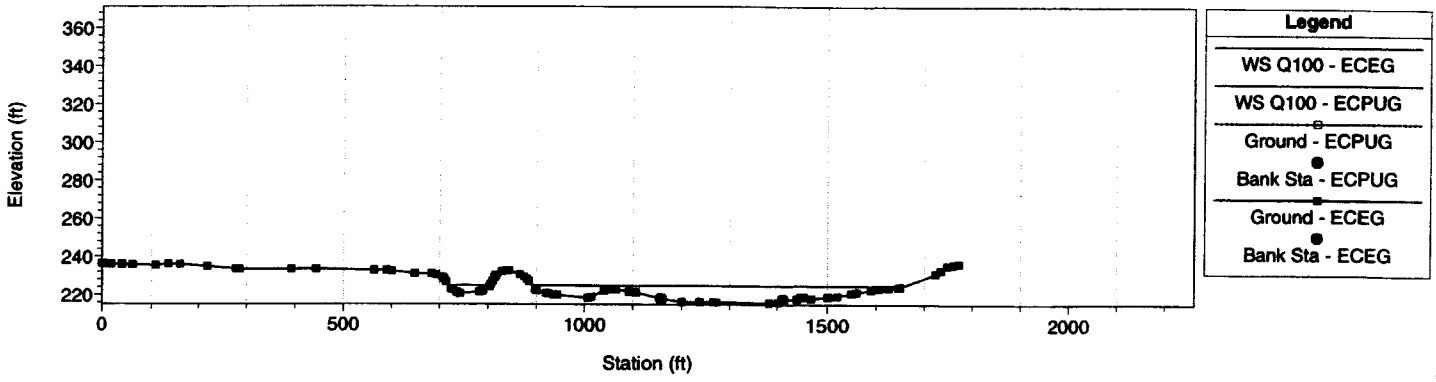
Project Model - D4

RS = 11118.79 A7C Alternative - San Juan Creek Crossing



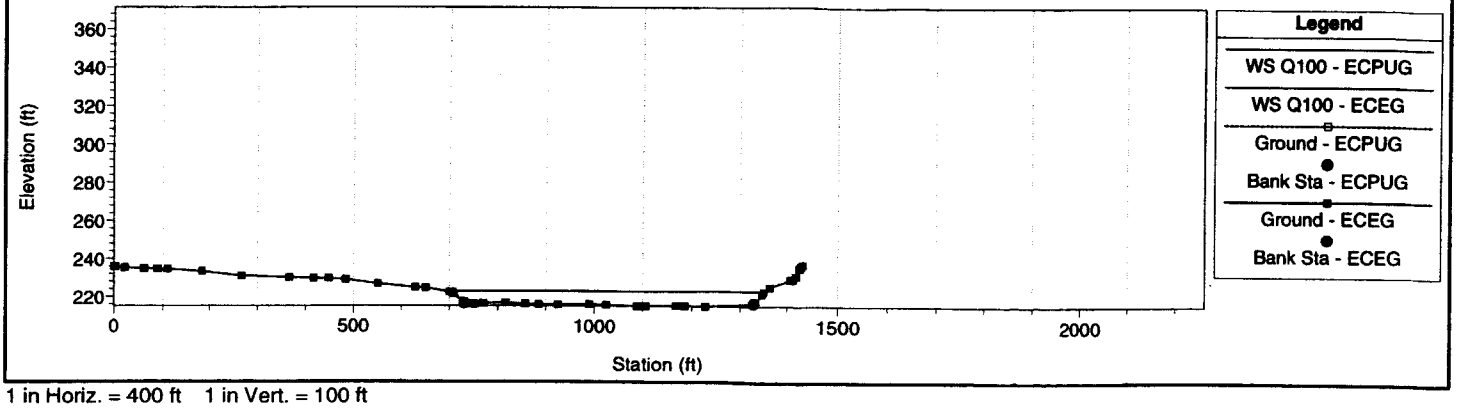
Project Model - D4

RS = 10987.74 A7C Alternative - San Juan Creek Crossing



Project Model - D4

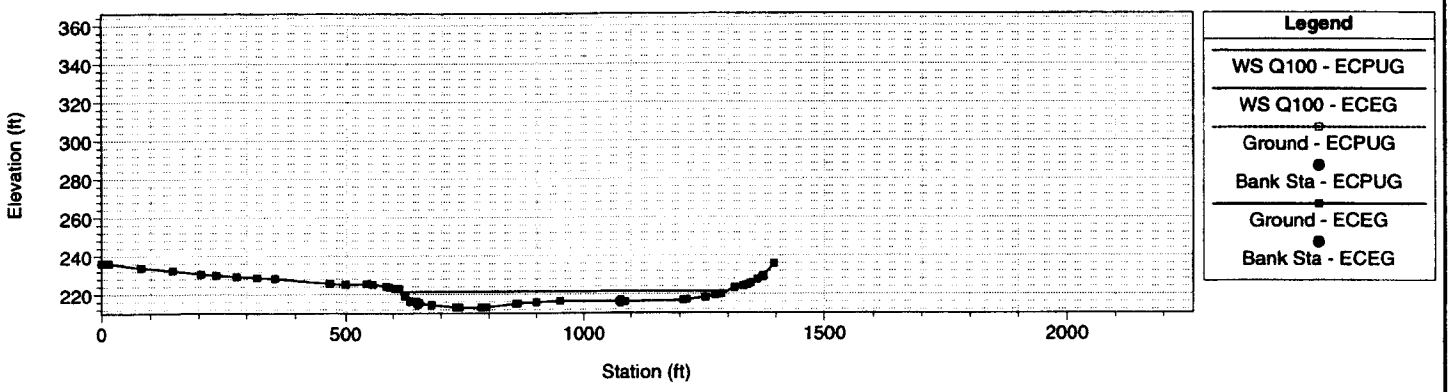
RS = 10747.97 A7C Alternative - San Juan Creek Crossing



1 in Horiz. = 400 ft 1 in Vert. = 100 ft

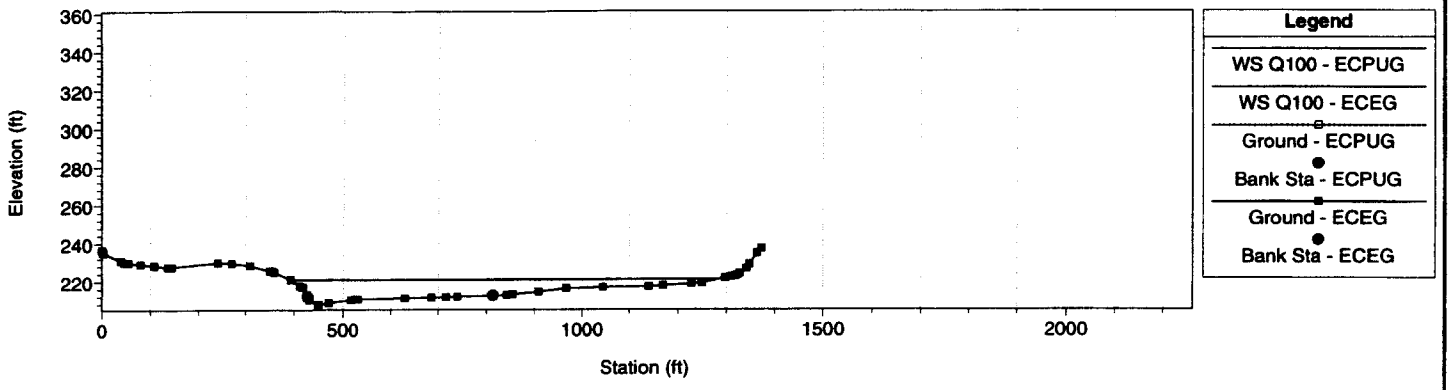
Project Model - D4

RS = 10546.27 A7C Alternative - San Juan Creek Crossing



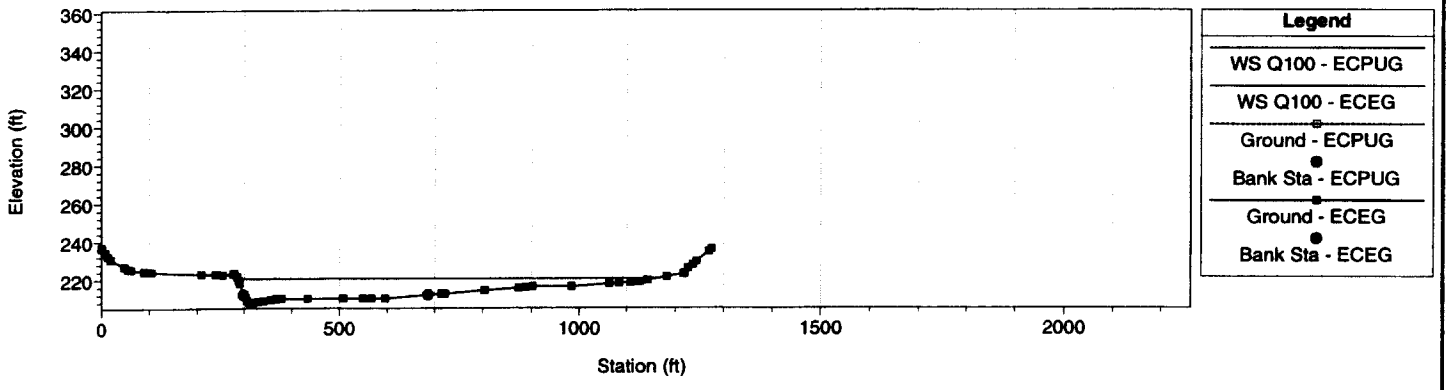
Project Model - D4

RS = 10064.73 A7C Alternative - San Juan Creek Crossing



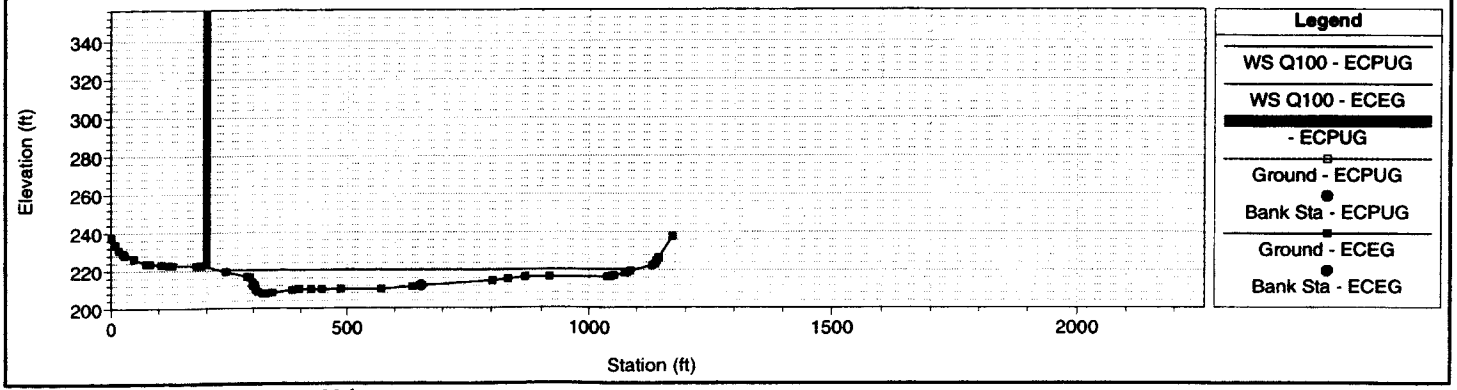
Project Model - D4

RS = 9828.565 A7C Alternative - San Juan Creek Crossing



Project Model - D4

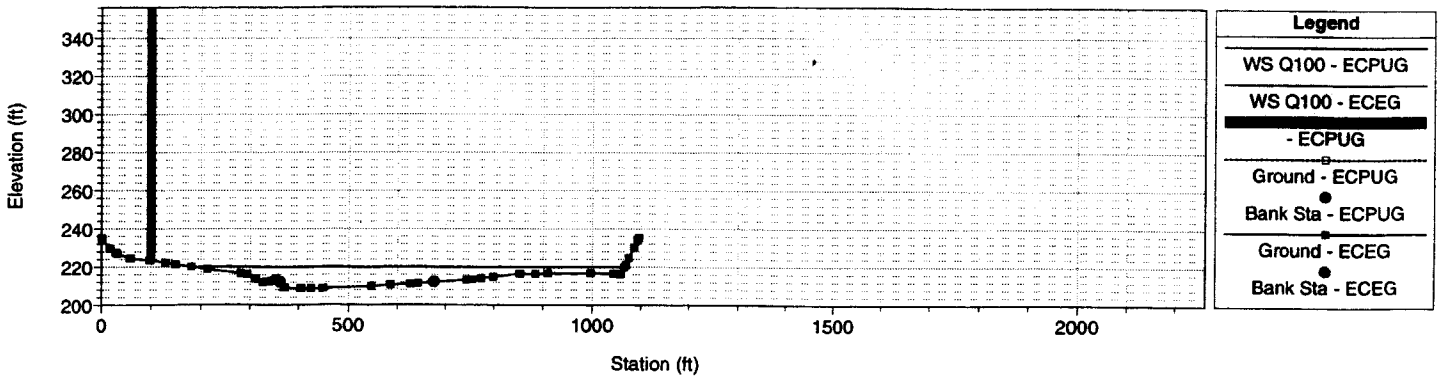
RS = 9710.010 A7C Alternative - San Juan Creek Crossing



1 in Horiz. = 400 ft 1 in Vert. = 100 ft

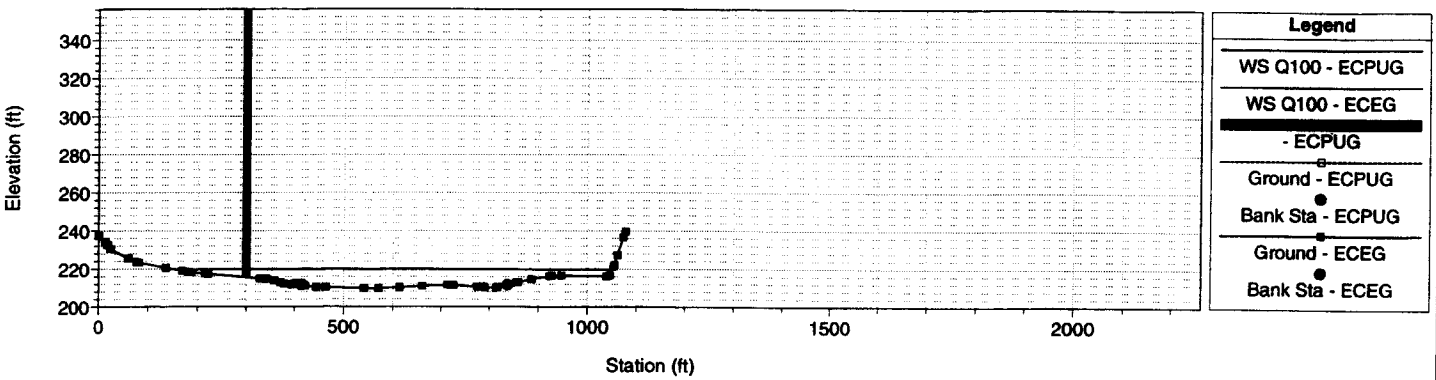
Project Model - D4

RS = 9587.161 A7C Alternative - San Juan Creek Crossing



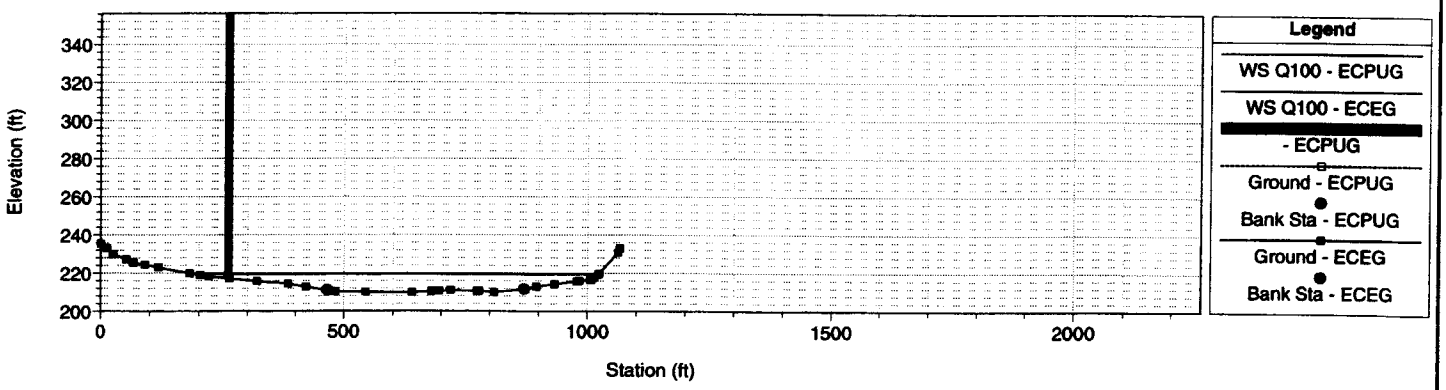
Project Model - D4

RS = 9469.136 A7C Alternative - San Juan Creek Crossing



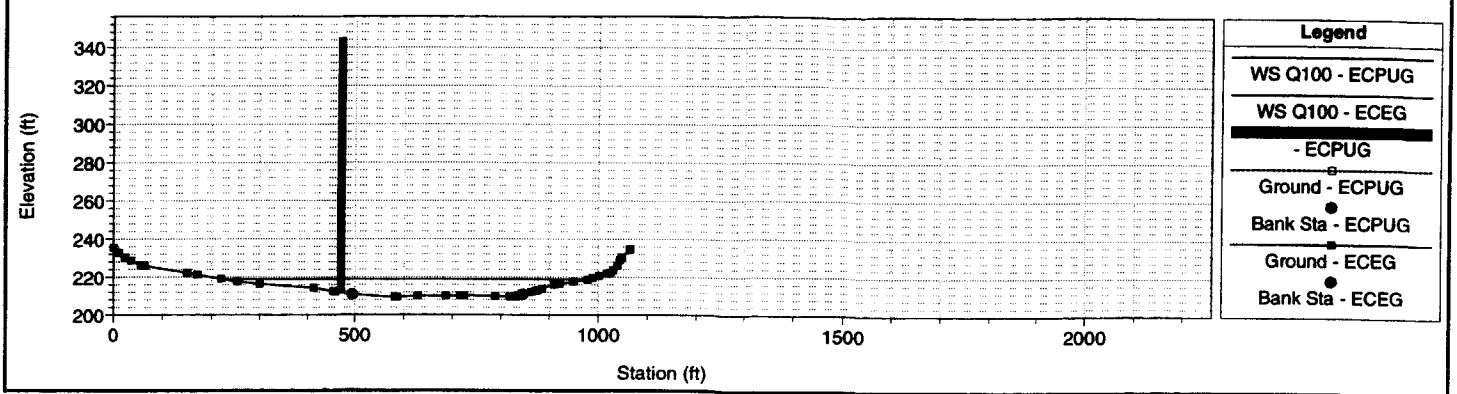
Project Model - D4

RS = 9350.632 A7C Alternative - San Juan Creek Crossing



Project Model - D4

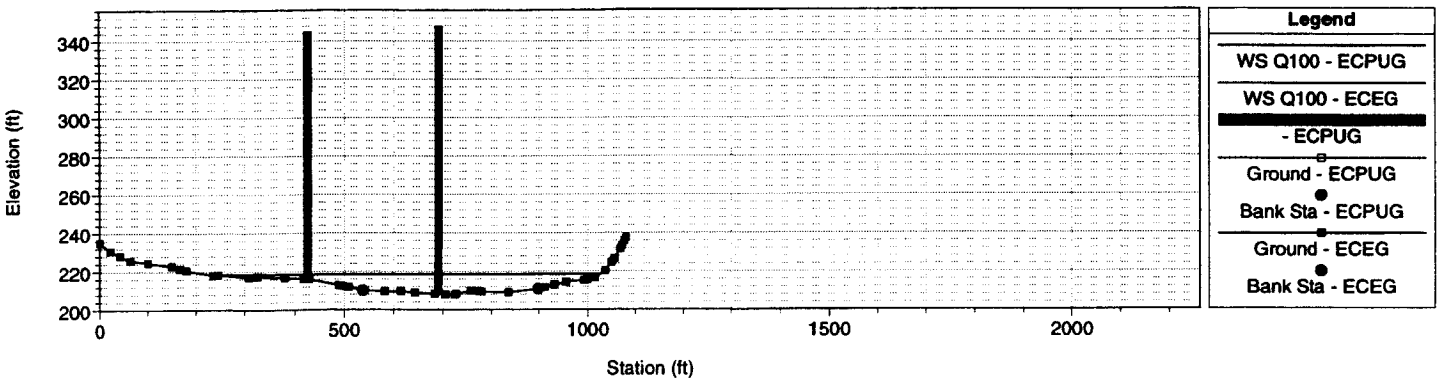
RS = 9256.219 A7C Alternative - San Juan Creek Crossing



1 in Horiz. = 400 ft 1 in Vert. = 100 ft

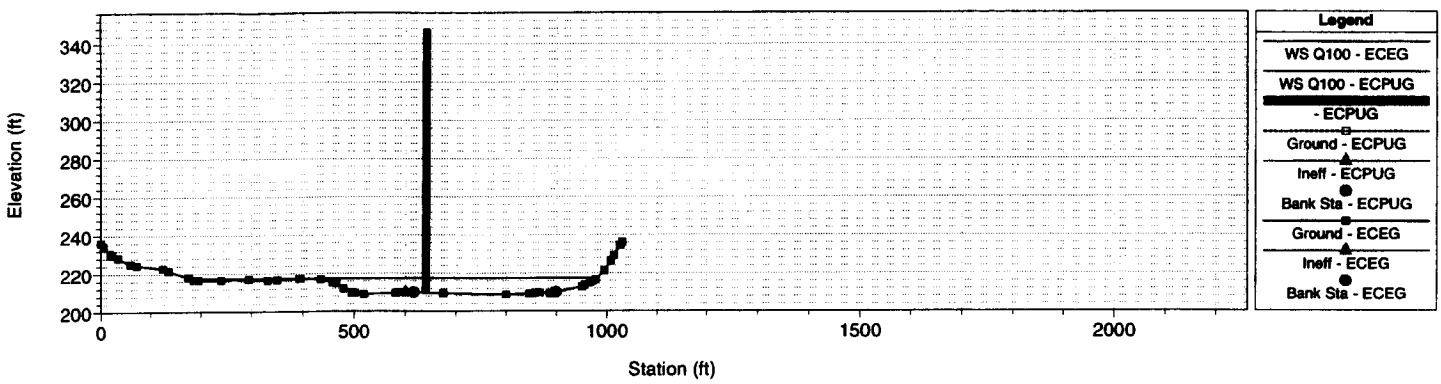
Project Model - D4

RS = 9137.316 A7C Alternative - San Juan Creek Crossing



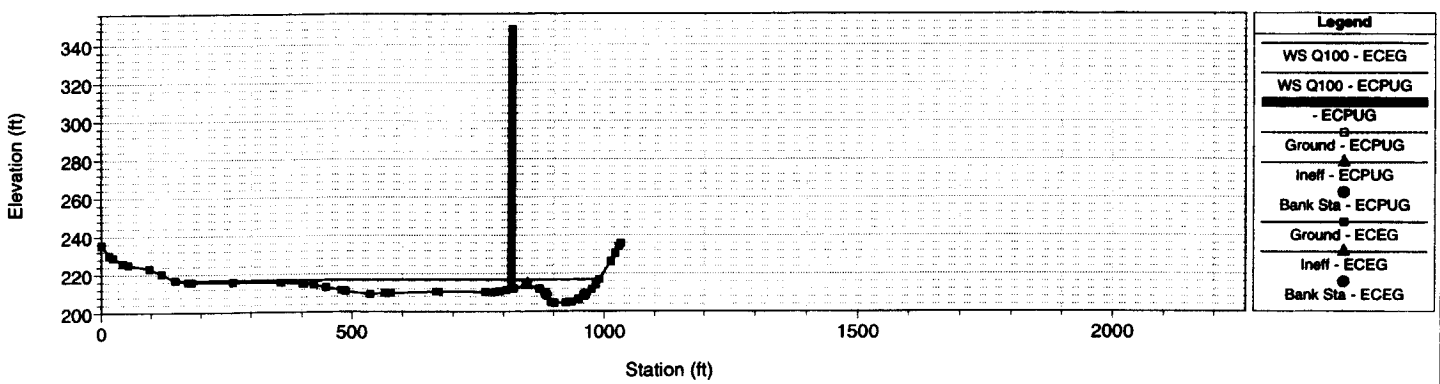
Project Model - D4

RS = 9018.948 A7C Alternative - San Juan Creek Crossing



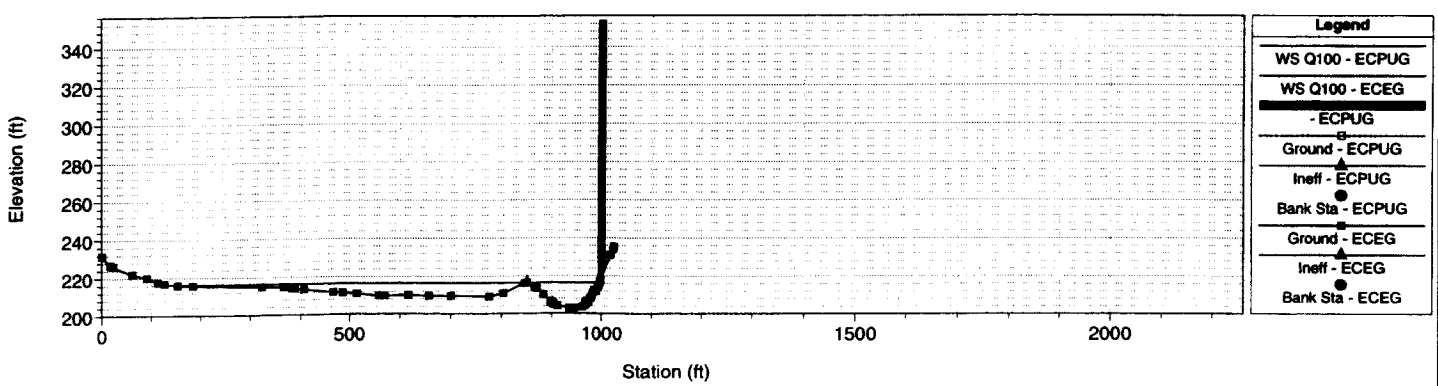
Project Model - D4

RS = 8877.807 A7C Alternative - San Juan Creek Crossing



Project Model - D4

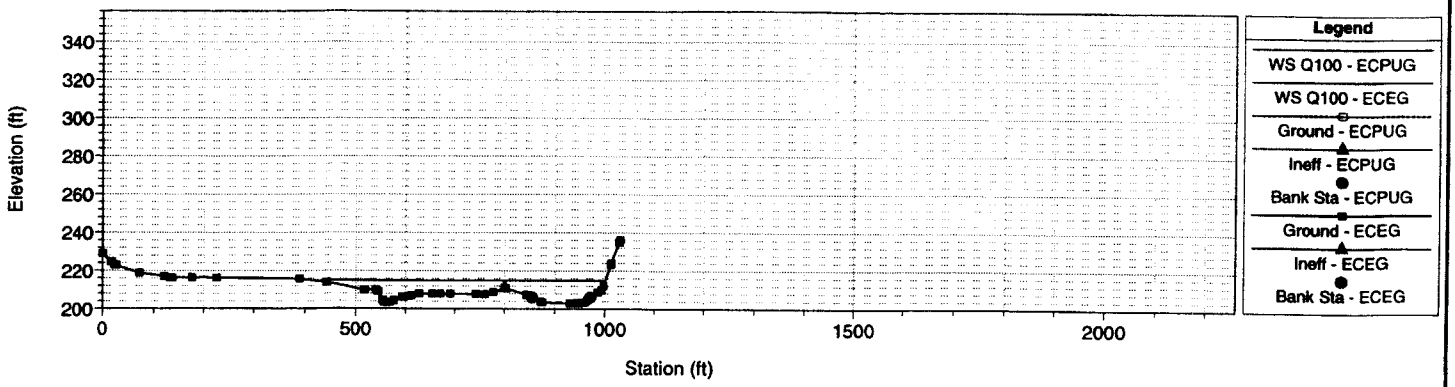
RS = 8785.928 A7C Alternative - San Juan Creek Crossing



1 in Horiz. = 400 ft 1 in Vert. = 100 ft

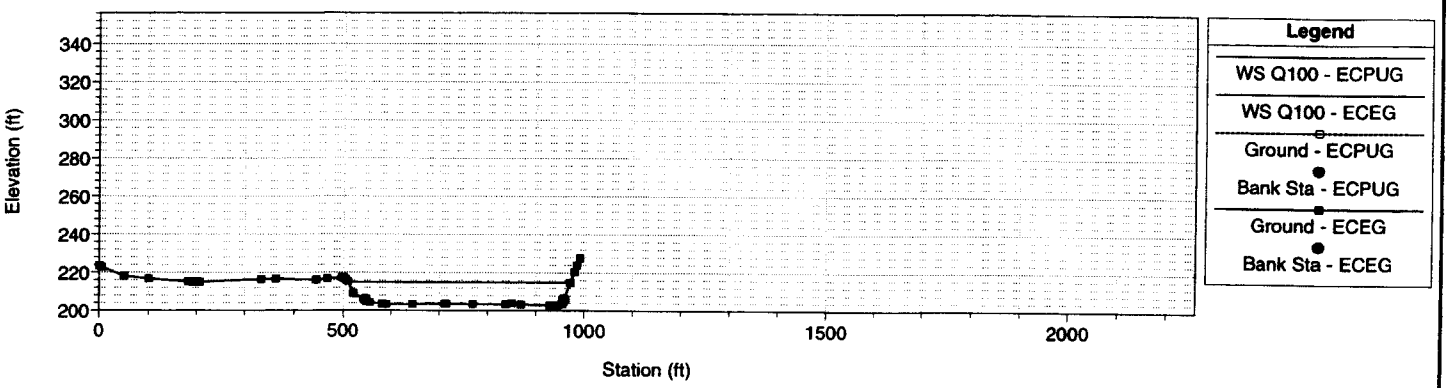
Project Model - D4

RS = 8699.415 A7C Alternative - San Juan Creek Crossing



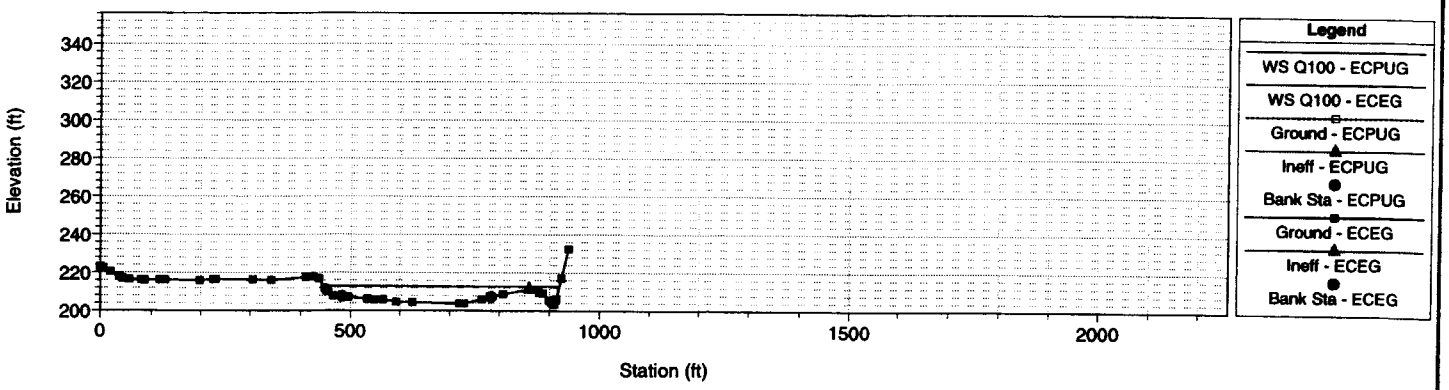
Project Model - D4

RS = 8488.931 A7C Alternative - San Juan Creek Crossing



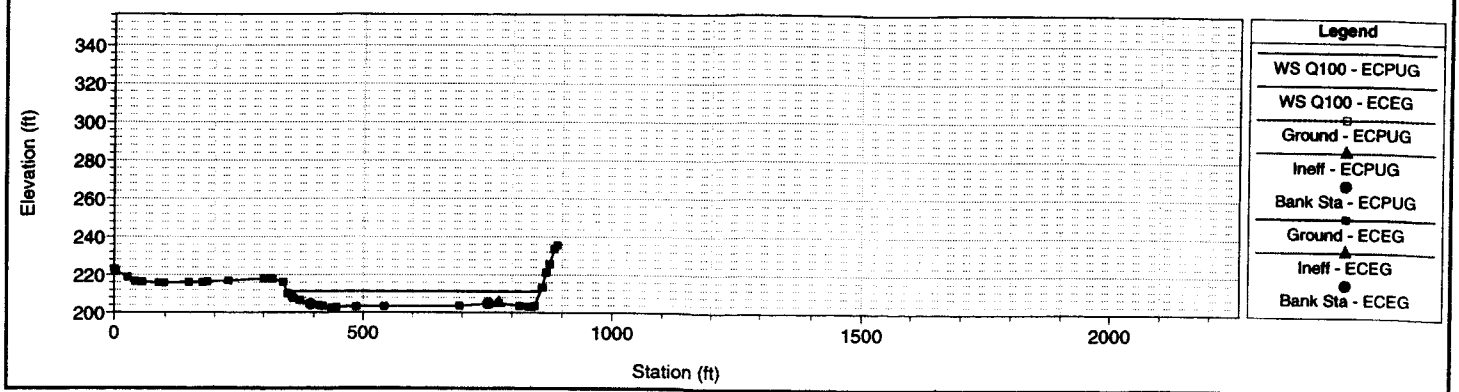
Project Model - D4

RS = 8287.319 A7C Alternative - San Juan Creek Crossing



Project Model - D4

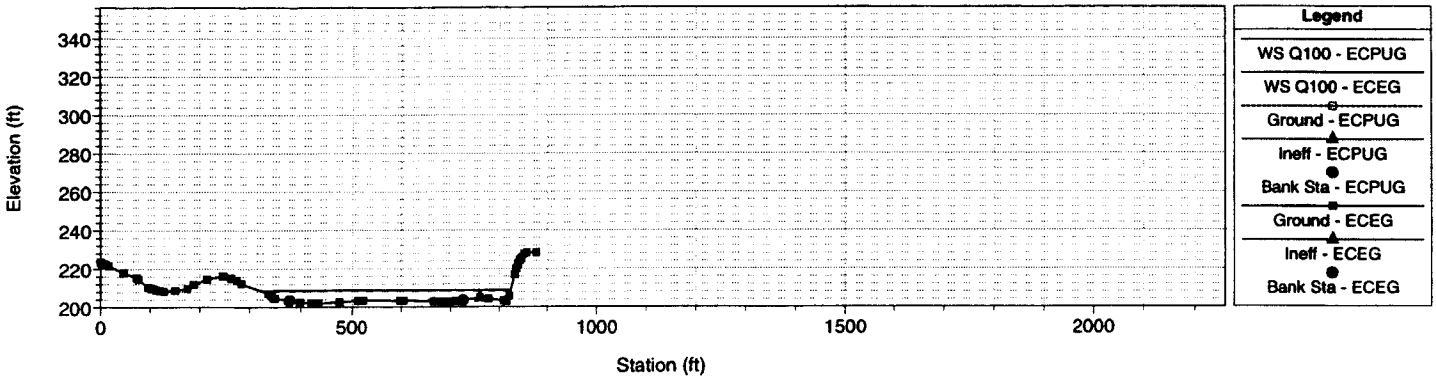
RS = 8012.155 A7C Alternative - San Juan Creek Crossing



1 in Horiz. = 400 ft 1 in Vert. = 100 ft

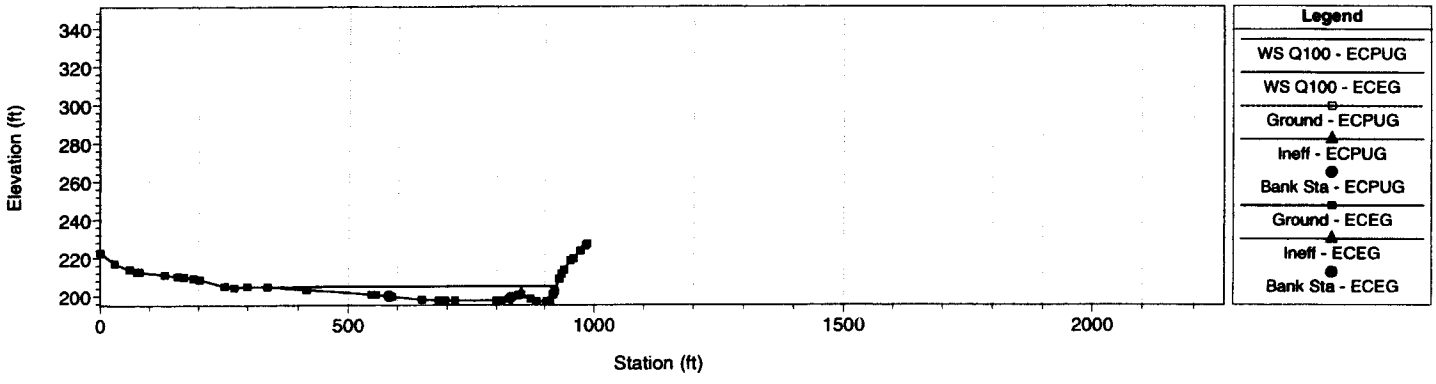
Project Model - D4

RS = 7820.775 A7C Alternative - San Juan Creek Crossing



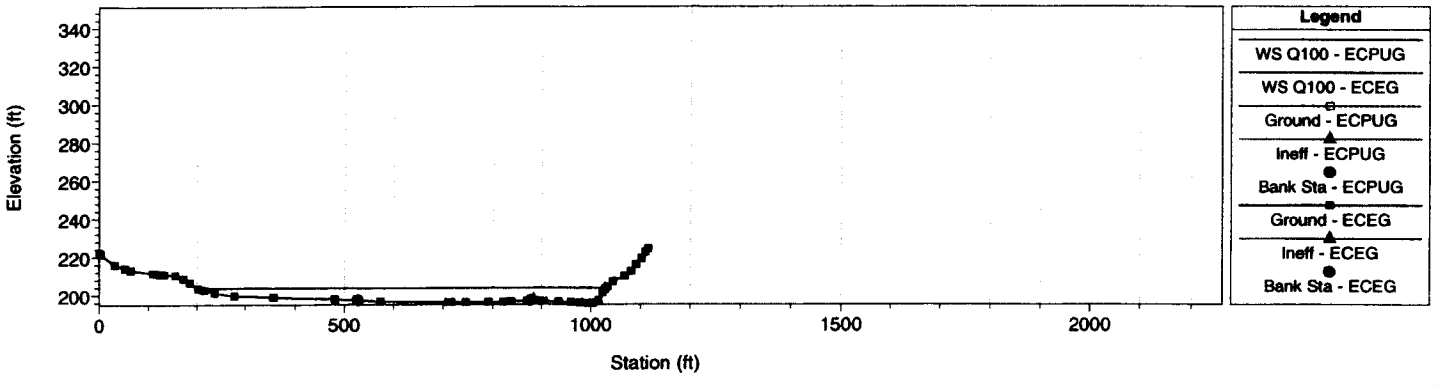
Project Model - D4

RS = 7605.154 A7C Alternative - San Juan Creek Crossing



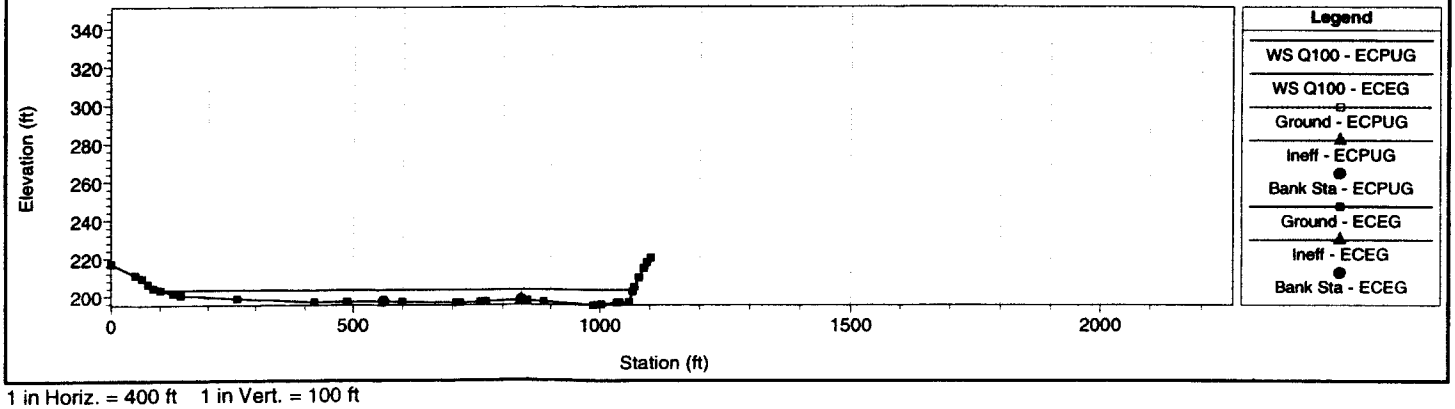
Project Model - D4

RS = 7289.783 A7C Alternative - San Juan Creek Crossing



Project Model - D4

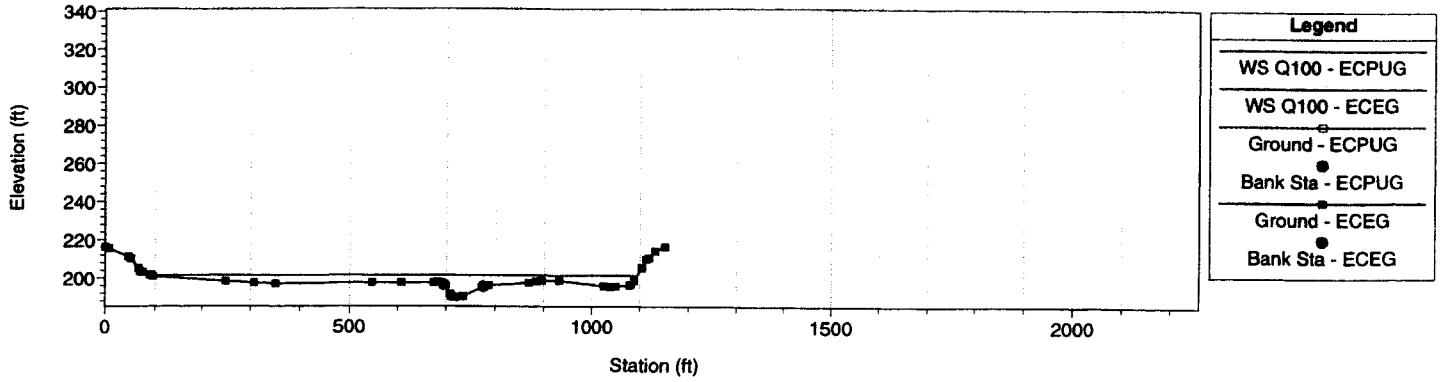
RS = 7062.404 A7C Alternative - San Juan Creek Crossing



1 in Horiz. = 400 ft 1 in Vert. = 100 ft

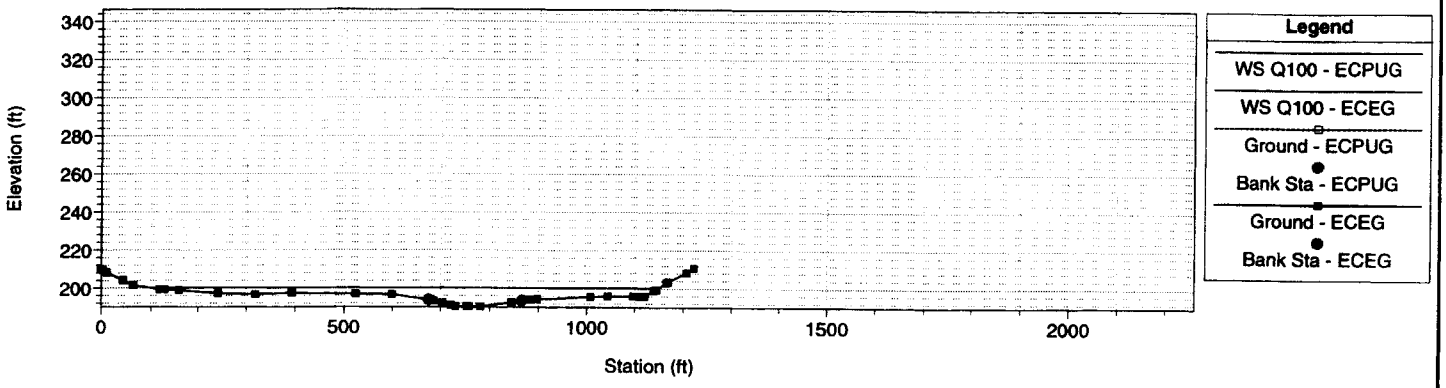
Project Model - D4

RS = 6894.555 A7C Alternative - San Juan Creek Crossing



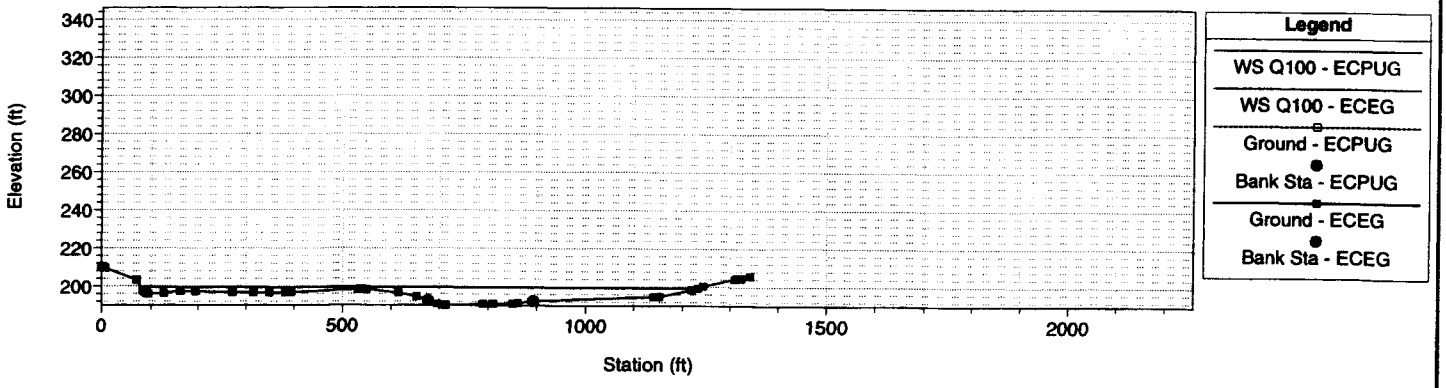
Project Model - D4

RS = 6705.202 A7C Alternative - San Juan Creek Crossing



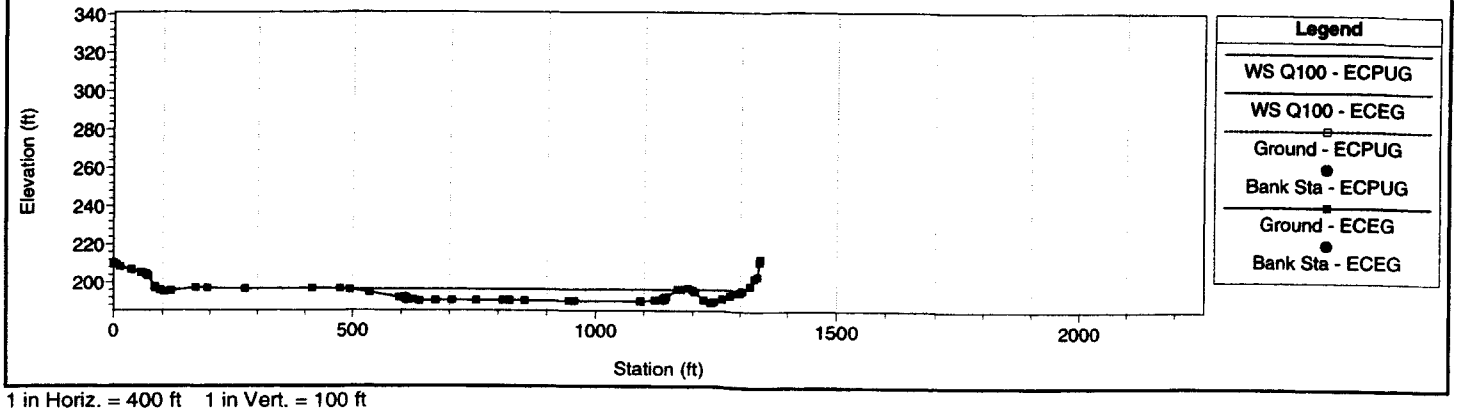
Project Model - D4

RS = 6544.956 A7C Alternative - San Juan Creek Crossing



Project Model - D4

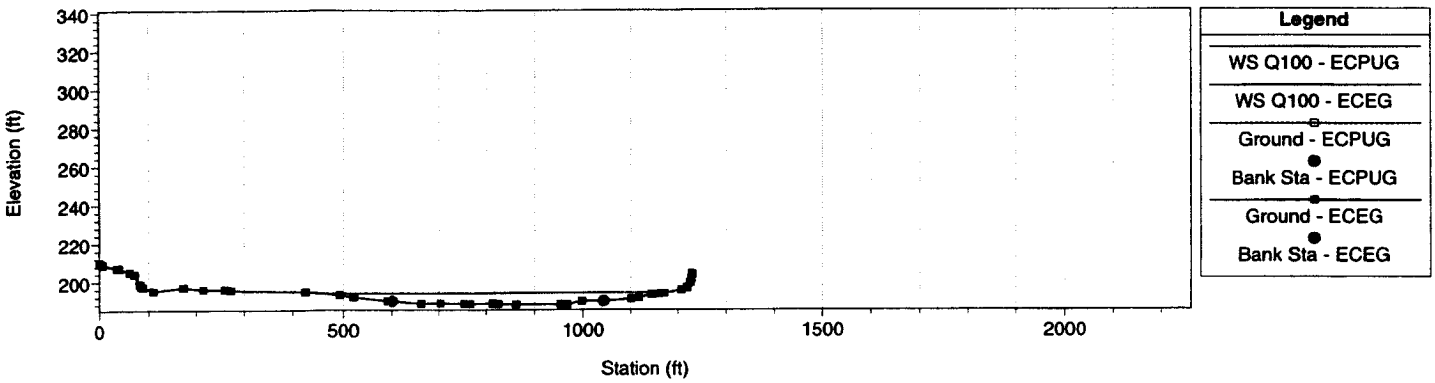
RS = 6151.870 A7C Alternative - San Juan Creek Crossing



1 in Horiz. = 400 ft 1 in Vert. = 100 ft

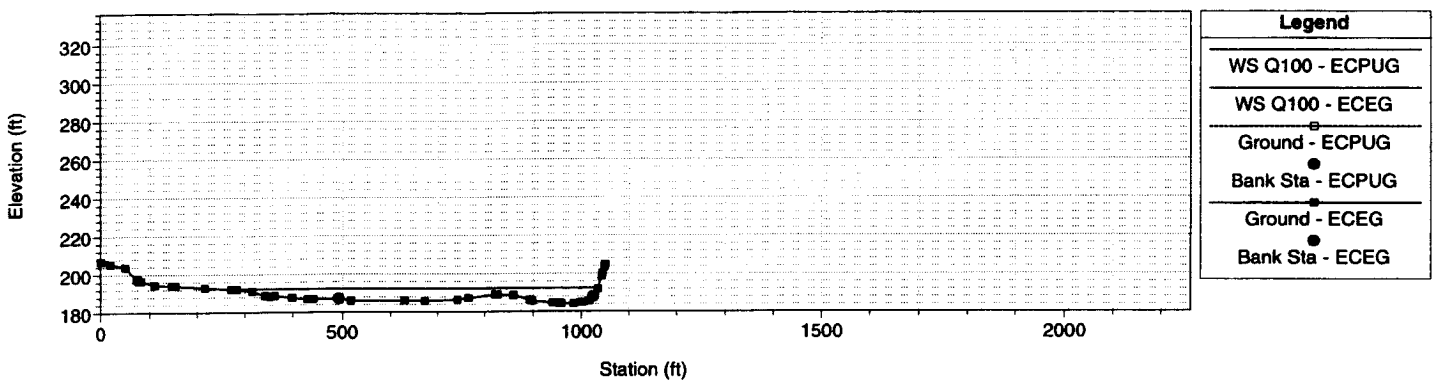
Project Model - D4

RS = 5978.856 A7C Alternative - San Juan Creek Crossing



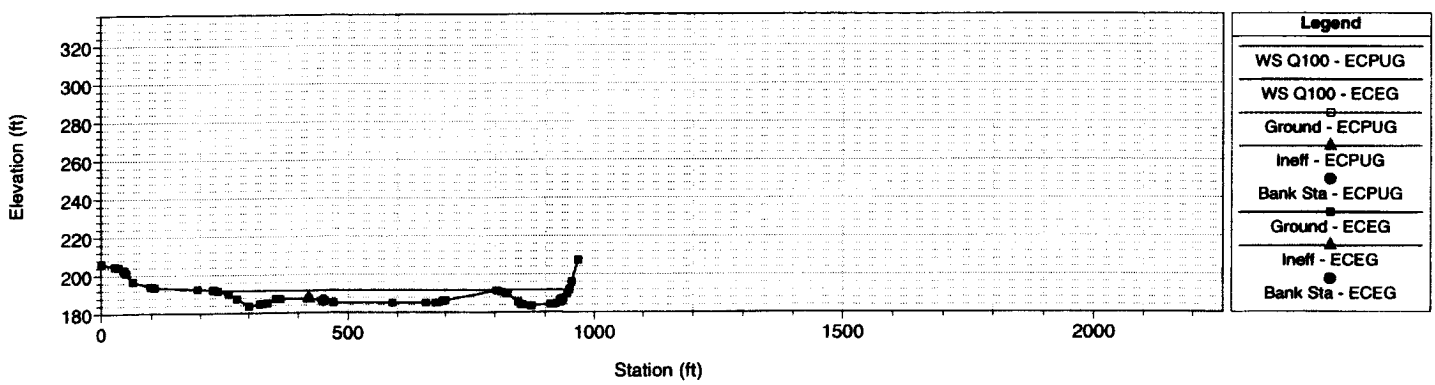
Project Model - D4

RS = 5788.123 A7C Alternative - San Juan Creek Crossing



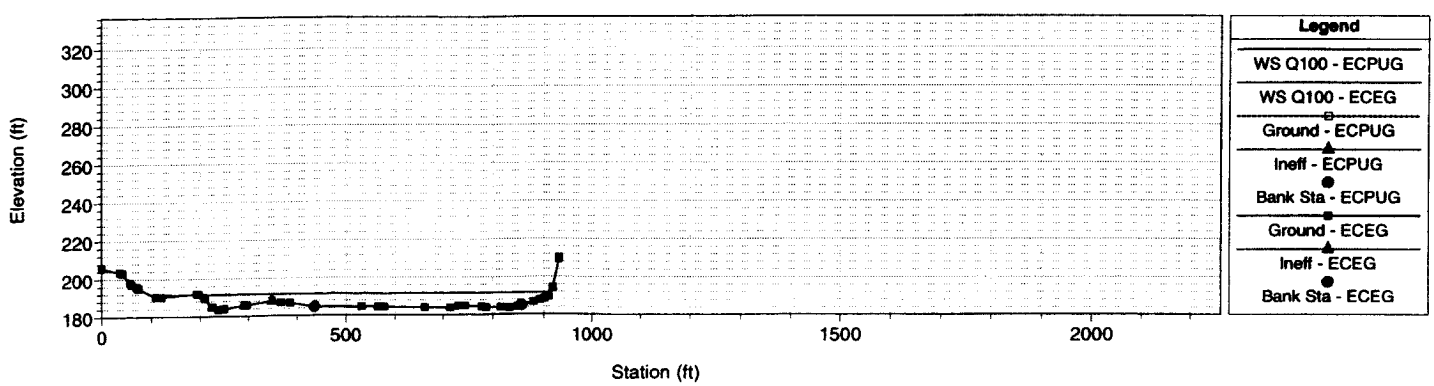
Project Model - D4

RS = 5686.773 A7C Alternative - San Juan Creek Crossing



Project Model - D4

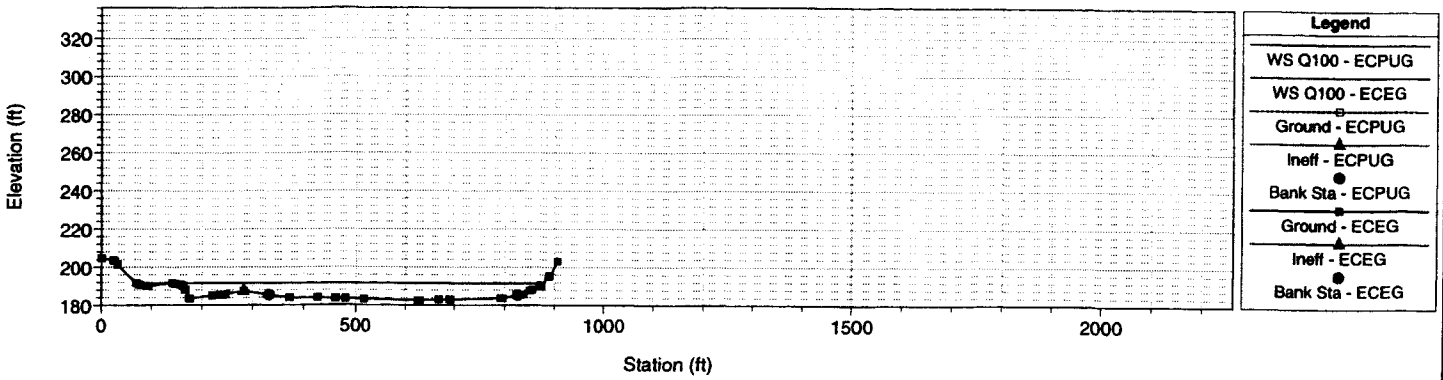
RS = 5593.814 A7C Alternative - San Juan Creek Crossing



1 in Horiz. = 400 ft 1 in Vert. = 100 ft

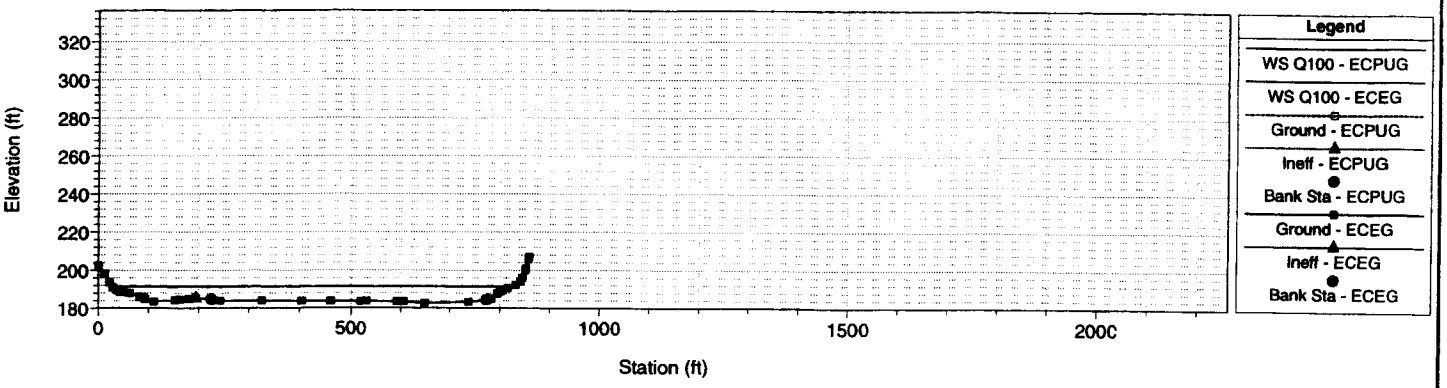
Project Model - D4

RS = 5502.751 A7C Alternative - San Juan Creek Crossing



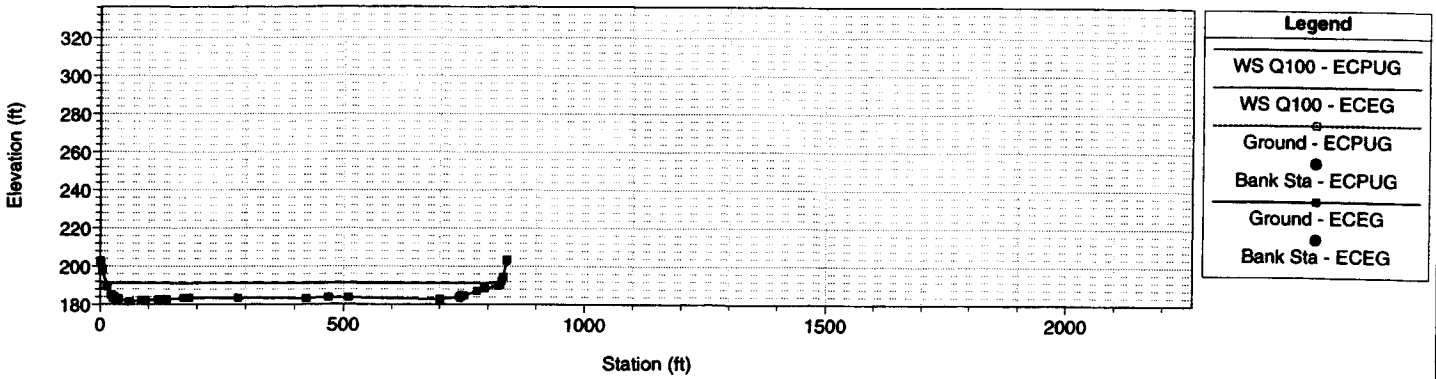
Project Model - D4

RS = 5387.141 A7C Alternative - San Juan Creek Crossing



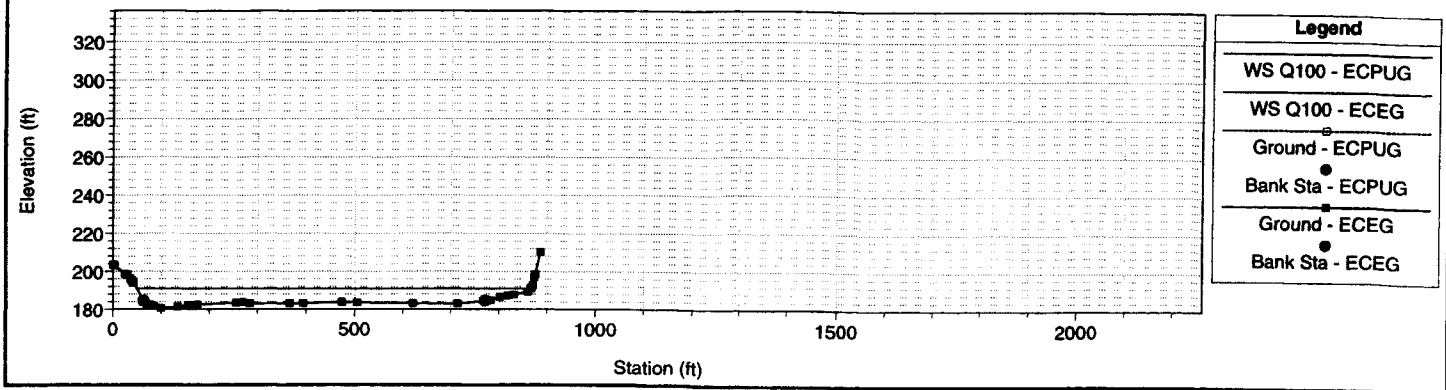
Project Model - D4

RS = 5249.660 A7C Alternative - San Juan Creek Crossing



Project Model - D4

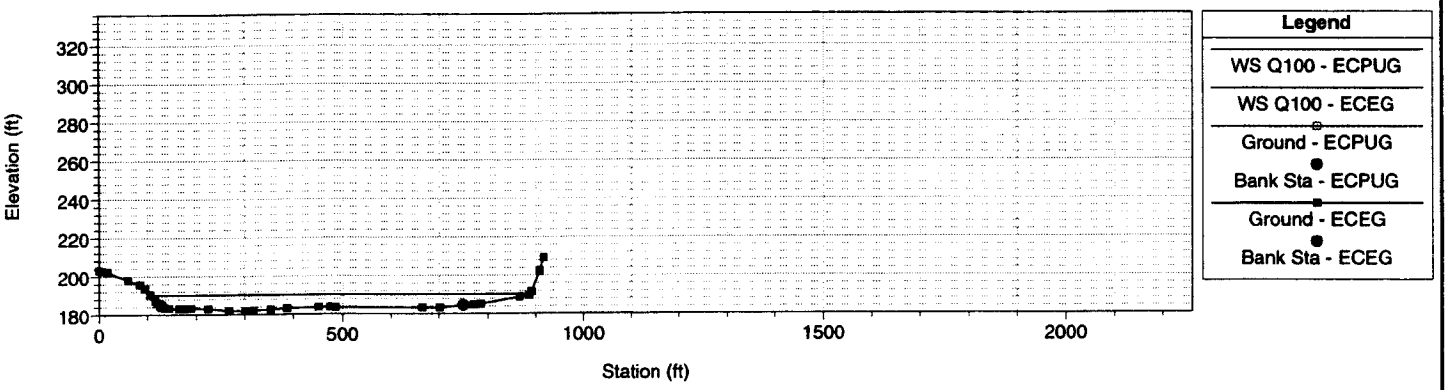
RS = 5093.864 A7C Alternative - San Juan Creek Crossing



1 in Horiz. = 400 ft 1 in Vert. = 100 ft

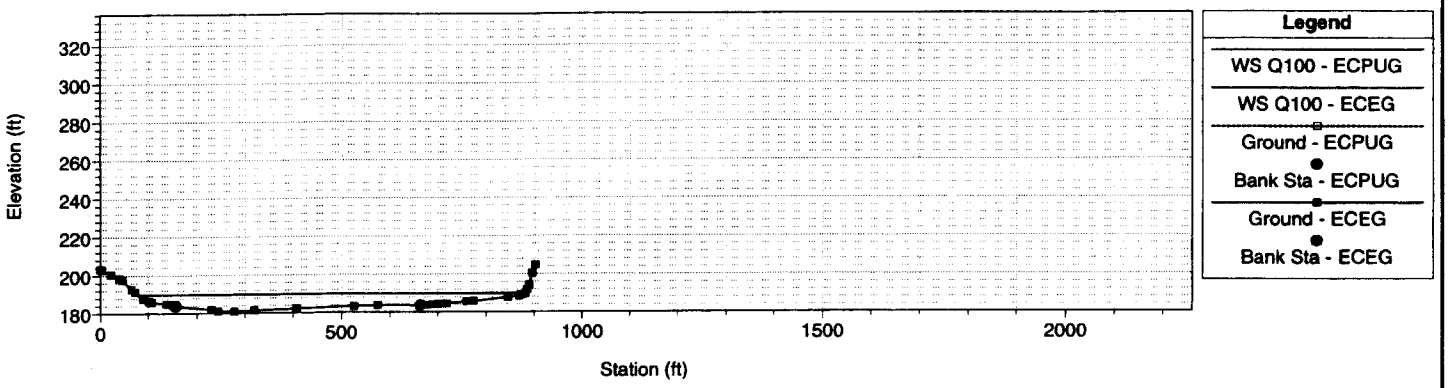
Project Model - D4

RS = 4947.016 A7C Alternative - San Juan Creek Crossing



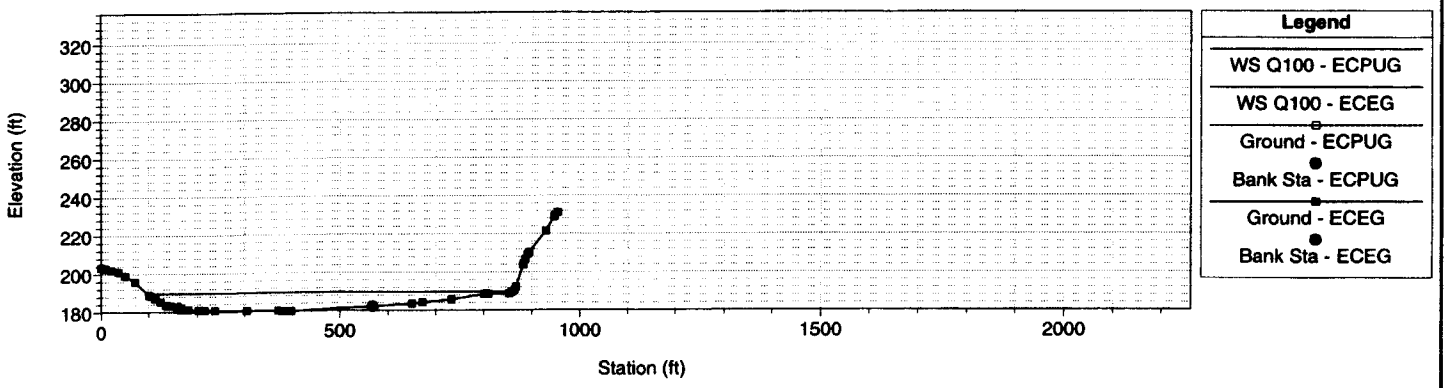
Project Model - D4

RS = 4845.863 A7C Alternative - San Juan Creek Crossing



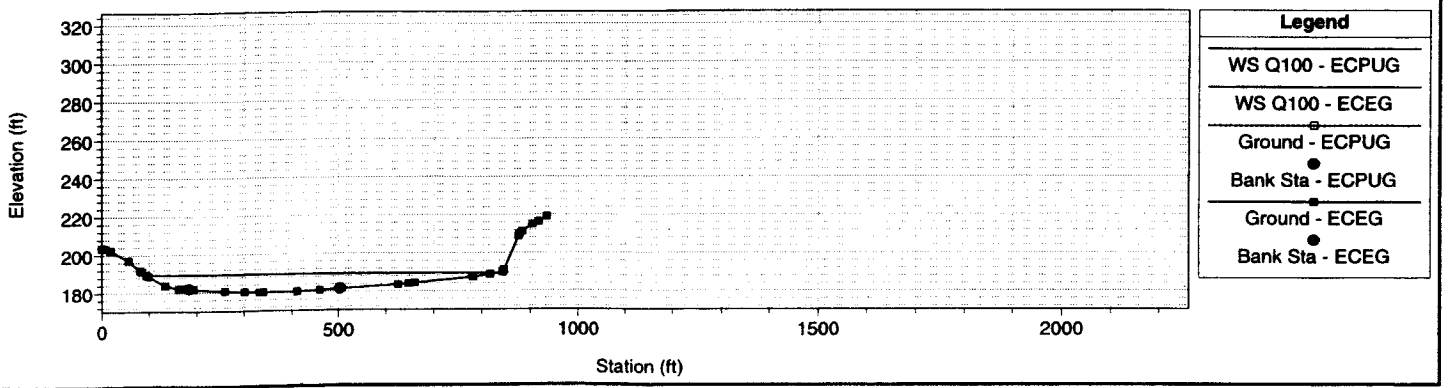
Project Model - D4

RS = 4728.187 A7C Alternative - San Juan Creek Crossing



Project Model - D4

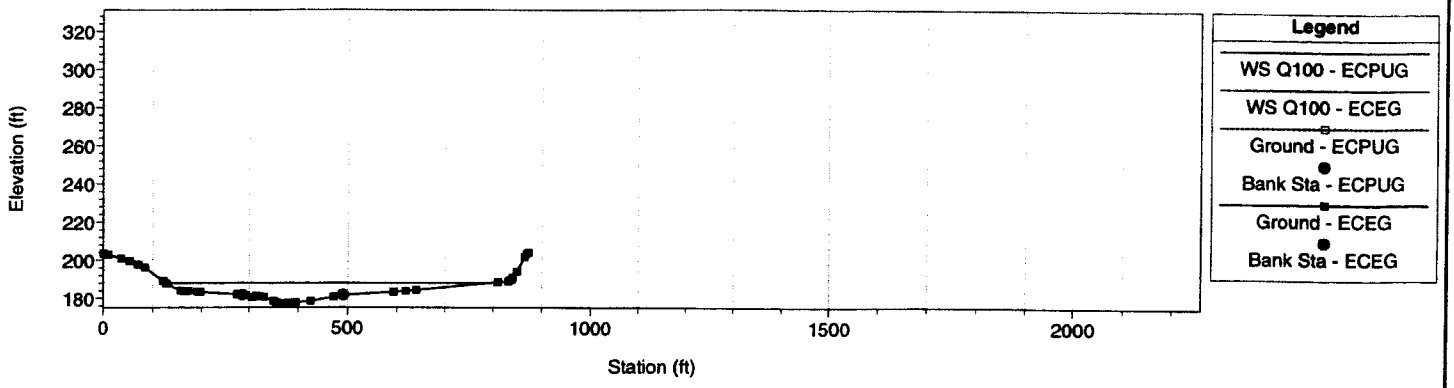
RS = 4631.533 A7C Alternative - San Juan Creek Crossing



1 in Horiz. = 400 ft 1 in Vert. = 100 ft

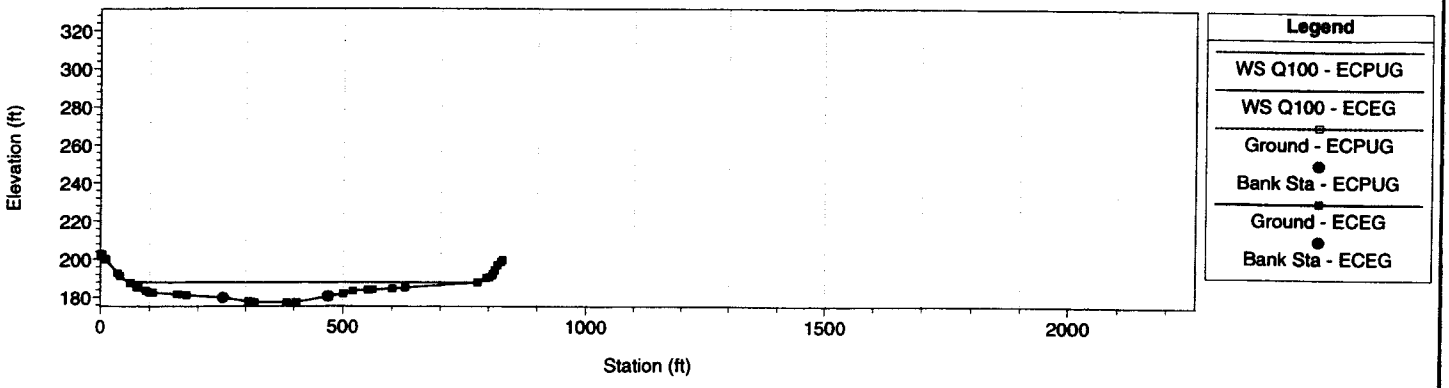
Project Model - D4

RS = 4524.879 A7C Alternative - San Juan Creek Crossing



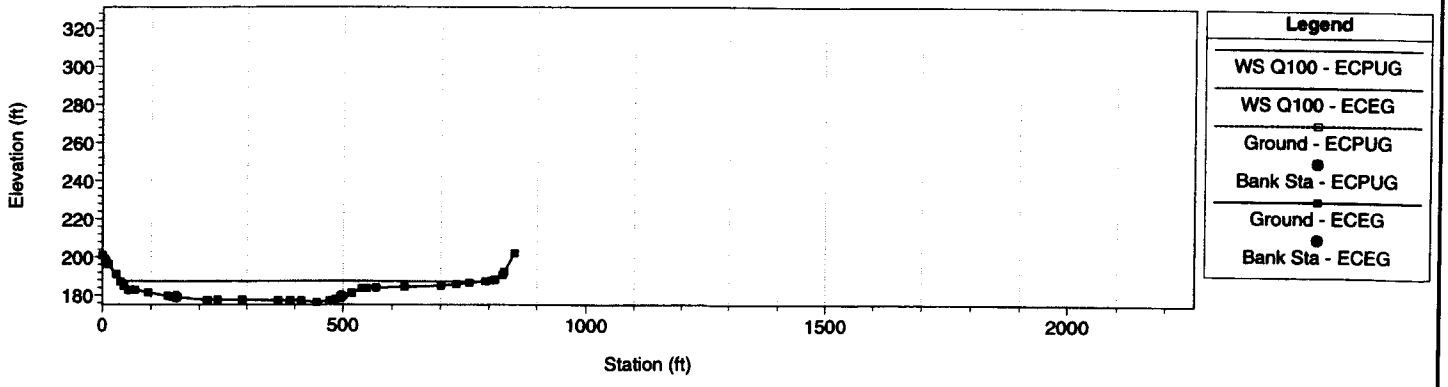
Project Model - D4

RS = 4434.483 A7C Alternative - San Juan Creek Crossing



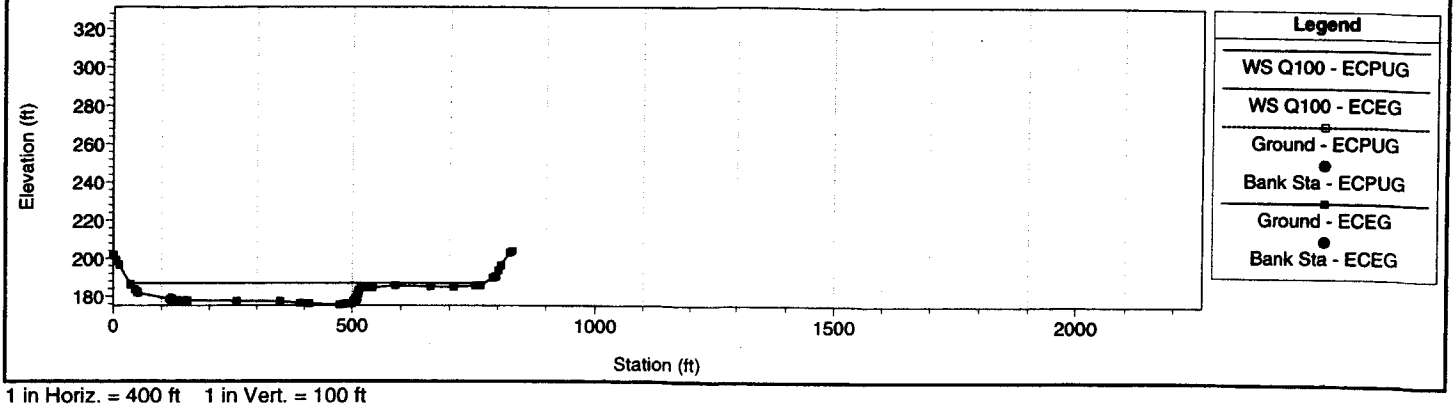
Project Model - D4

RS = 4213.757 A7C Alternative - San Juan Creek Crossing



Project Model - D4

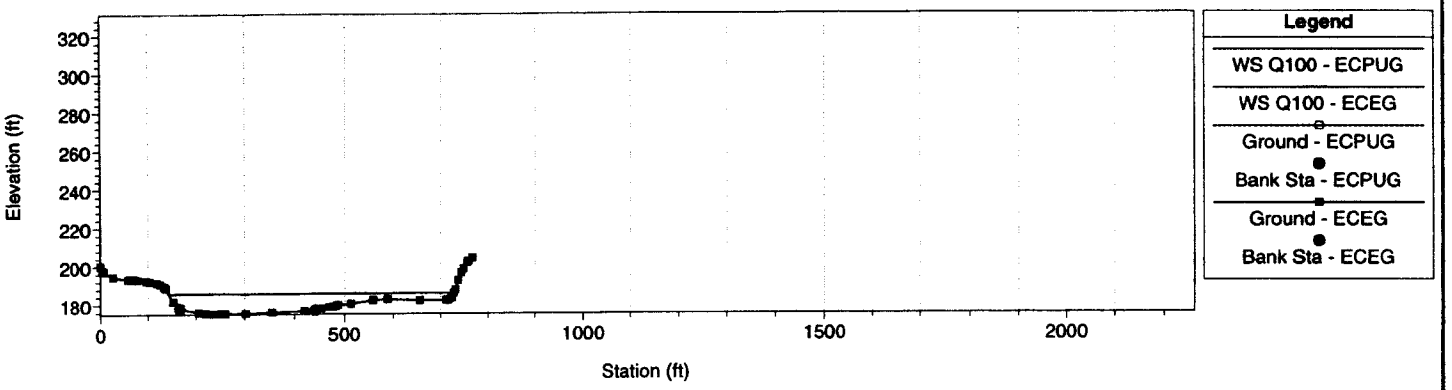
RS = 4008.681 A7C Alternative - San Juan Creek Crossing



1 in Horiz. = 400 ft 1 in Vert. = 100 ft

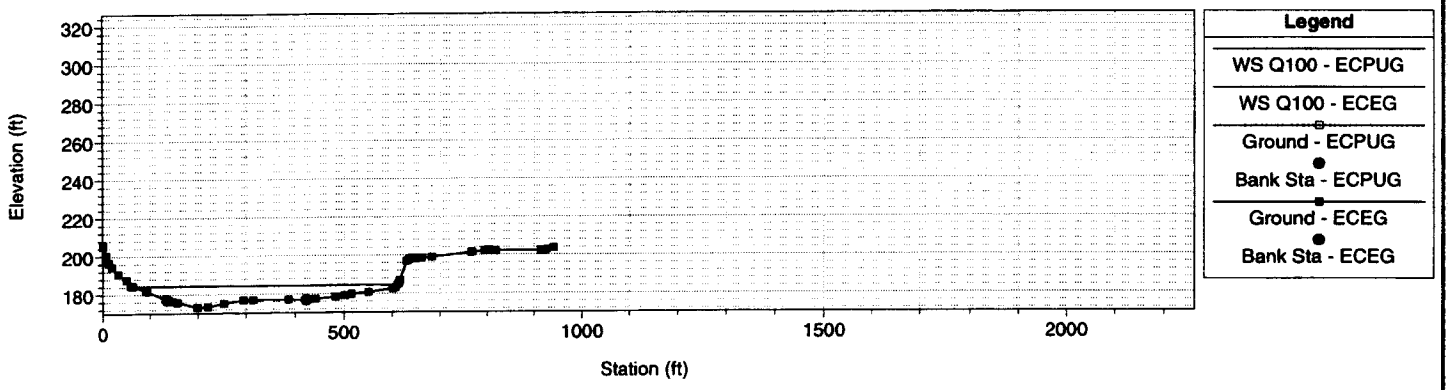
Project Model - D4

RS = 3791.835 A7C Alternative - San Juan Creek Crossing



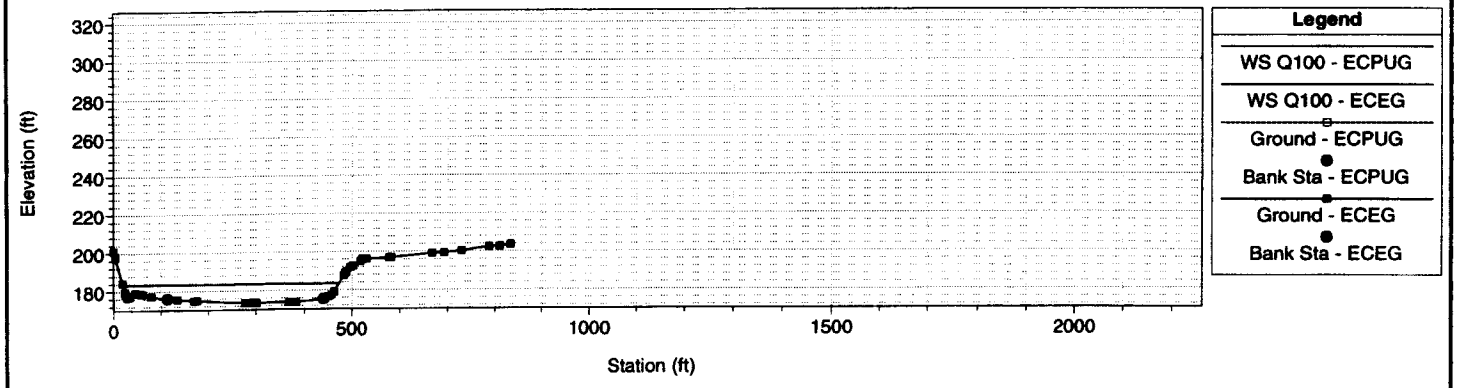
Project Model - D4

RS = 3592.245 A7C Alternative - San Juan Creek Crossing



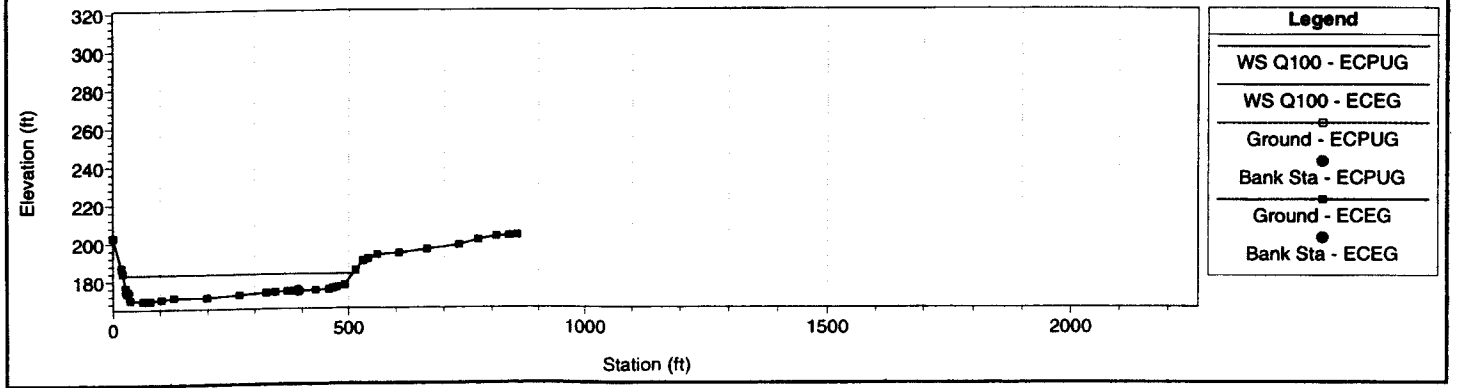
Project Model - D4

RS = 3376.157 A7C Alternative - San Juan Creek Crossing



Project Model - D4

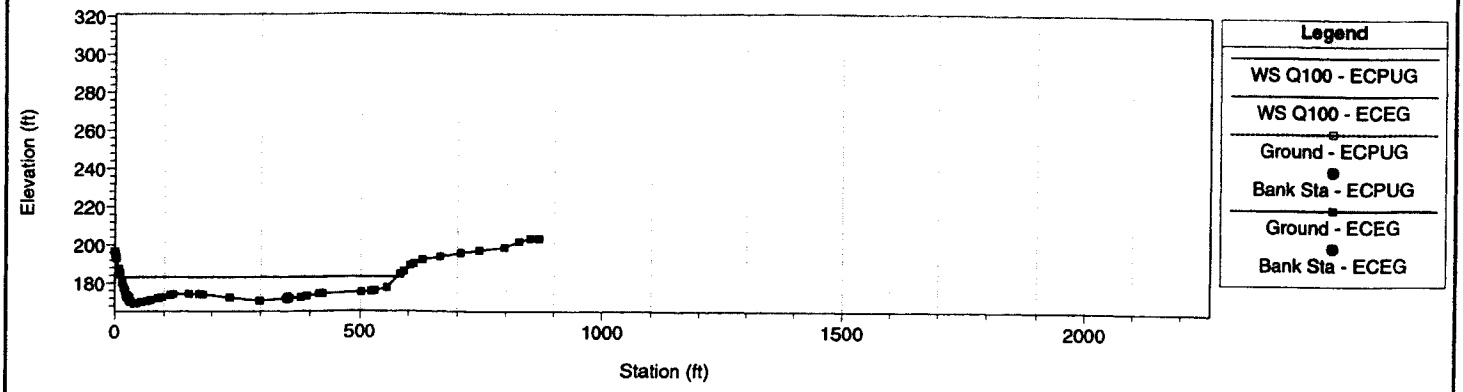
RS = 3169.567 A7C Alternative - San Juan Creek Crossing



1 in Horiz. = 400 ft 1 in Vert. = 100 ft

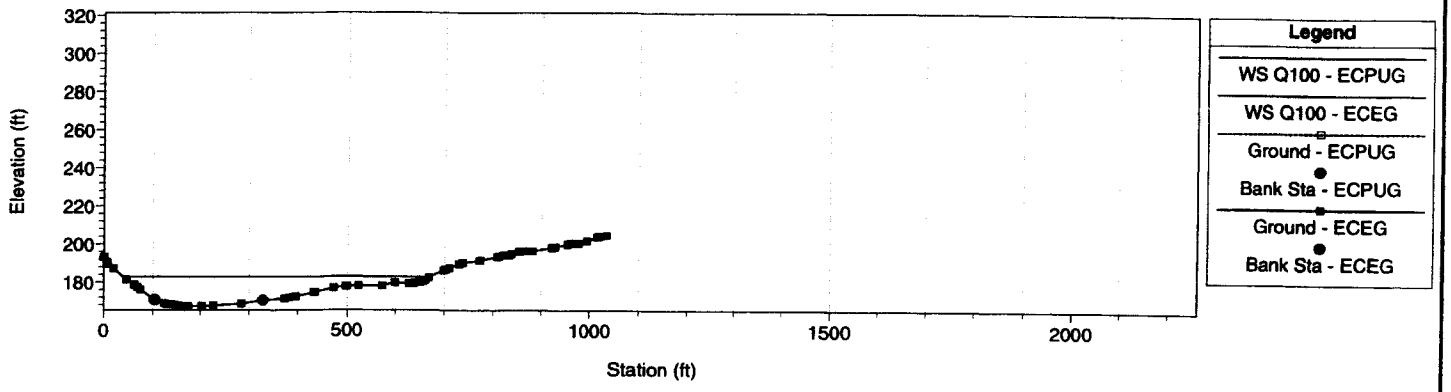
Project Model - D4

RS = 2962.583 A7C Alternative - San Juan Creek Crossing



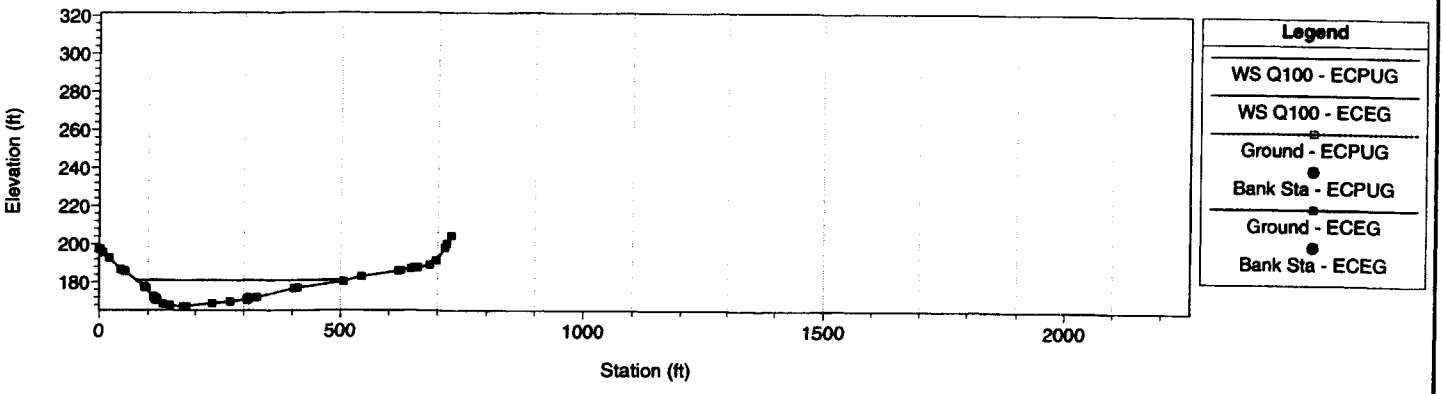
Project Model - D4

RS = 2746.045 A7C Alternative - San Juan Creek Crossing



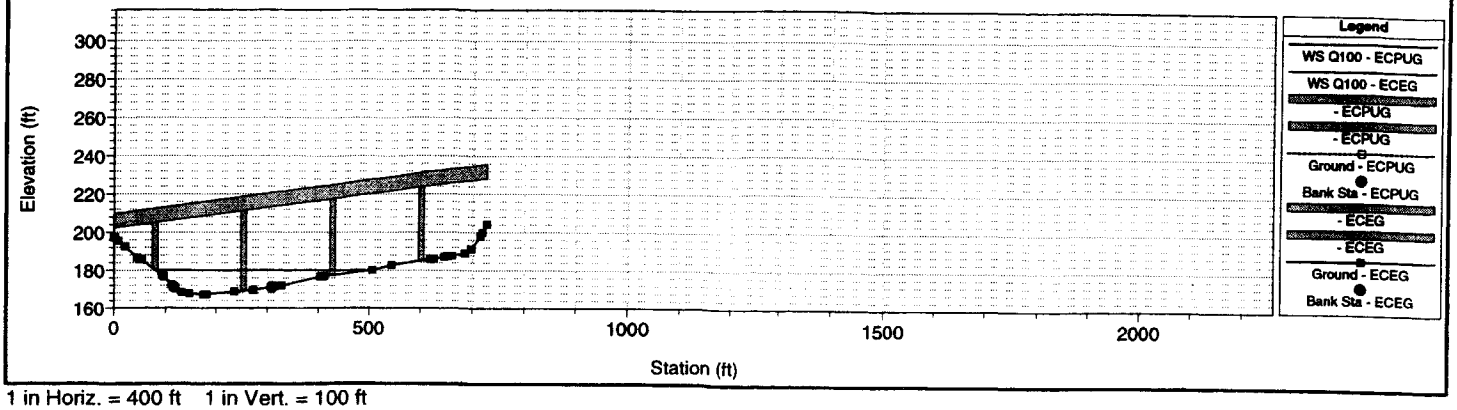
Project Model - D4

RS = 2608.338 A7C Alternative - San Juan Creek Crossing



Project Model - D4

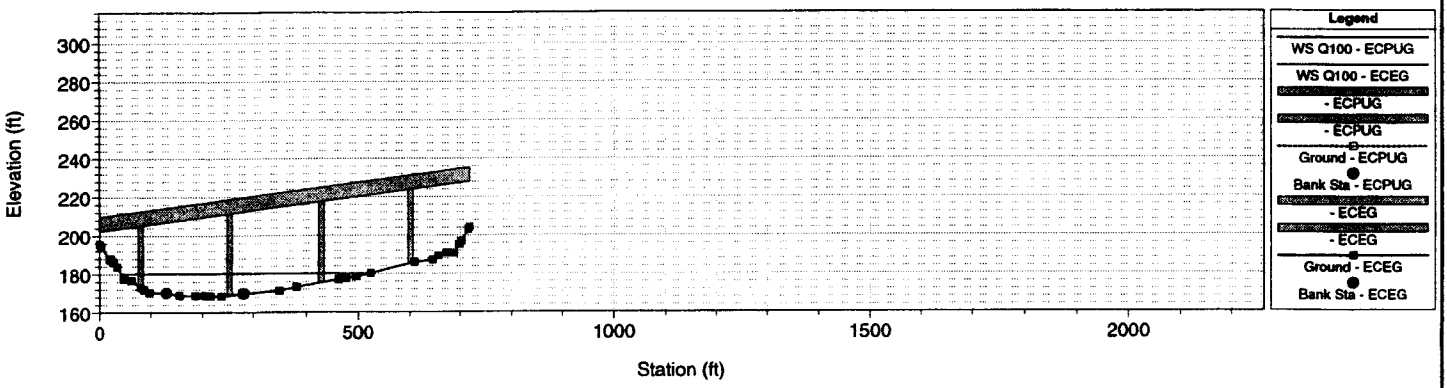
RS = 2580 A7C Alternative - San Juan Creek Crossing



1 in Horiz. = 400 ft 1 in Vert. = 100 ft

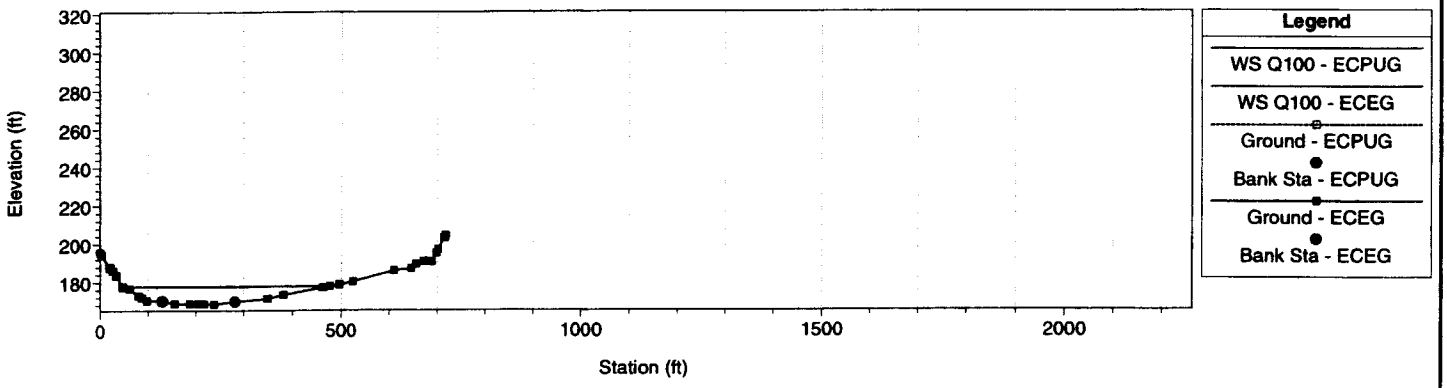
Project Model - D4

RS = 2580 A7C Alternative - San Juan Creek Crossing



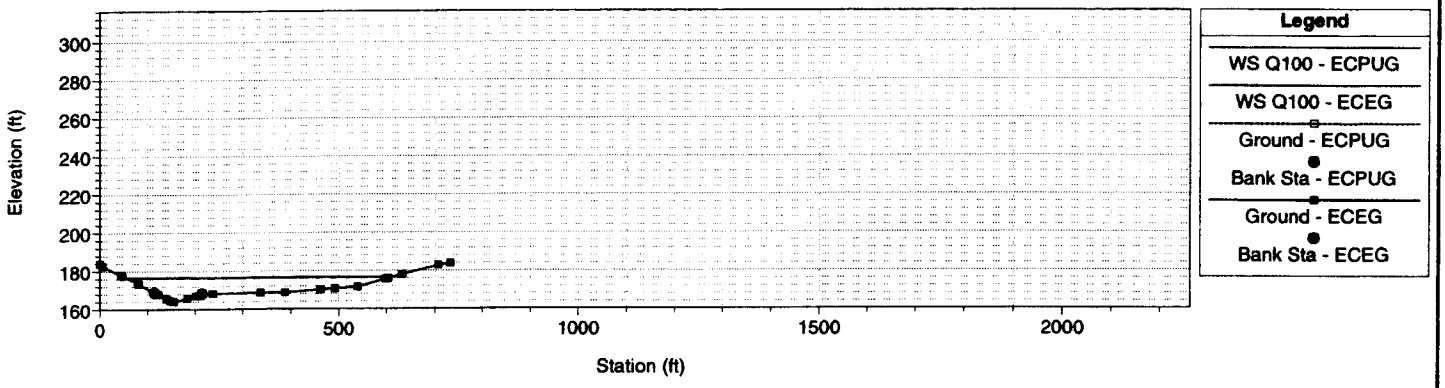
Project Model - D4

RS = 2443.625 A7C Alternative - San Juan Creek Crossing



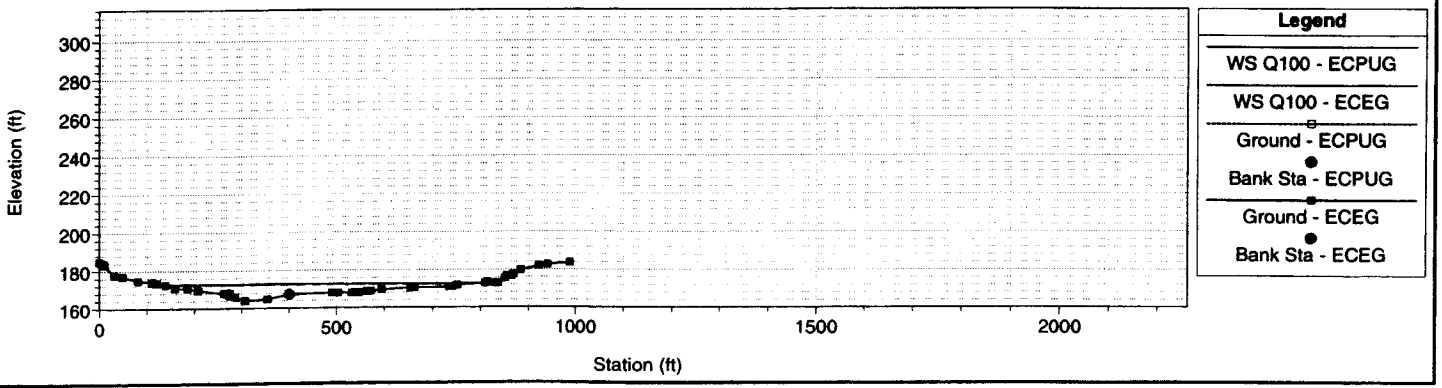
Project Model - D4

RS = 2258.454 A7C Alternative - San Juan Creek Crossing



Project Model - D4

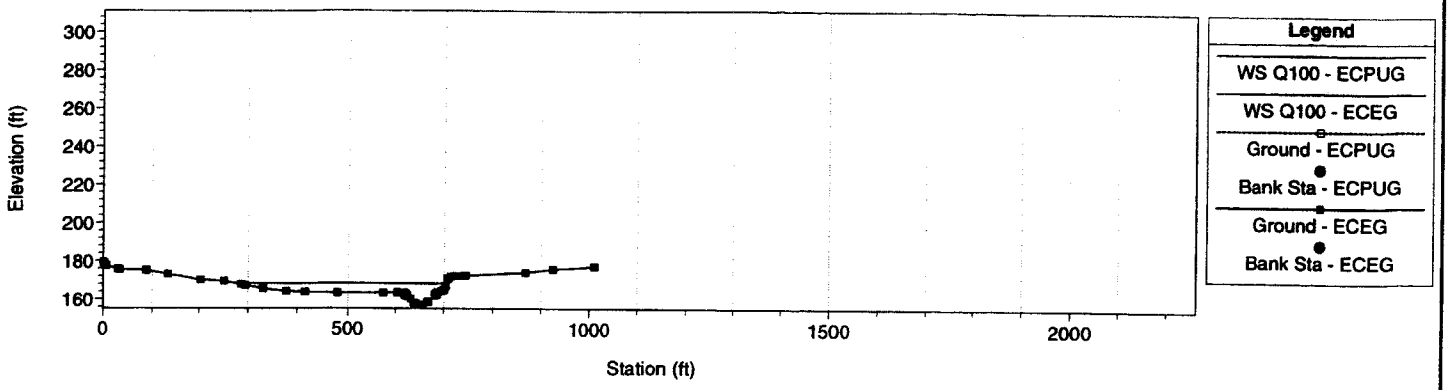
RS = 2095.690 A7C Alternative - San Juan Creek Crossing



1 in Horiz. = 400 ft 1 in Vert. = 100 ft

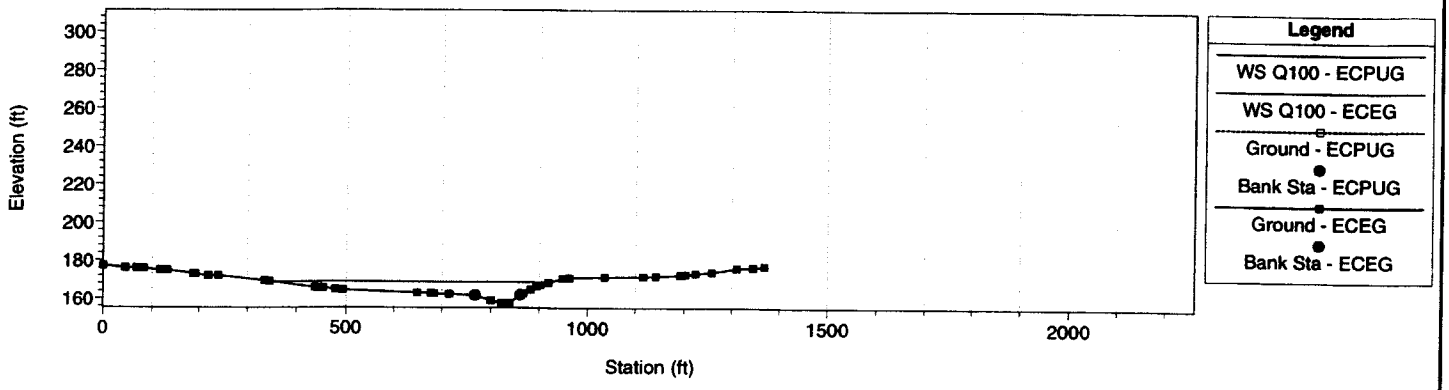
Project Model - D4

RS = 1815.468 A7C Alternative - San Juan Creek Crossing



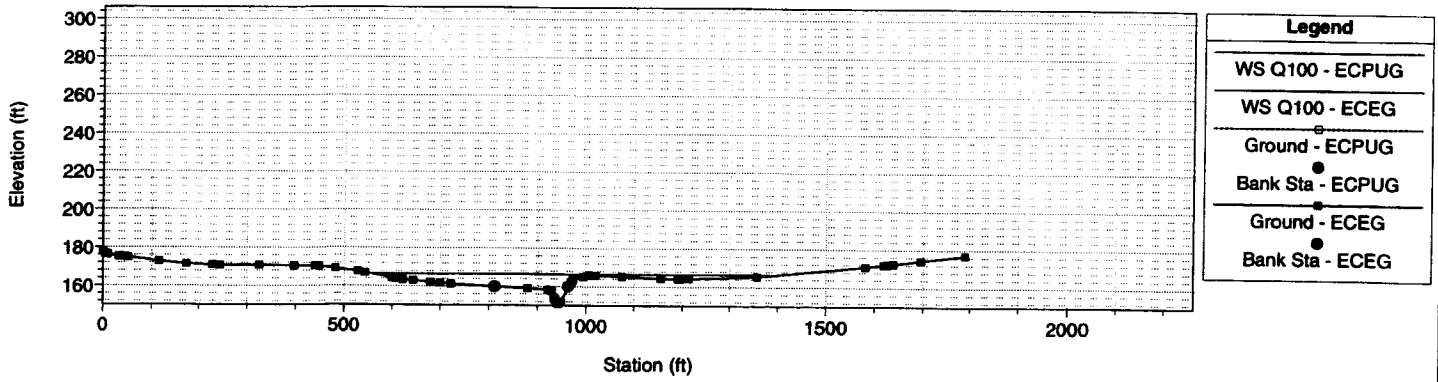
Project Model - D4

RS = 1615.906 A7C Alternative - San Juan Creek Crossing



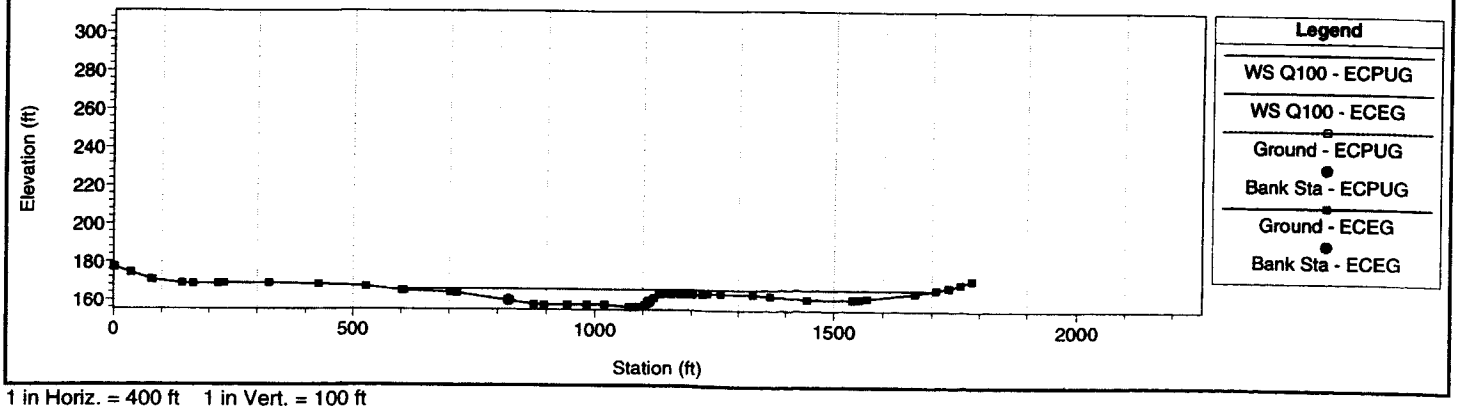
Project Model - D4

RS = 1380.475 A7C Alternative - San Juan Creek Crossing



Project Model - D4

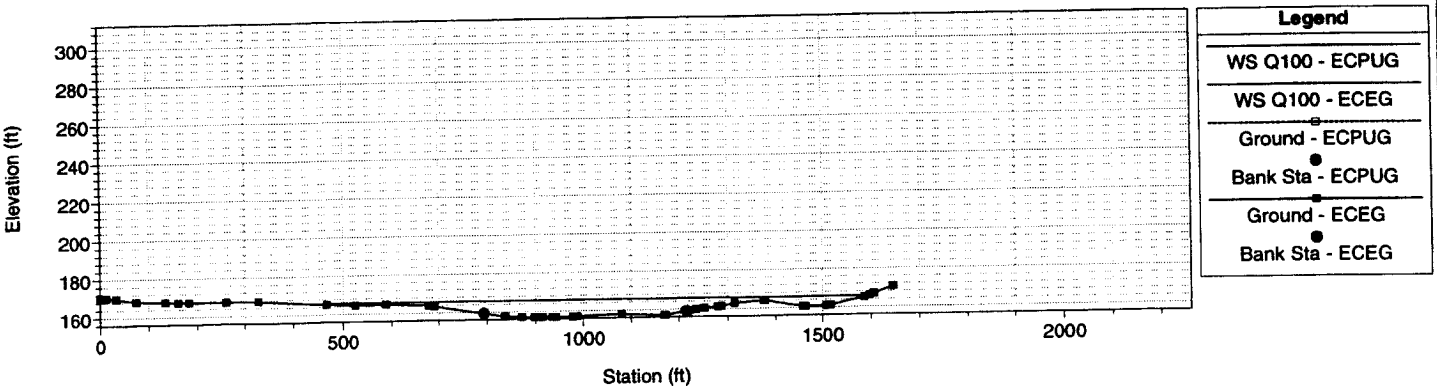
RS = 1141.636 A7C Alternative - San Juan Creek Crossing



1 in Horiz. = 400 ft 1 in Vert. = 100 ft

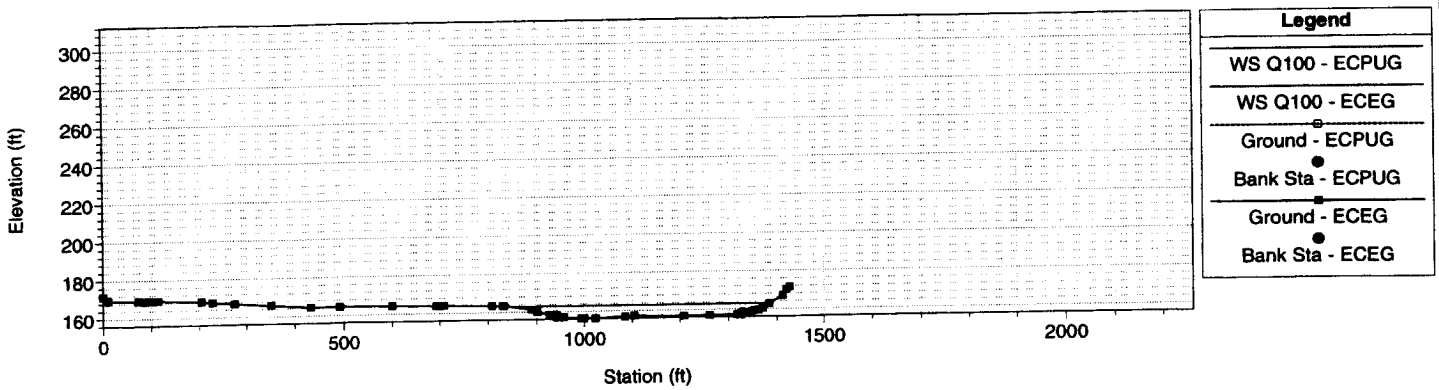
Project Model - D4

RS = 914.451 A7C Alternative - San Juan Creek Crossing



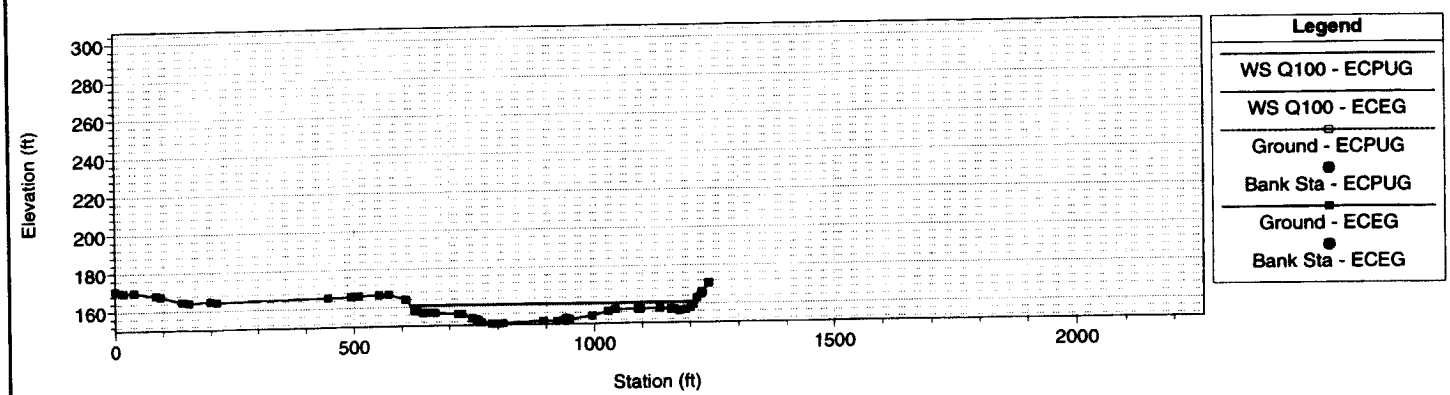
Project Model - D4

RS = 695.814 A7C Alternative - San Juan Creek Crossing



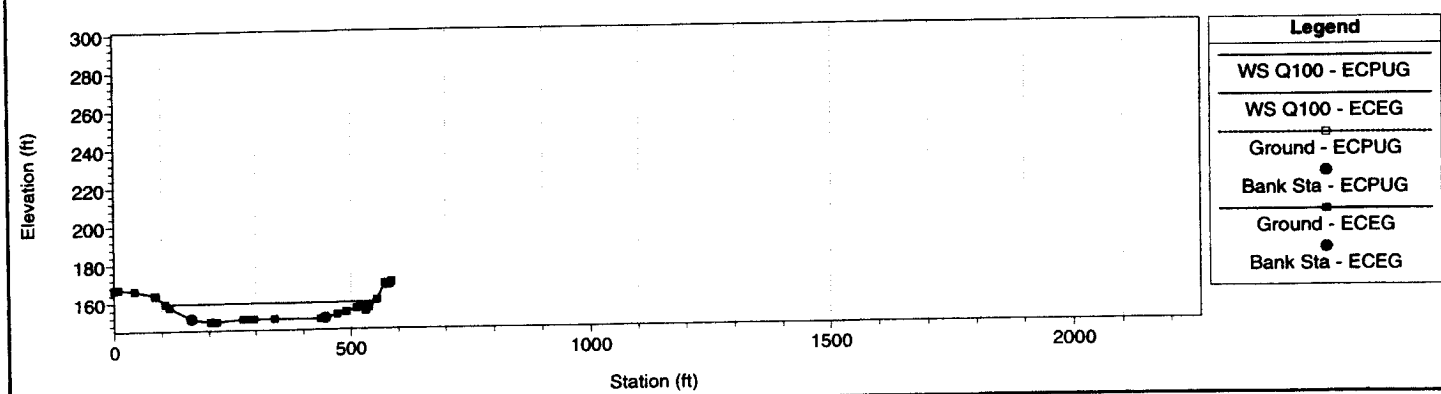
Project Model - D4

RS = 484.781 A7C Alternative - San Juan Creek Crossing

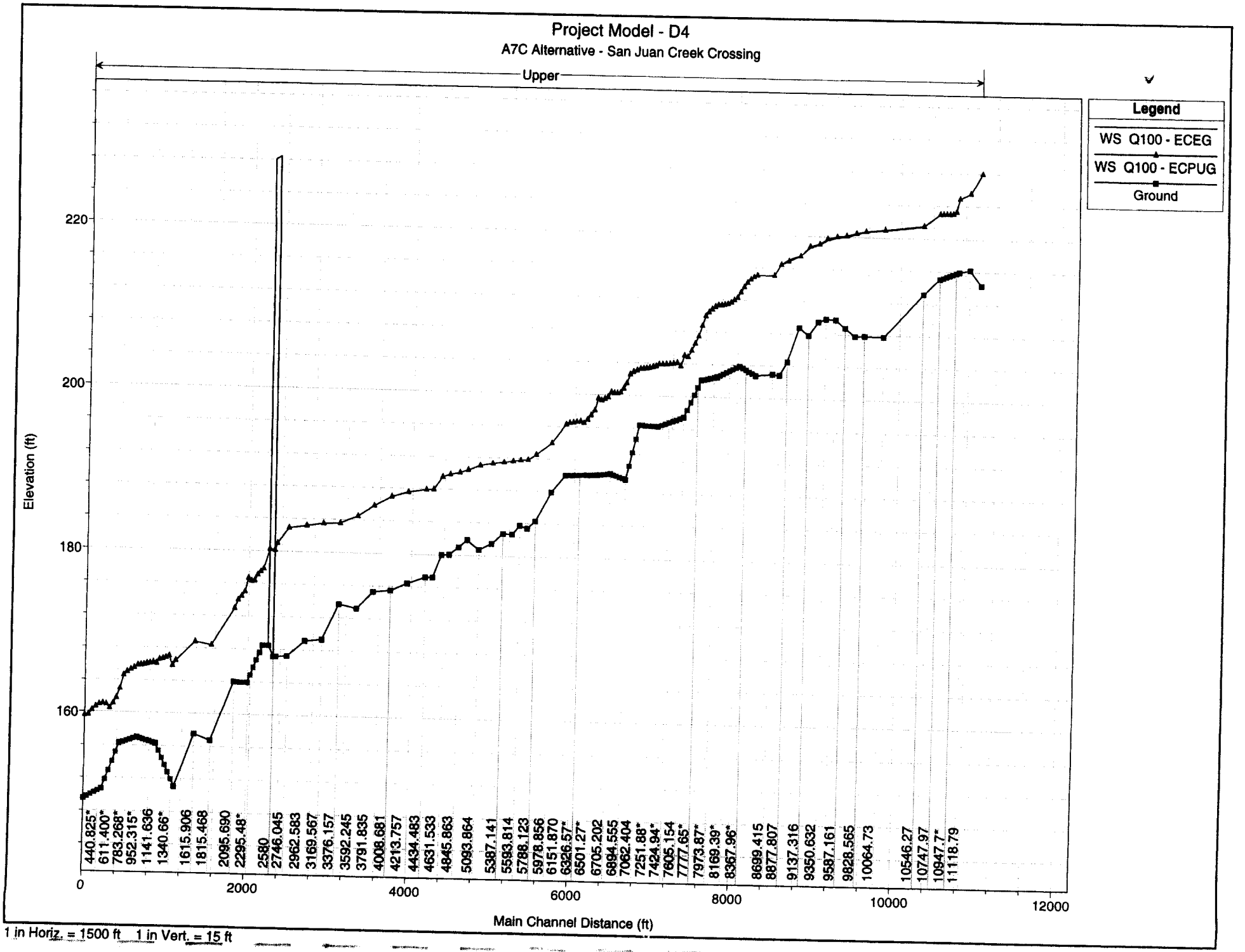


Project Model - D4

RS = 265.003 A7C Alternative - San Juan Creek Crossing



1 in Horiz. = 400 ft 1 in Vert. = 100 ft


Project Model - D4
A7C Alternative - San Juan Creek Crossing
Upper
Legend
WS Q100 - ECEG
WS Q100 - ECPUG
Ground
Elevation (ft)
220
200
180
160
440.825*
611.400*
783.268*
952.315*
1141.636
1340.66*
1615.906
1815.468
2095.690
2295.48*
2580
2746.045
2962.583
3169.567
3376.157
3592.245
3791.835
4008.681
4213.757
4434.483
4631.533
4845.863
5093.864
5387.141
5593.814
5788.123
5978.856
6151.870
6326.57*
6501.27*
6705.202
6894.555
7062.404
7251.88*
7424.94*
7605.154
7777.65*
7973.87*
8169.39*
8367.96*
8699.415
8877.807
9137.316
9350.632
9587.161
9828.565
10064.73
10546.27
10747.97
10947.7*
11118.79
0
2000
4000
6000
8000
10000
12000
Main Channel Distance (ft)
1 in Horiz. = 1500 ft 1 in Vert. = 15 ft

APPENDIX M
HYDRAULIC MODEL INPUT & RESULTS
A7C ALTERNATIVE AT CAÑADA CHIQUITA
(MODEL "D6")

Appendix M. **Hydraulic Model Input & Results**

A7C Alternative at Canada Chiquita (Model D6)

- Model Report
- Project geometry, plan view
- Cross Sections comparing 100-yr existing and project geometries and water surface elevations
- Geometry and water surface elevation profile

Cross sections associated with the proposed bridge structure include:

690	(2264)
627	(2056)
567	(1860)
505	(1657)

HEC-RAS Version 3.0.1 Mar 2001
U.S. Army Corp of Engineers
Hydrologic Engineering Center
609 Second Street, Suite D
Davis, California 95616-4687
(916) 756-1104

```
X     X  XXXXXX    XXXX        XXXX       XX      XXXX
X     X  X        X    X       X   X     X  X    X
X     X  X        X            X   X    X    X   X
XXXXXXX  XXXX     X       XXX  XXXX     XXXXXX    XXXX
X     X  X        X            X  X     X    X        X
X     X  X        X    X       X   X    X    X        X
X     X  XXXXXX    XXXX        X    X   X    X   XXXXX
```

PROJECT DATA
Project Title: Project Model - D6
Project File : PMD6.prj
Run Date and Time: 12/5/02 10:13:31 AM

Project in English units

Project Description:
A7C Alternative - Canada Chiquita Crossing

PLAN DATA

Plan Title: Existing Flow/Existing Geometry
Plan File : p:\2PDA0104\Hydr\LHS\Modeling\Model D\HecRas D\PMD6.p01

Geometry Title: Existing Conditions
Geometry File : p:\2PDA0104\Hydr\LHS\Modeling\Model D\HecRas D\PMD6.g01

Flow Title : Existing Conditions
Flow File : p:\2PDA0104\Hydr\LHS\Modeling\Model D\HecRas D\PMD6.f01

Plan Summary Information:
Number of: Cross Sections = 96 Mulitple Openings = 0
Culverts = 0 Inline Weirs = 0
Bridges = 0

Computational Information
Water surface calculation tolerance = 0.01
Critical depth calculaton tolerance = 0.01
Maximum number of interations = 20
Maximum difference tolerance = 0.3
Flow tolerance factor = 0.001

Computation Options
Critical depth computed only where necessary
Conveyance Calculation Method: At breaks in n values only
Friction Slope Method: Average Conveyance
Computational Flow Regime: Mixed Flow

FLOW DATA

Flow Title: Existing Conditions
Flow File : p:\2PDA0104\Hydr\LHS\Modeling\Model D\HecRas D\PMD6.f01

Flow Data (cfs)

River	Reach	RS	Q2	Q5	Q10	Q25	Q50	Q100	Q100HC
Canada Chiquita Tributary		7987.100	1	30	104	346	785	1226	4154

Boundary Conditions

River	Reach	Profile	Upstream	Downstream
Canada Chiquita Tributary		Q2	Normal S = .01	Normal S = .03
Canada Chiquita Tributary		Q5	Normal S = .01	Normal S = .03
Canada Chiquita Tributary		Q10	Normal S = .01	Normal S = .03
Canada Chiquita Tributary		Q25	Normal S = .01	Normal S = .03
Canada Chiquita Tributary		Q50	Normal S = .01	Normal S = .03
Canada Chiquita Tributary		Q100	Normal S = .01	Normal S = .03
Canada Chiquita Tributary		Q100HC	Normal S = .01	Normal S = .03

GEOMETRY DATA

Geometry Title: Existing Conditions
Geometry File : p:\2PDA0104\Hydr\LHS\Modeling\Model D\HecRas D\PMD6.g01

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 7987.100

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 40

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	347.72	32.77	346.03	55.43	343.73	98.19	338.97	138.47	334.55
160.97	334.49	168.14	334.47	188	334.41	199.61	334.37	215.61	335
232.61	334.89	251.78	335.3	278.59	336.07	284.54	335.62	285.13	335.5
288.36	334.89	290.31	334.57	316.78	323.74	318.41	323.06	325.67	321.78
329.48	321.19	334.41	320.27	340.57	321.19	351.37	325.54	358.53	328.28
364.3	328.64	370.55	329.03	381.61	329.14	389.41	330.05	411.04	332.27
416.31	332.67	422.98	333.87	446.36	334.68	527.17	338.84	554.36	340.16
558.6	340.37	641.11	344.12	657.88	345.07	675.72	346.4	700.57	347.78

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	168.14	.02	188	.035	288.36	.05	446.36	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
329.48	340.57	262.14	226.44	167.64	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 7760.639

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 43

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	341.41	35.67	339.1	92.47	333.46	100.89	332.52	118.12	330.64
134.58	330	177.84	329.15	184.26	329.17	201	329.22	303.15	329.49
322.1	329.43	353.4	328.72	364.4	328.65	373.45	328.66	380.39	328.02
396.78	325.99	399.5	325.1	406.49	322.82	408.81	321.48	420.36	315.24
425.67	314.5	429.48	314.02	433.28	313.52	439.17	314.02	458.26	315.99
459.92	316.13	460.27	316.23	478.35	321.18	484.93	322.32	489.88	323.18
498.71	324.79	501.88	325.48	502.96	325.55	527	328.28	544.55	330.27
557.32	331.03	567.38	331.63	626.23	334.02	663.34	335.08	773.6	338.08
804.95	339.82	806.3	339.88	837.53	341.07				

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	184.26	.02	201	.035	399.5	.05	527	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
429.48	439.17	160.35	213.35	260.25	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 7547.305

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 42

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	341.5	83.81	336.57	119.99	335.11	164.67	330.63	200.16	328.42
223.02	327.18	243.85	326.27	263.56	326.43	265.95	326.45	270.85	326.49
288.75	326.42	328.68	326.24	378.09	325.16	464.79	324.77	526.73	324.49
546.74	323.8	558.02	322.42	558.5	322.36	565.66	321.42	582.55	315.77
583.57	315.48	585.93	314.44	587.44	313.93	595.8	312.06	600.77	310.88
606.77	312.06	611.19	312.76	612.36	313.18	616.68	314.09	623.58	317.38
630.55	321.05	632.04	321.14	639.97	321.74	655	323.49	661.08	324.2
663.28	324.45	676.77	326	694.74	328.51	705.82	330.24	732.54	336.21
755.82	340.71	759.87	341.22						

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	265.95	.02	288.75	.035	558.02	.05	655	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
595.8	606.77	39.84	42.1	43.2	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 7505.20*

INPUT
Description:
Station Elevation Data num= 83

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	341.45	1.09	341.4	5.83	341.11	65.81	337.39	75.88	336.81
85.39	336.28	122.25	334.75	158.07	331.58	167.77	330.71	172	330.46
189.72	329.41	203.92	328.49	212	328.01	227.21	326.93	248.43	325.6
249.54	325.58	251.01	325.54	251.76	325.54	268.51	325.43	270.95	325.41
273.66	325.39	275.94	325.41	294.18	325.38	308.08	325.35	310.97	325.34
326.14	325.3	334.86	325.28	385.2	324.46	403.14	324.41	466.97	324.17
473.53	324.14	485.23	324.08	500.42	324	515.18	323.91	536.63	323.85
557.02	323.32	567.7	322.3	568.51	322.21	568.54	322.21	569	322.14
569.83	322.01	576.29	321.01	586.41	317.81	589.32	316.79	591.24	316.11
593.5	315.37	594.54	315.06	596.94	314.07	598.48	313.55	602.31	312.62
607	311.51	613.29	310.64	614.55	310.45	616.67	310.85	619.62	311.51
621.39	311.91	623.99	312.54	625.14	313.01	629.41	314.23	631.25	315.16
636.22	317.4	637.75	318.15	643.1	320.73	644.57	320.88	646.95	321.16
652.4	321.56	661.95	322.58	667.24	323.19	673.25	323.87	675.42	324.12
686.66	325.39	687.49	325.48	688.74	325.62	693.98	326.32	706.48	328.12
712.55	329.07	717.42	329.83	721.65	330.73	743.8	336.03	746.59	336.63
756.45	338.64	766.79	340.67	770.79	341.23				

Manning's n Values num= 12

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val

0	.035	270.95	.023	294.18	.035	310.97	.032	326.14	.023
568.51	.047	586.41	.038	607	.035	619.62	.035	667.24	.035
686.66	.035	770.79	.035						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
607	619.62	39.84	42.1	43.2	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 7463.09*

INPUT
Description:
Station Elevation Data num= 83

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	341.41	1.11	341.36	5.94	341.05	67.03	337.07	77.28	336.5
86.96	335.98	124.5	334.39	160.99	331.57	170.86	330.8	175.17	330.55
193.22	329.54	207.69	328.55	215.91	328.03	231.4	326.68	253.02	324.93
254.15	324.87	255.65	324.8	256.4	324.79	273.47	324.42	275.95	324.37
278.71	324.31	281.03	324.33	299.61	324.34	313.77	324.34	316.71	324.34
332.16	324.33	341.04	324.32	392.3	323.76	410.57	323.74	475.58	323.54
482.26	323.51	494.18	323.44	509.65	323.36	524.68	323.24	546.53	323.22
567.3	322.84	578.18	322.09	579	322	579.03	321.99	579.5	321.92
580.35	321.77	586.93	320.59	597.23	317.53	600.2	316.44	602.15	315.71
604.45	314.96	605.51	314.65	607.96	313.69	609.53	313.18	613.42	312.15
618.2	310.96	626.64	310.19	628.34	310.01	630.07	310.34	632.47	310.96
634.22	311.48	636.78	312.33	637.92	312.85	642.13	314.38	643.95	315.34
648.86	317.41	650.37	318.1	655.65	320.41	657.1	320.63	659.45	321
664.83	321.39	674.26	322.3	679.48	322.88	685.41	323.55	687.55	323.79
698.65	325.02	699.47	325.11	700.7	325.25	705.88	325.9	718.22	327.73
724.21	328.67	729.02	329.43	733.19	330.26	755.06	335.86	757.81	336.51
767.55	338.6	777.75	340.62	781.7	341.24				

Manning's n Values num= 12

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	275.95	.026	299.61	.035	316.71	.029	332.16	.026
579	.044	597.23	.041	618.2	.035	632.47	.035	679.48	.035
698.65	.035	781.7	.035						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
618.2	632.47	39.84	42.1	43.2	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 7420.99*

INPUT
Description:
Station Elevation Data num= 83

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	341.36	1.13	341.32	6.04	341	68.24	336.76	78.68	336.19
88.54	335.69	126.76	334.03	163.91	331.57	173.96	330.88	178.34	330.64
196.72	329.67	211.45	328.62	219.83	328.04	235.6	326.43	257.6	324.26
258.75	324.17	260.28	324.05	261.05	324.03	278.42	323.42	280.95	323.33
283.76	323.23	286.12	323.25	305.03	323.3	319.45	323.34	322.44	323.34
338.17	323.35	347.22	323.36	399.41	323.06	418.01	323.07	484.2	322.92
491	322.87	503.13	322.8	518.88	322.71	534.19	322.56	556.43	322.58
577.57	322.36	588.65	321.88	589.49	321.79	589.52	321.78	590	321.69
590.86	321.53	597.56	320.18	608.05	317.25	611.07	316.08	613.06	315.32
615.4	314.56	616.48	314.23	618.97	313.32	620.57	312.8	624.53	311.68
629.4	310.4	640	309.75	642.12	309.58	643.46	309.82	645.33	310.4
647.05	311.05	649.58	312.11	650.7	312.68	654.86	314.52	656.65	315.51
661.5	317.43	662.99	318.05	668.2	320.09	669.64	320.37	671.96	320.84
677.27	321.21	686.57	322.02	691.73	322.58	697.58	323.22	699.69	323.45
710.64	324.65	711.45	324.74	712.67	324.87	717.78	325.48	729.96	327.33
735.88	328.28	740.62	329.02	744.74	329.79	766.32	335.68	769.04	336.39
778.65	338.55	788.72	340.58	792.62	341.26				

Manning's n Values num= 12

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	280.95	.029	305.03	.035	322.44	.026	338.17	.029
589.49	.041	608.05	.044	629.4	.035	645.33	.035	691.73	.035
710.64	.035	792.62	.035						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
629.4	645.33	39.84	42.1	43.2	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 7378.88*

INPUT
Description:
Station Elevation Data num= 83

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	341.32	1.15	341.28	6.15	340.94	69.46	336.44	80.08	335.88
90.11	335.4	129.01	333.67	166.82	331.56	177.05	330.96	181.52	330.73
200.22	329.79	215.21	328.68	223.74	328.06	239.79	326.18	262.19	323.59
263.36	323.46	264.91	323.31	265.69	323.28	283.38	322.41	285.95	322.29
288.81	322.15	291.22	322.17	310.46	322.26	325.14	322.33	328.18	322.34
344.19	322.38	353.39	322.4	406.52	322.35	425.45	322.4	492.81	322.29
499.74	322.24	512.09	322.16	528.12	322.07	543.69	321.89	566.34	321.94
587.85	321.88	599.13	321.66	599.98	321.57	600.01	321.57	600.5	321.47
601.38	321.29	608.19	319.76	618.87	316.96	621.95	315.73	623.97	314.92
626.35	314.15	627.45	313.81	629.99	312.95	631.61	312.42	635.65	311.21
640.6	309.85	653.35	309.31	655.91	309.14	656.86	309.3	658.18	309.85
659.88	310.61	662.37	311.89	663.49	312.51	667.59	314.66	669.36	315.69
674.14	317.44	675.61	318	680.76	319.77	682.17	320.11	684.46	320.68
689.7	321.03	698.88	321.73	703.97	322.28	709.74	322.9	711.83	323.12
722.64	324.28	723.44	324.36	724.64	324.49	729.68	325.06	741.7	326.94
747.54	327.88	752.22	328.62	756.28	329.32	777.59	335.5	780.26	336.26

789.75 338.51 799.69 340.54 803.53 341.27

Manning's n Values num= 12

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	285.95	.032	310.46	.035	328.18	.023	344.19	.032
599.98	.038	618.87	.047	640.6	.035	658.18	.035	703.97	.035
722.64	.035	803.53	.035						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
640.6	658.18	39.84	42.1	43.2	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 7336.782

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 46

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	341.27	1.17	341.24	6.26	340.89	70.67	336.13	81.48	335.57
169.74	331.56	184.69	330.82	203.72	329.92	227.65	328.08	267.96	322.76
269.54	322.56	270.34	322.52	293.86	321.07	330.82	321.32	333.92	321.34
350.21	321.4	432.89	321.73	501.43	321.66	521.04	321.52	537.35	321.42
553.2	321.21	609.6	321.45	610.5	321.36	611.89	321.05	629.69	316.68
632.82	315.38	634.88	314.52	646.76	310.74	651.8	309.3	666.7	308.87
669.69	308.71	670.25	308.78	671.03	309.3	672.71	310.18	682.06	315.87
688.23	317.95	696.96	320.52	711.19	321.45	734.63	323.91	735.42	323.99
741.58	324.64	759.2	327.48	767.83	328.85	791.49	336.14	800.85	338.46
814.45	341.28								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	333.92	.02	350.21	.035	629.69	.05	734.63	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
651.8	671.03	44.73	43.82	43.18	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 7292.96*

INPUT
Description:
Station Elevation Data num= 91

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	339.89	1.17	339.85	4.87	339.6	6.27	339.51	59.56	335.75
70.78	334.99	81.61	334.44	91.86	333.98	146.61	331.91	170	330.81
184.97	330.05	189.98	329.81	204.03	328.95	217 28	327.83	228	327.11
251.61	324.5	268.37	322.49	269.95	322.3	270.76	322.26	294.31	320.76
331.33	320.41	334.43	320.38	336.69	320.36	350.75	320.2	352.61	320.18
393.83	320.25	423.13	320.28	429.73	320.29	433.56	320.31	433.78	320.31
438.31	320.31	481.97	320.32	502.2	320.4	521.84	320.38	538.18	320.39
554.05	320.3	555.33	320.31	610.54	320.6	610.72	320.58	611.44	320.52
612.83	320.25	622.6	318.23	630.66	316.56	630.9	316.48	633.79	315.49
635.86	314.78	635.89	314.77	636.59	314.56	643.16	312.32	647.75	310.76
650	310.05	652.8	309.12	654.12	309	656.06	308.91	659.19	308.77
668.84	308.33	672.05	308.13	673.91	308.42	674.69	308.65	676.5	309.12
678.68	310.34	678.71	310.35	680.67	311.67	682.3	312.51	689.33	315.21
690.96	315.82	693.16	316.28	699.04	317.67	701.54	318.19	701.94	318.27
710.48	320.08	712.33	320.22	729.13	321.52	734.24	322.04	737.1	322.28
746.59	323.12	759.84	324.21	760.87	324.29	768.95	324.96	770.04	325.08
792.03	327.59	794.42	327.86	798.85	328.36	803.34	328.81	818.24	331.66
828.61	333.85	834.34	335.04	840.68	336.13	846.61	337.21	857.55	338.92
864.43	339.98								

Manning's n Values num= 12

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	334.43	.023	350.75	.035	423.13	.032	438.31	.023
630.66	.047	652.8	.038	657.47	.05	676.5	.035	701.94	.035
759.84	.035	864.43	.035						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
652.8	676.5	44.73	43.82	43.18	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 7249.14*

INPUT
Description:
Station Elevation Data num= 91

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	338.51	1.17	338.46	4.88	338.22	6.28	338.13	59.66	334.53
70.89	333.84	81.73	333.32	92	332.86	146.83	331.2	170.26	330.05
185.26	329.28	190.28	329.03	204.35	327.98	217.61	326.75	228.35	326.14
251.99	324.03	268.78	322.22	270.37	322.05	271.17	322	294.76	320.44
331.84	319.51	334.95	319.43	337.21	319.36	351.29	319	353.15	318.95
394.44	318.93	423.78	318.88	430.39	318.86	434.22	318.88	434.44	318.88
438.98	318.89	482.71	318.95	502.97	319.14	522.64	319.25	539	319.35
554.9	319.38	556.18	319.4	611.47	319.74	611.66	319.73	612.38	319.67
613.77	319.46	623.55	317.8	631.63	316.44	631.86	316.37	634.77	315.6
636.83	315.04	636.86	315.04	637.57	314.84	644.15	312.44	648.75	310.77
651	310	653.8	308.94	655.21	308.73	657.29	308.6	660.64	308.41
670.97	307.79	674.42	307.55	677.58	308.07	678.89	308.36	681.98	308.93
684.67	310.51	684.7	310.53	687.13	312.25	689.15	313.17	697.84	315.3
699.85	315.77	702.58	316.13	709.85	317.38	712.95	317.87	713.44	317.94
724	319.65	726.29	319.82	747.06	321.58	753.38	322.21	756.92	322.47
768.66	323.4	785.05	324.51	786.33	324.59	796.31	325.27	797.66	325.39
824.86	327.71	827.82	327.96	833.29	328.42	838.85	328.77	857.28	330.97
870.1	332.9	877.19	333.95	885.04	334.93	892.36	335.96	905.9	337.66
914.4	338.68								

Manning's n Values num= 12

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	334.95	.026	351.29	.035	423.78	.029	438.98	.026
631.63	.044	653.8	.041	659.35	.05	681.98	.035	713.44	.035
785.05	.035	914.4	.035						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
653.8	681.98	44.73	43.82	43.18	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 7205.32*

INPUT
Description:
Station Elevation Data num= 91

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	337.13	1.18	337.07	4.89	336.84	6.29	336.75	59.75	333.32
71	332.7	81.86	332.19	92.14	331.74	147.06	330.49	170.52	329.3
185.54	328.51	190.57	328.25	204.66	327.01	217.94	325.67	228.7	325.18
252.38	323.57	269.2	321.94	270.78	321.79	271.59	321.74	295.22	320.13
332.35	318.6	335.46	318.47	337.73	318.37	351.83	317.8	353.69	317.72
395.04	317.6	424.43	317.47	431.05	317.44	434.89	317.46	435.11	317.46
439.65	317.47	483.45	317.59	503.74	317.88	523.44	318.11	539.83	318.32
555.75	318.47	557.04	318.49	612.41	318.89	612.6	318.88	613.32	318.83
614.71	318.66	624.51	317.37	632.59	316.32	632.83	316.27	635.74	315.71
637.81	315.31	637.84	315.3	638.55	315.12	645.14	312.57	649.74	310.79
651.99	309.94	654.81	308.76	656.31	308.46	658.53	308.3	662.09	308.04
673.11	307.26	676.78	306.96	681.24	307.71	683.1	308.07	687.45	308.75
690.66	310.67	690.7	310.7	693.59	312.82	696	313.83	706.36	315.39
708.75	315.72	712	315.97	720.66	317.1	724.35	317.54	724.93	317.62
737.52	319.21	740.25	319.43	765	321.65	772.53	322.39	776.74	322.66
790.73	323.67	810.26	324.81	811.78	324.9	823.68	325.59	825.28	325.7
857.7	327.82	861.22	328.05	867.74	328.47	874.36	328.73	896.32	330.28
911.59	331.96	920.05	332.85	929.39	333.72	938.12	334.71	954.24	336.39
964.38	337.37								

Manning's n Values num= 12

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	335.46	.029	351.83	.035	424.43	.026	439.65	.029
632.59	.041	654.81	.044	661.23	.05	687.45	.035	724.93	.035
810.26	.035	964.38	.035						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
654.81	687.45	44.73	43.82	43.18	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 7161.50*

INPUT
Description:
Station Elevation Data num= 91

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	335.75	1.18	335.69	4.89	335.45	6.3	335.37	59.84	332.11
71.1	331.56	81.98	331.07	92.28	330.62	147.28	329.78	170.78	328.55
185.83	327.74	190.86	327.48	204.97	326.03	218.28	324.6	229.05	324.21
252.76	323.1	269.61	321.67	271.2	321.54	272	321.48	295.67	319.81
332.85	317.69	335.97	317.51	338.24	317.38	352.36	316.6	354.23	316.5
395.65	316.28	425.08	316.07	431.71	316.01	435.55	316.03	435.77	316.03
440.33	316.05	484.19	316.22	504.51	316.62	524.24	316.98	540.65	317.28
556.6	317.55	557.89	317.58	613.35	318.03	613.53	318.03	614.25	317.98
615.65	317.86	625.46	316.95	633.56	316.19	633.8	316.16	636.71	315.82
638.78	315.57	638.81	315.57	639.52	315.39	646.12	312.69	650.74	310.8
652.99	309.89	655.81	308.58	657.4	308.2	659.76	307.99	663.55	307.68
675.25	306.72	679.15	306.38	684.9	307.35	687.3	307.78	692.93	308.56
696.65	310.84	696.69	310.87	700.05	313.4	702.84	314.49	714.87	315.49
717.65	315.67	721.42	315.82	731.47	316.81	735.76	317.22	736.43	317.29
751.04	318.78	754.21	319.03	782.93	321.72	791.67	322.56	796.57	322.85
812.8	323.95	835.46	325.11	837.23	325.2	851.04	325.91	852.91	326.01
890.53	327.94	894.62	328.15	902.18	328.53	909.87	328.69	935.36	329.59
953.09	331.01	962.9	331.76	973.75	332.52	983.87	333.45	1002.59	335.12
1014.35	336.07								

Manning's n Values num= 12

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	335.97	.032	352.36	.035	425.08	.023	440.33	.032
633.56	.038	655.81	.047	663.12	.05	692.93	.035	736.43	.035
835.46	.035	1014.35	.035						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
655.81	692.93	44.73	43.82	43.18	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 7117.686

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 50

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	334.37	4.9	334.07	59.93	330.9	92.42	329.5	147.51	329.07
191.15	326.7	218.61	323.52	253.15	322.63	338.76	316.39	354.77	315.27
396.25	314.96	425.73	314.66	432.37	314.59	436.44	314.61	441	314.63
484.93	314.86	558.74	316.67	614.47	317.18	626.42	316.52	634.77	316.06
639.79	315.83	640.5	315.67	647.11	312.81	653.99	309.84	656.81	308.4
658.5	307.93	660.99	307.69	665	307.32	681.51	305.8	691.51	307.49
698.4	308.38	702.64	311.01	706.51	313.98	709.69	315.15	723.38	315.58
730.84	315.66	747.16	316.9	747.93	316.96	768.17	318.64	810.82	322.74
816.39	323.04	834.87	324.22	880.53	326.32	928.02	328.24	936.63	328.58

974.4	328.9	994.58	330.07	1018.1	331.31	1050.94	333.85	1064.33	334.77

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	425.73	.02	441	.035	665	.05	747.93	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
656.81	698.4	190	200.15	212.8	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 6917.517

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 46

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	334.67	97.4	332.23	97.56	332.23	97.6	332.23	97.69	332.23
193.24	329.19	234.66	327.01	246.54	325.73	271.97	324.75	356.29	320.78
360.57	320.57	363.47	320.36	375.98	319.45	423.8	315.78	438.16	314.98
487.37	313.87	500.72	313.21	529.12	312.22	552.63	311.41	562.01	311.08
575.62	310.61	627.99	309.46	638.64	309.38	653.86	308.72	695.47	308.74
706.66	308.68	718.04	308.62	756.08	308.38	777.95	308.45	783.84	308.6
808.41	309.5	816.01	309.92	842.54	311.39	875.46	312.96	925.16	313
927.18	313.02	1003.96	313.54	1039.83	314	1064.32	314.96	1093.23	317.92
1111.26	319.94	1128.64	324.15	1162.69	332.97	1167.11	334.08	1169.07	334.41
1175.81	336.26								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	529.12	.02	552.63	.035	706.66	.05	808.41	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
653.86	783.84	39.11	38.19	38.26	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 6879.32*

INPUT
Description:
Station Elevation Data num= 76

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	333.55	17.8	332.75	42.08	331.64	51.27	331.29	59.6	330.9
88.17	329.6	88.31	329.59	88.35	329.59	88.43	329.59	93.72	329.32
125.37	328.12	174.93	326.48	198.57	325.24	212.42	324.49	223.17	323.36
246.19	322.4	272.69	321.08	284.32	320.49	322.52	318.75	326.4	318.57
327.17	318.51	329.02	318.39	340.35	317.6	382.85	314.49	383.63	314.44
396.63	313.72	425.49	313.01	441.18	312.62	453.26	312.02	465.89	311.56
478.97	311.09	500.25	310.33	508.75	310.02	521.07	309.57	537.24	309.18
564.36	308.52	566.25	308.47	568.47	308.42	578.11	308.31	591.89	307.7
627.64	307.66	637.26	307.6	638.73	307.59	647.04	307.54	679.72	307.32
706.94	307.46	714.27	307.6	732.91	308.11	741.02	308.33	749.29	308.68
778.17	309.88	783.71	310.08	814.02	311.21	868.13	311.3	869.23	311.31
870.33	311.32	877.04	311.37	948.07	311.92	953.92	311.97	959.28	312.04
962.36	312.08	965.46	312.14	992.97	312.67	998.7	312.9	1019.64	313.85
1043.12	316.05	1048.84	316.67	1051.11	316.89	1070.74	319.02	1071.51	319.18
1089.67	323.15	1123.26	330.92	1126.74	331.72	1131.55	332.79	1133.68	333.14
1141.02	334.91								

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	465.89	.032	478.97	.02	500.25	.032	537.24	.025
591.89	.047	641.6	.047	714.27	.035	732.91	.035	741.02	.035
1141.02	.035								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
591.89	714.27	39.11	38.19	38.26	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 6841.13*

INPUT
Description:
Station Elevation Data num= 76

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	332.42	15.93	331.32	37.67	329.77	45.9	329.32	53.36	328.78
78.94	326.96	79.07	326.96	79.1	326.96	79.17	326.95	83.91	326.59
112.24	325.32	156.61	323.77	177.78	322.67	190.18	321.97	199.81	320.98
220.42	320.04	244.14	318.8	254.55	318.21	288.75	316.72	292.22	316.56
292.92	316.52	294.57	316.41	304.71	315.75	342.76	313.14	343.47	313.09
355.11	312.46	380.94	311.76	394.99	311.37	405.81	310.83	417.11	310.41
428.82	309.96	447.88	309.24	455.48	308.95	466.51	308.54	480.99	308.14
505.27	307.48	506.96	307.43	508.95	307.38	517.59	307.24	529.92	306.68
559.82	306.59	567.86	306.52	569.09	306.51	576.03	306.46	603.37	306.26
635.92	306.46	644.69	306.61	664.86	307	673.62	307.17	682.57	307.43
713.81	308.37	719.8	308.52	752.57	309.47	811.09	309.6	812.28	309.61
813.47	309.62	820.74	309.68	897.56	310.33	903.88	310.4	909.68	310.48
913.01	310.53	916.36	310.61	946.12	311.34	952.31	311.58	974.95	312.73
1000.35	314.93	1006.54	315.62	1009	315.87	1030.23	318.11	1031.06	318.25
1050.69	322.15	1087.02	329.7	1090.78	330.47	1095.99	331.51	1098.3	331.86
1106.23	333.55								

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	417.11	.03	428.82	.02	447.88	.03	480.99	.03
529.92	.045	576.54	.045	644.69	.035	664.86	.035	673.62	.035
1106.23	.035								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.

529.92	644.69		39.11	38.19	38.26	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 6802.94*

INPUT
Description:
Station Elevation Data num= 76

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	331.3	14.07	329.89	33.27	327.9	40.53	327.36	47.12	326.66
69.71	324.33	69.82	324.32	69.85	324.32	69.91	324.31	74.1	323.86
99.12	322.51	138.3	321.06	156.99	320.1	167.94	319.44	176.44	318.61
194.64	317.69	215.59	316.51	224.78	315.93	254.99	314.69	258.05	314.56
258.66	314.52	260.13	314.44	269.08	313.9	302.68	311.79	303.3	311.75
313.58	311.2	336.4	310.52	348.8	310.13	358.35	309.65	368.33	309.25
378.68	308.83	395.5	308.16	402.22	307.89	411.96	307.5	424.75	307.1
446.18	306.44	447.68	306.39	449.44	306.34	457.06	306.17	467.95	305.67
491.99	305.51	498.46	305.44	499.45	305.43	505.03	305.38	527.01	305.2
564.91	305.47	575.12	305.61	596.8	305.88	606.23	306	615.85	306.19
649.44	306.86	655.88	306.97	691.13	307.72	754.06	307.9	755.34	307.91
756.62	307.92	764.43	307.99	847.04	308.74	853.84	308.83	860.08	308.92
863.66	308.97	867.26	309.08	899.26	310.01	905.92	310.27	930.27	311.62
957.59	313.8	964.24	314.58	966.88	314.84	989.71	317.19	990.6	317.33
1011.72	321.15	1050.79	328.48	1054.83	329.22	1060.43	330.22	1062.91	330.59
1071.45	332.2								

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	368.33	.027	378.68	.02	395.5	.027	424.75	.035
467.95	.043	511.48	.043	575.12	.035	596.8	.035	606.23	.035
1071.45	.035								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
467.95	575.12		39.11	38.19	38.26	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 6764.75*

INPUT
Description:
Station Elevation Data num= 76

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	330.18	12.21	328.47	28.86	326.03	35.17	325.39	40.88	324.54
60.48	321.7	60.57	321.68	60.6	321.68	60.66	321.67	64.29	321.13
85.99	319.7	119.98	318.36	136.2	317.53	145.7	316.92	153.08	316.23
168.87	315.34	187.04	314.22	195.02	313.66	221.22	312.66	223.88	312.56
224.41	312.53	225.68	312.46	233.45	312.05	262.6	310.44	263.14	310.4
272.05	309.94	291.85	309.27	302.61	308.88	310.9	308.46	319.56	308.09
328.53	307.7	343.13	307.08	348.95	306.83	357.4	306.47	368.5	306.07
387.09	305.4	388.39	305.35	389.92	305.3	396.53	305.1	405.98	304.65
424.16	304.43	429.06	304.36	429.81	304.34	434.03	304.31	450.65	304.14
493.89	304.48	505.54	304.61	528.75	304.77	538.83	304.83	549.13	304.95
585.08	305.35	591.97	305.41	629.68	305.97	697.03	306.2	698.4	306.21
699.76	306.22	708.12	306.29	796.52	307.15	803.8	307.25	810.48	307.35
814.3	307.42	818.16	307.55	852.4	308.68	859.53	308.96	885.59	310.5
914.82	312.68	921.93	313.54	924.76	313.82	949.19	316.27	950.15	316.4
972.74	320.15	1014.55	327.25	1018.88	327.96	1024.87	328.94	1027.52	329.31
1036.66	330.85								

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	319.56	.025	328.53	.02	343.13	.025	368.5	.04
405.98	.04	446.42	.04	505.54	.035	528.75	.035	538.83	.035
1036.66	.035								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
405.98	505.54		39.11	38.19	38.26	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 6726.56*

INPUT
Description:
Station Elevation Data num= 76

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	329.05	10.34	327.04	24.46	324.16	29.8	323.43	34.64	322.42
51.24	319.07	51.33	319.05	51.35	319.04	51.4	319.04	54.47	318.41
72.87	316.9	101.67	315.65	115.41	314.96	123.46	314.4	129.71	313.86
143.09	312.98	158.49	311.94	165.25	311.38	187.45	310.63	189.7	310.55
190.15	310.53	191.23	310.49	197.81	310.2	222.51	309.08	222.97	309.06
230.53	308.68	247.3	308.02	256.42	307.63	263.44	307.27	270.78	306.93
278.38	306.57	290.75	306	295.69	305.76	302.85	305.43	312.25	305.03
328.01	304.36	329.11	304.31	330.4	304.25	336	304.03	344.01	303.63
356.34	303.36	359.65	303.27	360.16	303.26	363.03	303.23	374.3	303.08
422.88	303.49	435.97	303.62	460.69	303.65	471.44	303.67	482.41	303.71
520.71	303.84	528.05	303.86	568.24	304.23	639.99	304.5	641.45	304.51
642.91	304.52	651.82	304.6	746.01	305.57	753.76	305.68	760.87	305.79
764.95	305.86	769.06	306.01	805.55	307.35	813.14	307.65	840.91	309.39
872.05	311.56	879.63	312.5	882.64	312.79	908.67	315.35	909.69	315.47
933.77	319.14	978.32	326.03	982.93	326.71	989.31	327.65	992.14	328.04
1001.87	329.49								

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	270.78	.022	278.38	.02	290.75	.022	312.25	.045
344.01	.038	381.36	.038	435.97	.035	460.69	.035	471.44	.035
1001.87	.035								

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
344.01 435.97 39.11 38.19 38.26 .1 .3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 6688.378

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 35

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	327.93	8.48	325.61	20.05	322.29	24.43	321.46	28.4	320.3
44.66	315.68	59.74	314.09	94.62	312.39	129.94	309.65	135.48	309.1
155.9	308.54	182.43	307.73	202.75	306.77	222	305.77	256	303.99
268.92	303.32	269.82	303.27	282.04	302.61	290.52	302.18	297.94	302.02
366.39	302.62	392.64	302.54	464.14	302.3	584.51	302.81	595.51	302.91
695.49	303.98	711.27	304.23	715.6	304.31	719.96	304.48	766.75	306.34
829.28	310.44	837.33	311.46	869.24	314.54	942.08	324.81	967.08	328.14

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	222	.02	256	.05	392.64	.035

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
282.04 366.39 226.05 202.6 176.55 .1 .3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 6485.790

INPUT
Description:
Station Elevation Data num= 33

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	328.52	2.07	327.86	3.48	327.22	4.69	326.93	7.81	325.96
50.05	314.88	65.04	310.28	65.24	310.23	65.59	310.18	82.51	307.53
90.64	306.19	105.23	305.22	107.41	305.01	131.95	302.63	141.17	302.35
145.34	302.22	145.77	302.21	162.86	301.86	170.52	301.74	238.61	301.82
274.23	301.87	283.88	301.88	289.98	301.89	457.88	301.75	536.98	302.95
553.75	303.48	565.89	303.95	598.52	305.65	653.02	308.57	702.7	316.51
730.62	320.46	765.4	327.61	767.23	328				

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	107.41	.02	145.77	.05	283.88	.035

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
162.86 238.61 199.05 192.7 179.75 .1 .3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 6293.091

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 42

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	328.2	7.71	326.15	15.55	323.74	31.1	319	36.24	317.54
41.76	316.49	66.31	309.08	70.07	308.39	85.54	305.43	96.29	302.76
107	301.31	114.98	300.23	117.15	300.03	120.79	300.12	131.71	298.1
144.16	296.62	153.39	295.51	157.4	295.04	168.23	295.5	170.25	295.72
171.44	296.01	188.99	298.45	195.72	298.78	220.01	299.65	225.55	299.92
242.07	300.73	255.31	300.88	276.57	300.96	284.23	300.97	352.2	300.83
397.53	302.41	527.53	311.5	527.76	311.52	527.96	311.53	528.93	311.61
603.92	316.33	629.31	320.14	645.07	322.17	658.51	323.25	676.84	326.75
682.75	327.57	689.74	328.34						

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	107	.02	153.39	.05	352.2	.035

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
153.39 168.23 205.55 222.2 231.5 .1 .3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 6070.915

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 29

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	321.49	14.65	318.05	27.29	312.86	43.78	306.73	53.71	304.38
60.17	302.61	70.56	301.52	84.96	299.95	85.99	299.84	89.05	299.53
110.12	296.25	129.6	296	133.74	295.95	158.77	295.43	182.08	294.93
193.71	295.43	203.07	295.84	224.8	296.93	246	298	281.9	299.8
338.64	302.64	348.73	303.23	358.7	303.87	463.8	311.48	527.75	315.54
539.53	316.33	559.9	317.64	561.83	317.77	614.2	321.85		

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	85.99	.02	133.74	.05	246	.035

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
158.77 193.71 192 188.05 180.5 .1 .3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 5882.887

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 34

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	322.93	3.58	322.74	10.45	322.08	18.16	319.5	22.09	317.82
29.57	316.35	36.25	314.72	42.32	312.4	59.62	305.49	62.56	304.64
72.12	302.17	76.72	301.66	132.87	298.17	148.64	297.23	158.03	296.88
178.81	296.11	198.67	294.56	201.81	294.31	218.34	293.91	251.92	293.71
259.29	293.93	302.57	295.19	304.02	295.25	332.36	296.36	337.68	296.63
400.98	300.19	500.66	306.94	523.68	308.14	553.22	308.96	621.05	313.89
682.82	318.25	700.56	318.86	720.94	320.52	752.53	321.54		

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	158.03	.02	198.67	.05	302.57	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
218.34	259.29	230.7	219.45	209.5	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 5663.432

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 46

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	314.56	14.64	310.28	32.3	307.27	51.95	306.47	51.98	306.47
52.04	306.47	102.58	305.16	123.99	304.61	170.55	306.05	185.99	306.18
218.7	305.05	227	304.72	236.51	304.34	247.16	303.91	258	303.33
269.61	302.7	279.12	301.88	300.51	300.19	321.19	297.85	344.53	295.65
381.2	294.83	427	292.46	470.33	290.21	501.06	289.06	509.15	289.04
583.77	288.88	595.71	288.73	602.55	288.87	605.21	289	608	289.17
620	289.84	638.71	290.89	698.49	293.99	699.71	294.05	736.63	296.26
758.55	297.07	799.81	297.34	809.8	297.53	812.06	297.52	843.57	299.19
863.17	300.95	886.54	302.91	890.29	303.86	914.55	309.23	931.34	315.19
932.51	315.6								

Manning's n Values num= 9

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	102.58	.05	227	.02	258	.035	427	.02
470.33	.035	509.15	.05	620	.035	914.55	.05		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
509.15	605.21	182.2	204.5	241.5	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 5458.911

INPUT
Description:
Station Elevation Data num= 45

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	314.11	10.62	310.78	19.05	309.26	39.43	305.65	50.62	304.22
52.13	304.07	73.98	301.96	102.04	300.98	143.08	298.89	173.6	298.05
174.48	298.02	189.32	296.91	199.82	296.55	225.89	295.68	236.61	295.32
263.55	294.67	315.95	293.71	360.83	292.55	377.68	292.45	382.27	292.27
409.56	291.21	417.02	290.9	486.53	287.99	490.97	287.8	494.34	287.52
515.82	285.7	562.46	285.51	580.68	285.04	586.09	285.35	587.18	285.53
592.9	286.89	603.64	287.81	606.09	287.88	631.65	288.62	634.22	288.77
636.83	288.92	657.78	290.14	760.05	298.09	789.63	300.08	809.79	301.72
827.72	304.07	839.81	308.79	842.73	309.57	857.92	313.66	868.8	315.22

Manning's n Values num= 9

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	52.13	.05	199.82	.02	225.89	.035	382.27	.02
417.02	.035	486.53	.05	634.22	.035	842.73	.05		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
515.82	587.18	40.34	39.8	40.62	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 5419.10*

INPUT
Description:
Station Elevation Data num= 79

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	312.88	9.72	310.03	14.96	309.11	17.44	308.64	36.09	305.2
46.33	303.75	47.71	303.59	67.71	301.31	68.24	301.28	73.25	300.97
90.03	300	93.4	299.8	102.56	299.13	130.96	296.96	131.22	296.94
141.09	296.56	158.9	295.92	159.7	295.89	160.15	295.86	173.29	294.97
182.9	294.66	190.95	294.41	206.76	293.92	216.57	293.61	241.23	293.04
270.42	292.51	272.66	292.47	273.92	292.44	282.03	292.28	289.19	292.13
291.19	292.08	330.27	291.02	345.69	290.87	349.89	290.71	374.87	289.75
381.7	289.47	445.32	286.87	449.39	286.7	450.4	286.62	452.47	286.46
472.13	284.92	513.73	284.67	529.98	284.25	537.82	284.62	539.4	284.78
545.44	285.92	545.8	285.94	556.77	286.73	559.35	286.8	570.24	287.11
574.27	287.22	586.32	287.79	589.03	287.97	591.78	288.16	613.89	289.69
613.93	289.69	614.76	289.76	614.96	289.78	615.67	289.83	617.98	290.01
637.61	291.51	721.79	297.95	747.55	299.72	753	300.1	766.58	301.18
774.27	301.96	778.52	302.55	781.09	302.89	784.04	303.28	793.19	304.5
797.23	305.84	805.94	308.5	808.71	309.08	809.02	309.15	825.01	312.44
825.05	312.45	830.71	313.11	835.18	313.68	836.53	313.83		

Manning's n Values num= 17

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	47.71	.047	182.9	.023	190.95	.032	206.76	.032
273.92	.023	349.89	.023	381.7	.035	445.32	.047	450.4	.038
472.13	.035	539.4	.035	589.03	.035	637.61	.035	784.04	.042
809.02	.054	836.53	.054						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
472.13	539.4	40.34	39.8	40.62	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 5379.30*

INPUT
Description:
Station Elevation Data num= 79

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	311.65	8.82	309.28	13.57	308.47	15.82	308.03	32.75	304.75
42.05	303.29	43.3	303.12	61.45	300.67	61.92	300.62	66.48	300.19
81.7	298.9	84.76	298.63	93.07	297.79	118.84	295.03	119.08	295.01
128.04	294.54	144.19	293.8	144.92	293.76	145.33	293.73	157.25	293.03
165.97	292.78	173.28	292.57	187.63	292.15	196.53	291.9	218.91	291.4
245.4	290.93	247.43	290.89	248.57	290.87	255.93	290.7	262.43	290.55
264.24	290.5	299.71	289.49	313.7	289.3	317.52	289.15	340.18	288.3
346.38	288.05	404.12	285.74	407.8	285.59	408.72	285.53	410.6	285.4
428.44	284.13	465.01	283.82	479.29	283.46	489.55	283.88	491.62	284.04
497.97	284.94	498.36	284.97	509.89	285.64	512.61	285.71	524.07	286.03
528.31	286.15	540.99	286.95	543.84	287.18	546.74	287.4	570	289.24
570.04	289.25	570.92	289.32	571.13	289.34	571.87	289.39	574.3	289.58
594.96	291.14	683.53	297.82	710.63	299.71	716.37	300.11	730.65	301.22
738.75	302.2	743.22	302.86	745.93	303.21	749.03	303.63	758.66	304.94
762.9	306.11	772.08	308.2	774.99	308.67	775.32	308.72	792.13	311.23
792.18	311.24	798.13	311.79	802.84	312.33	804.26	312.44		

Manning's n Values num= 17

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	43.3	.044	165.97	.026	173.28	.029	187.63	.029
248.57	.026	317.52	.026	346.38	.035	404.12	.044	408.72	.041
428.44	.035	491.62	.035	543.84	.035	594.96	.035	749.03	.049
775.32	.058	804.26	.058						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
428.44	491.62	40.34	39.8	40.62	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 5339.50*

INPUT
Description:
Station Elevation Data num= 79

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	310.41	7.92	308.53	12.19	307.82	14.21	307.41	29.41	304.31
37.76	302.82	38.88	302.64	55.18	300.02	55.61	299.97	59.7	299.42
73.37	297.79	76.11	297.45	83.58	296.46	106.73	293.09	106.93	293.07
114.98	292.52	129.49	291.67	130.15	291.63	130.51	291.6	141.22	291.09
149.05	290.89	155.61	290.72	168.49	290.39	176.49	290.19	196.58	289.77
220.38	289.35	222.2	289.32	223.22	289.29	229.83	289.13	235.67	288.97
237.3	288.92	269.15	287.97	281.72	287.72	285.14	287.59	305.5	286.84
311.06	286.62	362.91	284.62	366.22	284.49	367.04	284.44	368.73	284.34
384.76	283.35	416.28	282.98	428.59	282.68	441.28	283.15	443.84	283.29
450.51	283.97	450.91	283.99	463.02	284.56	465.87	284.63	477.9	284.96
482.35	285.08	495.66	286.12	498.65	286.38	501.69	286.65	526.1	288.79
526.15	288.8	527.07	288.88	527.29	288.9	528.07	288.96	530.63	289.15
552.31	290.76	645.27	297.68	673.72	299.69	679.74	300.13	694.73	301.27
703.23	302.44	707.93	303.17	710.77	303.54	714.02	303.98	724.12	305.37
728.58	306.38	738.21	307.91	741.26	308.27	741.61	308.3	759.26	310.02
759.31	310.03	765.56	310.47	770.5	310.97	771.99	311.04		

Manning's n Values num= 17

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	38.88	.041	149.05	.029	155.61	.026	168.49	.026
223.22	.029	285.14	.029	311.06	.035	362.91	.041	367.04	.044
384.76	.035	443.84	.035	498.65	.035	552.31	.035	714.02	.056
741.61	.062	771.99	.062						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
384.76	443.84	40.34	39.8	40.62	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 5299.69*

INPUT
Description:
Station Elevation Data num= 79

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	309.18	7.02	307.78	10.8	307.18	12.6	306.79	26.07	303.86
33.47	302.36	34.47	302.17	48.92	299.37	49.29	299.31	52.92	298.64
65.04	296.69	67.47	296.27	74.09	295.12	94.61	291.16	94.79	291.13
101.93	290.5	114.79	289.55	115.37	289.51	115.69	289.48	125.18	289.15
132.12	289	137.94	288.88	149.36	288.63	156.45	288.47	174.26	288.14
195.35	287.78	196.97	287.74	197.88	287.72	203.74	287.55	208.91	287.39
210.35	287.35	238.59	286.44	249.73	286.14	252.76	286.03	270.81	285.38
275.74	285.2	321.7	283.5	324.64	283.39	325.37	283.35	326.87	283.28
341.07	282.56	367.55	282.13	377.9	281.89	393.01	282.42	396.06	282.55
403.04	283	403.47	283.02	416.15	283.47	419.14	283.55	431.73	283.88
436.39	284.01	450.33	285.28	453.46	285.58	456.65	285.89	482.21	288.34
482.26	288.35	483.23	288.44	483.46	288.46	484.27	288.52	486.95	288.72
509.65	290.39	607.01	297.54	636.8	299.68	643.11	300.14	658.81	301.32
667.71	302.68	672.63	303.47	675.6	303.86	679.01	304.33	689.59	305.8
694.26	306.65	704.34	307.62	707.54	307.86	707.91	307.88	726.39	308.81
726.44	308.81	732.98	309.15	738.16	309.62	739.72	309.65		

Manning's n Values num= 17

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	34.47	.038	132.12	.032	137.94	.023	149.36	.023

197.88	.032	252.76	.032	275.74	.035	321.7	.038	325.37	.047
341.07	.035	396.06	.035	453.46	.035	509.65	.035	679.01	.063
707.91	.066	739.72	.066						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
341.07	396.06	40.34	39.8	40.62	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 5259.894

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 39

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	307.95	9.42	306.54	42.98	298.65	46.14	297.86	56.71	295.58
64.6	293.78	82.65	289.19	88.87	288.48	100.87	287.35	120.27	287.03
170.33	286.2	171.74	286.17	172.53	286.14	177.64	285.98	183.41	285.77
283.69	282.26	297.38	281.78	327.2	281.1	348.28	281.8	356.02	282.04
385.56	282.81	390.43	282.94	438.37	287.9	439.38	288	439.62	288.02
440.47	288.08	443.27	288.29	467	290.01	599.89	299.67	622.89	301.37
637.33	303.78	640.44	304.18	644	304.68	659.94	306.92	673.82	307.45
693.52	307.6	700.41	307.83	705.82	308.26	707.45	308.26		

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	120.27	.02	172.53	.035	283.69	.05	467	.035
644	.07								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
297.38	348.28	36.64	42.12	49.31	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 5217.77*

INPUT
Description:
Station Elevation Data num= 70

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	307.88	6.51	306.72	9.87	306.11	25.77	302.15	30.56	301.06
39.94	298.91	41.21	298.62	45.01	297.7	48.32	296.86	59.37	294.34
59.39	294.34	60.88	293.98	62.59	293.63	67.55	292.74	67.66	292.72
86.56	288.8	93.08	288.14	103.76	287.23	105.64	287.07	116.74	286.78
125.96	286.59	135.61	286.38	151.12	286.06	168.61	285.81	178.39	285.65
179.87	285.62	180.7	285.59	186.05	285.44	192.09	285.25	237.93	283.84
251.51	283.45	265.41	283.06	297.12	282.15	311.45	281.74	340.27	281.16
355.13	281.45	370.63	281.75	377.62	281.96	404.29	282.63	408.69	282.74
423.91	284.17	451.97	286.74	452.88	286.82	453.1	286.83	453.87	286.88
456.4	287.05	458.32	287.17	477.82	288.42	478.54	288.47	483.63	288.79
484.17	288.83	549.62	293.46	597.81	297.27	604.86	297.83	604.88	297.83
604.93	297.84	618.57	299.12	625.11	300.27	631.61	301.5	634.42	301.94
636.54	302.29	637.64	302.47	652.03	304.81	664.56	305.7	672.58	306.06
682.35	306.8	688.57	307.41	691.94	307.89	693.45	308.09	694.92	308.18

Manning's n Values num= 14

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	103.76	.032	125.96	.02	151.12	.023	180.7	.035
265.41	.038	297.12	.05	311.45	.035	370.63	.035	458.32	.035
477.82	.035	625.11	.042	637.64	.07	694.92	.07		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
311.45	370.63	36.64	42.12	49.31	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 5175.65*

INPUT
Description:
Station Elevation Data num= 70

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	307.8	6.81	306.42	10.31	305.67	26.94	301.33	31.94	300.23
41.75	298.02	43.07	297.73	47.05	296.74	50.51	295.85	62.05	293.1
62.08	293.09	63.64	292.71	65.42	292.38	70.6	291.69	70.71	291.67
90.47	288.41	97.28	287.81	108.45	286.94	110.42	286.79	122.01	286.39
131.65	286.14	141.74	285.88	157.95	285.5	176.23	285.27	186.45	285.1
188	285.07	188.86	285.04	194.45	284.9	200.77	284.73	248.68	283.44
262.87	283.12	277.4	282.79	310.54	282.04	325.53	281.7	353.34	281.22
372.74	281.45	392.98	281.7	399.22	281.87	423.02	282.45	426.94	282.55
440.53	283.66	465.57	285.57	466.39	285.63	466.58	285.65	467.27	285.68
469.52	285.81	471.24	285.9	488.64	286.83	489.29	286.86	493.83	287.1
494.31	287.13	552.72	291.13	595.73	294.86	602.02	295.41	602.04	295.41
602.08	295.42	614.26	296.87	620.09	297.97	625.9	299.23	628.4	299.7
630.29	300.08	631.27	300.26	644.11	302.69	655.3	303.95	662.46	304.6
671.17	306	676.73	307	679.74	307.64	681.08	307.91	682.4	308.1

Manning's n Values num= 14

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	108.45	.029	131.65	.02	157.95	.026	188.86	.035
277.4	.041	310.54	.05	325.53	.035	392.98	.035	471.24	.035
488.64	.035	620.09	.049	631.27	.07	682.4	.07		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
325.53	392.98	36.64	42.12	49.31	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 5133.53*

INPUT
Description:

Station Elevation Data num= 70

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	307.73	7.1	306.13	10.76	305.24	28.1	300.5	33.32	299.39
43.55	297.14	44.94	296.84	49.08	295.79	52.69	294.85	64.73	291.86
64.76	291.85	66.39	291.43	68.24	291.13	73.66	290.63	73.77	290.61
94.38	288.02	101.49	287.47	113.14	286.66	115.19	286.51	127.29	286
137.35	285.7	147.86	285.38	164.78	284.93	183.85	284.73	194.51	284.55
196.12	284.52	197.03	284.49	202.86	284.37	209.45	284.21	259.44	283.05
274.24	282.79	289.39	282.53	323.97	281.93	339.6	281.67	366.42	281.28
390.35	281.46	415.33	281.65	420.82	281.79	441.75	282.27	445.2	282.35
457.15	283.15	479.18	284.41	479.89	284.45	480.06	284.46	480.66	284.48
482.65	284.57	484.16	284.63	499.47	285.24	500.03	285.26	504.03	285.42
504.45	285.44	555.82	288.79	593.64	292.46	599.18	292.99	599.19	293
599.24	293	609.94	294.62	615.08	295.66	620.18	296.95	622.38	297.47
624.04	297.86	624.91	298.05	636.2	300.58	646.04	302.21	652.34	303.14
660	305.2	664.88	306.58	667.53	307.4	668.72	307.74	669.87	308.02

Manning's n Values num= 14

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	113.14	.026	137.35	.02	164.78	.029	197.03	.035
289.39	.044	323.97	.05	339.6	.035	415.33	.035	484.16	.035
499.47	.035	615.08	.056	624.91	.07	669.87	.07		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
339.6	415.33	36.64	42.12	49.31	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 5091.41*

INPUT
Description:
Station Elevation Data num= 70

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	307.65	7.4	305.83	11.2	304.8	29.27	299.68	34.7	298.56
45.36	296.25	46.8	295.96	51.12	294.83	54.87	293.84	67.42	290.61
67.45	290.61	69.14	290.16	71.07	289.87	76.71	289.57	76.83	289.56
98.3	287.63	105.69	287.13	117.83	286.37	119.97	286.23	132.56	285.6
143.04	285.25	153.99	284.89	171.61	284.36	191.47	284.18	202.57	284
204.25	283.97	205.19	283.95	211.27	283.83	218.13	283.69	270.19	282.65
285.6	282.46	301.39	282.26	337.39	281.83	353.68	281.63	379.49	281.34
407.97	281.46	437.68	281.6	442.41	281.71	460.48	282.09	463.46	282.15
473.77	282.63	492.78	283.25	493.4	283.27	493.54	283.27	494.06	283.28
495.78	283.32	497.08	283.35	510.29	283.65	510.78	283.66	514.22	283.73
514.59	283.74	558.92	286.46	591.56	290.05	596.34	290.58	596.35	290.58
596.39	290.59	605.63	292.37	610.06	293.36	614.46	294.68	616.36	295.23
617.8	295.65	618.54	295.85	628.29	298.46	636.78	300.46	642.21	301.68
648.83	304.4	653.04	306.17	655.33	307.16	656.35	307.57	657.35	307.94

Manning's n Values num= 14

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	117.83	.023	143.04	.02	171.61	.032	205.19	.035
301.39	.047	337.39	.05	353.68	.035	437.68	.035	497.08	.035
510.29	.035	610.06	.063	618.54	.07	657.35	.07		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
353.68	437.68	36.64	42.12	49.31	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 5049.293

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 36

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	307.58	7.69	305.53	30.43	298.86	36.08	297.72	47.16	295.37
48.66	295.07	70.1	289.37	71.89	288.88	73.9	288.62	79.76	288.51
122.52	286.08	137.84	285.21	160.12	284.39	178.44	283.79	199.09	283.64
280.94	282.25	296.97	282.13	313.38	282	367.75	281.59	392.56	281.4
425.58	281.47	460.03	281.55	490.39	282.12	510	282.08	521.52	282.06
524.42	282.04	524.73	282.05	562.02	284.13	593.5	288.16	593.51	288.16
593.54	288.17	605.04	291.05	611.55	293.43	632.09	300.22	643.12	306.92
644.82	307.86								

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	122.52	.02	178.44	.035	313.38	.05	510	.035
605.04	.07								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
367.75	460.03	196.45	215.25	246.7	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 4834.044

INPUT
Description:
Station Elevation Data num= 41

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	298.82	16.17	294.06	31.39	288.02	36.18	286.3	39.84	285.46
52.63	282.79	61.67	282.24	72.24	281.36	101.1	282.19	118.2	281.15
140.96	281.3	181	280.5	208.97	279.95	216.38	279.8	232.71	279.49
302.96	278.15	315	278.26	324.5	277.12	327.68	276.74	333.64	276
342.6	271.39	343.59	270.88	346.79	269.21	352.18	268.94	359.57	267.96
369.43	267.9	379.97	269.2	400.11	271.57	401.07	271.63	411	272.42
418.89	272.85	420.17	272.97	443.45	275.15	471.35	277.77	488.14	279.72
519.52	282.11	521.31	282.25	579.52	287.52	615.66	292.73	631.08	293.88
646.42	295.11								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	181	.02	232.71	.035	342.6	.07	420.17	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
346.79	379.97	246.15	208.45	136.4	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 4625.617

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 45

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	295.43	4.75	293.78	11.66	290.4	15.95	289.23	22.98	288.02
26.51	287.46	32.97	286.94	50.72	285.61	76.08	283.32	101.4	281.1
120.89	278.64	136.78	276.67	208.53	274.2	218.57	273.7	220.57	273.7
240.69	273.73	270	274.52	288.9	275.03	298.27	275.93	308.69	277.13
309.54	277.08	321.64	276.62	323.07	276.33	326.65	275.6	339.59	269.86
341.36	269.12	343.76	269.12	398.67	268.93	407.91	269.1	419.09	269.31
451.24	269.91	458.19	270.22	489.37	273.26	503.11	274.66	517.22	276.93
528.32	278.69	530.59	279.03	531.43	279.23	562.96	282.96	571.34	284.19
631.98	294.41	634.08	294.78	634.82	294.89	635.1	294.92	648.74	295.56

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	220.57	.02	270	.035	323.07	.07	419.09	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
341.36	407.91	202.35	195.4	199.05	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 4430.204

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 37

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	289.52	4.96	287.67	11.29	284.36	19.2	282.2	37.62	275.59
40.35	275.35	48.09	274.67	57.49	274.24	75.08	273.52	88.34	273.2
116.94	272.43	119.67	272.37	145.64	270.26	162.88	269.41	175.6	269.37
215.22	269.24	252.57	269.11	264.42	269.02	268.08	268.97	303.33	268.41
313	268.25	325.74	268.05	352.39	266.78	363.48	268.03	393.45	268.19
414.02	268.3	436.05	268.52	484.31	270.68	496	271.6	512.78	273.58
523.51	274.8	535.09	276.12	578.63	279.54	594.94	281.06	655.36	284.98
669.33	287.85	672.57	288.72						

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	40.35	.035	215.22	.02	264.42	.035	313	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
325.74	363.48	161.7	181.2	203.3	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 4249.023

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 35

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	288.52	5.08	286.41	8.18	284.65	13	282.74	16.28	281.02
23.77	277.94	29.9	275.31	31.93	274.83	50.28	269.53	59.91	268.53
72.78	267.64	101.14	266.76	125.94	266.2	160.29	265.42	187.18	265.37
207.25	264.58	223.88	263.78	235.54	263.21	239.96	263.01	248.7	262.54
257.16	262.53	320.41	263.01	329.69	263.09	366	265.09	374.43	265.55
383.18	266.1	435.2	269.41	447.16	270.9	483.66	274.43	512.13	277.24
521.91	278.8	551.63	281.96	554.7	282.48	556.07	282.97	581.51	288.88

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	50.28	.035	160.29	.02	207.25	.035	235.54	.05
366	.035	512.13	.05						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
239.96	320.41	51.94	42.86	32.23	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 4206.16*

INPUT
Description:
Station Elevation Data num= 65

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	287.29	4.67	285.28	7.52	283.67	11.94	281.84	14.96	280.26
15.17	280.17	15.85	279.9	21.84	277.62	27.47	275.4	29.34	274.98
33.03	273.97	43.21	271.19	46.2	270.34	47.23	270.21	55.05	269.2
62.91	268.41	66.29	268.15	66.87	268.1	71.1	267.92	88.31	267.1
92.93	266.89	99.1	266.65	104.38	266.44	115.72	266.14	129.14	265.77
147.28	265.26	158.57	265.14	165.84	265.06	171.98	265	190.43	264.21
204.07	263.52	205.71	263.42	216.42	262.73	220.48	262.49	231.55	262.1
231.98	262.1	242.27	262.06	293.63	262.49	302.76	262.66	327.2	264.03
330.77	264.2	338.51	264.56	346.81	264.94	355.42	265.39	391.58	267.33
395.55	267.54	406.49	268.12	406.62	268.13	407.43	268.2	408.85	268.36
410.57	268.55	418.4	269.41	453.83	272.51	454.33	272.56	478.44	275.04
482.35	275.44	491.98	276.89	502.51	278.03	521.23	280.43	522.53	280.66
524.26	280.97	525.6	281.42	535.09	283.61	543.03	285.56	550.65	287.62

Manning's n Values num= 14

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	33.03	.047	46.2	.035	99.1	.032	147.28	.02
158.57	.026	190.43	.038	216.42	.05	220.48	.035	293.63	.035
338.51	.035	395.55	.035	482.35	.047	550.65	.047		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
220.48	293.63	51.94	42.86	32.23	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 4163.30*

INPUT
Description:
Station Elevation Data num= 65

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	286.05	4.26	284.14	6.85	282.7	10.89	280.94	13.64	279.49
13.83	279.41	14.45	279.17	19.91	277.31	25.05	275.49	26.75	275.12
30.12	274.27	39.39	271.91	42.12	271.14	43.06	271	50.18	269.86
57.36	268.89	60.43	268.61	60.96	268.57	64.81	268.33	80.51	267.29
84.72	267.02	90.35	266.69	95.16	266.41	105.49	266.07	117.73	265.68
134.27	265.09	144.56	264.88	151.19	264.75	156.79	264.63	173.6	263.84
186.04	263.17	187.53	263.05	197.3	262.25	201	261.96	214.4	261.66
214.92	261.66	227.37	261.58	266.85	261.97	275.84	262.22	299.89	263.6
303.4	263.73	311.01	264.02	319.18	264.33	327.66	264.69	363.24	266.21
367.15	266.38	377.92	266.84	378.05	266.84	378.85	266.9	380.24	267.02
381.93	267.18	389.63	267.92	424.51	270.64	424.99	270.69	448.72	273.23
452.57	273.64	462.05	274.99	472.41	276.12	490.84	278.9	492.11	279.15
493.81	279.47	495.14	279.88	504.47	282.02	512.29	284.05	519.78	286.36

Manning's n Values num= 14

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	30.12	.044	42.12	.035	90.35	.029	134.27	.02
144.56	.032	173.6	.041	197.3	.05	201	.035	266.85	.035
311.01	.035	367.15	.035	452.57	.044	519.78	.044		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
201	266.85	51.94	42.86	32.23	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 4120.44*

INPUT
Description:
Station Elevation Data num= 65

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	284.82	3.84	283.01	6.19	281.72	9.83	280.04	12.32	278.73
12.49	278.65	13.05	278.45	17.98	276.99	22.62	275.58	24.15	275.27
27.2	274.57	35.58	272.64	38.03	271.95	38.89	271.8	45.32	270.53
51.8	269.37	54.57	269.08	55.06	269.03	58.53	268.75	72.7	267.48
76.51	267.15	81.59	266.73	85.93	266.37	95.27	266.01	106.32	265.58
121.25	264.93	130.55	264.62	136.53	264.43	141.59	264.26	156.78	263.47
168.01	262.82	169.36	262.69	178.18	261.78	181.52	261.44	197.25	261.22
197.86	261.22	212.48	261.11	240.07	261.44	248.91	261.79	272.58	263.18
276.03	263.27	283.52	263.49	291.56	263.71	299.89	263.98	334.9	265.1
338.75	265.22	349.35	265.55	349.47	265.56	350.26	265.59	351.63	265.69
353.3	265.82	360.87	266.42	395.18	268.76	395.66	268.82	419	271.42
422.79	271.83	432.11	273.08	442.31	274.21	460.44	277.38	461.69	277.63
463.37	277.96	464.67	278.33	473.85	280.42	481.55	282.53	488.92	285.09

Manning's n Values num= 14

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	27.2	.041	38.03	.035	81.59	.026	121.25	.02
130.55	.038	156.78	.044	178.18	.05	181.52	.035	240.07	.035
283.52	.035	338.75	.035	422.79	.041	488.92	.041		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
181.52	240.07	51.94	42.86	32.23	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 4077.57*

INPUT
Description:
Station Elevation Data num= 65

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	283.58	3.43	281.88	5.52	280.74	8.78	279.14	10.99	277.97
11.15	277.89	11.65	277.72	16.05	276.68	20.19	275.67	21.56	275.42
24.28	274.87	31.76	273.36	33.95	272.76	34.71	272.59	40.46	271.19
46.24	269.84	48.72	269.54	49.15	269.5	52.25	269.17	64.9	267.66
68.3	267.28	72.84	266.77	76.71	266.34	85.04	265.95	94.91	265.49
108.24	264.76	116.54	264.37	121.88	264.11	126.4	263.89	139.95	263.09
149.98	262.48	151.18	262.32	159.06	261.3	162.04	260.91	180.1	260.78
180.8	260.78	197.58	260.63	213.29	260.92	221.99	261.36	245.26	262.75
248.66	262.81	256.03	262.95	263.93	263.1	272.13	263.27	306.57	263.99
310.35	264.07	320.77	264.27	320.9	264.27	321.67	264.28	323.02	264.35
324.66	264.45	332.11	264.93	365.86	266.89	366.33	266.95	389.29	269.62
393.01	270.03	402.18	271.17	412.21	272.31	430.04	275.85	431.28	276.11
432.92	276.46	434.21	276.78	443.24	278.83	450.8	281.01	458.05	283.83

Manning's n Values num= 14

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	24.28	.038	33.95	.035	72.84	.023	108.24	.02
116.54	.044	139.95	.047	159.06	.05	162.04	.035	213.29	.035
256.03	.035	310.35	.035	393.01	.038	458.05	.038		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
162.04	213.29	51.94	42.86	32.23	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 4034.719

INPUT
Description:
Station Elevation Data num= 35

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	282.35	9.81	277.13	10.25	277	21.36	275.17	27.94	274.08
30.54	273.39	40.68	270.32	42.86	270.01	45.97	269.59	57.1	267.85
64.08	266.81	67.49	266.3	83.5	265.39	102.53	264.11	107.23	263.79
131.95	262.13	142.56	260.39	163.74	260.34	182.69	260.16	186.51	260.4
217.95	262.32	221.29	262.35	278.23	262.88	281.95	262.91	292.2	262.99
293.08	262.97	294.41	263.02	296.02	263.09	336.53	265.02	359.57	267.81
382.11	270.4	400.86	274.59	412.62	277.23	420.06	279.49	427.19	282.57

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	21.36	.035	64.08	.02	102.53	.05	281.95	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
142.56	186.51	45.99	44.21	43.52	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 3990.51*

INPUT
Description:
Station Elevation Data num= 59

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	279.68	10.21	275.05	10.67	274.93	20.97	273.17	22.24	272.96
24.74	272.53	26.84	272.22	29.09	271.9	31.8	271.31	33.32	270.93
42.35	268.73	44.62	268.45	46.71	268.22	47.86	268.11	57.66	267.01
59.45	266.82	66.71	266.05	70.27	265.67	85.27	265.14	86.37	265.1
86.93	265.08	87.44	265.06	89.6	264.9	96.72	264.44	102.49	264.06
106.75	263.78	110.58	263.53	111.64	263.42	137.38	260.92	139.24	260.6
139.26	260.6	148.42	259.41	168.51	259.32	186.48	259.13	187.91	259.22
190.71	259.42	209.37	260.62	218.37	261.33	221.31	261.42	235.09	261.86
241.13	262.06	251.83	262.29	271.4	262.68	274.68	262.75	283.7	262.91
284.47	262.91	285.64	262.96	287.06	263.03	289.44	263.17	322.7	265
342.97	267.47	362.8	269.78	379.29	273.33	380.66	273.62	387.28	275.03
389.64	275.54	390.21	275.71	396.18	277.41	402.46	279.94		

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	20.97	.044	22.24	.032	57.66	.023	66.71	.023
96.72	.038	106.75	.05	148.42	.038	190.71	.038	274.68	.038
402.46	.038								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
148.42	190.71	45.99	44.21	43.52	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 3946.30*

INPUT
Description:
Station Elevation Data num= 59

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	277	10.62	272.97	11.09	272.86	21.8	270.97	23.12	270.74
25.72	270.29	27.9	270.01	30.24	269.72	33.05	269.22	34.63	268.91
44.03	267.14	46.38	266.9	48.56	266.69	49.75	266.62	59.94	265.91
61.8	265.78	69.35	265.28	73.04	265.04	88.64	264.8	89.78	264.79
90.37	264.77	90.89	264.75	93.14	264.59	100.54	264.11	106.54	263.73
110.96	263.45	114.95	263.19	116.05	263.05	142.8	259.72	144.74	259.37
144.76	259.37	154.28	258.44	173.28	258.31	190.27	258.11	191.84	258.19
194.91	258.44	211.02	259.55	218.79	260.34	221.33	260.5	233.23	261.23
238.45	261.55	247.68	261.9	264.58	262.49	267.41	262.58	275.19	262.84
275.86	262.85	276.87	262.9	278.09	262.98	280.15	263.11	308.86	264.98
326.36	267.14	343.48	269.16	357.72	272.07	358.91	272.31	364.62	273.44
366.66	273.85	367.15	273.98	372.31	275.34	377.72	277.31		

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	21.8	.038	23.12	.029	59.94	.026	69.35	.026
100.54	.041	110.96	.05	154.28	.041	194.91	.041	267.41	.041
377.72	.041								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
154.28	194.91	45.99	44.21	43.52	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 3902.09*

INPUT
Description:
Station Elevation Data num= 59

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	274.33	11.02	270.9	11.51	270.78	22.62	268.78	23.99	268.53
26.7	268.04	28.96	267.8	31.39	267.55	34.31	267.14	35.95	266.89
45.7	265.54	48.15	265.34	50.4	265.17	51.64	265.14	62.22	264.81
64.14	264.75	71.98	264.52	75.82	264.41	92	264.47	93.19	264.47
93.8	264.46	94.34	264.45	96.68	264.28	104.36	263.79	110.58	263.4
115.18	263.12	119.32	262.86	120.46	262.69	148.23	258.51	150.24	258.14
150.26	258.14	160.15	257.46	178.05	257.29	194.06	257.08	195.77	257.17
199.12	257.47	212.68	258.48	219.22	259.36	221.35	259.57	231.37	260.6
235.76	261.05	243.53	261.52	257.75	262.29	260.13	262.42	266.69	262.76
267.25	262.78	268.1	262.84	269.13	262.92	270.86	263.06	295.03	264.96

309.76	266.8	324.17	268.54	336.15	270.8	337.15	270.99	341.96	271.85
343.67	272.16	344.09	272.26	348.43	273.26	352.99	274.67		

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	22.62	.032	23.99	.026	62.22	.029	71.98	.029
104.36	.044	115.18	.05	160.15	.044	199.12	.044	260.13	.044
352.99	.044								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
160.15	199.12	45.99	44.21	43.52	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 3857.89*

INPUT
Description:
Station Elevation Data num= 59

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	271.65	11.42	268.82	11.94	268.71	23.45	266.58	24.87	266.32
27.67	265.8	30.02	265.58	32.54	265.37	35.56	265.06	37.26	264.87
47.37	263.95	49.91	263.79	52.25	263.64	53.53	263.65	64.49	263.7
66.49	263.71	74.62	263.75	78.59	263.77	95.37	264.13	96.6	264.16
97.23	264.15	97.8	264.15	100.22	263.96	108.18	263.47	114.63	263.08
119.39	262.79	123.68	262.52	124.87	262.32	153.65	257.31	155.74	256.91
155.76	256.91	166.01	256.49	182.81	256.27	197.85	256.06	199.7	256.14
203.32	256.49	214.33	257.4	219.64	258.37	221.37	258.65	229.5	259.96
233.07	260.54	239.38	261.13	250.93	262.09	252.86	262.25	258.18	262.69
258.64	262.72	259.33	262.79	260.16	262.87	261.57	263	281.19	264.94
293.15	266.46	304.85	267.92	314.59	269.54	315.4	269.68	319.3	270.25
320.69	270.47	321.03	270.53	324.55	271.18	328.25	272.04		

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	23.45	.026	24.87	.023	64.49	.032	74.62	.032
108.18	.047	119.39	.05	166.01	.047	203.32	.047	252.86	.047
328.25	.047								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
166.01	203.32	45.99	44.21	43.52	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 3813.686

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 29

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	268.98	24.28	264.38	28.65	263.56	31.08	263.37	38.58	262.85
54.09	262.12	66.77	262.6	98.74	263.79	100.01	263.84	101.25	263.85
103.76	263.65	112	263.15	118.68	262.75	128.05	262.19	161.24	255.68
161.26	255.68	171.87	255.51	201.64	255.03	203.63	255.12	207.52	255.51
215.98	256.33	227.64	259.33	230.38	260.04	235.23	260.75	252.28	262.95
293.64	268.36	296.64	268.66	297.97	268.81	303.52	269.41		

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	24.28	.02	66.77	.035	112	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
171.87	207.52	34.64	39.46	42.17	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 3774.22*

INPUT
Description:
Station Elevation Data num= 55

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	269	14.64	266.32	24.02	264.6	26.04	264.21	29.4	263.57
30.72	263.36	33.33	263.18	33.5	263.17	35.5	263.05	41.37	262.7
52.08	262.25	58	262.04	60.58	262.12	71.6	262.45	79.96	262.69
97.22	263.27	105.88	263.56	107.24	263.61	108.57	263.63	111.26	263.47
117.09	263.23	120.1	263.06	127.26	262.68	129.43	262.57	137.31	262.1
146.31	260.6	151.88	259.56	163.12	257.46	170.75	256	172.9	255.51
172.92	255.51	177.61	255.09	184.3	254.49	203.71	254.03	211.8	253.89
213.66	254.01	213.87	254.03	217.92	254.48	225.8	255.3	227.97	255.84
236.68	258.17	238.44	258.64	239.23	258.86	243.05	259.56	243.76	259.68
259.66	262.32	262.35	262.77	271.89	264.37	286.71	266.86	290.08	267.39
298.22	268.54	301.02	268.85	302.26	269.01	302.94	269.09	307.44	269.76

Manning's n Values num= 10

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	26.04	.025	29.4	.045	60.58	.022	71.6	.035
97.22	.038	120.1	.05	184.3	.053	217.92	.053	307.44	.053

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
184.3	217.92	34.64	39.46	42.17	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 3734.76*

INPUT
Description:
Station Elevation Data num= 55

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	269.01	15.62	266.25	25.64	264.47	27.79	264.05	31.38	263.34
32.79	263.17	35.57	263	35.76	262.99	37.89	262.87	44.16	262.55

55.59	262.13	61.91	261.96	64.66	262.02	76.43	262.29	85.35	262.49
103.78	263.06	113.02	263.34	114.47	263.39	115.89	263.41	118.76	263.3
124.99	263.13	128.2	262.98	135.84	262.61	138.16	262.5	146.57	262
156.18	260.67	162.13	259.6	174.12	257.45	182.27	255.93	184.56	255.34
184.58	255.34	189.59	254.58	196.72	253.46	214.53	252.89	221.95	252.74
223.89	252.91	224.1	252.93	228.31	253.45	235.63	254.28	237.64	254.75
245.72	257	247.35	257.46	248.09	257.69	251.62	258.47	252.28	258.62
267.03	261.69	269.53	262.22	278.38	264.07	292.13	266.97	295.25	267.57
302.81	268.71	305.4	269.04	306.56	269.2	307.19	269.29	311.36	270.1

Manning's n Values num= 10

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	27.79	.03	31.38	.04	64.66	.025	76.43	.035
103.78	.04	128.2	.05	196.72	.057	228.31	.057	311.36	.057

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
196.72	228.31	34.64	39.46	42.17	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 3695.30*

INPUT
Description:
Station Elevation Data num= 55

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	269.03	16.61	266.18	27.26	264.33	29.55	263.88	33.36	263.12
34.86	262.97	37.82	262.81	38.01	262.8	40.29	262.68	46.95	262.4
59.1	262	65.82	261.88	68.75	261.93	81.25	262.14	90.75	262.29
110.33	262.84	120.16	263.11	121.7	263.16	123.21	263.18	126.27	263.12
132.88	263.04	136.29	262.89	144.42	262.54	146.89	262.44	155.83	261.91
166.04	260.73	172.37	259.64	185.11	257.44	193.78	255.86	196.21	255.17
196.24	255.17	201.56	254.06	209.15	252.43	225.36	251.76	232.11	251.6
234.12	251.82	234.34	251.84	238.71	252.42	245.45	253.25	247.31	253.66
254.75	255.84	256.26	256.28	256.94	256.51	260.2	257.39	260.81	257.55
274.41	261.06	276.71	261.66	284.87	263.77	297.55	267.09	300.43	267.75
307.39	268.89	309.79	269.24	310.85	269.4	311.43	269.48	315.27	270.45

Manning's n Values num= 10

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	29.55	.035	33.36	.035	68.75	.027	81.25	.035
110.33	.043	136.29	.05	209.15	.06	238.71	.06	315.27	.06

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
209.15	238.71	34.64	39.46	42.17	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 3655.84*

INPUT
Description:
Station Elevation Data num= 55

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	269.05	17.6	266.1	28.88	264.2	31.3	263.71	35.35	262.9
36.94	262.77	40.07	262.62	40.27	262.61	42.68	262.5	49.74	262.26
62.62	261.88	69.73	261.8	72.83	261.84	86.08	261.98	96.14	262.09
116.89	262.62	127.3	262.89	128.93	262.93	130.53	262.96	133.77	262.95
140.78	262.95	144.39	262.81	153	262.48	155.62	262.38	165.08	261.81
175.91	260.79	182.61	259.67	196.11	257.43	205.29	255.78	207.87	255
207.9	254.99	213.54	253.54	221.58	251.41	236.18	250.62	242.27	250.46
244.35	250.72	244.58	250.75	249.1	251.39	255.28	252.22	256.98	252.58
263.79	254.68	265.17	255.11	265.79	255.34	268.78	256.31	269.33	256.49
281.78	260.43	283.89	261.1	291.36	263.47	302.96	267.2	305.6	267.93
311.98	269.07	314.17	269.43	315.14	269.59	315.67	269.68	319.19	270.8

Manning's n Values num= 10

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	31.3	.04	35.35	.03	72.83	.03	86.08	.035
116.89	.045	144.39	.05	221.58	.063	249.1	.063	319.19	.063

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
221.58	249.1	34.64	39.46	42.17	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 3616.38*

INPUT
Description:
Station Elevation Data num= 55

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	269.06	18.58	266.03	30.5	264.06	33.06	263.54	37.33	262.67
39.01	262.58	42.32	262.44	42.53	262.43	45.08	262.32	52.53	262.11
66.13	261.75	73.64	261.72	76.92	261.74	90.91	261.83	101.53	261.89
123.44	262.41	134.44	262.66	136.16	262.7	137.85	262.74	141.27	262.77
148.67	262.85	152.49	262.72	161.58	262.41	164.34	262.31	174.34	261.72
185.77	260.85	192.85	259.71	207.11	257.42	216.81	255.71	219.53	254.83
219.56	254.82	225.51	253.03	234	250.38	247.01	249.48	252.42	249.31
254.58	249.62	254.82	249.65	259.5	250.36	265.1	251.2	266.64	251.49
272.83	253.52	274.08	253.93	274.64	254.16	277.35	255.22	277.86	255.42
289.16	259.8	291.07	260.55	297.85	263.17	308.38	267.32	310.78	268.1
316.56	269.24	318.55	269.62	319.43	269.79	319.92	269.88	323.11	271.14

Manning's n Values num= 10

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	33.06	.045	37.33	.025	76.92	.032	90.91	.035
123.44	.047	152.49	.05	234	.067	259.5	.067	323.11	.067

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
234	259.5	34.64	39.46	42.17	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 3576.919

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 31

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	269.08	19.57	265.96	32.12	263.93	39.31	262.45	44.79	262.24
47.47	262.14	69.64	261.63	81	261.65	106.92	261.69	130	262.19
156.57	262.76	173.07	262.25	195.64	260.91	203.09	259.75	218.11	257.41
228.32	255.64	237.49	252.51	246.43	249.36	257.83	248.34	262.58	248.17
264.81	248.52	269.89	249.33	276.31	250.4	282.99	252.75	285.93	254.14
298.25	259.99	304.34	262.87	313.8	267.43	315.95	268.28	324.16	270.08
327.03	271.49								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	39.31	.02	81	.035	130	.05	246.43	.07

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
246.43	269.89	33.82	41.19	42.78	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 3535.73*

INPUT
Description:
Station Elevation Data num= 55

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	267.74	18.69	264.77	25.41	263.7	30.68	262.86	37.54	261.52
42.78	261.24	45.34	261.1	50.86	260.87	56.84	260.75	66.51	260.55
73.05	260.55	77.36	260.54	92.61	260.52	94.74	260.54	102.12	260.59
124.16	261.11	135.21	261.37	149.54	261.7	159.08	261.51	164.53	261.37
165.3	261.35	168.06	261.2	179.53	260.47	186.85	260.03	193.97	259.02
196.44	258.67	196.76	258.63	202.12	257.62	205.44	256.99	208.31	256.45
218.07	254.47	218.45	254.34	220.08	253.84	226.82	251.79	235.36	249.12
244.88	248.26	248.84	248.11	251.46	248.41	257.42	249.1	263.42	250.13
263.65	250.17	268.71	251.8	270.14	252.25	272.99	253.45	275.51	254.5
277.4	255.36	281.54	257.25	284.96	258.81	290.87	261.52	295.74	263.78
300.06	266.1	302.15	267.08	307.59	268.82	310.12	269.58	312.91	271.05

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	37.54	.026	56.84	.044	77.36	.032	94.74	.023
124.16	.047	202.12	.038	235.36	.07	257.42	.07	263.42	.07
312.91	.07								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
235.36	257.42	33.82	41.19	42.78	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 3494.54*

INPUT
Description:
Station Elevation Data num= 55

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	266.39	17.81	263.59	24.21	262.57	29.23	261.8	35.78	260.6
40.77	260.24	43.21	260.06	48.46	259.73	54.17	259.63	63.38	259.46
69.62	259.45	73.72	259.43	88.26	259.37	90.29	259.4	97.32	259.49
118.32	260.03	128.86	260.29	142.51	260.65	151.6	260.57	156.79	260.46
157.52	260.45	160.16	260.33	171.09	259.58	178.07	259.14	184.85	258.29
187.2	258	187.51	257.96	192.61	256.82	195.78	256.11	198.52	255.49
207.81	253.3	208.18	253.17	209.73	252.76	216.16	251.07	224.29	248.88
231.92	248.18	235.1	248.04	238.1	248.29	244.95	248.87	250.77	249.89
250.99	249.93	255.9	251.37	257.29	251.76	260.06	252.75	262.5	253.63
264.33	254.42	268.35	256.17	271.67	257.64	277.4	260.17	282.13	262.28
286.32	264.78	288.34	265.87	293.63	268.13	296.08	269.09	298.78	270.61

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	35.78	.032	54.17	.038	73.72	.029	90.29	.026
118.32	.044	192.61	.041	224.29	.07	244.95	.07	250.77	.07
298.78	.07								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
224.29	244.95	33.82	41.19	42.78	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 3453.35*

INPUT
Description:
Station Elevation Data num= 55

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	265.05	16.93	262.4	23.02	261.44	27.79	260.73	34.01	259.67
38.75	259.23	41.07	259.02	46.07	258.59	51.5	258.51	60.26	258.38
66.18	258.35	70.09	258.32	83.9	258.22	85.83	258.26	92.51	258.38
112.48	258.94	122.5	259.22	135.47	259.59	144.12	259.62	149.05	259.56
149.75	259.54	152.26	259.45	162.64	258.68	169.28	258.26	175.73	257.56
177.97	257.32	178.26	257.29	183.11	256.01	186.12	255.22	188.72	254.53
197.56	252.13	197.91	252.01	199.38	251.67	205.49	250.35	213.23	248.63
218.97	248.1	221.36	247.98	224.75	248.18	232.47	248.65	238.12	249.66
238.34	249.7	243.1	250.94	244.44	251.26	247.12	252.06	249.49	252.76
251.26	253.49	255.16	255.1	258.37	256.46	263.94	258.82	268.52	260.78
272.58	263.45	274.54	264.67	279.66	267.45	282.04	268.59	284.66	270.16

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	34.01	.038	51.5	.032	70.09	.026	85.83	.029
112.48	.041	183.11	.044	213.23	.07	232.47	.07	238.12	.07
284.66	.07								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
213.23	232.47	33.82	41.19	42.78	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 3412.16*

INPUT
Description:
Station Elevation Data num= 55

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	263.7	16.05	261.21	21.82	260.32	26.35	259.66	32.25	258.75
36.74	258.23	38.94	257.98	43.68	257.46	48.82	257.4	57.13	257.29
62.75	257.26	66.45	257.22	79.55	257.07	81.38	257.12	87.71	257.28
106.65	257.86	116.14	258.15	128.44	258.53	136.64	258.68	141.32	258.65
141.98	258.64	144.35	258.58	154.2	257.79	160.49	257.38	166.6	256.83
168.73	256.65	169	256.63	173.6	255.21	176.46	254.34	178.93	253.58
187.3	250.96	187.63	250.84	189.03	250.59	194.82	249.63	202.16	248.39
206.01	248.02	207.62	247.91	211.4	248.07	220	248.42	225.47	249.42
225.68	249.46	230.29	250.5	231.59	250.77	234.19	251.36	236.48	251.89
238.2	252.55	241.97	254.02	245.08	255.29	250.47	257.47	254.9	259.27
258.83	262.12	260.74	263.46	265.7	266.76	268	268.09	270.53	269.72

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	32.25	.044	48.82	.026	66.45	.023	81.38	.032
106.65	.038	173.6	.047	202.16	.07	220	.07	225.47	.07
270.53	.07								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
202.16	220	33.82	41.19	42.78	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 3370.982

INPUT
Description:
Station Elevation Data num= 29

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	262.36	20.63	259.19	41.29	256.32	46.15	256.28	59.31	256.16
75.19	255.92	76.92	255.98	109.78	257.08	129.16	257.74	133.58	257.75
136.45	257.7	145.76	256.89	159.49	255.97	159.75	255.96	164.1	254.41
166.8	253.45	177.36	249.68	178.68	249.51	191.09	248.15	193.88	247.85
207.53	248.19	212.82	249.19	217.48	250.07	223.47	251.02	225.13	251.62
228.78	252.95	241.29	257.77	251.73	266.07	256.41	269.28		

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	46.15	.02	76.92	.035	164.1	.05	212.82	.07

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
191.09	207.53	32.87	38.29	40.04	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 3332.68*

INPUT
Description:
Station Elevation Data num= 52

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	262.36	21.79	259.69	40.39	257.62	43.61	257.25	44.99	257.23
48.75	257.17	59.49	257.01	62.65	256.94	79.42	256.48	81.25	256.49
82.55	256.51	90.93	256.52	97.33	256.46	104.69	256.41	115.96	256.34
133.85	256.24	136.43	256.22	141.1	256.09	141.9	256.05	144.13	256.01
150.86	255.51	153.96	255.28	156.73	255.12	168.46	254.31	168.74	254.29
173.33	252.97	176.19	252.15	179.87	251.08	187.34	248.95	187.76	248.91
188.73	248.8	201.84	247.52	204.72	247.27	205.74	247.2	206.02	247.16
206.13	247.16	219.24	247.55	225.09	248.44	230.25	249.22	236.88	250.08
238.72	250.59	239.4	250.78	242.75	251.71	246.37	252.77	247.7	253.17
249.37	253.72	253.38	255.11	256.59	256.22	257.06	256.52	266.24	263.22
268.15	264.6	273.32	267.94						

Manning's n Values num= 12

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.054	48.75	.03	81.25	.042	104.69	.066	150.86	.044
173.33	.044	187.76	.023	201.84	.066	219.24	.066	225.09	.066
249.37	.054	273.32	.07						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
201.84	219.24	32.87	38.29	40.04	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 3294.39*

INPUT
Description:
Station Elevation Data num= 52

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	262.37	22.95	260.2	42.54	258.5	45.94	258.18	47.39	258.15
51.34	258.07	62.66	257.83	65.98	257.71	83.65	257.03	85.58	257.01
86.95	256.99	95.77	256.75	102.52	256.43	110.27	256.1	122.13	255.6
140.98	254.81	143.69	254.71	148.61	254.42	149.45	254.37	151.81	254.31
158.89	253.88	162.16	253.68	165.07	253.53	177.44	252.65	177.73	252.63

182.57	251.53	185.57	250.85	189.45	249.96	197.32	248.23	197.76	248.19
198.79	248.09	212.59	246.89	216.42	246.61	217.78	246.52	218.16	246.47
218.39	246.47	230.95	246.91	237.37	247.69	243.02	248.37	250.29	249.14
252.3	249.55	253.06	249.71	256.73	250.47	260.69	251.33	262.15	251.67
263.98	252.19	268.37	253.57	271.9	254.67	272.41	254.93	282.47	261.74
284.56	263.13	290.24	266.61						

Manning's n Values num= 12

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.058	51.34	.04	85.58	.049	110.27	.062	158.89	.038
182.57	.038	197.76	.026	212.59	.062	230.95	.062	237.37	.062
263.98	.058	290.24	.07						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
212.59	230.95	32.87	38.29	40.04	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 3256.09*

INPUT
Description:
Station Elevation Data num= 52

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	262.37	24.11	260.7	44.7	259.38	48.26	259.11	49.79	259.06
53.94	258.96	65.83	258.65	69.32	258.49	87.88	257.59	89.9	257.52
91.35	257.48	100.61	256.98	107.7	256.39	115.85	255.79	128.31	254.86
148.11	253.39	150.96	253.19	156.13	252.76	157.01	252.68	159.48	252.62
166.93	252.24	170.36	252.07	173.42	251.94	186.41	250.98	186.72	250.96
191.8	250.09	194.96	249.55	199.04	248.84	207.3	247.5	207.77	247.46
208.84	247.37	223.35	246.26	228.13	245.94	229.83	245.85	230.29	245.79
230.64	245.79	242.67	246.28	249.64	246.94	255.79	247.52	263.7	248.2
265.89	248.52	266.71	248.64	270.7	249.22	275.02	249.88	276.6	250.17
278.59	250.66	283.37	252.03	287.2	253.12	287.76	253.35	298.7	260.26
300.98	261.66	307.15	265.27						

Manning's n Values num= 12

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.062	53.94	.05	89.9	.056	115.85	.058	166.93	.032
191.8	.032	207.77	.029	223.35	.058	242.67	.058	249.64	.058
278.59	.062	307.15	.07						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
223.35	242.67	32.87	38.29	40.04	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 3217.80*

INPUT
Description:
Station Elevation Data num= 52

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	262.38	25.27	261.2	46.85	260.25	50.58	260.04	52.18	259.98
56.54	259.85	69	259.48	72.66	259.27	92.11	258.14	94.23	258.04
95.74	257.96	105.46	257.21	112.89	256.36	121.42	255.47	134.49	254.12
155.24	251.97	158.23	251.67	163.64	251.1	164.57	251	167.16	250.92
174.96	250.61	178.57	250.46	181.77	250.34	195.39	249.32	195.7	249.3
201.03	248.65	204.34	248.24	208.62	247.72	217.28	246.78	217.77	246.74
218.89	246.66	234.1	245.63	239.83	245.27	241.87	245.17	242.43	245.1
242.9	245.1	254.38	245.64	261.92	246.19	268.56	246.67	277.1	247.25
279.47	247.48	280.36	247.57	284.67	247.98	289.34	248.44	291.05	248.66
293.2	249.13	298.36	250.49	302.51	251.57	303.11	251.76	314.94	258.78
317.39	260.19	324.07	263.94						

Manning's n Values num= 12

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.066	56.54	.06	94.23	.063	121.42	.054	174.96	.026
201.03	.026	217.77	.032	234.1	.054	254.38	.054	261.92	.054
293.2	.066	324.07	.07						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
234.1	254.38	32.87	38.29	40.04	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 3179.510

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 28

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	262.38	49	261.13	54.58	260.9	72.17	260.3	100.14	258.45
110.3	257.44	118.07	256.33	127	255.16	162.37	250.55	172.13	249.31
183	248.97	190.12	248.75	218.2	246.6	227.77	246.02	244.85	245
251.54	244.6	253.92	244.5	254.57	244.41	255.15	244.41	266.09	245
294.01	246.5	303.66	247	305.5	247.16	307.81	247.6	313.36	248.95
318.46	250.18	331.17	257.3	340.98	262.6				

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.07	127	.05	183	.02	227.77	.035	266.09	.05
307.81	.07								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
244.85	266.09	46.01	44.88	34.07	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 3134.63*

INPUT

Description:
Station Elevation Data num= 51

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	261.34	17.71	260.7	28.57	260.36	47.45	259.85	52.86	259.63
69.89	259.05	82.68	258.26	96.98	257.37	106.82	256.48	114.34	255.52
119.55	254.9	122.99	254.49	143.05	252.09	157.24	250.4	166.69	249.29
177.22	248.93	180.68	248.82	184.12	248.66	196.82	247.57	201.33	247.19
211.31	246.29	212.79	246.18	220.58	245.7	237.12	244.7	244.4	244.23
246.99	244.1	247.7	244.01	248.18	244.01	258.17	244.53	261.04	244.67
261.89	244.77	280.33	246.4	285.19	246.6	295.31	246.85	297.23	246.89
307.15	247.12	307.32	247.13	309.41	247.24	312.25	247.6	314.38	247.94
317.07	248.38	317.53	248.46	319.06	248.72	324.51	249.66	325.32	249.82
327.88	250.89	336.75	255.2	339.36	256.45	340.92	257.1	343.72	258.22
352.96	261.88								

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.07	122.99	.053	143.05	.067	177.22	.025	220.58	.038
237.12	.045	261.04	.045	312.25	.062	314.38	.02	327.88	.025
352.96	.067								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
237.12	261.04	46.01	44.88	34.07	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 3089.75*

INPUT
Description:
Station Elevation Data num= 51

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	260.3	17.13	259.48	27.64	259.09	45.91	258.57	51.13	258.36
67.61	257.79	79.98	257.08	93.82	256.29	103.33	255.52	110.61	254.7
115.65	254.18	118.98	253.82	138.39	251.72	152.12	250.24	161.26	249.28
171.44	248.9	174.79	248.77	178.11	248.57	190.4	247.4	194.77	246.99
204.42	245.98	205.85	245.84	213.39	245.38	229.39	244.4	237.26	243.87
240.06	243.71	240.83	243.62	241.21	243.62	252.69	244.18	255.99	244.34
257	244.5	278.85	246.96	284.61	247.14	296.61	247.19	298.89	247.2
310.65	247.24	310.84	247.24	313.32	247.33	316.68	247.6	319.21	247.87
322.4	248.2	322.95	248.27	324.76	248.5	331.22	249.3	332.18	249.47
335.21	250.43	345.72	255	348.82	256.32	350.67	256.9	353.99	257.91
364.94	261.15								

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.07	118.98	.057	138.39	.063	171.44	.03	213.39	.04
229.39	.04	255.99	.04	316.68	.053	319.21	.02	335.21	.03
364.94	.063								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
229.39	255.99	46.01	44.88	34.07	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 3044.87*

INPUT
Description:
Station Elevation Data num= 51

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	259.26	16.55	258.26	26.7	257.82	44.36	257.29	49.41	257.09
65.33	256.54	77.29	255.91	90.65	255.21	99.85	254.56	106.89	253.89
111.75	253.46	114.97	253.15	133.72	251.35	146.99	250.09	155.82	249.26
165.66	248.86	168.89	248.73	172.11	248.47	183.98	247.23	188.2	246.79
197.53	245.67	198.92	245.51	206.19	245.06	221.65	244.1	230.12	243.5
233.13	243.31	233.96	243.23	234.24	243.23	247.21	243.84	250.95	244.01
252.1	244.23	277.38	247.51	284.04	247.69	297.91	247.54	300.54	247.51
314.14	247.36	314.37	247.36	317.24	247.41	321.12	247.6	324.04	247.79
327.73	248.02	328.36	248.08	330.46	248.27	337.93	248.95	339.03	249.11
342.54	249.97	354.7	254.8	358.27	256.19	360.41	256.7	364.26	257.6
376.92	260.43								

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.07	114.97	.06	133.72	.06	165.66	.035	206.19	.043
221.65	.035	250.95	.035	321.12	.045	324.04	.02	342.54	.035
376.92	.06								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
221.65	250.95	46.01	44.88	34.07	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 2999.99*

INPUT
Description:
Station Elevation Data num= 51

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	258.22	15.97	257.04	25.77	256.55	42.81	256.01	47.69	255.82
63.05	255.29	74.59	254.74	87.49	254.13	96.37	253.6	103.16	253.07
107.86	252.74	110.96	252.48	129.06	250.99	141.86	249.94	150.39	249.25
159.89	248.82	163	248.69	166.11	248.38	177.57	247.06	181.64	246.6
190.64	245.36	191.98	245.18	199	244.74	213.92	243.79	222.98	243.13
226.2	242.91	227.08	242.83	227.28	242.83	241.73	243.5	245.9	243.67
247.21	243.97	275.9	248.07	283.46	248.23	299.21	247.89	302.2	247.82
317.63	247.47	317.89	247.47	321.15	247.49	325.56	247.6	328.88	247.71
333.06	247.85	333.78	247.9	336.16	248.05	344.63	248.59	345.89	248.76
349.88	249.52	363.67	254.6	367.73	256.06	370.16	256.5	374.53	257.29
388.89	259.71								

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.07	110.96	.063	129.06	.057	159.89	.04	199	.045
213.92	.03	245.9	.03	325.56	.037	328.88	.02	349.88	.04
388.89	.057								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
213.92	245.9	46.01	44.88	34.07	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 2955.11*

INPUT
Description:
Station Elevation Data num= 51

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	257.18	15.4	255.83	24.84	255.28	41.26	254.73	45.96	254.56
60.78	254.03	71.9	253.57	84.33	253.05	92.89	252.63	99.43	252.26
103.96	252.01	106.95	251.81	124.39	250.62	136.73	249.78	144.95	249.23
154.11	248.79	157.11	248.64	160.1	248.29	171.15	246.89	175.07	246.4
183.75	245.05	185.04	244.85	191.81	244.42	206.19	243.49	215.84	242.77
219.27	242.51	220.21	242.43	220.31	242.43	236.26	243.15	240.85	243.34
242.32	243.7	274.43	248.62	282.89	248.78	300.51	248.23	303.85	248.13
321.13	247.59	321.42	247.59	325.06	247.57	329.99	247.6	333.71	247.63
338.39	247.67	339.19	247.71	341.85	247.82	351.34	248.23	352.75	248.4
357.21	249.06	372.65	254.4	377.19	255.92	379.91	256.3	384.79	256.98
400.87	258.98								

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.07	106.95	.067	124.39	.053	154.11	.045	191.81	.047
206.19	.025	240.85	.025	329.99	.028	333.71	.02	357.21	.045
400.87	.053								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
206.19	240.85	46.01	44.88	34.07	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 2910.241

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 28

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	256.14	14.82	254.61	23.91	254.01	69.2	252.4	100.06	251.29
119.73	250.25	151.22	248.6	164.73	246.72	168.51	246.2	178.1	244.52
198.46	243.19	213.34	242.04	230.78	242.81	235.8	243.01	237.43	243.43
272.95	249.18	282.31	249.32	305.51	248.44	324.94	247.7	338.54	247.55
343.72	247.49	344.61	247.52	358.05	247.87	364.54	248.6	381.62	254.2
386.65	255.79	395.06	256.67	412.85	258.26				

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.07	119.73	.05	338.54	.02	364.54	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
198.46	235.8	211.75	214.95	200.2	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 2695.270

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 25

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	255.82	11.43	252.35	26.32	250.15	34.39	248.56	64.21	246.65
67.15	246.49	77.79	245.87	118.86	244.04	146.63	243.13	168.09	243.4
188.8	243.22	269.38	242.49	302.24	241.57	316.64	241.15	324.83	241.36
327.5	241.55	343.56	242.71	352.67	243.35	368.66	247.65	374.16	249.16
375.02	249.26	387.16	250.63	405	251.91	429.55	253.68	447.4	256.21

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.07	146.63	.05	375.02	.02	405	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
302.24	327.5	160.6	197.15	200.15	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 2498.115

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 32

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	256.11	1.55	255.71	2.5	255.32	27.95	245.84	29.26	245.24
29.74	245.1	39.3	242.86	46.18	242.57	62.06	241.74	72.81	241.19
117.17	240.71	128.17	240.4	186.08	238.79	204.08	238.29	213.43	237.91
218.53	237.84	244.41	238.04	265.33	238.36	274.88	238.41	310.08	240.77
316.15	241.14	336.1	242.35	342.03	242.76	375	244.03	388.6	244.55
396.05	244.74	404.61	245.64	413	246.36	438.69	248.55	449.78	250.01
464.54	253.39	474.7	255.82						

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.07	128.17	.05	375	.02	413	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
204.08	265.33	40.03	38.99	38.2	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 2459.12*

INPUT
Description:
Station Elevation Data num= 52

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	255.06	1.41	254.67	2.27	254.31	25.34	245.53	26.52	244.98
26.96	244.85	31.36	243.73	35.62	242.74	36.53	242.69	41.86	242.42
56.25	241.55	66	240.98	76.98	240.74	106.21	240.11	113.59	239.84
114.11	239.82	116.18	239.76	168.67	238.2	170.67	238.14	184.99	237.71
193.18	237.37	197.65	237.3	200.63	237.3	224.17	237.49	243.2	237.77
254.35	237.84	281.47	239.21	295.44	239.92	302.53	240.25	325.82	241.32
327.42	241.41	332.74	241.67	346.76	242.05	363.33	242.5	371.24	242.73
387.11	243.2	395.81	243.37	397.82	243.53	405.8	244.14	406.17	244.16
415.6	244.85	428.06	245.75	445.59	247.02	447.64	247.24	450.32	247.52
451.36	247.65	453.19	247.88	458.54	248.55	470.95	250.97	475.77	252.09
478.05	252.64	487.63	254.78						

Manning's n Values num= 10

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.07	114.11	.064	116.18	.047	184.99	.025	243.2	.025
371.24	.025	415.6	.038	428.06	.045	451.36	.022	487.63	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
184.99	243.2	40.03	38.99	38.2	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 2420.12*

INPUT
Description:
Station Elevation Data num= 52

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	254.01	1.26	253.64	2.03	253.31	22.72	245.22	23.79	244.73
24.18	244.6	28.13	243.5	31.95	242.62	32.76	242.57	37.54	242.27
50.45	241.37	59.19	240.77	69.04	240.41	95.25	239.52	101.87	239.2
102.33	239.18	104.19	239.12	151.27	237.61	153.06	237.55	165.9	237.13
172.94	236.83	176.77	236.76	182.73	236.76	203.93	236.93	221.07	237.18
233.82	237.27	264.83	238.46	280.81	239.07	288.91	239.36	315.54	240.3
317.37	240.37	323.46	240.58	339.49	240.88	358.43	241.23	367.47	241.44
385.63	241.84	395.57	242	397.87	242.13	407	242.64	407.42	242.65
418.2	243.33	432.45	244.23	452.49	245.49	454.84	245.69	457.9	245.96
459.09	246.1	461.18	246.35	467.3	247.09	481.49	249.5	487	250.8
489.61	251.43	500.56	253.74						

Manning's n Values num= 10

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.07	102.33	.058	104.19	.045	165.9	.03	221.07	.03
367.47	.03	418.2	.04	432.45	.04	459.09	.025	500.56	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
165.9	221.07	40.03	38.99	38.2	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 2381.13*

INPUT
Description:
Station Elevation Data num= 52

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	252.96	1.12	252.6	1.8	252.3	20.11	244.9	21.05	244.47
21.39	244.35	24.89	243.27	28.27	242.51	28.99	242.44	33.22	242.12
44.64	241.18	52.38	240.55	61.09	240.09	84.29	238.92	90.15	238.56
90.56	238.54	92.2	238.48	133.86	237.02	135.45	236.96	146.81	236.55
152.69	236.29	155.9	236.22	164.83	236.22	183.69	236.38	198.94	236.58
213.29	236.7	248.19	237.71	266.17	238.23	275.29	238.47	305.26	239.27
307.32	239.33	314.17	239.49	332.21	239.71	353.53	239.96	363.71	240.14
384.14	240.49	395.33	240.63	397.91	240.74	408.19	241.13	408.67	241.15
420.8	241.82	436.84	242.71	459.39	243.96	462.03	244.15	465.48	244.39
466.81	244.55	469.18	244.82	476.06	245.63	492.03	248.02	498.23	249.5
501.17	250.21	513.49	252.7						

Manning's n Values num= 10

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.07	90.56	.053	92.2	.043	146.81	.035	198.94	.035
363.71	.035	420.8	.043	436.84	.035	466.81	.027	513.49	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
146.81	198.94	40.03	38.99	38.2	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 2342.13*

INPUT
Description:
Station Elevation Data num= 52

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	251.91	.97	251.56	1.56	251.3	17.49	244.59	18.31	244.21
18.61	244.1	21.65	243.04	24.6	242.39	25.22	242.31	28.9	241.97
38.84	241	45.57	240.34	53.15	239.77	73.33	238.32	78.42	237.91
78.78	237.9	80.21	237.85	116.46	236.43	117.84	236.38	127.72	235.97
132.44	235.75	135.02	235.68	146.94	235.68	163.46	235.82	176.81	235.99
192.76	236.13	231.55	236.96	251.54	237.38	261.67	237.58	294.99	238.25
297.27	238.29	304.89	238.39	324.94	238.53	348.63	238.7	359.94	238.84

382.65	239.14	395.09	239.26	397.96	239.34	409.39	239.63	409.92	239.64
423.4	240.31	441.23	241.19	466.3	242.43	469.23	242.6	473.06	242.83
474.54	243	477.17	243.3	484.81	244.17	502.57	246.55	509.46	248.21
512.72	249	526.43	251.65						

Manning's n Values num= 10

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.07	78.78	.047	80.21	.04	127.72	.04	176.81	.04
359.94	.04	423.4	.045	441.23	.03	474.54	.03	526.43	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
127.72	176.81	40.03	38.99	38.2	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 2303.14*

INPUT
Description:
Station Elevation Data num= 52

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	250.86	.83	250.52	1.33	250.29	14.88	244.28	15.57	243.95
15.83	243.85	18.42	242.81	20.92	242.27	21.45	242.19	24.58	241.82
33.03	240.81	38.76	240.13	45.2	239.44	62.37	237.73	66.7	237.27
67.01	237.26	68.22	237.21	99.05	235.84	100.22	235.79	108.63	235.39
112.19	235.21	114.14	235.14	129.04	235.14	143.22	235.27	154.68	235.4
172.23	235.57	214.91	236.2	236.9	236.53	248.05	236.69	284.71	237.22
287.22	237.26	295.6	237.3	317.66	237.36	343.73	237.43	356.18	237.55
381.17	237.78	394.85	237.9	398.01	237.95	410.58	238.13	411.16	238.14
426	238.8	445.61	239.67	473.2	240.9	476.42	241.06	480.64	241.26
482.27	241.45	485.16	241.77	493.57	242.71	513.11	245.07	520.69	246.91
524.28	247.78	539.36	250.61						

Manning's n Values num= 10

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.07	67.01	.041	68.22	.037	108.63	.045	154.68	.045
356.18	.045	426	.048	445.61	.025	482.27	.033	539.36	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
108.63	154.68	40.03	38.99	38.2	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 2264.151

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 25

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	249.81	15.18	242.58	17.68	242.06	37.26	239.12	54.98	236.63
55.23	236.62	82.61	235.2	89.54	234.81	93.26	234.6	111.14	234.6
132.55	234.81	198.27	235.45	277.17	236.22	310.39	236.19	338.83	236.16
398.06	236.55	412.41	236.63	450	238.15	483.62	239.51	488.22	239.7
490	239.9	493.15	240.24	523.65	243.6	535.84	246.57	552.29	249.57

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.07	55.23	.035	132.55	.05	450	.02	490	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
89.54	132.55	44.23	41.72	38.81	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 2222.42*

INPUT
Description:
Station Elevation Data num= 50

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	248.41	9.32	245.72	15.59	243.9	16.51	243.63	20.77	242.34
24.19	241.84	44.51	239.57	50.99	238.86	53.4	238.61	59.4	238.05
75.23	236.56	75.58	236.55	81.53	236.3	86.41	236.01	101.97	235.07
112.36	234.58	113.04	234.55	121.86	234.05	122.53	234.03	135.99	233.82
150.29	233.82	175.26	233.96	181.16	234.04	231.88	234.58	242.05	234.69
260.2	234.88	275.59	235.06	315.14	235.65	319.92	235.68	345.92	235.82
372.27	235.96	373.07	235.97	385.93	236.12	392.94	236.15	400.95	236.21
427.14	236.43	440.44	236.52	457.31	237.16	475.26	237.83	486.81	238.26
493.96	238.49	506.41	239.19	510.62	239.43	510.67	239.43	512.32	239.62
515.24	239.93	543.49	243.02	554.79	245.56	558.7	246.23	570.03	248.22

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.063	75.58	.035	86.41	.038	122.53	.047	181.16	.047
231.88	.035	400.95	.032	457.31	.023	475.26	.023	512.32	.035
570.03	.035								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
122.53	181.16	44.23	41.72	38.81	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 2180.70*

INPUT
Description:
Station Elevation Data num= 50

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	247.01	11.83	244.86	19.79	243.41	20.95	243.2	26.36	242.1
30.71	241.63	56.49	239.32	64.71	238.61	67.78	238.36	75.39	237.84
95.49	236.5	95.92	236.49	103.48	236.21	109.68	235.81	129.42	234.53
142.61	233.94	143.48	233.9	154.67	233.27	155.51	233.25	178.72	233.05

189.44	233.05	222.07	233.15	229.77	233.27	276.46	233.82	285.83	233.93
302.54	234.12	316.71	234.31	353.12	235.09	357.51	235.15	381.45	235.45
405.71	235.75	406.44	235.77	418.29	235.98	424.74	235.98	432.11	236.06
456.22	236.3	468.46	236.42	484	236.94	500.52	237.5	511.15	237.86
517.74	238.01	529.2	238.87	533.08	239.17	533.12	239.17	534.64	239.34
537.33	239.62	563.34	242.45	573.74	244.55	577.34	245.13	587.77	246.87

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.056	95.92	.035	109.68	.041	155.51	.044	229.77	.044
276.46	.035	432.11	.029	484	.026	500.52	.026	534.64	.035
587.77	.035								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
155.51	229.77	44.23	41.72	38.81	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 2138.98*

INPUT
Description:
Station Elevation Data num= 50

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	245.62	14.33	244.01	23.99	242.92	25.39	242.76	31.96	241.86
37.22	241.41	68.47	239.06	78.44	238.35	82.16	238.1	91.38	237.63
115.74	236.43	116.27	236.42	125.42	236.12	132.94	235.61	156.88	233.98
172.86	233.3	173.91	233.24	187.48	232.49	188.5	232.48	221.44	232.27
228.6	232.27	268.87	232.35	278.39	232.49	321.05	233.06	329.6	233.17
344.88	233.37	357.82	233.56	391.09	234.52	395.11	234.62	416.98	235.08
439.15	235.55	439.82	235.57	450.64	235.84	456.53	235.82	463.28	235.91
485.31	236.18	496.49	236.31	510.69	236.73	525.79	237.18	535.5	237.47
541.52	237.53	551.99	238.55	555.53	238.9	555.57	238.9	556.96	239.05
559.41	239.32	583.18	241.87	592.68	243.55	595.98	244.02	605.5	245.53

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.049	116.27	.035	132.94	.044	188.5	.041	278.39	.041
321.05	.035	463.28	.026	510.69	.029	525.79	.029	556.96	.035
605.5	.035								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
188.5	278.39	44.23	41.72	38.81	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 2097.26*

INPUT
Description:
Station Elevation Data num= 50

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	244.22	16.84	243.16	28.18	242.44	29.84	242.33	37.55	241.62
43.73	241.19	80.46	238.81	92.17	238.1	96.53	237.84	107.37	237.43
136	236.37	136.62	236.35	147.37	236.03	156.21	235.41	184.33	233.44
203.11	232.66	204.34	232.59	220.28	231.7	221.48	231.7	264.17	231.5
267.75	231.5	315.68	231.54	327	231.72	365.63	232.29	373.38	232.41
387.21	232.61	398.94	232.82	429.07	233.96	432.7	234.08	452.51	234.71
472.59	235.35	473.19	235.37	483	235.7	488.33	235.66	494.44	235.75
514.39	236.05	524.52	236.2	537.37	236.52	551.05	236.86	559.84	237.07
565.29	237.06	574.78	238.24	577.99	238.64	578.02	238.64	579.28	238.77
581.5	239.01	603.03	241.3	611.63	242.54	614.61	242.92	623.24	244.18

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.042	136.62	.035	156.21	.047	221.48	.038	327	.038
365.63	.035	494.44	.023	537.37	.032	551.05	.032	579.28	.035
623.24	.035								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
221.48	327	44.23	41.72	38.81	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 2055.543

INPUT
Description:
Station Elevation Data num= 30

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	242.82	19.35	242.31	32.38	241.95	34.28	241.89	92.44	238.55
110.91	237.58	123.36	237.22	169.32	235.94	179.47	235.21	211.78	232.89
233.36	232.02	253.09	230.92	254.47	230.92	306.9	230.72	362.48	230.73
375.61	230.95	410.22	231.53	429.55	231.85	440.05	232.07	470.3	233.55
506.57	235.17	515.35	235.56	520.13	235.5	525.6	235.6	564.06	236.31
584.19	236.68	589.07	236.58	600.44	238.37	633.25	241.81	640.98	242.83

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	179.47	.05	410.22	.035	525.6	.02	564.06	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
254.47	375.61	173.95	195.7	217.35	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 1859.868

INPUT
Description:
Station Elevation Data num= 26

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev

0	242.89	11.75	242.36	56.42	239.23	87.16	237.42	129.51	235.03
172.43	232.97	188.28	231.46	194.36	230.86	213.86	230.23	257.82	228.81
264.14	228.61	294.87	228.68	346.44	228.81	395.32	228.93	401.8	228.95
402.94	228.95	444.82	228.82	500.19	229.95	505.21	230.1	532.59	230.89
547.37	232.13	557.34	232.99	589.74	235.79	626.05	238.92	636.67	240.53
648.07	242.69								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	213.86	.05	401.8	.035	557.34	.02	589.74	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
257.82	346.44	208.85	203	192.55	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 1656.863

INPUT
Description:
Station Elevation Data num= 22

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	236.28	22.94	235.04	96.59	233.54	190.43	230.84	245.82	229.18
302.74	227.36	332.37	226.39	390.39	224.47	396.63	224.27	413.9	223.7
431.75	224.14	485.48	226.06	499.29	226.25	539.57	226.81	561.33	227.11
577.52	227.34	624.01	228.83	654.16	229.78	670.1	230.3	686.9	231.7
699.76	232.77	738.6	236.31						

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	332.37	.05	561.33	.035	686.9	.02

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
396.63	431.75	231.2	220.1	188.45	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 1436.744

INPUT
Description:
Station Elevation Data num= 27

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	229.69	44.41	226.65	66.73	225.1	75.62	224.78	93.34	224.43
235.55	221.86	263.04	221.37	290.98	221.85	299.77	222.01	302.57	222.07
336	222.22	407.49	222.53	465.64	222.79	495.72	222.73	509.84	222.91
517.94	222.73	519.66	222.74	524.73	222.78	619.85	223.55	621.96	223.56
644.11	223.72	647.72	224.17	655.56	224.68	688.83	228.06	708.82	229.32
713.57	229.67	714.89	229.68						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.035	336	.05	621.96	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
235.55	290.98	36.22	35.03	33.69	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 1401.71*

INPUT
Description:
Station Elevation Data num= 54

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	229.65	1.44	229.56	1.98	229.53	7.36	229.17	52.43	226.16
78.77	224.38	82.6	224.2	83.57	224.17	89.27	223.93	102.25	223.55
110.19	223.37	135.59	222.83	158.42	222.39	186.37	221.91	196.4	221.9
223.8	221.9	230.91	221.89	233.15	221.91	255.94	221.52	278.06	221.1
311.07	220.46	313.03	220.43	314.55	220.45	320.56	220.56	345.23	221.01
353.38	221.16	355.98	221.22	386.99	221.43	453.32	221.88	480.38	222.06
491.12	222.16	498.51	222.25	507.26	222.32	508.58	222.32	516.37	222.34
535.17	222.39	535.51	222.39	548.27	222.62	555.78	222.53	557.38	222.55
562.08	222.62	650.33	223.86	652.28	223.89	658.67	223.97	659.62	223.98
661.76	224.02	672.83	224.21	676.18	224.6	683.45	225.09	714.32	228.11
718.17	228.36	732.86	229.35	737.27	229.69	738.5	229.71		

Manning's n Values num= 8

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	196.4	.038	278.06	.047	345.23	.047	386.99	.047
508.58	.035	652.28	.035	738.5	.035				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
278.06	345.23	36.22	35.03	33.69	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 1366.68*

INPUT
Description:
Station Elevation Data num= 54

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	229.62	1.66	229.51	2.28	229.48	8.48	229.09	60.44	225.67
90.82	223.65	95.23	223.43	96.34	223.38	102.92	223.09	117.88	222.53
127.03	222.31	156.32	221.62	182.64	221.09	214.86	220.55	226.43	220.7
258.02	221.11	266.21	221.21	268.79	221.26	295.07	220.85	320.57	220.34
360.64	219.53	363.02	219.48	364.74	219.51	371.55	219.63	399.48	220.17
407	220.32	409.39	220.37	437.99	220.64	499.14	221.23	524.1	221.46
534	221.6	540.82	221.74	548.89	221.85	550.1	221.86	557.28	221.91
574.62	222.05	574.94	222.05	586.7	222.34	593.62	222.34	595.1	222.37
599.43	222.46	680.8	224.18	682.61	224.21	688.49	224.33	689.38	224.34

691.35	224.41	701.55	224.69	704.64	225.03	711.35	225.49	739.81	228.16
743.36	228.4	756.91	229.38	760.97	229.7	762.1	229.74		

Manning's n Values num= 8

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	226.43	.041	320.57	.044	399.48	.044	437.99	.044
550.1	.035	682.61	.035	762.1	.035				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
320.57	399.48	36.22	35.03	33.69	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 1331.66*

INPUT
Description:
Station Elevation Data num= 54

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	229.58	1.88	229.46	2.58	229.43	9.61	229	68.46	225.17
102.86	222.93	107.85	222.65	109.12	222.59	116.56	222.24	133.51	221.52
143.88	221.25	177.05	220.41	206.86	219.8	243.35	219.19	256.46	219.49
292.24	220.32	301.51	220.52	304.44	220.62	334.2	220.17	363.09	219.57
410.21	218.59	413	218.54	414.93	218.57	422.53	218.7	453.72	219.34
460.61	219.47	462.8	219.52	488.98	219.86	544.97	220.57	567.82	220.87
576.88	221.05	583.12	221.24	590.51	221.37	591.62	221.39	598.19	221.48
614.07	221.71	614.36	221.71	625.12	222.05	631.47	222.14	632.81	222.18
636.78	222.3	711.28	224.49	712.93	224.54	718.32	224.7	719.13	224.7
720.93	224.8	730.28	225.18	733.1	225.47	739.24	225.9	765.3	228.21
768.55	228.43	780.95	229.41	784.67	229.72	785.71	229.77		

Manning's n Values num= 8

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	256.46	.044	363.09	.041	453.72	.041	488.98	.041
591.62	.035	712.93	.035	785.71	.035				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
363.09	453.72	36.22	35.03	33.69	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 1296.63*

INPUT
Description:
Station Elevation Data num= 54

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	229.55	2.1	229.42	2.89	229.38	10.73	228.91	76.47	224.68
114.9	222.21	120.48	221.87	121.89	221.8	130.21	221.39	149.15	220.5
160.72	220.19	197.78	219.2	231.08	218.5	271.85	217.84	286.48	218.29
326.45	219.53	336.82	219.83	340.08	219.98	373.33	219.5	405.6	218.81
459.78	217.66	462.99	217.59	465.12	217.62	473.52	217.78	507.97	218.5
514.22	218.63	516.21	218.67	539.98	219.07	590.79	219.92	611.53	220.27
619.76	220.49	625.43	220.74	632.13	220.9	633.14	220.93	639.11	221.05
653.51	221.36	653.78	221.37	663.55	221.77	669.31	221.95	670.53	222
674.14	222.14	741.75	224.81	743.25	224.87	748.14	225.06	748.88	225.06
750.52	225.19	759	225.67	761.57	225.9	767.14	226.3	790.79	228.26
793.74	228.47	805	229.44	808.38	229.73	809.31	229.8		

Manning's n Values num= 8

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	286.48	.047	405.6	.038	507.97	.038	539.98	.038
633.14	.035	743.25	.035	809.31	.035				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
405.6	507.97	36.22	35.03	33.69	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 1261.604

INPUT
Description:
Station Elevation Data num= 32

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	229.51	2.32	229.37	3.19	229.33	11.86	228.82	133.11	221.09
134.67	221.01	164.78	219.49	218.51	217.99	255.3	217.2	300.34	216.48
316.51	217.08	360.67	218.74	372.12	219.14	375.73	219.34	412.46	218.82
448.11	218.05	509.35	216.72	512.98	216.65	515.31	216.68	524.5	216.85
562.22	217.66	655.25	219.67	662.64	219.94	667.73	220.24	674.66	220.46
680.02	220.62	693.2	221.03	777.97	225.42	778.63	225.42	780.1	225.58
818.93	228.51	832.92	229.83						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.035	316.51	.05	674.66	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
448.11	562.22	200.55	184.85	174.75	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 1076.731

INPUT
Description:
Station Elevation Data num= 37

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	225.39	38.27	223.82	57.81	222.67	102.57	220.22	159.15	217.03

166.17	216.76	181.78	216.75	307.53	218.03	385.37	216.65	387.62	216.6
415.26	216.37	436.81	216.36	465.93	216.34	501.77	216.32	542.17	216.25
568.76	216.34	588.61	216.4	631.52	216.24	683.41	216.57	700.71	216.66
732.91	216.81	755.8	217.08	762.18	217.31	766.25	217.28	802.52	216.62
818.26	216.54	822.03	216.54	834.19	217.37	846.49	218.13	856.05	219.61
861.74	220.46	864.59	220.94	866.65	221.41	887.61	222.64	895.96	223.29
902.27	224.44	910.02	225.84						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.035	436.81	.05	700.71	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
501.77	568.76	240.12	252.42	203.34	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 824.292

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 30

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	216.66	91.92	216.61	105.56	216.6	113.04	216.53	120.91	216.42
274.02	214.44	298.2	213.87	320	213.38	337.01	212.99	368.76	212.12
386.96	210.14	418	210.44	431.41	210.56	433.88	210.52	486.4	209.8
491.73	209.73	500.26	209.75	509.52	209.79	513.22	209.8	525.04	210.26
527.92	210.48	550.07	212.11	605.66	215.8	610.85	216.14	630	216.26
652.93	216.4	680	216.5	689.8	216.54	712.02	221.17	723.18	222.93

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	320	.05	525.04	.035	630	.02	680	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
486.4	513.22	286.25	220.85	205.55	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 603.449

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 49

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	216.25	2.71	215.91	14.5	215.55	14.87	215.54	53.56	213.21
75.28	212.46	108.91	213.35	141.18	212.44	185.63	211.23	254.29	209.66
272.96	207.31	276.4	206.85	294.8	205.24	299.94	204.84	308.82	204.25
313.28	203.82	341.71	202.7	354.73	202.03	368.33	202.85	383.93	203.72
396.26	207.55	407.37	210.29	410.14	210.43	415.8	210.66	455.43	211.6
478.04	212.09	491.66	212.12	567.69	211.81	569.39	211.81	570.91	211.64
574.86	211.18	579.58	210.63	585.64	209.92	587.61	209.29	602.05	203.94
609.89	203.89	617.79	203.45	619.41	203.98	631.19	208.32	634.9	209.78
639.64	210.15	659.3	210.93	661.85	211.01	668.58	211.21	675	211.4
687.31	211.75	721.83	215.83	723.53	215.98	724.92	216.24		

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.02	14.5	.05	585.64	.035	675	.02

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
602.05	619.41	331.3	603.46	438.86	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

Blocked Obstructions num= 1

Sta L	Sta R	Elev
0	478.12	212.12

Profile Output Table - Standard Table 1

Reach	River Sta	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
		(cfs)	(ft)	(ft)	(ft)	(ft)	(ft/ft)	(ft/s)	(sq ft)	(ft)	
Tributary	7987.100	1226.00	320.27	325.72	325.72	327.35	0.019471	12.00	129.51	39.90	0.95
Tributary	7760.639	1226.00	313.52	319.48	317.86	319.97	0.005407	6.95	227.68	59.61	0.51
Tributary	7547.305	1226.00	310.88	316.74		318.05	0.015121	10.90	143.97	42.58	0.84
Tributary	7336.782	1226.00	308.71	313.51	313.41	315.07	0.018448	10.90	131.10	40.11	0.91
Tributary	7117.686	1226.00	305.80	311.67	310.06	312.22	0.004740	6.03	212.41	53.76	0.49
Tributary	6917.517	1226.00	308.38	309.91	309.91	310.44	0.021982	6.10	217.50	208.51	0.94
Tributary	6688.378	1226.00	302.02	303.96	303.25	304.04	0.002749	2.18	535.46	437.05	0.30
Tributary	6485.790	1226.00	301.74	302.63	302.59	302.94	0.020473	3.82	279.46	384.10	0.73
Tributary	6293.091	1226.00	295.04	299.31	299.31	300.52	0.008267	6.84	174.54	85.25	0.60
Tributary	6070.915	1226.00	294.93	298.02	297.31	298.37	0.005154	4.28	282.97	147.71	

0.45											
	Tributary	5882.887	1226.00	293.71	295.85	295.85	296.55	0.022957	7.25	189.28	137.37
0.89											
	Tributary	5663.432	1226.00	288.73	290.93	290.43	291.22	0.008453	4.34	284.58	182.91
0.54											
	Tributary	5458.911	1226.00	285.04	287.49	287.49	288.35	0.026563	7.70	171.69	105.31
0.96											
	Tributary	5259.894	1226.00	281.10	284.19	283.52	284.46	0.006599	4.73	305.62	173.80
0.50											
	Tributary	5049.293	1226.00	281.40	282.72	282.72	283.14	0.028505	5.78	241.88	283.11
0.92											
	Tributary	4834.044	1226.00	267.90	273.30	271.76	273.72	0.008807	5.70	256.70	84.75
0.46											
	Tributary	4625.617	1226.00	268.93	271.87		272.09	0.007871	3.78	327.19	140.08
0.40											
	Tributary	4430.204	1226.00	266.78	269.46	269.46	269.86	0.017127	6.26	254.03	295.11
0.77											
	Tributary	4249.023	1226.00	262.53	264.92	264.48	265.29	0.010596	5.14	261.40	164.39
0.61											
	Tributary	4034.719	1226.00	260.16	263.05	263.05	263.67	0.015072	7.15	228.62	177.02
0.76											
	Tributary	3813.686	1226.00	255.03	258.07		258.99	0.020061	8.37	165.04	73.70
0.88											
	Tributary	3576.919	1226.00	248.17	254.67		255.13	0.007205	5.91	235.92	55.90
0.43											
	Tributary	3370.982	1226.00	247.85	252.20		253.17	0.014202	9.19	165.51	56.44
0.79											
	Tributary	3179.510	1226.00	244.41	248.18	247.69	248.68	0.004775	6.72	239.63	112.59
0.64											
	Tributary	2910.241	1226.00	242.04	246.24	245.47	246.77	0.008356	6.46	223.37	86.55
0.59											
	Tributary	2695.270	1226.00	241.15	243.79	243.77	244.25	0.017891	7.23	257.11	227.84
0.81											
	Tributary	2498.115	1226.00	237.84	240.05		240.64	0.021103	6.86	214.74	158.71
0.85											
	Tributary	2264.151	1226.00	234.60	236.66	236.66	237.05	0.009873	6.69	330.81	358.31
0.83											
	Tributary	2055.543	1226.00	230.72	232.51	232.12	232.78	0.010644	4.42	303.04	227.85
0.59											
	Tributary	1859.868	1226.00	228.61	230.06	229.82	230.33	0.013775	4.27	297.60	284.77
0.65											
	Tributary	1656.863	1226.00	223.70	226.36	226.28	226.97	0.020578	7.65	221.36	173.59
0.87											
	Tributary	1436.744	1226.00	221.37	223.18	223.18	223.55	0.012505	6.40	304.06	411.19
0.90											
	Tributary	1261.604	1226.00	216.65	219.35	218.78	219.40	0.001502	1.88	667.48	470.44
0.23											
	Tributary	1076.731	1226.00	216.25	217.12	217.12	217.42	0.032463	4.71	276.80	512.76
0.91											
	Tributary	824.292	1226.00	209.73	212.03	211.48	212.30	0.008799	4.81	298.61	179.42
0.56											
	Tributary	603.449	1226.00	203.45	208.29	208.29	209.93	0.009625	11.32	129.09	40.82
0.94											

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U.S. Army Corp of Engineers
Hydrologic Engineering Center
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X     X  XXXXXX    XXXX        XXXX       XX      XXXX
X     X  X        X    X       X   X     X  X    X
X     X  X        X            X   X    X    X   X
XXXXXXX  XXXX     X       XXX  XXXX     XXXXXX    XXXX
X     X  X        X            X  X     X    X        X
X     X  X        X    X       X   X    X    X        X
X     X  XXXXXX    XXXX        X    X   X    X   XXXXX
```

PROJECT DATA
Project Title: Project Model - D6
Project File : PMD6.prj
Run Date and Time: 12/8/02 5:26:40 PM

Project in English units

Project Description:
A7C Alternative - Canada Chiquita Crossing

PLAN DATA

Plan Title: Existing Flow/Proposed-Ultimate Geometry
Plan File : p:\2PDA0104\Hydr\LHS\Modeling\Model D\HecRas D\PMD6.p03

Geometry Title: Proposed Conditions - Ultimate
Geometry File : p:\2PDA0104\Hydr\LHS\Modeling\Model D\HecRas D\PMD6.g03

Flow Title : Existing Conditions
Flow File : p:\2PDA0104\Hydr\LHS\Modeling\Model D\HecRas D\PMD6.f01

Plan Summary Information:
Number of: Cross Sections = 92 Mulitple Openings = 0
Culverts = 0 Inline Weirs = 0
Bridges = 0

Computational Information
Water surface calculation tolerance = 0.01
Critical depth calculaton tolerance = 0.01
Maximum number of interations = 20
Maximum difference tolerance = 0.3
Flow tolerance factor = 0.001

Computation Options
Critical depth computed only where necessary
Conveyance Calculation Method: At breaks in n values only
Friction Slope Method: Average Conveyance
Computational Flow Regime: Mixed Flow

FLOW DATA

Flow Title: Existing Conditions
Flow File : p:\2PDA0104\Hydr\LHS\Modeling\Model D\HecRas D\PMD6.f01

Flow Data (cfs)

River	Reach	RS	Q2	Q5	Q10	Q25	Q50	Q100	Q100HC
Canada Chiquita	Tributary	7987.100	1	30	104	346	785	1226	4154

Boundary Conditions

River	Reach	Profile	Upstream	Downstream
Canada Chiquita	Tributary	Q2	Normal S = .01	Normal S = .03
Canada Chiquita	Tributary	Q5	Normal S = .01	Normal S = .03
Canada Chiquita	Tributary	Q10	Normal S = .01	Normal S = .03
Canada Chiquita	Tributary	Q25	Normal S = .01	Normal S = .03
Canada Chiquita	Tributary	Q50	Normal S = .01	Normal S = .03
Canada Chiquita	Tributary	Q100	Normal S = .01	Normal S = .03
Canada Chiquita	Tributary	Q100HC	Normal S = .01	Normal S = .03

GEOMETRY DATA

Geometry Title: Proposed Conditions - Ultimate
Geometry File : p:\2PDA0104\Hydr\LHS\Modeling\Model D\HecRas D\PMD6.g03

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 7987.100

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 40

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	347.72	32.77	346.03	55.43	343.73	98.19	338.97	138.47	334.55
160.97	334.49	168.14	334.47	188	334.41	199.61	334.37	215.61	335
232.61	334.89	251.78	335.3	278.59	336.07	284.54	335.62	285.13	335.5
288.36	334.89	290.31	334.57	316.78	323.74	318.41	323.06	325.67	321.78
329.48	321.19	334.41	320.27	340.57	321.19	351.37	325.54	358.53	328.28
364.3	328.64	370.55	329.03	381.61	329.14	389.41	330.05	411.04	332.27
416.31	332.67	422.98	333.87	446.36	334.68	527.17	338.84	554.36	340.16
558.6	340.37	641.11	344.12	657.88	345.07	675.72	346.4	700.57	347.78

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	168.14	.02	188	.035	288.36	.05	446.36	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
329.48	340.57	262.14	226.44	167.64	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 7760.639

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 43

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	341.41	35.67	339.1	92.47	333.46	100.89	332.52	118.12	330.64
134.58	330	177.84	329.15	184.26	329.17	201	329.22	303.15	329.49
322.1	329.43	353.4	328.72	364.4	328.65	373.45	328.66	380.39	328.02
396.78	325.99	399.5	325.1	406.49	322.82	408.81	321.48	420.36	315.24
425.67	314.5	429.48	314.02	433.28	313.52	439.17	314.02	458.26	315.99
459.92	316.13	460.27	316.23	478.35	321.18	484.93	322.32	489.88	323.18
498.71	324.79	501.88	325.48	502.96	325.55	527	328.28	544.55	330.27
557.32	331.03	567.38	331.63	626.23	334.02	663.34	335.08	773.6	338.08
804.95	339.82	806.3	339.88	837.53	341.07				

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	184.26	.02	201	.035	399.5	.05	527	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
429.48	439.17	160.35	213.35	260.25	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 7547.305

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 42

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	341.5	83.81	336.57	119.99	335.11	164.67	330.63	200.16	328.42
223.02	327.18	243.85	326.27	263.56	326.43	265.95	326.45	270.85	326.49
288.75	326.42	328.68	326.24	378.09	325.16	464.79	324.77	526.73	324.49
546.74	323.8	558.02	322.42	558.5	322.36	565.66	321.42	582.55	315.77
583.57	315.48	585.93	314.44	587.44	313.93	595.8	312.06	600.77	310.88
606.77	312.06	611.19	312.76	612.36	313.18	616.68	314.09	623.58	317.38
630.55	321.05	632.04	321.14	639.97	321.74	655	323.49	661.08	324.2
663.28	324.45	676.77	326	694.74	328.51	705.82	330.24	732.54	336.21
755.82	340.71	759.87	341.22						

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	265.95	.02	288.75	.035	558.02	.05	655	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
595.8	606.77	39.84	42.1	43.2	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 7505.20*

INPUT
Description:
Station Elevation Data num= 83

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	341.45	1.09	341.4	5.83	341.11	65.81	337.39	75.88	336.81
85.39	336.28	122.25	334.75	158.07	331.58	167.77	330.71	172	330.46
189.72	329.41	203.92	328.49	212	328.01	227.21	326.93	248.43	325.6
249.54	325.58	251.01	325.54	251.76	325.54	268.51	325.43	270.95	325.41
273.66	325.39	275.94	325.41	294.18	325.38	308.08	325.35	310.97	325.34
326.14	325.3	334.86	325.28	385.2	324.46	403.14	324.41	466.97	324.17
473.53	324.14	485.23	324.08	500.42	324	515.18	323.91	536.63	323.85
557.02	323.32	567.7	322.3	568.51	322.21	568.54	322.21	569	322.14
569.83	322.01	576.29	321.01	586.41	317.81	589.32	316.79	591.24	316.11
593.5	315.37	594.54	315.06	596.94	314.07	598.48	313.55	602.31	312.62
607	311.51	613.29	310.64	614.55	310.45	616.67	310.85	619.62	311.51
621.39	311.91	623.99	312.54	625.14	313.01	629.41	314.23	631.25	315.16
636.22	317.4	637.75	318.15	643.1	320.73	644.57	320.88	646.95	321.16
652.4	321.56	661.95	322.58	667.24	323.19	673.25	323.87	675.42	324.12
686.66	325.39	687.49	325.48	688.74	325.62	693.98	326.32	706.48	328.12
712.55	329.07	717.42	329.83	721.65	330.73	743.8	336.03	746.59	336.63
756.45	338.64	766.79	340.67	770.79	341.23				

Manning's n Values num= 12

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val

0	.035	270.95	.023	294.18	.035	310.97	.032	326.14	.023
568.51	.047	586.41	.038	607	.035	619.62	.035	667.24	.035
686.66	.035	770.79	.035						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
607	619.62	39.84	42.1	43.2	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 7463.09*

INPUT
Description:
Station Elevation Data num= 83

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	341.41	1.11	341.36	5.94	341.05	67.03	337.07	77.28	336.5
86.96	335.98	124.5	334.39	160.99	331.57	170.86	330.8	175.17	330.55
193.22	329.54	207.69	328.55	215.91	328.03	231.4	326.68	253.02	324.93
254.15	324.87	255.65	324.8	256.4	324.79	273.47	324.42	275.95	324.37
278.71	324.31	281.03	324.33	299.61	324.34	313.77	324.34	316.71	324.34
332.16	324.33	341.04	324.32	392.3	323.76	410.57	323.74	475.58	323.54
482.26	323.51	494.18	323.44	509.65	323.36	524.68	323.24	546.53	323.22
567.3	322.84	578.18	322.09	579	322	579.03	321.99	579.5	321.92
580.35	321.77	586.93	320.59	597.23	317.53	600.2	316.44	602.15	315.71
604.45	314.96	605.51	314.65	607.96	313.69	609.53	313.18	613.42	312.15
618.2	310.96	626.64	310.19	628.34	310.01	630.07	310.34	632.47	310.96
634.22	311.48	636.78	312.33	637.92	312.85	642.13	314.38	643.95	315.34
648.86	317.41	650.37	318.1	655.65	320.41	657.1	320.63	659.45	321
664.83	321.39	674.26	322.3	679.48	322.88	685.41	323.55	687.55	323.79
698.65	325.02	699.47	325.11	700.7	325.25	705.88	325.9	718.22	327.73
724.21	328.67	729.02	329.43	733.19	330.26	755.06	335.86	757.81	336.51
767.55	338.6	777.75	340.62	781.7	341.24				

Manning's n Values num= 12

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	275.95	.026	299.61	.035	316.71	.029	332.16	.026
579	.044	597.23	.041	618.2	.035	632.47	.035	679.48	.035
698.65	.035	781.7	.035						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
618.2	632.47	39.84	42.1	43.2	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 7420.99*

INPUT
Description:
Station Elevation Data num= 83

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	341.36	1.13	341.32	6.04	341	68.24	336.76	78.68	336.19
88.54	335.69	126.76	334.03	163.91	331.57	173.96	330.88	178.34	330.64
196.72	329.67	211.45	328.62	219.83	328.04	235.6	326.43	257.6	324.26
258.75	324.17	260.28	324.05	261.05	324.03	278.42	323.42	280.95	323.33
283.76	323.23	286.12	323.25	305.03	323.3	319.45	323.34	322.44	323.34
338.17	323.35	347.22	323.36	399.41	323.06	418.01	323.07	484.2	322.92
491	322.87	503.13	322.8	518.88	322.71	534.19	322.56	556.43	322.58
577.57	322.36	588.65	321.88	589.49	321.79	589.52	321.78	590	321.69
590.86	321.53	597.56	320.18	608.05	317.25	611.07	316.08	613.06	315.32
615.4	314.56	616.48	314.23	618.97	313.32	620.57	312.8	624.53	311.68
629.4	310.4	640	309.75	642.12	309.58	643.46	309.82	645.33	310.4
647.05	311.05	649.58	312.11	650.7	312.68	654.86	314.52	656.65	315.51
661.5	317.43	662.99	318.05	668.2	320.09	669.64	320.37	671.96	320.84
677.27	321.21	686.57	322.02	691.73	322.58	697.58	323.22	699.69	323.45
710.64	324.65	711.45	324.74	712.67	324.87	717.78	325.48	729.96	327.33
735.88	328.28	740.62	329.02	744.74	329.79	766.32	335.68	769.04	336.39
778.65	338.55	788.72	340.58	792.62	341.26				

Manning's n Values num= 12

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	280.95	.029	305.03	.035	322.44	.026	338.17	.029
589.49	.041	608.05	.044	629.4	.035	645.33	.035	691.73	.035
710.64	.035	792.62	.035						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
629.4	645.33	39.84	42.1	43.2	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 7378.88*

INPUT
Description:
Station Elevation Data num= 83

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	341.32	1.15	341.28	6.15	340.94	69.46	336.44	80.08	335.88
90.11	335.4	129.01	333.67	166.82	331.56	177.05	330.96	181.52	330.73
200.22	329.79	215.21	328.68	223.74	328.06	239.79	326.18	262.19	323.59
263.36	323.46	264.91	323.31	265.69	323.28	283.38	322.41	285.95	322.29
288.81	322.15	291.22	322.17	310.46	322.26	325.14	322.33	328.18	322.34
344.19	322.38	353.39	322.4	406.52	322.35	425.45	322.4	492.81	322.29
499.74	322.24	512.09	322.16	528.12	322.07	543.69	321.89	566.34	321.94
587.85	321.88	599.13	321.66	599.98	321.57	600.01	321.57	600.5	321.47
601.38	321.29	608.19	319.76	618.87	316.96	621.95	315.73	623.97	314.92
626.35	314.15	627.45	313.81	629.99	312.95	631.61	312.42	635.65	311.21
640.6	309.85	653.35	309.31	655.91	309.14	656.86	309.3	658.18	309.85
659.88	310.61	662.37	311.89	663.49	312.51	667.59	314.66	669.36	315.69
674.14	317.44	675.61	318	680.76	319.77	682.17	320.11	684.46	320.68
689.7	321.03	698.88	321.73	703.97	322.28	709.74	322.9	711.83	323.12
722.64	324.28	723.44	324.36	724.64	324.49	729.68	325.06	741.7	326.94
747.54	327.88	752.22	328.62	756.28	329.32	777.59	335.5	780.26	336.26

789.75 338.51 799.69 340.54 803.53 341.27

Manning's n Values num= 12

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	285.95	.032	310.46	.035	328.18	.023	344.19	.032
599.98	.038	618.87	.047	640.6	.035	658.18	.035	703.97	.035
722.64	.035	803.53	.035						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
640.6	658.18	39.84	42.1	43.2	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 7336.782

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 46

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	341.27	1.17	341.24	6.26	340.89	70.67	336.13	81.48	335.57
169.74	331.56	184.69	330.82	203.72	329.92	227.65	328.08	267.96	322.76
269.54	322.56	270.34	322.52	293.86	321.07	330.82	321.32	333.92	321.34
350.21	321.4	432.89	321.73	501.43	321.66	521.04	321.52	537.35	321.42
553.2	321.21	609.6	321.45	610.5	321.36	611.89	321.05	629.69	316.68
632.82	315.38	634.88	314.52	646.76	310.74	651.8	309.3	666.7	308.87
669.69	308.71	670.25	308.78	671.03	309.3	672.71	310.18	682.06	315.87
688.23	317.95	696.96	320.52	711.19	321.45	734.63	323.91	735.42	323.99
741.58	324.64	759.2	327.48	767.83	328.85	791.49	336.14	800.85	338.46
814.45	341.28								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	333.92	.02	350.21	.035	629.69	.05	734.63	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
651.8	671.03	44.73	43.82	43.18	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 7292.96*

INPUT
Description:
Station Elevation Data num= 91

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	339.89	1.17	339.85	4.87	339.6	6.27	339.51	59.56	335.75
70.78	334.99	81.61	334.44	91.86	333.98	146.61	331.91	170	330.81
184.97	330.05	189.98	329.81	204.03	328.95	217.28	327.83	228	327.11
251.61	324.5	268.37	322.49	269.95	322.3	270.76	322.26	294.31	320.76
331.33	320.41	334.43	320.38	336.69	320.36	350.75	320.2	352.61	320.18
393.83	320.25	423.13	320.28	429.73	320.29	433.56	320.31	433.78	320.31
438.31	320.31	481.97	320.32	502.2	320.4	521.84	320.38	538.18	320.39
554.05	320.3	555.33	320.31	610.54	320.6	610.72	320.58	611.44	320.52
612.83	320.25	622.6	318.23	630.66	316.56	630.9	316.48	633.79	315.49
635.86	314.78	635.89	314.77	636.59	314.56	643.16	312.32	647.75	310.76
650	310.05	652.8	309.12	654.12	309	656.06	308.91	659.19	308.77
668.84	308.33	672.05	308.13	673.91	308.42	674.69	308.65	676.5	309.12
678.68	310.34	678.71	310.35	680.67	311.67	682.3	312.51	689.33	315.21
690.96	315.82	693.16	316.28	699.04	317.67	701.54	318.19	701.94	318.27
710.48	320.08	712.33	320.22	729.13	321.52	734.24	322.04	737.1	322.28
746.59	323.12	759.84	324.21	760.87	324.29	768.95	324.96	770.04	325.08
792.03	327.59	794.42	327.86	798.85	328.36	803.34	328.81	818.24	331.66
828.61	333.85	834.34	335.04	840.68	336.13	846.61	337.21	857.55	338.92
864.43	339.98								

Manning's n Values num= 12

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	334.43	.023	350.75	.035	423.13	.032	438.31	.023
630.66	.047	652.8	.038	657.47	.05	676.5	.035	701.94	.035
759.84	.035	864.43	.035						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
652.8	676.5	44.73	43.82	43.18	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 7249.14*

INPUT
Description:
Station Elevation Data num= 91

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	338.51	1.17	338.46	4.88	338.22	6.28	338.13	59.66	334.53
70.89	333.84	81.73	333.32	92	332.86	146.83	331.2	170.26	330.05
185.26	329.28	190.28	329.03	204.35	327.98	217.61	326.75	228.35	326.14
251.99	324.03	268.78	322.22	270.37	322.05	271.17	322	294.76	320.44
331.84	319.51	334.95	319.43	337.21	319.36	351.29	319	353.15	318.95
394.44	318.93	423.78	318.88	430.39	318.86	434.22	318.88	434.44	318.88
438.98	318.89	482.71	318.95	502.97	319.14	522.64	319.25	539	319.35
554.9	319.38	556.18	319.4	611.47	319.74	611.66	319.73	612.38	319.67
613.77	319.46	623.55	317.8	631.63	316.44	631.86	316.37	634.77	315.6
636.83	315.04	636.86	315.04	637.57	314.84	644.15	312.44	648.75	310.77
651	310	653.8	308.94	655.21	308.73	657.29	308.6	660.64	308.41
670.97	307.79	674.42	307.55	677.58	308.07	678.89	308.36	681.98	308.93
684.67	310.51	684.7	310.53	687.13	312.25	689.15	313.17	697.84	315.3
699.85	315.77	702.58	316.13	709.85	317.38	712.95	317.87	713.44	317.94
724	319.65	726.29	319.82	747.06	321.58	753.38	322.21	756.92	322.47
768.66	323.4	785.05	324.51	786.33	324.59	796.31	325.27	797.66	325.39
824.86	327.71	827.82	327.96	833.29	328.42	838.85	328.77	857.28	330.97
870.1	332.9	877.19	333.95	885.04	334.93	892.36	335.96	905.9	337.66
914.4	338.68								

Manning's n Values num= 12

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	334.95	.026	351.29	.035	423.78	.029	438.98	.026
631.63	.044	653.8	.041	659.35	.05	681.98	.035	713.44	.035
785.05	.035	914.4	.035						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
653.8	681.98	44.73	43.82	43.18	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 7205.32*

INPUT
Description:
Station Elevation Data num= 91

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	337.13	1.18	337.07	4.89	336.84	6.29	336.75	59.75	333.32
71	332.7	81.86	332.19	92.14	331.74	147.06	330.49	170.52	329.3
185.54	328.51	190.57	328.25	204.66	327.01	217.94	325.67	228.7	325.18
252.38	323.57	269.2	321.94	270.78	321.79	271.59	321.74	295.22	320.13
332.35	318.6	335.46	318.47	337.73	318.37	351.83	317.8	353.69	317.72
395.04	317.6	424.43	317.47	431.05	317.44	434.89	317.46	435.11	317.46
439.65	317.47	483.45	317.59	503.74	317.88	523.44	318.11	539.83	318.32
555.75	318.47	557.04	318.49	612.41	318.89	612.6	318.88	613.32	318.83
614.71	318.66	624.51	317.37	632.59	316.32	632.83	316.27	635.74	315.71
637.81	315.31	637.84	315.3	638.55	315.12	645.14	312.57	649.74	310.79
651.99	309.94	654.81	308.76	656.31	308.46	658.53	308.3	662.09	308.04
673.11	307.26	676.78	306.96	681.24	307.71	683.1	308.07	687.45	308.75
690.66	310.67	690.7	310.7	693.59	312.82	696	313.83	706.36	315.39
708.75	315.72	712	315.97	720.66	317.1	724.35	317.54	724.93	317.62
737.52	319.21	740.25	319.43	765	321.65	772.53	322.39	776.74	322.66
790.73	323.67	810.26	324.81	811.78	324.9	823.68	325.59	825.28	325.7
857.7	327.82	861.22	328.05	867.74	328.47	874.36	328.73	896.32	330.28
911.59	331.96	920.05	332.85	929.39	333.72	938.12	334.71	954.24	336.39
964.38	337.37								

Manning's n Values num= 12

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	335.46	.029	351.83	.035	424.43	.026	439.65	.029
632.59	.041	654.81	.044	661.23	.05	687.45	.035	724.93	.035
810.26	.035	964.38	.035						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
654.81	687.45	44.73	43.82	43.18	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 7161.50*

INPUT
Description:
Station Elevation Data num= 91

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	335.75	1.18	335.69	4.89	335.45	6.3	335.37	59.84	332.11
71.1	331.56	81.98	331.07	92.28	330.62	147.28	329.78	170.78	328.55
185.83	327.74	190.86	327.48	204.97	326.03	218.28	324.6	229.05	324.21
252.76	323.1	269.61	321.67	271.2	321.54	272	321.48	295.67	319.81
332.85	317.69	335.97	317.51	338.24	317.38	352.36	316.6	354.23	316.5
395.65	316.28	425.08	316.07	431.71	316.01	435.55	316.03	435.77	316.03
440.33	316.05	484.19	316.22	504.51	316.62	524.24	316.98	540.65	317.28
556.6	317.55	557.89	317.58	613.35	318.03	613.53	318.03	614.25	317.98
615.65	317.86	625.46	316.95	633.56	316.19	633.8	316.16	636.71	315.82
638.78	315.57	638.81	315.57	639.52	315.39	646.12	312.69	650.74	310.8
652.99	309.89	655.81	308.58	657.4	308.2	659.76	307.99	663.55	307.68
675.25	306.72	679.15	306.38	684.9	307.35	687.3	307.78	692.93	308.56
696.65	310.84	696.69	310.87	700.05	313.4	702.84	314.49	714.87	315.49
717.65	315.67	721.42	315.82	731.47	316.81	735.76	317.22	736.43	317.29
751.04	318.78	754.21	319.03	782.93	321.72	791.67	322.56	796.57	322.85
812.8	323.95	835.46	325.11	837.23	325.2	851.04	325.91	852.91	326.01
890.53	327.94	894.62	328.15	902.18	328.53	909.87	328.69	935.36	329.59
953.09	331.01	962.9	331.76	973.75	332.52	983.87	333.45	1002.59	335.12
1014.35	336.07								

Manning's n Values num= 12

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	335.97	.032	352.36	.035	425.08	.023	440.33	.032
633.56	.038	655.81	.047	663.12	.05	692.93	.035	736.43	.035
835.46	.035	1014.35	.035						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
655.81	692.93	44.73	43.82	43.18	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 7117.686

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 50

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	334.37	4.9	334.07	59.93	330.9	92.42	329.5	147.51	329.07
191.15	326.7	218.61	323.52	253.15	322.63	338.76	316.39	354.77	315.27
396.25	314.96	425.73	314.66	432.37	314.59	436.44	314.61	441	314.63
484.93	314.86	558.74	316.67	614.47	317.18	626.42	316.52	634.77	316.06
639.79	315.83	640.5	315.67	647.11	312.81	653.99	309.84	656.81	308.4
658.5	307.93	660.99	307.69	665	307.32	681.51	305.8	691.51	307.49
698.4	308.38	702.64	311.01	706.51	313.98	709.69	315.15	723.38	315.58
730.84	315.66	747.16	316.9	747.93	316.96	768.17	318.64	810.82	322.74
816.39	323.04	834.87	324.22	880.53	326.32	928.02	328.24	936.63	328.58

974.4	328.9	994.58	330.07	1018.1	331.31	1050.94	333.85	1064.33	334.77

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	425.73	.02	441	.035	665	.05	747.93	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
656.81	698.4	190	200.15	212.8	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 6917.517

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 46

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	334.67	97.4	332.23	97.56	332.23	97.6	332.23	97.69	332.23
193.24	329.19	234.66	327.01	246.54	325.73	271.97	324.75	356.29	320.78
360.57	320.57	363.47	320.36	375.98	319.45	423.8	315.78	438.16	314.98
487.37	313.87	500.72	313.21	529.12	312.22	552.63	311.41	562.01	311.08
575.62	310.61	627.99	309.46	638.64	309.38	653.86	308.72	695.47	308.74
706.66	308.68	718.04	308.62	756.08	308.38	777.95	308.45	783.84	308.6
808.41	309.5	816.01	309.92	842.54	311.39	875.46	312.96	925.16	313
927.18	313.02	1003.96	313.54	1039.83	314	1064.32	314.96	1093.23	317.92
1111.26	319.94	1128.64	324.15	1162.69	332.97	1167.11	334.08	1169.07	334.41
1175.81	336.26								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	529.12	.02	552.63	.035	706.66	.05	808.41	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
653.86	783.84	39.11	38.19	38.26	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 6879.32*

INPUT
Description:
Station Elevation Data num= 76

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	333.55	17.8	332.75	42.08	331.64	51.27	331.29	59.6	330.9
88.17	329.6	88.31	329.59	88.35	329.59	88.43	329.59	93.72	329.32
125.37	328.12	174.93	326.48	198.57	325.24	212.42	324.49	223.17	323.36
246.19	322.4	272.69	321.08	284.32	320.49	322.52	318.75	326.4	318.57
327.17	318.51	329.02	318.39	340.35	317.6	382.85	314.49	383.63	314.44
396.63	313.72	425.49	313.01	441.18	312.62	453.26	312.02	465.89	311.56
478.97	311.09	500.25	310.33	508.75	310.02	521.07	309.57	537.24	309.18
564.36	308.52	566.25	308.47	568.47	308.42	578.11	308.31	591.89	307.7
627.64	307.66	637.26	307.6	638.73	307.59	647.04	307.54	679.72	307.32
706.94	307.46	714.27	307.6	732.91	308.11	741.02	308.33	749.29	308.68
778.17	309.88	783.71	310.08	814.02	311.21	868.13	311.3	869.23	311.31
870.33	311.32	877.04	311.37	948.07	311.92	953.92	311.97	959.28	312.04
962.36	312.08	965.46	312.14	992.97	312.67	998.7	312.9	1019.64	313.85
1043.12	316.05	1048.84	316.67	1051.11	316.89	1070.74	319.02	1071.51	319.18
1089.67	323.15	1123.26	330.92	1126.74	331.72	1131.55	332.79	1133.68	333.14
1141.02	334.91								

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	465.89	.032	478.97	.02	500.25	.032	537.24	.025
591.89	.047	641.6	.047	714.27	.035	732.91	.035	741.02	.035
1141.02	.035								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
591.89	714.27	39.11	38.19	38.26	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 6841.13*

INPUT
Description:
Station Elevation Data num= 76

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	332.42	15.93	331.32	37.67	329.77	45.9	329.32	53.36	328.78
78.94	326.96	79.07	326.96	79.1	326.96	79.17	326.95	83.91	326.59
112.24	325.32	156.61	323.77	177.78	322.67	190.18	321.97	199.81	320.98
220.42	320.04	244.14	318.8	254.55	318.21	288.75	316.72	292.22	316.56
292.92	316.52	294.57	316.41	304.71	315.75	342.76	313.14	343.47	313.09
355.11	312.46	380.94	311.76	394.99	311.37	405.81	310.83	417.11	310.41
428.82	309.96	447.88	309.24	455.48	308.95	466.51	308.54	480.99	308.14
505.27	307.48	506.96	307.43	508.95	307.38	517.59	307.24	529.92	306.68
559.82	306.59	567.86	306.52	569.09	306.51	576.03	306.46	603.37	306.26
635.92	306.46	644.69	306.61	664.86	307	673.62	307.17	682.57	307.43
713.81	308.37	719.8	308.52	752.57	309.47	811.09	309.6	812.28	309.61
813.47	309.62	820.74	309.68	897.56	310.33	903.88	310.4	909.68	310.48
913.01	310.53	916.36	310.61	946.12	311.34	952.31	311.58	974.95	312.73
1000.35	314.93	1006.54	315.62	1009	315.87	1030.23	318.11	1031.06	318.25
1050.69	322.15	1087.02	329.7	1090.78	330.47	1095.99	331.51	1098.3	331.86
1106.23	333.55								

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	417.11	.03	428.82	.02	447.88	.03	480.99	.03
529.92	.045	576.54	.045	644.69	.035	664.86	.035	673.62	.035
1106.23	.035								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.

529.92	644.69		39.11	38.19	38.26	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 6802.94*

INPUT
Description:
Station Elevation Data num= 76

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	331.3	14.07	329.89	33.27	327.9	40.53	327.36	47.12	326.66
69.71	324.33	69.82	324.32	69.85	324.32	69.91	324.31	74.1	323.86
99.12	322.51	138.3	321.06	156.99	320.1	167.94	319.44	176.44	318.61
194.64	317.69	215.59	316.51	224.78	315.93	254.99	314.69	258.05	314.56
258.66	314.52	260.13	314.44	269.08	313.9	302.68	311.79	303.3	311.75
313.58	311.2	336.4	310.52	348.8	310.13	358.35	309.65	368.33	309.25
378.68	308.83	395.5	308.16	402.22	307.89	411.96	307.5	424.75	307.1
446.18	306.44	447.68	306.39	449.44	306.34	457.06	306.17	467.95	305.67
491.99	305.51	498.46	305.44	499.45	305.43	505.03	305.38	527.01	305.2
564.91	305.47	575.12	305.61	596.8	305.88	606.23	306	615.85	306.19
649.44	306.86	655.88	306.97	691.13	307.72	754.06	307.9	755.34	307.91
756.62	307.92	764.43	307.99	847.04	308.74	853.84	308.83	860.08	308.92
863.66	308.97	867.26	309.08	899.26	310.01	905.92	310.27	930.27	311.62
957.59	313.8	964.24	314.58	966.88	314.84	989.71	317.19	990.6	317.33
1011.72	321.15	1050.79	328.48	1054.83	329.22	1060.43	330.22	1062.91	330.59
1071.45	332.2								

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	368.33	.027	378.68	.02	395.5	.027	424.75	.035
467.95	.043	511.48	.043	575.12	.035	596.8	.035	606.23	.035
1071.45	.035								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
467.95	575.12	39.11	38.19	38.26	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 6764.75*

INPUT
Description:
Station Elevation Data num= 76

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	330.18	12.21	328.47	28.86	326.03	35.17	325.39	40.88	324.54
60.48	321.7	60.57	321.68	60.6	321.68	60.66	321.67	64.29	321.13
85.99	319.7	119.98	318.36	136.2	317.53	145.7	316.92	153.08	316.23
168.87	315.34	187.04	314.22	195.02	313.66	221.22	312.66	223.88	312.56
224.41	312.53	225.68	312.46	233.45	312.05	262.6	310.44	263.14	310.4
272.05	309.94	291.85	309.27	302.61	308.88	310.9	308.46	319.56	308.09
328.53	307.7	343.13	307.08	348.95	306.83	357.4	306.47	368.5	306.07
387.09	305.4	388.39	305.35	389.92	305.3	396.53	305.1	405.98	304.65
424.16	304.43	429.06	304.36	429.81	304.34	434.03	304.31	450.65	304.14
493.89	304.48	505.54	304.61	528.75	304.77	538.83	304.83	549.13	304.95
585.08	305.35	591.97	305.41	629.68	305.97	697.03	306.2	698.4	306.21
699.76	306.22	708.12	306.29	796.52	307.15	803.8	307.25	810.48	307.35
814.3	307.42	818.16	307.55	852.4	308.68	859.53	308.96	885.59	310.5
914.82	312.68	921.93	313.54	924.76	313.82	949.19	316.27	950.15	316.4
972.74	320.15	1014.55	327.25	1018.88	327.96	1024.87	328.94	1027.52	329.31
1036.66	330.85								

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	319.56	.025	328.53	.02	343.13	.025	368.5	.04
405.98	.04	446.42	.04	505.54	.035	528.75	.035	538.83	.035
1036.66	.035								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
405.98	505.54	39.11	38.19	38.26	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 6726.56*

INPUT
Description:
Station Elevation Data num= 76

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	329.05	10.34	327.04	24.46	324.16	29.8	323.43	34.64	322.42
51.24	319.07	51.33	319.05	51.35	319.04	51.4	319.04	54.47	318.41
72.87	316.9	101.67	315.65	115.41	314.96	123.46	314.4	129.71	313.86
143.09	312.98	158.49	311.94	165.25	311.38	187.45	310.63	189.7	310.55
190.15	310.53	191.23	310.49	197.81	310.2	222.51	309.08	222.97	309.06
230.53	308.68	247.3	308.02	256.42	307.63	263.44	307.27	270.78	306.93
278.38	306.57	290.75	306	295.69	305.76	302.85	305.43	312.25	305.03
328.01	304.36	329.11	304.31	330.4	304.25	336	304.03	344.01	303.63
356.34	303.36	359.65	303.27	360.16	303.26	363.03	303.23	374.3	303.08
422.88	303.49	435.97	303.62	460.69	303.65	471.44	303.67	482.41	303.71
520.71	303.84	528.05	303.86	568.24	304.23	639.99	304.5	641.45	304.51
642.91	304.52	651.82	304.6	746.01	305.57	753.76	305.68	760.87	305.79
764.95	305.86	769.06	306.01	805.55	307.35	813.14	307.65	840.91	309.39
872.05	311.56	879.63	312.5	882.64	312.79	908.67	315.35	909.69	315.47
933.77	319.14	978.32	326.03	982.93	326.71	989.31	327.65	992.14	328.04
1001.87	329.49								

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	270.78	.022	278.38	.02	290.75	.022	312.25	.045
344.01	.038	381.36	.038	435.97	.035	460.69	.035	471.44	.035
1001.87	.035								

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
344.01 435.97 39.11 38.19 38.26 .1 .3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 6688.378

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 35

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	327.93	8.48	325.61	20.05	322.29	24.43	321.46	28.4	320.3
44.66	315.68	59.74	314.09	94.62	312.39	129.94	309.65	135.48	309.1
155.9	308.54	182.43	307.73	202.75	306.77	222	305.77	256	303.99
268.92	303.32	269.82	303.27	282.04	302.61	290.52	302.18	297.94	302.02
366.39	302.62	392.64	302.54	464.14	302.3	584.51	302.81	595.51	302.91
695.49	303.98	711.27	304.23	715.6	304.31	719.96	304.48	766.75	306.34
829.28	310.44	837.33	311.46	869.24	314.54	942.08	324.81	967.08	328.14

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	222	.02	256	.05	392.64	.035

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
282.04 366.39 226.05 202.6 176.55 .1 .3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 6485.790

INPUT
Description:
Station Elevation Data num= 33

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	328.52	2.07	327.86	3.48	327.22	4.69	326.93	7.81	325.96
50.05	314.88	65.04	310.28	65.24	310.23	65.59	310.18	82.51	307.53
90.64	306.19	105.23	305.22	107.41	305.01	131.95	302.63	141.17	302.35
145.34	302.22	145.77	302.21	162.86	301.86	170.52	301.74	238.61	301.82
274.23	301.87	283.88	301.88	289.98	301.89	457.88	301.75	536.98	302.95
553.75	303.48	565.89	303.95	598.52	305.65	653.02	308.57	702.7	316.51
730.62	320.46	765.4	327.61	767.23	328				

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	107.41	.02	145.77	.05	283.88	.035

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
162.86 238.61 199.05 192.7 179.75 .1 .3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 6293.091

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 42

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	328.2	7.71	326.15	15.55	323.74	31.1	319	36.24	317.54
41.76	316.49	66.31	309.08	70.07	308.39	85.54	305.43	96.29	302.76
107	301.31	114.98	300.23	117.15	300.03	120.79	300.12	131.71	298.1
144.16	296.62	153.39	295.51	157.4	295.04	168.23	295.5	170.25	295.72
171.44	296.01	188.99	298.45	195.72	298.78	220.01	299.65	225.55	299.92
242.07	300.73	255.31	300.88	276.57	300.96	284.23	300.97	352.2	300.83
397.53	302.41	527.53	311.5	527.76	311.52	527.96	311.53	528.93	311.61
603.92	316.33	629.31	320.14	645.07	322.17	658.51	323.25	676.84	326.75
682.75	327.57	689.74	328.34						

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	107	.02	153.39	.05	352.2	.035

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
153.39 168.23 205.55 222.2 231.5 .1 .3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 6070.915

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 29

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	321.49	14.65	318.05	27.29	312.86	43.78	306.73	53.71	304.38
60.17	302.61	70.56	301.52	84.96	299.95	85.99	299.84	89.05	299.53
110.12	296.25	129.6	296	133.74	295.95	158.77	295.43	182.08	294.93
193.71	295.43	203.07	295.84	224.8	296.93	246	298	281.9	299.8
338.64	302.64	348.73	303.23	358.7	303.87	463.8	311.48	527.75	315.54
539.53	316.33	559.9	317.64	561.83	317.77	614.2	321.85		

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	85.99	.02	133.74	.05	246	.035

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
158.77 193.71 192 188.05 180.5 .1 .3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 5882.887

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 34

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	322.93	3.58	322.74	10.45	322.08	18.16	319.5	22.09	317.82
29.57	316.35	36.25	314.72	42.32	312.4	59.62	305.49	62.56	304.64
72.12	302.17	76.72	301.66	132.87	298.17	148.64	297.23	158.03	296.88
178.81	296.11	198.67	294.56	201.81	294.31	218.34	293.91	251.92	293.71
259.29	293.93	302.57	295.19	304.02	295.25	332.36	296.36	337.68	296.63
400.98	300.19	500.66	306.94	523.68	308.14	553.22	308.96	621.05	313.89
682.82	318.25	700.56	318.86	720.94	320.52	752.53	321.54		

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	158.03	.02	198.67	.05	302.57	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
218.34	259.29	230.7	219.45	209.5	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 5663.432

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 46

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	314.56	14.64	310.28	32.3	307.27	51.95	306.47	51.98	306.47
52.04	306.47	102.58	305.16	123.99	304.61	170.55	306.05	185.99	306.18
218.7	305.05	227	304.72	236.51	304.34	247.16	303.91	258	303.33
269.61	302.7	279.12	301.88	300.51	300.19	321.19	297.85	344.53	295.65
381.2	294.83	427	292.46	470.33	290.21	501.06	289.06	509.15	289.04
583.77	288.88	595.71	288.73	602.55	288.87	605.21	289	608	289.17
620	289.84	638.71	290.89	698.49	293.99	699.71	294.05	736.63	296.26
758.55	297.07	799.81	297.34	809.8	297.53	812.06	297.52	843.57	299.19
863.17	300.95	886.54	302.91	890.29	303.86	914.55	309.23	931.34	315.19
932.51	315.6								

Manning's n Values num= 9

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	102.58	.05	227	.02	258	.035	427	.02
470.33	.035	509.15	.05	620	.035	914.55	.05		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
509.15	605.21	182.2	204.5	241.5	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 5458.911

INPUT
Description:
Station Elevation Data num= 45

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	314.11	10.62	310.78	19.05	309.26	39.43	305.65	50.62	304.22
52.13	304.07	73.98	301.96	102.04	300.98	143.08	298.89	173.6	298.05
174.48	298.02	189.32	296.91	199.82	296.55	225.89	295.68	236.61	295.32
263.55	294.67	315.95	293.71	360.83	292.55	377.68	292.45	382.27	292.27
409.56	291.21	417.02	290.9	486.53	287.99	490.97	287.8	494.34	287.52
515.82	285.7	562.46	285.51	580.68	285.04	586.09	285.35	587.18	285.53
592.9	286.89	603.64	287.81	606.09	287.88	631.65	288.62	634.22	288.77
636.83	288.92	657.78	290.14	760.05	298.09	789.63	300.08	809.79	301.72
827.72	304.07	839.81	308.79	842.73	309.57	857.92	313.66	868.8	315.22

Manning's n Values num= 9

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	52.13	.05	199.82	.02	225.89	.035	382.27	.02
417.02	.035	486.53	.05	634.22	.035	842.73	.05		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
515.82	587.18	40.34	39.8	40.62	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 5419.10*

INPUT
Description:
Station Elevation Data num= 79

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	312.88	9.72	310.03	14.96	309.11	17.44	308.64	36.09	305.2
46.33	303.75	47.71	303.59	67.71	301.31	68.24	301.28	73.25	300.97
90.03	300	93.4	299.8	102.56	299.13	130.96	296.96	131.22	296.94
141.09	296.56	158.9	295.92	159.7	295.89	160.15	295.86	173.29	294.97
182.9	294.66	190.95	294.41	206.76	293.92	216.57	293.61	241.23	293.04
270.42	292.51	272.66	292.47	273.92	292.44	282.03	292.28	289.19	292.13
291.19	292.08	330.27	291.02	345.69	290.87	349.89	290.71	374.87	289.75
381.7	289.47	445.32	286.87	449.39	286.7	450.4	286.62	452.47	286.46
472.13	284.92	513.73	284.67	529.98	284.25	537.82	284.62	539.4	284.78
545.44	285.92	545.8	285.94	556.77	286.73	559.35	286.8	570.24	287.11
574.27	287.22	586.32	287.79	589.03	287.97	591.78	288.16	613.89	289.69
613.93	289.69	614.76	289.76	614.96	289.78	615.67	289.83	617.98	290.01
637.61	291.51	721.79	297.95	747.55	299.72	753	300.1	766.58	301.18
774.27	301.96	778.52	302.55	781.09	302.89	784.04	303.28	793.19	304.5
797.23	305.84	805.94	308.5	808.71	309.08	809.02	309.15	825.01	312.44
825.05	312.45	830.71	313.11	835.18	313.68	836.53	313.83		

Manning's n Values num= 17

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	47.71	.047	182.9	.023	190.95	.032	206.76	.032
273.92	.023	349.89	.023	381.7	.035	445.32	.047	450.4	.038
472.13	.035	539.4	.035	589.03	.035	637.61	.035	784.04	.042
809.02	.054	836.53	.054						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
472.13	539.4	40.34	39.8	40.62	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 5379.30*

INPUT
Description:
Station Elevation Data num= 79

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	311.65	8.82	309.28	13.57	308.47	15.82	308.03	32.75	304.75
42.05	303.29	43.3	303.12	61.45	300.67	61.92	300.62	66.48	300.19
81.7	298.9	84.76	298.63	93.07	297.79	118.84	295.03	119.08	295.01
128.04	294.54	144.19	293.8	144.92	293.76	145.33	293.73	157.25	293.03
165.97	292.78	173.28	292.57	187.63	292.15	196.53	291.9	218.91	291.4
245.4	290.93	247.43	290.89	248.57	290.87	255.93	290.7	262.43	290.55
264.24	290.5	299.71	289.49	313.7	289.3	317.52	289.15	340.18	288.3
346.38	288.05	404.12	285.74	407.8	285.59	408.72	285.53	410.6	285.4
428.44	284.13	465.01	283.82	479.29	283.46	489.55	283.88	491.62	284.04
497.97	284.94	498.36	284.97	509.89	285.64	512.61	285.71	524.07	286.03
528.31	286.15	540.99	286.95	543.84	287.18	546.74	287.4	570	289.24
570.04	289.25	570.92	289.32	571.13	289.34	571.87	289.39	574.3	289.58
594.96	291.14	683.53	297.82	710.63	299.71	716.37	300.11	730.65	301.22
738.75	302.2	743.22	302.86	745.93	303.21	749.03	303.63	758.66	304.94
762.9	306.11	772.08	308.2	774.99	308.67	775.32	308.72	792.13	311.23
792.18	311.24	798.13	311.79	802.84	312.33	804.26	312.44		

Manning's n Values num= 17

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	43.3	.044	165.97	.026	173.28	.029	187.63	.029
248.57	.026	317.52	.026	346.38	.035	404.12	.044	408.72	.041
428.44	.035	491.62	.035	543.84	.035	594.96	.035	749.03	.049
775.32	.058	804.26	.058						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
428.44	491.62	40.34	39.8	40.62	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 5339.50*

INPUT
Description:
Station Elevation Data num= 79

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	310.41	7.92	308.53	12.19	307.82	14.21	307.41	29.41	304.31
37.76	302.82	38.88	302.64	55.18	300.02	55.61	299.97	59.7	299.42
73.37	297.79	76.11	297.45	83.58	296.46	106.73	293.09	106.93	293.07
114.98	292.52	129.49	291.67	130.15	291.63	130.51	291.6	141.22	291.09
149.05	290.89	155.61	290.72	168.49	290.39	176.49	290.19	196.58	289.77
220.38	289.35	222.2	289.32	223.22	289.29	229.83	289.13	235.67	288.97
237.3	288.92	269.15	287.97	281.72	287.72	285.14	287.59	305.5	286.84
311.06	286.62	362.91	284.62	366.22	284.49	367.04	284.44	368.73	284.34
384.76	283.35	416.28	282.98	428.59	282.68	441.28	283.15	443.84	283.29
450.51	283.97	450.91	283.99	463.02	284.56	465.87	284.63	477.9	284.96
482.35	285.08	495.66	286.12	498.65	286.38	501.69	286.65	526.1	288.79
526.15	288.8	527.07	288.88	527.29	288.9	528.07	288.96	530.63	289.15
552.31	290.76	645.27	297.68	673.72	299.69	679.74	300.13	694.73	301.27
703.23	302.44	707.93	303.17	710.77	303.54	714.02	303.98	724.12	305.37
728.58	306.38	738.21	307.91	741.26	308.27	741.61	308.3	759.26	310.02
759.31	310.03	765.56	310.47	770.5	310.97	771.99	311.04		

Manning's n Values num= 17

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	38.88	.041	149.05	.029	155.61	.026	168.49	.026
223.22	.029	285.14	.029	311.06	.035	362.91	.041	367.04	.044
384.76	.035	443.84	.035	498.65	.035	552.31	.035	714.02	.056
741.61	.062	771.99	.062						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
384.76	443.84	40.34	39.8	40.62	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 5299.69*

INPUT
Description:
Station Elevation Data num= 79

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	309.18	7.02	307.78	10.8	307.18	12.6	306.79	26.07	303.86
33.47	302.36	34.47	302.17	48.92	299.37	49.29	299.31	52.92	298.64
65.04	296.69	67.47	296.27	74.09	295.12	94.61	291.16	94.79	291.13
101.93	290.5	114.79	289.55	115.37	289.51	115.69	289.48	125.18	289.15
132.12	289	137.94	288.88	149.36	288.63	156.45	288.47	174.26	288.14
195.35	287.78	196.97	287.74	197.88	287.72	203.74	287.55	208.91	287.39
210.35	287.35	238.59	286.44	249.73	286.14	252.76	286.03	270.81	285.38
275.74	285.2	321.7	283.5	324.64	283.39	325.37	283.35	326.87	283.28
341.07	282.56	367.55	282.13	377.9	281.89	393.01	282.42	396.06	282.55
403.04	283	403.47	283.02	416.15	283.47	419.14	283.55	431.73	283.88
436.39	284.01	450.33	285.28	453.46	285.58	456.65	285.89	482.21	288.34
482.26	288.35	483.23	288.44	483.46	288.46	484.27	288.52	486.95	288.72
509.65	290.39	607.01	297.54	636.8	299.68	643.11	300.14	658.81	301.32
667.71	302.68	672.63	303.47	675.6	303.86	679.01	304.33	689.59	305.8
694.26	306.65	704.34	307.62	707.54	307.86	707.91	307.88	726.39	308.81
726.44	308.81	732.98	309.15	738.16	309.62	739.72	309.65		

Manning's n Values num= 17

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	34.47	.038	132.12	.032	137.94	.023	149.36	.023

197.88	.032	252.76	.032	275.74	.035	321.7	.038	325.37	.047
341.07	.035	396.06	.035	453.46	.035	509.65	.035	679.01	.063
707.91	.066	739.72	.066						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
341.07	396.06	40.34	39.8	40.62	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 5259.894

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 39

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	307.95	9.42	306.54	42.98	298.65	46.14	297.86	56.71	295.58
64.6	293.78	82.65	289.19	88.87	288.48	100.87	287.35	120.27	287.03
170.33	286.2	171.74	286.17	172.53	286.14	177.64	285.98	183.41	285.77
283.69	282.26	297.38	281.78	327.2	281.1	348.28	281.8	356.02	282.04
385.56	282.81	390.43	282.94	438.37	287.9	439.38	288	439.62	288.02
440.47	288.08	443.27	288.29	467	290.01	599.89	299.67	622.89	301.37
637.33	303.78	640.44	304.18	644	304.68	659.94	306.92	673.82	307.45
693.52	307.6	700.41	307.83	705.82	308.26	707.45	308.26		

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	120.27	.02	172.53	.035	283.69	.05	467	.035
644	.07								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
297.38	348.28	36.64	42.12	49.31	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 5217.77*

INPUT
Description:
Station Elevation Data num= 70

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	307.88	6.51	306.72	9.87	306.11	25.77	302.15	30.56	301.06
39.94	298.91	41.21	298.62	45.01	297.7	48.32	296.86	59.37	294.34
59.39	294.34	60.88	293.98	62.59	293.63	67.55	292.74	67.66	292.72
86.56	288.8	93.08	288.14	103.76	287.23	105.64	287.07	116.74	286.78
125.96	286.59	135.61	286.38	151.12	286.06	168.61	285.81	178.39	285.65
179.87	285.62	180.7	285.59	186.05	285.44	192.09	285.25	237.93	283.84
251.51	283.45	265.41	283.06	297.12	282.15	311.45	281.74	340.27	281.16
355.13	281.45	370.63	281.75	377.62	281.96	404.29	282.63	408.69	282.74
423.91	284.17	451.97	286.74	452.88	286.82	453.1	286.83	453.87	286.88
456.4	287.05	458.32	287.17	477.82	288.42	478.54	288.47	483.63	288.79
484.17	288.83	549.62	293.46	597.81	297.27	604.86	297.83	604.88	297.83
604.93	297.84	618.57	299.12	625.11	300.27	631.61	301.5	634.42	301.94
636.54	302.29	637.64	302.47	652.03	304.81	664.56	305.7	672.58	306.06
682.35	306.8	688.57	307.41	691.94	307.89	693.45	308.09	694.92	308.18

Manning's n Values num= 14

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	103.76	.032	125.96	.02	151.12	.023	180.7	.035
265.41	.038	297.12	.05	311.45	.035	370.63	.035	458.32	.035
477.82	.035	625.11	.042	637.64	.07	694.92	.07		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
311.45	370.63	36.64	42.12	49.31	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 5175.65*

INPUT
Description:
Station Elevation Data num= 70

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	307.8	6.81	306.42	10.31	305.67	26.94	301.33	31.94	300.23
41.75	298.02	43.07	297.73	47.05	296.74	50.51	295.85	62.05	293.1
62.08	293.09	63.64	292.71	65.42	292.38	70.6	291.69	70.71	291.67
90.47	288.41	97.28	287.81	108.45	286.94	110.42	286.79	122.01	286.39
131.65	286.14	141.74	285.88	157.95	285.5	176.23	285.27	186.45	285.1
188	285.07	188.86	285.04	194.45	284.9	200.77	284.73	248.68	283.44
262.87	283.12	277.4	282.79	310.54	282.04	325.53	281.7	353.34	281.22
372.74	281.45	392.98	281.7	399.22	281.87	423.02	282.45	426.94	282.55
440.53	283.66	465.57	285.57	466.39	285.63	466.58	285.65	467.27	285.68
469.52	285.81	471.24	285.9	488.64	286.83	489.29	286.86	493.83	287.1
494.31	287.13	552.72	291.13	595.73	294.86	602.02	295.41	602.04	295.41
602.08	295.42	614.26	296.87	620.09	297.97	625.9	299.23	628.4	299.7
630.29	300.08	631.27	300.26	644.11	302.69	655.3	303.95	662.46	304.6
671.17	306	676.73	307	679.74	307.64	681.08	307.91	682.4	308.1

Manning's n Values num= 14

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	108.45	.029	131.65	.02	157.95	.026	188.86	.035
277.4	.041	310.54	.05	325.53	.035	392.98	.035	471.24	.035
488.64	.035	620.09	.049	631.27	.07	682.4	.07		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
325.53	392.98	36.64	42.12	49.31	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 5133.53*

INPUT
Description:

Station Elevation Data num= 70

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	307.73	7.1	306.13	10.76	305.24	28.1	300.5	33.32	299.39
43.55	297.14	44.94	296.84	49.08	295.79	52.69	294.85	64.73	291.86
64.76	291.85	66.39	291.43	68.24	291.13	73.66	290.63	73.77	290.61
94.38	288.02	101.49	287.47	113.14	286.66	115.19	286.51	127.29	286
137.35	285.7	147.86	285.38	164.78	284.93	183.85	284.73	194.51	284.55
196.12	284.52	197.03	284.49	202.86	284.37	209.45	284.21	259.44	283.05
274.24	282.79	289.39	282.53	323.97	281.93	339.6	281.67	366.42	281.28
390.35	281.46	415.33	281.65	420.82	281.79	441.75	282.27	445.2	282.35
457.15	283.15	479.18	284.41	479.89	284.45	480.06	284.46	480.66	284.48
482.65	284.57	484.16	284.63	499.47	285.24	500.03	285.26	504.03	285.42
504.45	285.44	555.82	288.79	593.64	292.46	599.18	292.99	599.19	293
599.24	293	609.94	294.62	615.08	295.66	620.18	296.95	622.38	297.47
624.04	297.86	624.91	298.05	636.2	300.58	646.04	302.21	652.34	303.14
660	305.2	664.88	306.58	667.53	307.4	668.72	307.74	669.87	308.02

Manning's n Values num= 14

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	113.14	.026	137.35	.02	164.78	.029	197.03	.035
289.39	.044	323.97	.05	339.6	.035	415.33	.035	484.16	.035
499.47	.035	615.08	.056	624.91	.07	669.87	.07		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
339.6	415.33	36.64	42.12	49.31	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 5091.41*

INPUT
Description:
Station Elevation Data num= 70

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	307.65	7.4	305.83	11.2	304.8	29.27	299.68	34.7	298.56
45.36	296.25	46.8	295.96	51.12	294.83	54.87	293.84	67.42	290.61
67.45	290.61	69.14	290.16	71.07	289.87	76.71	289.57	76.83	289.56
98.3	287.63	105.69	287.13	117.83	286.37	119.97	286.23	132.56	285.6
143.04	285.25	153.99	284.89	171.61	284.36	191.47	284.18	202.57	284
204.25	283.97	205.19	283.95	211.27	283.83	218.13	283.69	270.19	282.65
285.6	282.46	301.39	282.26	337.39	281.83	353.68	281.63	379.49	281.34
407.97	281.46	437.68	281.6	442.41	281.71	460.48	282.09	463.46	282.15
473.77	282.63	492.78	283.25	493.4	283.27	493.54	283.27	494.06	283.28
495.78	283.32	497.08	283.35	510.29	283.65	510.78	283.66	514.22	283.73
514.59	283.74	558.92	286.46	591.56	290.05	596.34	290.58	596.35	290.58
596.39	290.59	605.63	292.37	610.06	293.36	614.46	294.68	616.36	295.23
617.8	295.65	618.54	295.85	628.29	298.46	636.78	300.46	642.21	301.68
648.83	304.4	653.04	306.17	655.33	307.16	656.35	307.57	657.35	307.94

Manning's n Values num= 14

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	117.83	.023	143.04	.02	171.61	.032	205.19	.035
301.39	.047	337.39	.05	353.68	.035	437.68	.035	497.08	.035
510.29	.035	610.06	.063	618.54	.07	657.35	.07		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
353.68	437.68	36.64	42.12	49.31	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 5049.293

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 36

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	307.58	7.69	305.53	30.43	298.86	36.08	297.72	47.16	295.37
48.66	295.07	70.1	289.37	71.89	288.88	73.9	288.62	79.76	288.51
122.52	286.08	137.84	285.21	160.12	284.39	178.44	283.79	199.09	283.64
280.94	282.25	296.97	282.13	313.38	282	367.75	281.59	392.56	281.4
425.58	281.47	460.03	281.55	490.39	282.12	510	282.08	521.52	282.06
524.42	282.04	524.73	282.05	562.02	284.13	593.5	288.16	593.51	288.16
593.54	288.17	605.04	291.05	611.55	293.43	632.09	300.22	643.12	306.92
644.82	307.86								

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	122.52	.02	178.44	.035	313.38	.05	510	.035
605.04	.07								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
367.75	460.03	196.45	215.25	246.7	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 4834.044

INPUT
Description:
Station Elevation Data num= 41

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	298.82	16.17	294.06	31.39	288.02	36.18	286.3	39.84	285.46
52.63	282.79	61.67	282.24	72.24	281.36	101.1	282.19	118.2	281.15
140.96	281.3	181	280.5	208.97	279.95	216.38	279.8	232.71	279.49
302.96	278.15	315	278.26	324.5	277.12	327.68	276.74	333.64	276
342.6	271.39	343.59	270.88	346.79	269.21	352.18	268.94	359.57	267.96
369.43	267.9	379.97	269.2	400.11	271.57	401.07	271.63	411	272.42
418.89	272.85	420.17	272.97	443.45	275.15	471.35	277.77	488.14	279.72
519.52	282.11	521.31	282.25	579.52	287.52	615.66	292.73	631.08	293.88
646.42	295.11								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	181	.02	232.71	.035	342.6	.07	420.17	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
346.79	379.97	246.15	208.45	136.4	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 4625.617

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 45

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	295.43	4.75	293.78	11.66	290.4	15.95	289.23	22.98	288.02
26.51	287.46	32.97	286.94	50.72	285.61	76.08	283.32	101.4	281.1
120.89	278.64	136.78	276.67	208.53	274.2	218.57	273.7	220.57	273.7
240.69	273.73	270	274.52	288.9	275.03	298.27	275.93	308.69	277.13
309.54	277.08	321.64	276.62	323.07	276.33	326.65	275.6	339.59	269.86
341.36	269.12	343.76	269.12	398.67	268.93	407.91	269.1	419.09	269.31
451.24	269.91	458.19	270.22	489.37	273.26	503.11	274.66	517.22	276.93
528.32	278.69	530.59	279.03	531.43	279.23	562.96	282.96	571.34	284.19
631.98	294.41	634.08	294.78	634.82	294.89	635.1	294.92	648.74	295.56

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	220.57	.02	270	.035	323.07	.07	419.09	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
341.36	407.91	202.35	195.4	199.05	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 4430.204

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 37

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	289.52	4.96	287.67	11.29	284.36	19.2	282.2	37.62	275.59
40.35	275.35	48.09	274.67	57.49	274.24	75.08	273.52	88.34	273.2
116.94	272.43	119.67	272.37	145.64	270.26	162.88	269.41	175.6	269.37
215.22	269.24	252.57	269.11	264.42	269.02	268.08	268.97	303.33	268.41
313	268.25	325.74	268.05	352.39	266.78	363.48	268.03	393.45	268.19
414.02	268.3	436.05	268.52	484.31	270.68	496	271.6	512.78	273.58
523.51	274.8	535.09	276.12	578.63	279.54	594.94	281.06	655.36	284.98
669.33	287.85	672.57	288.72						

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	40.35	.035	215.22	.02	264.42	.035	313	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
325.74	363.48	161.7	181.2	203.3	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 4249.023

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 35

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	288.52	5.08	286.41	8.18	284.65	13	282.74	16.28	281.02
23.77	277.94	29.9	275.31	31.93	274.83	50.28	269.53	59.91	268.53
72.78	267.64	101.14	266.76	125.94	266.2	160.29	265.42	187.18	265.37
207.25	264.58	223.88	263.78	235.54	263.21	239.96	263.01	248.7	262.54
257.16	262.53	320.41	263.01	329.69	263.09	366	265.09	374.43	265.55
383.18	266.1	435.2	269.41	447.16	270.9	483.66	274.43	512.13	277.24
521.91	278.8	551.63	281.96	554.7	282.48	556.07	282.97	581.51	288.88

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	50.28	.035	160.29	.02	207.25	.035	235.54	.05
366	.035	512.13	.05						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
239.96	320.41	51.94	42.86	32.23	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 4206.16*

INPUT
Description:
Station Elevation Data num= 65

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	287.29	4.67	285.28	7.52	283.67	11.94	281.84	14.96	280.26
15.17	280.17	15.85	279.9	21.84	277.62	27.47	275.4	29.34	274.98
33.03	273.97	43.21	271.19	46.2	270.34	47.23	270.21	55.05	269.2
62.91	268.41	66.29	268.15	66.87	268.1	71.1	267.92	88.31	267.1
92.93	266.89	99.1	266.65	104.38	266.44	115.72	266.14	129.14	265.77
147.28	265.26	158.57	265.14	165.84	265.06	171.98	265	190.43	264.21
204.07	263.52	205.71	263.42	216.42	262.73	220.48	262.49	231.55	262.1
231.98	262.1	242.27	262.06	293.63	262.49	302.76	262.66	327.2	264.03
330.77	264.2	338.51	264.56	346.81	264.94	355.42	265.39	391.58	267.33
395.55	267.54	406.49	268.12	406.62	268.13	407.43	268.2	408.85	268.36
410.57	268.55	418.4	269.41	453.83	272.51	454.33	272.56	478.44	275.04
482.35	275.44	491.98	276.89	502.51	278.03	521.23	280.43	522.53	280.66
524.26	280.97	525.6	281.42	535.09	283.61	543.03	285.56	550.65	287.62

Manning's n Values num= 14

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	33.03	.047	46.2	.035	99.1	.032	147.28	.02
158.57	.026	190.43	.038	216.42	.05	220.48	.035	293.63	.035
338.51	.035	395.55	.035	482.35	.047	550.65	.047		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
220.48	293.63	51.94	42.86	32.23	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 4163.30*

INPUT
Description:
Station Elevation Data num= 65

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	286.05	4.26	284.14	6.85	282.7	10.89	280.94	13.64	279.49
13.83	279.41	14.45	279.17	19.91	277.31	25.05	275.49	26.75	275.12
30.12	274.27	39.39	271.91	42.12	271.14	43.06	271	50.18	269.86
57.36	268.89	60.43	268.61	60.96	268.57	64.81	268.33	80.51	267.29
84.72	267.02	90.35	266.69	95.16	266.41	105.49	266.07	117.73	265.68
134.27	265.09	144.56	264.88	151.19	264.75	156.79	264.63	173.6	263.84
186.04	263.17	187.53	263.05	197.3	262.25	201	261.96	214.4	261.66
214.92	261.66	227.37	261.58	266.85	261.97	275.84	262.22	299.89	263.6
303.4	263.73	311.01	264.02	319.18	264.33	327.66	264.69	363.24	266.21
367.15	266.38	377.92	266.84	378.05	266.84	378.85	266.9	380.24	267.02
381.93	267.18	389.63	267.92	424.51	270.64	424.99	270.69	448.72	273.23
452.57	273.64	462.05	274.99	472.41	276.12	490.84	278.9	492.11	279.15
493.81	279.47	495.14	279.88	504.47	282.02	512.29	284.05	519.78	286.36

Manning's n Values num= 14

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	30.12	.044	42.12	.035	90.35	.029	134.27	.02
144.56	.032	173.6	.041	197.3	.05	201	.035	266.85	.035
311.01	.035	367.15	.035	452.57	.044	519.78	.044		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
201	266.85	51.94	42.86	32.23	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 4120.44*

INPUT
Description:
Station Elevation Data num= 65

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	284.82	3.84	283.01	6.19	281.72	9.83	280.04	12.32	278.73
12.49	278.65	13.05	278.45	17.98	276.99	22.62	275.58	24.15	275.27
27.2	274.57	35.58	272.64	38.03	271.95	38.89	271.8	45.32	270.53
51.8	269.37	54.57	269.08	55.06	269.03	58.53	268.75	72.7	267.48
76.51	267.15	81.59	266.73	85.93	266.37	95.27	266.01	106.32	265.58
121.25	264.93	130.55	264.62	136.53	264.43	141.59	264.26	156.78	263.47
168.01	262.82	169.36	262.69	178.18	261.78	181.52	261.44	197.25	261.22
197.86	261.22	212.48	261.11	240.07	261.44	248.91	261.79	272.58	263.18
276.03	263.27	283.52	263.49	291.56	263.71	299.89	263.98	334.9	265.1
338.75	265.22	349.35	265.55	349.47	265.56	350.26	265.59	351.63	265.69
353.3	265.82	360.87	266.42	395.18	268.76	395.66	268.82	419	271.42
422.79	271.83	432.11	273.08	442.31	274.21	460.44	277.38	461.69	277.63
463.37	277.96	464.67	278.33	473.85	280.42	481.55	282.53	488.92	285.09

Manning's n Values num= 14

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	27.2	.041	38.03	.035	81.59	.026	121.25	.02
130.55	.038	156.78	.044	178.18	.05	181.52	.035	240.07	.035
283.52	.035	338.75	.035	422.79	.041	488.92	.041		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
181.52	240.07	51.94	42.86	32.23	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 4077.57*

INPUT
Description:
Station Elevation Data num= 65

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	283.58	3.43	281.88	5.52	280.74	8.78	279.14	10.99	277.97
11.15	277.89	11.65	277.72	16.05	276.68	20.19	275.67	21.56	275.42
24.28	274.87	31.76	273.36	33.95	272.76	34.71	272.59	40.46	271.19
46.24	269.84	48.72	269.54	49.15	269.5	52.25	269.17	64.9	267.66
68.3	267.28	72.84	266.77	76.71	266.34	85.04	265.95	94.91	265.49
108.24	264.76	116.54	264.37	121.88	264.11	126.4	263.89	139.95	263.09
149.98	262.48	151.18	262.32	159.06	261.3	162.04	260.91	180.1	260.78
180.8	260.78	197.58	260.63	213.29	260.92	221.99	261.36	245.26	262.75
248.66	262.81	256.03	262.95	263.93	263.1	272.13	263.27	306.57	263.99
310.35	264.07	320.77	264.27	320.9	264.27	321.67	264.28	323.02	264.35
324.66	264.45	332.11	264.93	365.86	266.89	366.33	266.95	389.29	269.62
393.01	270.03	402.18	271.17	412.21	272.31	430.04	275.85	431.28	276.11
432.92	276.46	434.21	276.78	443.24	278.83	450.8	281.01	458.05	283.83

Manning's n Values num= 14

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	24.28	.038	33.95	.035	72.84	.023	108.24	.02
116.54	.044	139.95	.047	159.06	.05	162.04	.035	213.29	.035
256.03	.035	310.35	.035	393.01	.038	458.05	.038		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
162.04	213.29	51.94	42.86	32.23	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 4034.719

INPUT
Description:
Station Elevation Data num= 35

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	282.35	9.81	277.13	10.25	277	21.36	275.17	27.94	274.08
30.54	273.39	40.68	270.32	42.86	270.01	45.97	269.59	57.1	267.85
64.08	266.81	67.49	266.3	83.5	265.39	102.53	264.11	107.23	263.79
131.95	262.13	142.56	260.39	163.74	260.34	182.69	260.16	186.51	260.4
217.95	262.32	221.29	262.35	278.23	262.88	281.95	262.91	292.2	262.99
293.08	262.97	294.41	263.02	296.02	263.09	336.53	265.02	359.57	267.81
382.11	270.4	400.86	274.59	412.62	277.23	420.06	279.49	427.19	282.57

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	21.36	.035	64.08	.02	102.53	.05	281.95	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
142.56	186.51	45.99	44.21	43.52	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 3990.51*

INPUT
Description:
Station Elevation Data num= 59

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	279.68	10.21	275.05	10.67	274.93	20.97	273.17	22.24	272.96
24.74	272.53	26.84	272.22	29.09	271.9	31.8	271.31	33.32	270.93
42.35	268.73	44.62	268.45	46.71	268.22	47.86	268.11	57.66	267.01
59.45	266.82	66.71	266.05	70.27	265.67	85.27	265.14	86.37	265.1
86.93	265.08	87.44	265.06	89.6	264.9	96.72	264.44	102.49	264.06
106.75	263.78	110.58	263.53	111.64	263.42	137.38	260.92	139.24	260.6
139.26	260.6	148.42	259.41	168.51	259.32	186.48	259.13	187.91	259.22
190.71	259.42	209.37	260.62	218.37	261.33	221.31	261.42	235.09	261.86
241.13	262.06	251.83	262.29	271.4	262.68	274.68	262.75	283.7	262.91
284.47	262.91	285.64	262.96	287.06	263.03	289.44	263.17	322.7	265
342.97	267.47	362.8	269.78	379.29	273.33	380.66	273.62	387.28	275.03
389.64	275.54	390.21	275.71	396.18	277.41	402.46	279.94		

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	20.97	.044	22.24	.032	57.66	.023	66.71	.023
96.72	.038	106.75	.05	148.42	.038	190.71	.038	274.68	.038
402.46	.038								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
148.42	190.71	45.99	44.21	43.52	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 3946.30*

INPUT
Description:
Station Elevation Data num= 59

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	277	10.62	272.97	11.09	272.86	21.8	270.97	23.12	270.74
25.72	270.29	27.9	270.01	30.24	269.72	33.05	269.22	34.63	268.91
44.03	267.14	46.38	266.9	48.56	266.69	49.75	266.62	59.94	265.91
61.8	265.78	69.35	265.28	73.04	265.04	88.64	264.8	89.78	264.79
90.37	264.77	90.89	264.75	93.14	264.59	100.54	264.11	106.54	263.73
110.96	263.45	114.95	263.19	116.05	263.05	142.8	259.72	144.74	259.37
144.76	259.37	154.28	258.44	173.28	258.31	190.27	258.11	191.84	258.19
194.91	258.44	211.02	259.55	218.79	260.34	221.33	260.5	233.23	261.23
238.45	261.55	247.68	261.9	264.58	262.49	267.41	262.58	275.19	262.84
275.86	262.85	276.87	262.9	278.09	262.98	280.15	263.11	308.86	264.98
326.36	267.14	343.48	269.16	357.72	272.07	358.91	272.31	364.62	273.44
366.66	273.85	367.15	273.98	372.31	275.34	377.72	277.31		

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	21.8	.038	23.12	.029	59.94	.026	69.35	.026
100.54	.041	110.96	.05	154.28	.041	194.91	.041	267.41	.041
377.72	.041								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
154.28	194.91	45.99	44.21	43.52	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 3902.09*

INPUT
Description:
Station Elevation Data num= 59

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	274.33	11.02	270.9	11.51	270.78	22.62	268.78	23.99	268.53
26.7	268.04	28.96	267.8	31.39	267.55	34.31	267.14	35.95	266.89
45.7	265.54	48.15	265.34	50.4	265.17	51.64	265.14	62.22	264.81
64.14	264.75	71.98	264.52	75.82	264.41	92	264.47	93.19	264.47
93.8	264.46	94.34	264.45	96.68	264.28	104.36	263.79	110.58	263.4
115.18	263.12	119.32	262.86	120.46	262.69	148.23	258.51	150.24	258.14
150.26	258.14	160.15	257.46	178.05	257.29	194.06	257.08	195.77	257.17
199.12	257.47	212.68	258.48	219.22	259.36	221.35	259.57	231.37	260.6
235.76	261.05	243.53	261.52	257.75	262.29	260.13	262.42	266.69	262.76
267.25	262.78	268.1	262.84	269.13	262.92	270.86	263.06	295.03	264.96

309.76	266.8	324.17	268.54	336.15	270.8	337.15	270.99	341.96	271.85
343.67	272.16	344.09	272.26	348.43	273.26	352.99	274.67		

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	22.62	.032	23.99	.026	62.22	.029	71.98	.029
104.36	.044	115.18	.05	160.15	.044	199.12	.044	260.13	.044
352.99	.044								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
160.15	199.12	45.99	44.21	43.52	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 3857.89*

INPUT
Description:
Station Elevation Data num= 59

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	271.65	11.42	268.82	11.94	268.71	23.45	266.58	24.87	266.32
27.67	265.8	30.02	265.58	32.54	265.37	35.56	265.06	37.26	264.87
47.37	263.95	49.91	263.79	52.25	263.64	53.53	263.65	64.49	263.7
66.49	263.71	74.62	263.75	78.59	263.77	95.37	264.13	96.6	264.16
97.23	264.15	97.8	264.15	100.22	263.96	108.18	263.47	114.63	263.08
119.39	262.79	123.68	262.52	124.87	262.32	153.65	257.31	155.74	256.91
155.76	256.91	166.01	256.49	182.81	256.27	197.85	256.06	199.7	256.14
203.32	256.49	214.33	257.4	219.64	258.37	221.37	258.65	229.5	259.96
233.07	260.54	239.38	261.13	250.93	262.09	252.86	262.25	258.18	262.69
258.64	262.72	259.33	262.79	260.16	262.87	261.57	263	281.19	264.94
293.15	266.46	304.85	267.92	314.59	269.54	315.4	269.68	319.3	270.25
320.69	270.47	321.03	270.53	324.55	271.18	328.25	272.04		

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	23.45	.026	24.87	.023	64.49	.032	74.62	.032
108.18	.047	119.39	.05	166.01	.047	203.32	.047	252.86	.047
328.25	.047								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
166.01	203.32	45.99	44.21	43.52	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 3813.686

INPUT
Description: Manual Modification ot Manning's N Values
Station Elevation Data num= 29

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	268.98	24.28	264.38	28.65	263.56	31.08	263.37	38.58	262.85
54.09	262.12	66.77	262.6	98.74	263.79	100.01	263.84	101.25	263.85
103.76	263.65	112	263.15	118.68	262.75	128.05	262.19	161.24	255.68
161.26	255.68	171.87	255.51	201.64	255.03	203.63	255.12	207.52	255.51
215.98	256.33	227.64	259.33	230.38	260.04	235.23	260.75	252.28	262.95
293.64	268.36	296.64	268.66	297.97	268.81	303.52	269.41		

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	24.28	.02	66.77	.035	112	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
171.87	207.52	34.64	39.46	42.17	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 3774.22*

INPUT
Description:
Station Elevation Data num= 55

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	269	14.64	266.32	24.02	264.6	26.04	264.21	29.4	263.57
30.72	263.36	33.33	263.18	33.5	263.17	35.5	263.05	41.37	262.7
52.08	262.25	58	262.04	60.58	262.12	71.6	262.45	79.96	262.69
97.22	263.27	105.88	263.56	107.24	263.61	108.57	263.63	111.26	263.47
117.09	263.23	120.1	263.06	127.26	262.68	129.43	262.57	137.31	262.1
146.31	260.6	151.88	259.56	163.12	257.46	170.75	256	172.9	255.51
172.92	255.51	177.61	255.09	184.3	254.49	203.71	254.03	211.8	253.89
213.66	254.01	213.87	254.03	217.92	254.48	225.8	255.3	227.97	255.84
236.68	258.17	238.44	258.64	239.23	258.86	243.05	259.56	243.76	259.68
259.66	262.32	262.35	262.77	271.89	264.37	286.71	266.86	290.08	267.39
298.22	268.54	301.02	268.85	302.26	269.01	302.94	269.09	307.44	269.76

Manning's n Values num= 10

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	26.04	.025	29.4	.045	60.58	.022	71.6	.035
97.22	.038	120.1	.05	184.3	.053	217.92	.053	307.44	.053

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
184.3	217.92	34.64	39.46	42.17	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 3734.76*

INPUT
Description:
Station Elevation Data num= 55

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	269.01	15.62	266.25	25.64	264.47	27.79	264.05	31.38	263.34
32.79	263.17	35.57	263	35.76	262.99	37.89	262.87	44.16	262.55

55.59	262.13	61.91	261.96	64.66	262.02	76.43	262.29	85.35	262.49
103.78	263.06	113.02	263.34	114.47	263.39	115.89	263.41	118.76	263.3
124.99	263.13	128.2	262.98	135.84	262.61	138.16	262.5	146.57	262
156.18	260.67	162.13	259.6	174.12	257.45	182.27	255.93	184.56	255.34
184.58	255.34	189.59	254.58	196.72	253.46	214.53	252.89	221.95	252.74
223.89	252.91	224.1	252.93	228.31	253.45	235.63	254.28	237.64	254.75
245.72	257	247.35	257.46	248.09	257.69	251.62	258.47	252.28	258.62
267.03	261.69	269.53	262.22	278.38	264.07	292.13	266.97	295.25	267.57
302.81	268.71	305.4	269.04	306.56	269.2	307.19	269.29	311.36	270.1

Manning's n Values num= 10

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	27.79	.03	31.38	.04	64.66	.025	76.43	.035
103.78	.04	128.2	.05	196.72	.057	228.31	.057	311.36	.057

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
196.72	228.31	34.64	39.46	42.17	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 3695.30*

INPUT
Description:
Station Elevation Data num= 55

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	269.03	16.61	266.18	27.26	264.33	29.55	263.88	33.36	263.12
34.86	262.97	37.82	262.81	38.01	262.8	40.29	262.68	46.95	262.4
59.1	262	65.82	261.88	68.75	261.93	81.25	262.14	90.75	262.29
110.33	262.84	120.16	263.11	121.7	263.16	123.21	263.18	126.27	263.12
132.88	263.04	136.29	262.89	144.42	262.54	146.89	262.44	155.83	261.91
166.04	260.73	172.37	259.64	185.11	257.44	193.78	255.86	196.21	255.17
196.24	255.17	201.56	254.06	209.15	252.43	225.36	251.76	232.11	251.6
234.12	251.82	234.34	251.84	238.71	252.42	245.45	253.25	247.31	253.66
254.75	255.84	256.26	256.28	256.94	256.51	260.2	257.39	260.81	257.55
274.41	261.06	276.71	261.66	284.87	263.77	297.55	267.09	300.43	267.75
307.39	268.89	309.79	269.24	310.85	269.4	311.43	269.48	315.27	270.45

Manning's n Values num= 10

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	29.55	.035	33.36	.035	68.75	.027	81.25	.035
110.33	.043	136.29	.05	209.15	.06	238.71	.06	315.27	.06

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
209.15	238.71	34.64	39.46	42.17	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 3655.84*

INPUT
Description:
Station Elevation Data num= 55

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	269.05	17.6	266.1	28.88	264.2	31.3	263.71	35.35	262.9
36.94	262.77	40.07	262.62	40.27	262.61	42.68	262.5	49.74	262.26
62.62	261.88	69.73	261.8	72.83	261.84	86.08	261.98	96.14	262.09
116.89	262.62	127.3	262.89	128.93	262.93	130.53	262.96	133.77	262.95
140.78	262.95	144.39	262.81	153	262.48	155.62	262.38	165.08	261.81
175.91	260.79	182.61	259.67	196.11	257.43	205.29	255.78	207.87	255
207.9	254.99	213.54	253.54	221.58	251.41	236.18	250.62	242.27	250.46
244.35	250.72	244.58	250.75	249.1	251.39	255.28	252.22	256.98	252.58
263.79	254.68	265.17	255.11	265.79	255.34	268.78	256.31	269.33	256.49
281.78	260.43	283.89	261.1	291.36	263.47	302.96	267.2	305.6	267.93
311.98	269.07	314.17	269.43	315.14	269.59	315.67	269.68	319.19	270.8

Manning's n Values num= 10

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	31.3	.04	35.35	.03	72.83	.03	86.08	.035
116.89	.045	144.39	.05	221.58	.063	249.1	.063	319.19	.063

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
221.58	249.1	34.64	39.46	42.17	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 3616.38*

INPUT
Description:
Station Elevation Data num= 55

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	269.06	18.58	266.03	30.5	264.06	33.06	263.54	37.33	262.67
39.01	262.58	42.32	262.44	42.53	262.43	45.08	262.32	52.53	262.11
66.13	261.75	73.64	261.72	76.92	261.74	90.91	261.83	101.53	261.89
123.44	262.41	134.44	262.66	136.16	262.7	137.85	262.74	141.27	262.77
148.67	262.85	152.49	262.72	161.58	262.41	164.34	262.31	174.34	261.72
185.77	260.85	192.85	259.71	207.11	257.42	216.81	255.71	219.53	254.83
219.56	254.82	225.51	253.03	234	250.38	247.01	249.48	252.42	249.31
254.58	249.62	254.82	249.65	259.5	250.36	265.1	251.2	266.64	251.49
272.83	253.52	274.08	253.93	274.64	254.16	277.35	255.22	277.86	255.42
289.16	259.8	291.07	260.55	297.85	263.17	308.38	267.32	310.78	268.1
316.56	269.24	318.55	269.62	319.43	269.79	319.92	269.88	323.11	271.14

Manning's n Values num= 10

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	33.06	.045	37.33	.025	76.92	.032	90.91	.035
123.44	.047	152.49	.05	234	.067	259.5	.067	323.11	.067

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
234	259.5	34.64	39.46	42.17	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 3576.919

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 31

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	269.08	19.57	265.96	32.12	263.93	39.31	262.45	44.79	262.24
47.47	262.14	69.64	261.63	81	261.65	106.92	261.69	130	262.19
156.57	262.76	173.07	262.25	195.64	260.91	203.09	259.75	218.11	257.41
228.32	255.64	237.49	252.51	246.43	249.36	257.83	248.34	262.58	248.17
264.81	248.52	269.89	249.33	276.31	250.4	282.99	252.75	285.93	254.14
298.25	259.99	304.34	262.87	313.8	267.43	315.95	268.28	324.16	270.08
327.03	271.49								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	39.31	.02	81	.035	130	.05	246.43	.07

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
246.43	269.89	33.82	41.19	42.78	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 3535.73*

INPUT
Description:
Station Elevation Data num= 55

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	267.74	18.69	264.77	25.41	263.7	30.68	262.86	37.54	261.52
42.78	261.24	45.34	261.1	50.86	260.87	56.84	260.75	66.51	260.55
73.05	260.55	77.36	260.54	92.61	260.52	94.74	260.54	102.12	260.59
124.16	261.11	135.21	261.37	149.54	261.7	159.08	261.51	164.53	261.37
165.3	261.35	168.06	261.2	179.53	260.47	186.85	260.03	193.97	259.02
196.44	258.67	196.76	258.63	202.12	257.62	205.44	256.99	208.31	256.45
218.07	254.47	218.45	254.34	220.08	253.84	226.82	251.79	235.36	249.12
244.88	248.26	248.84	248.11	251.46	248.41	257.42	249.1	263.42	250.13
263.65	250.17	268.71	251.8	270.14	252.25	272.99	253.45	275.51	254.5
277.4	255.36	281.54	257.25	284.96	258.81	290.87	261.52	295.74	263.78
300.06	266.1	302.15	267.08	307.59	268.82	310.12	269.58	312.91	271.05

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	37.54	.026	56.84	.044	77.36	.032	94.74	.023
124.16	.047	202.12	.038	235.36	.07	257.42	.07	263.42	.07
312.91	.07								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
235.36	257.42	33.82	41.19	42.78	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 3494.54*

INPUT
Description:
Station Elevation Data num= 55

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	266.39	17.81	263.59	24.21	262.57	29.23	261.8	35.78	260.6
40.77	260.24	43.21	260.06	48.46	259.73	54.17	259.63	63.38	259.46
69.62	259.45	73.72	259.43	88.26	259.37	90.29	259.4	97.32	259.49
118.32	260.03	128.86	260.29	142.51	260.65	151.6	260.57	156.79	260.46
157.52	260.45	160.16	260.33	171.09	259.58	178.07	259.14	184.85	258.29
187.2	258	187.51	257.96	192.61	256.82	195.78	256.11	198.52	255.49
207.81	253.3	208.18	253.17	209.73	252.76	216.16	251.07	224.29	248.88
231.92	248.18	235.1	248.04	238.1	248.29	244.95	248.87	250.77	249.89
250.99	249.93	255.9	251.37	257.29	251.76	260.06	252.75	262.5	253.63
264.33	254.42	268.35	256.17	271.67	257.64	277.4	260.17	282.13	262.28
286.32	264.78	288.34	265.87	293.63	268.13	296.08	269.09	298.78	270.61

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	35.78	.032	54.17	.038	73.72	.029	90.29	.026
118.32	.044	192.61	.041	224.29	.07	244.95	.07	250.77	.07
298.78	.07								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
224.29	244.95	33.82	41.19	42.78	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 3453.35*

INPUT
Description:
Station Elevation Data num= 55

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	265.05	16.93	262.4	23.02	261.44	27.79	260.73	34.01	259.67
38.75	259.23	41.07	259.02	46.07	258.59	51.5	258.51	60.26	258.38
66.18	258.35	70.09	258.32	83.9	258.22	85.83	258.26	92.51	258.38
112.48	258.94	122.5	259.22	135.47	259.59	144.12	259.62	149.05	259.56
149.75	259.54	152.26	259.45	162.64	258.68	169.28	258.26	175.73	257.56
177.97	257.32	178.26	257.29	183.11	256.01	186.12	255.22	188.72	254.53
197.56	252.13	197.91	252.01	199.38	251.67	205.49	250.35	213.23	248.63
218.97	248.1	221.36	247.98	224.75	248.18	232.47	248.65	238.12	249.66
238.34	249.7	243.1	250.94	244.44	251.26	247.12	252.06	249.49	252.76
251.26	253.49	255.16	255.1	258.37	256.46	263.94	258.82	268.52	260.78
272.58	263.45	274.54	264.67	279.66	267.45	282.04	268.59	284.66	270.16

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	34.01	.038	51.5	.032	70.09	.026	85.83	.029
112.48	.041	183.11	.044	213.23	.07	232.47	.07	238.12	.07
284.66	.07								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
213.23	232.47	33.82	41.19	42.78	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 3412.16*

INPUT
Description:
Station Elevation Data num= 55

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	263.7	16.05	261.21	21.82	260.32	26.35	259.66	32.25	258.75
36.74	258.23	38.94	257.98	43.68	257.46	48.82	257.4	57.13	257.29
62.75	257.26	66.45	257.22	79.55	257.07	81.38	257.12	87.71	257.28
106.65	257.86	116.14	258.15	128.44	258.53	136.64	258.68	141.32	258.65
141.98	258.64	144.35	258.58	154.2	257.79	160.49	257.38	166.6	256.83
168.73	256.65	169	256.63	173.6	255.21	176.46	254.34	178.93	253.58
187.3	250.96	187.63	250.84	189.03	250.59	194.82	249.63	202.16	248.39
206.01	248.02	207.62	247.91	211.4	248.07	220	248.42	225.47	249.42
225.68	249.46	230.29	250.5	231.59	250.77	234.19	251.36	236.48	251.89
238.2	252.55	241.97	254.02	245.08	255.29	250.47	257.47	254.9	259.27
258.83	262.12	260.74	263.46	265.7	266.76	268	268.09	270.53	269.72

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	32.25	.044	48.82	.026	66.45	.023	81.38	.032
106.65	.038	173.6	.047	202.16	.07	220	.07	225.47	.07
270.53	.07								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
202.16	220	33.82	41.19	42.78	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 3370.982

INPUT
Description:
Station Elevation Data num= 29

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	262.36	20.63	259.19	41.29	256.32	46.15	256.28	59.31	256.16
75.19	255.92	76.92	255.98	109.78	257.08	129.16	257.74	133.58	257.75
136.45	257.7	145.76	256.89	159.49	255.97	159.75	255.96	164.1	254.41
166.8	253.45	177.36	249.68	178.68	249.51	191.09	248.15	193.88	247.85
207.53	248.19	212.82	249.19	217.48	250.07	223.47	251.02	225.13	251.62
228.78	252.95	241.29	257.77	251.73	266.07	256.41	269.28		

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.05	46.15	.02	76.92	.035	164.1	.05	212.82	.07

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
191.09	207.53	32.87	38.29	40.04	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 3332.68*

INPUT
Description:
Station Elevation Data num= 52

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	262.36	21.79	259.69	40.39	257.62	43.61	257.25	44.99	257.23
48.75	257.17	59.49	257.01	62.65	256.94	79.42	256.48	81.25	256.49
82.55	256.51	90.93	256.52	97.33	256.46	104.69	256.41	115.96	256.34
133.85	256.24	136.43	256.22	141.1	256.09	141.9	256.05	144.13	256.01
150.86	255.51	153.96	255.28	156.73	255.12	168.46	254.31	168.74	254.29
173.33	252.97	176.19	252.15	179.87	251.08	187.34	248.95	187.76	248.91
188.73	248.8	201.84	247.52	204.72	247.27	205.74	247.2	206.02	247.16
206.13	247.16	219.24	247.55	225.09	248.44	230.25	249.22	236.88	250.08
238.72	250.59	239.4	250.78	242.75	251.71	246.37	252.77	247.7	253.17
249.37	253.72	253.38	255.11	256.59	256.22	257.06	256.52	266.24	263.22
268.15	264.6	273.32	267.94						

Manning's n Values num= 12

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.054	48.75	.03	81.25	.042	104.69	.066	150.86	.044
173.33	.044	187.76	.023	201.84	.066	219.24	.066	225.09	.066
249.37	.054	273.32	.07						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
201.84	219.24	32.87	38.29	40.04	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 3294.39*

INPUT
Description:
Station Elevation Data num= 52

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	262.37	22.95	260.2	42.54	258.5	45.94	258.18	47.39	258.15
51.34	258.07	62.66	257.83	65.98	257.71	83.65	257.03	85.58	257.01
86.95	256.99	95.77	256.75	102.52	256.43	110.27	256.1	122.13	255.6
140.98	254.81	143.69	254.71	148.61	254.42	149.45	254.37	151.81	254.31
158.89	253.88	162.16	253.68	165.07	253.53	177.44	252.65	177.73	252.63

182.57	251.53	185.57	250.85	189.45	249.96	197.32	248.23	197.76	248.19
198.79	248.09	212.59	246.89	216.42	246.61	217.78	246.52	218.16	246.47
218.39	246.47	230.95	246.91	237.37	247.69	243.02	248.37	250.29	249.14
252.3	249.55	253.06	249.71	256.73	250.47	260.69	251.33	262.15	251.67
263.98	252.19	268.37	253.57	271.9	254.67	272.41	254.93	282.47	261.74
284.56	263.13	290.24	266.61						

Manning's n Values num= 12

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.058	51.34	.04	85.58	.049	110.27	.062	158.89	.038
182.57	.038	197.76	.026	212.59	.062	230.95	.062	237.37	.062
263.98	.058	290.24	.07						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
212.59	230.95	32.87	38.29	40.04	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 3256.09*

INPUT
Description:
Station Elevation Data num= 52

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	262.37	24.11	260.7	44.7	259.38	48.26	259.11	49.79	259.06
53.94	258.96	65.83	258.65	69.32	258.49	87.88	257.59	89.9	257.52
91.35	257.48	100.61	256.98	107.7	256.39	115.85	255.79	128.31	254.86
148.11	253.39	150.96	253.19	156.13	252.76	157.01	252.68	159.48	252.62
166.93	252.24	170.36	252.07	173.42	251.94	186.41	250.98	186.72	250.96
191.8	250.09	194.96	249.55	199.04	248.84	207.3	247.5	207.77	247.46
208.84	247.37	223.35	246.26	228.13	245.94	229.83	245.85	230.29	245.79
230.64	245.79	242.67	246.28	249.64	246.94	255.79	247.52	263.7	248.2
265.89	248.52	266.71	248.64	270.7	249.22	275.02	249.88	276.6	250.17
278.59	250.66	283.37	252.03	287.2	253.12	287.76	253.35	298.7	260.26
300.98	261.66	307.15	265.27						

Manning's n Values num= 12

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.062	53.94	.05	89.9	.056	115.85	.058	166.93	.032
191.8	.032	207.77	.029	223.35	.058	242.67	.058	249.64	.058
278.59	.062	307.15	.07						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
223.35	242.67	32.87	38.29	40.04	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 3217.80*

INPUT
Description:
Station Elevation Data num= 52

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	262.38	25.27	261.2	46.85	260.25	50.58	260.04	52.18	259.98
56.54	259.85	69	259.48	72.66	259.27	92.11	258.14	94.23	258.04
95.74	257.96	105.46	257.21	112.89	256.36	121.42	255.47	134.49	254.12
155.24	251.97	158.23	251.67	163.64	251.1	164.57	251	167.16	250.92
174.96	250.61	178.57	250.46	181.77	250.34	195.39	249.32	195.7	249.3
201.03	248.65	204.34	248.24	208.62	247.72	217.28	246.78	217.77	246.74
218.89	246.66	234.1	245.63	239.83	245.27	241.87	245.17	242.43	245.1
242.9	245.1	254.38	245.64	261.92	246.19	268.56	246.67	277.1	247.25
279.47	247.48	280.36	247.57	284.67	247.98	289.34	248.44	291.05	248.66
293.2	249.13	298.36	250.49	302.51	251.57	303.11	251.76	314.94	258.78
317.39	260.19	324.07	263.94						

Manning's n Values num= 12

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.066	56.54	.06	94.23	.063	121.42	.054	174.96	.026
201.03	.026	217.77	.032	234.1	.054	254.38	.054	261.92	.054
293.2	.066	324.07	.07						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
234.1	254.38	32.87	38.29	40.04	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 3179.510

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 28

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	262.38	49	261.13	54.58	260.9	72.17	260.3	100.14	258.45
110.3	257.44	118.07	256.33	127	255.16	162.37	250.55	172.13	249.31
183	248.97	190.12	248.75	218.2	246.6	227.77	246.02	244.85	245
251.54	244.6	253.92	244.5	254.57	244.41	255.15	244.41	266.09	245
294.01	246.5	303.66	247	305.5	247.16	307.81	247.6	313.36	248.95
318.46	250.18	331.17	257.3	340.98	262.6				

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.07	127	.05	183	.02	227.77	.035	266.09	.05
307.81	.07								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
244.85	266.09	46.01	44.88	34.07	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 3134.63*

INPUT

Description:
Station Elevation Data num= 51

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	261.34	17.71	260.7	28.57	260.36	47.45	259.85	52.86	259.63
69.89	259.05	82.68	258.26	96.98	257.37	106.82	256.48	114.34	255.52
119.55	254.9	122.99	254.49	143.05	252.09	157.24	250.4	166.69	249.29
177.22	248.93	180.68	248.82	184.12	248.66	196.82	247.57	201.33	247.19
211.31	246.29	212.79	246.18	220.58	245.7	237.12	244.7	244.4	244.23
246.99	244.1	247.7	244.01	248.18	244.01	258.17	244.53	261.04	244.67
261.89	244.77	280.33	246.4	285.19	246.6	295.31	246.85	297.23	246.89
307.15	247.12	307.32	247.13	309.41	247.24	312.25	247.6	314.38	247.94
317.07	248.38	317.53	248.46	319.06	248.72	324.51	249.66	325.32	249.82
327.88	250.89	336.75	255.2	339.36	256.45	340.92	257.1	343.72	258.22
352.96	261.88								

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.07	122.99	.053	143.05	.067	177.22	.025	220.58	.038
237.12	.045	261.04	.045	312.25	.062	314.38	.02	327.88	.025
352.96	.067								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
237.12	261.04	46.01	44.88	34.07	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 3089.75*

INPUT
Description:
Station Elevation Data num= 51

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	260.3	17.13	259.48	27.64	259.09	45.91	258.57	51.13	258.36
67.61	257.79	79.98	257.08	93.82	256.29	103.33	255.52	110.61	254.7
115.65	254.18	118.98	253.82	138.39	251.72	152.12	250.24	161.26	249.28
171.44	248.9	174.79	248.77	178.11	248.57	190.4	247.4	194.77	246.99
204.42	245.98	205.85	245.84	213.39	245.38	229.39	244.4	237.26	243.87
240.06	243.71	240.83	243.62	241.21	243.62	252.69	244.18	255.99	244.34
257	244.5	278.85	246.96	284.61	247.14	296.61	247.19	298.89	247.2
310.65	247.24	310.84	247.24	313.32	247.33	316.68	247.6	319.21	247.87
322.4	248.2	322.95	248.27	324.76	248.5	331.22	249.3	332.18	249.47
335.21	250.43	345.72	255	348.82	256.32	350.67	256.9	353.99	257.91
364.94	261.15								

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.07	118.98	.057	138.39	.063	171.44	.03	2[illegible]3.39	.04
229.39	.04	255.99	.04	316.68	.053	319.21	.02	335.21	.03
364.94	.063								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
229.39	255.99	46.01	44.88	34.07	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 3044.87*

INPUT
Description:
Station Elevation Data num= 51

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	259.26	16.55	258.26	26.7	257.82	44.36	257.29	49.41	257.09
65.33	256.54	77.29	255.91	90.65	255.21	99.85	254.56	106.89	253.89
111.75	253.46	114.97	253.15	133.72	251.35	146.99	250.09	155.82	249.26
165.66	248.86	168.89	248.73	172.11	248.47	183.98	247.23	188.2	246.79
197.53	245.67	198.92	245.51	206.19	245.06	221.65	244.1	230.12	243.5
233.13	243.31	233.96	243.23	234.24	243.23	247.21	243.84	250.95	244.01
252.1	244.23	277.38	247.51	284.04	247.69	297.91	247.54	300.54	247.51
314.14	247.36	314.37	247.36	317.24	247.41	321.12	247.6	324.04	247.79
327.73	248.02	328.36	248.08	330.46	248.27	337.93	248.95	339.03	249.11
342.54	249.97	354.7	254.8	358.27	256.19	360.41	256.7	364.26	257.6
376.92	260.43								

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.07	114.97	.06	133.72	.06	165.66	.035	206.19	.043
221.65	.035	250.95	.035	321.12	.045	324.04	.02	342.54	.035
376.92	.06								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
221.65	250.95	46.01	44.88	34.07	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 2999.99*

INPUT
Description:
Station Elevation Data num= 51

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	258.22	15.97	257.04	25.77	256.55	42.81	256.01	47.69	255.82
63.05	255.29	74.59	254.74	87.49	254.13	96.37	253.6	103.16	253.07
107.86	252.74	110.96	252.48	129.06	250.99	141.86	249.94	150.39	249.25
159.89	248.82	163	248.69	166.11	248.38	177.57	247.06	181.64	246.6
190.64	245.36	191.98	245.18	199	244.74	213.92	243.79	222.98	243.13
226.2	242.91	227.08	242.83	227.28	242.83	241.73	243.5	245.9	243.67
247.21	243.97	275.9	248.07	283.46	248.23	299.21	247.89	302.2	247.82
317.63	247.47	317.89	247.47	321.15	247.49	325.56	247.6	328.88	247.71
333.06	247.85	333.78	247.9	336.16	248.05	344.63	248.59	345.89	248.76
349.88	249.52	363.67	254.6	367.73	256.06	370.16	256.5	374.53	257.29
388.89	259.71								

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.07	110.96	.063	129.06	.057	159.89	.04	199	.045
213.92	.03	245.9	.03	325.56	.037	328.88	.02	349.88	.04
388.89	.057								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
213.92	245.9	46.01	44.88	34.07	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 2955.11*

INPUT
Description:
Station Elevation Data num= 51

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	257.18	15.4	255.83	24.84	255.28	41.26	254.73	45.96	254.56
60.78	254.03	71.9	253.57	84.33	253.05	92.89	252.63	99.43	252.26
103.96	252.01	106.95	251.81	124.39	250.62	136.73	249.78	144.95	249.23
154.11	248.79	157.11	248.64	160.1	248.29	171.15	246.89	175.07	246.4
183.75	245.05	185.04	244.85	191.81	244.42	206.19	243.49	215.84	242.77
219.27	242.51	220.21	242.43	220.31	242.43	236.26	243.15	240.85	243.34
242.32	243.7	274.43	248.62	282.89	248.78	300.51	248.23	303.85	248.13
321.13	247.59	321.42	247.59	325.06	247.57	329.99	247.6	333.71	247.63
338.39	247.67	339.19	247.71	341.85	247.82	351.34	248.23	352.75	248.4
357.21	249.06	372.65	254.4	377.19	255.92	379.91	256.3	384.79	256.98
400.87	258.98								

Manning's n Values num= 11

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.07	106.95	.067	124.39	.053	154.11	.045	191.81	.047
206.19	.025	240.85	.025	329.99	.028	333.71	.02	357.21	.045
400.87	.053								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
206.19	240.85	46.01	44.88	34.07	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 2910.241

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 28

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	256.14	14.82	254.61	23.91	254.01	69.2	252.4	100.06	251.29
119.73	250.25	151.22	248.6	164.73	246.72	168.51	246.2	178.1	244.52
198.46	243.19	213.34	242.04	230.78	242.81	235.8	243.01	237.43	243.43
272.95	249.18	282.31	249.32	305.51	248.44	324.94	247.7	338.54	247.55
343.72	247.49	344.61	247.52	358.05	247.87	364.54	248.6	381.62	254.2
386.65	255.79	395.06	256.67	412.85	258.26				

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.07	119.73	.05	338.54	.02	364.54	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
198.46	235.8	211.75	214.95	200.2	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 2695.270

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 25

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	255.82	11.43	252.35	26.32	250.15	34.39	248.56	64.21	246.65
67.15	246.49	77.79	245.87	118.86	244.04	146.63	243.13	168.09	243.4
188.8	243.22	269.38	242.49	302.24	241.57	316.64	241.15	324.83	241.36
327.5	241.55	343.56	242.71	352.67	243.35	368.66	247.65	374.16	249.16
375.02	249.26	387.16	250.63	405	251.91	429.55	253.68	447.4	256.21

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.07	146.63	.05	375.02	.02	405	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
302.24	327.5	160.6	197.15	200.15	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 2498.115

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 32

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	256.11	1.55	255.71	2.5	255.32	27.95	245.84	29.26	245.24
29.74	245.1	39.3	242.86	46.18	242.57	62.06	241.74	72.81	241.19
117.17	240.71	128.17	240.4	186.08	238.79	204.08	238.29	213.43	237.91
218.53	237.84	244.41	238.04	265.33	238.36	274.88	238.41	310.08	240.77
316.15	241.14	336.1	242.35	342.03	242.76	375	244.03	388.6	244.55
396.05	244.74	404.61	245.64	413	246.36	438.69	248.55	449.78	250.01
464.54	253.39	474.7	255.82						

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.07	128.17	.05	375	.02	413	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
204.08	265.33	40.03	38.99	38.2	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 2459.12*

INPUT
Description:
Station Elevation Data num= 52

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	255.06	1.41	254.67	2.27	254.31	25.34	245.53	26.52	244.98
26.96	244.85	31.36	243.73	35.62	242.74	36.53	242.69	41.86	242.42
56.25	241.55	66	240.98	76.98	240.74	106.21	240.11	113.59	239.84
114.11	239.82	116.18	239.76	168.67	238.2	170.67	238.14	184.99	237.71
193.18	237.37	197.65	237.3	200.63	237.3	224.17	237.49	243.2	237.77
254.35	237.84	281.47	239.21	295.44	239.92	302.53	240.25	325.82	241.32
327.42	241.41	332.74	241.67	346.76	242.05	363.33	242.5	371.24	242.73
387.11	243.2	395.81	243.37	397.82	243.53	405.8	244.14	406.17	244.16
415.6	244.85	428.06	245.75	445.59	247.02	447.64	247.24	450.32	247.52
451.36	247.65	453.19	247.88	458.54	248.55	470.95	250.97	475.77	252.09
478.05	252.64	487.63	254.78						

Manning's n Values num= 10

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.07	114.11	.064	116.18	.047	184.99	.025	243.2	.025
371.24	.025	415.6	.038	428.06	.045	451.36	.022	487.63	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
184.99	243.2	40.03	38.99	38.2	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 2420.12*

INPUT
Description:
Station Elevation Data num= 52

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	254.01	1.26	253.64	2.03	253.31	22.72	245.22	23.79	244.73
24.18	244.6	28.13	243.5	31.95	242.62	32.76	242.57	37.54	242.27
50.45	241.37	59.19	240.77	69.04	240.41	95.25	239.52	101.87	239.2
102.33	239.18	104.19	239.12	151.27	237.61	153.06	237.55	165.9	237.13
172.94	236.83	176.77	236.76	182.73	236.76	203.93	236.93	221.07	237.18
233.82	237.27	264.83	238.46	280.81	239.07	288.91	239.36	315.54	240.3
317.37	240.37	323.46	240.58	339.49	240.88	358.43	241.23	367.47	241.44
385.63	241.84	395.57	242	397.87	242.13	407	242.64	407.42	242.65
418.2	243.33	432.45	244.23	452.49	245.43	454.84	245.69	457.9	245.96
459.09	246.1	461.18	246.35	467.3	247.09	481.49	249.5	487	250.8
489.61	251.43	500.56	253.74						

Manning's n Values num= 10

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.07	102.33	.058	104.19	.045	165.9	.03	221.07	.03
367.47	.03	418.2	.04	432.45	.04	459.09	.025	500.56	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
165.9	221.07	40.03	38.99	38.2	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 2381.13*

INPUT
Description:
Station Elevation Data num= 52

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	252.96	1.12	252.6	1.8	252.3	20.11	244.9	21.05	244.47
21.39	244.35	24.89	243.27	28.27	242.51	28.99	242.44	33.22	242.12
44.64	241.18	52.38	240.55	61.09	240.09	84.29	238.92	90.15	238.56
90.56	238.54	92.2	238.48	133.86	237.02	135.45	236.96	146.81	236.55
152.69	236.29	155.9	236.22	164.83	236.22	183.69	236.38	198.94	236.58
213.29	236.7	248.19	237.71	266.17	238.23	275.29	238.47	305.26	239.27
307.32	239.33	314.17	239.49	332.21	239.71	353.53	239.96	363.71	240.14
384.14	240.49	395.33	240.63	397.91	240.74	408.19	241.13	408.67	241.15
420.8	241.82	436.84	242.71	459.39	243.96	462.03	244.15	465.48	244.39
466.81	244.55	469.18	244.82	476.06	245.63	492.03	248.02	498.23	249.5
501.17	250.21	513.49	252.7						

Manning's n Values num= 10

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.07	90.56	.053	92.2	.043	146.81	.035	198.94	.035
363.71	.035	420.8	.043	436.84	.035	466.81	.027	513.49	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
146.81	198.94	40.03	38.99	38.2	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 2342.13*

INPUT
Description:
Station Elevation Data num= 52

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	251.91	.97	251.56	1.56	251.3	17.49	244.59	18.31	244.21
18.61	244.1	21.65	243.04	24.6	242.39	25.22	242.31	28.9	241.97
38.84	241	45.57	240.34	53.15	239.77	73.33	238.32	78.42	237.91
78.78	237.9	80.21	237.85	116.46	236.43	117.84	236.38	127.72	235.97
132.44	235.75	135.02	235.68	146.94	235.68	163.46	235.82	176.81	235.99
192.76	236.13	231.55	236.96	251.54	237.38	261.67	237.58	294.99	238.25
297.27	238.29	304.89	238.39	324.94	238.53	348.63	238.7	359.94	238.84

382.65	239.14	395.09	239.26	397.96	239.34	409.39	239.63	409.92	239.64
423.4	240.31	441.23	241.19	466.3	242.43	469.23	242.6	473.06	242.83
474.54	243	477.17	243.3	484.81	244.17	502.57	246.55	509.46	248.21
512.72	249	526.43	251.65						

Manning's n Values num= 10

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.07	78.78	.047	80.21	.04	127.72	.04	176.81	.04
359.94	.04	423.4	.045	441.23	.03	474.54	.03	526.43	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
127.72	176.81	40.03	38.99	38.2	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 2303.14*

INPUT
Description:
Station Elevation Data num= 52

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	250.86	.83	250.52	1.33	250.29	14.88	244.28	15.57	243.95
15.83	243.85	18.42	242.81	20.92	242.27	21.45	242.19	24.58	241.82
33.03	240.81	38.76	240.13	45.2	239.44	62.37	237.73	66.7	237.27
67.01	237.26	68.22	237.21	99.05	235.84	100.22	235.79	108.63	235.39
112.19	235.21	114.14	235.14	129.04	235.14	143.22	235.27	154.68	235.4
172.23	235.57	214.91	236.2	236.9	236.53	248.05	236.69	284.71	237.22
287.22	237.26	295.6	237.3	317.66	237.36	343.73	237.43	356.18	237.55
381.17	237.78	394.85	237.9	398.01	237.95	410.58	238.13	411.16	238.14
426	238.8	445.61	239.67	473.2	240.9	476.42	241.06	480.64	241.26
482.27	241.45	485.16	241.77	493.57	242.71	513.11	245.07	520.69	246.91
524.28	247.78	539.36	250.61						

Manning's n Values num= 10

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.07	67.01	.041	68.22	.037	108.63	.045	154.68	.045
356.18	.045	426	.048	445.61	.025	482.27	.033	539.36	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
108.63	154.68	40.03	38.99	38.2	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 2264.151

INPUT
Description: Manual Modification of Manning's N Values
Station Elevation Data num= 25

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	249.81	15.18	242.58	17.68	242.06	37.26	239.12	54.98	236.63
55.23	236.62	82.61	235.2	89.54	234.81	93.26	234.6	111.14	234.6
132.55	234.81	198.27	235.45	277.17	236.22	310.39	236.19	338.83	236.16
398.06	236.55	412.41	236.63	450	238.15	483.62	239.51	488.22	239.7
490	239.9	493.15	240.24	523.65	243.6	535.84	246.57	552.29	249.57

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.07	55.23	.035	132.55	.05	450	.02	490	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
89.54	132.55	221.15	208.6	194.05	.1	.3

Blocked Obstructions num= 1

Sta L	Sta R	Elev
24.5	35.5	260

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 2055.543

INPUT
Description:
Station Elevation Data num= 30

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	242.82	19.35	242.31	32.38	241.95	34.28	241.89	92.44	238.55
110.91	237.58	123.36	237.22	169.32	235.94	179.47	235.21	211.78	232.89
233.36	232.02	253.09	230.92	254.47	230.92	306.9	230.72	362.48	230.73
375.61	230.95	410.22	231.53	429.55	231.85	440.05	232.07	470.3	233.55
506.57	235.17	515.35	235.56	520.13	235.5	525.6	235.6	564.06	236.31
584.19	236.68	589.07	236.58	600.44	238.37	633.25	241.81	640.98	242.83

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	179.47	.05	410.22	.035	525.6	.02	564.06	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
254.47	375.61	173.95	195.7	217.35	.1	.3

Blocked Obstructions num= 1

Sta L	Sta R	Elev
224.5	235.5	260

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 1859.868

INPUT
Description:
Station Elevation Data num= 26

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	242.89	11.75	242.36	56.42	239.23	87.16	237.42	129.51	235.03
172.43	232.97	188.28	231.46	194.36	230.86	213.86	230.23	257.82	228.81
264.14	228.61	294.87	228.68	346.44	228.81	395.32	228.93	401.8	228.95
402.94	228.95	444.82	228.82	500.19	229.95	505.21	230.1	532.59	230.89

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  547.37  232.13  557.34  232.99  589.74  235.79  626.05  238.92  636.67  240.53
  648.07  242.69

Manning's n Values          num=       5
     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val
       0    .035  213.86     .05   401.8    .035  557.34     .02  589.74    .035

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
        257.82  346.44            208.85     203  192.55              .1       .3
Blocked Obstructions      num=       1
   Sta L   Sta R    Elev
   394.5   405.5     260

CROSS SECTION           RIVER: Canada Chiquita
REACH: Tributary           RS: 1656.863

INPUT
Description:
Station Elevation Data     num=      22
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  236.28   22.94  235.04   96.59  233.54  190.43  230.84  245.82  229.18
  302.74  227.36  332.37  226.39  390.39  224.47  396.63  224.27   413.9   223.7
  431.75  224.14  485.48  226.06  499.29  226.25  539.57  226.81  561.33  227.11
  577.52  227.34  624.01  228.83  654.16  229.78   670.1   230.3   686.9   231.7
  699.76  232.77   738.6  236.31

Manning's n Values          num=       4
     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val
       0    .035  332.37     .05  561.33    .035   686.9     .02

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
        396.63  431.75            231.2   220.1  188.45              .1       .3
Blocked Obstructions      num=       1
   Sta L   Sta R    Elev
   644.5   655.5     260

CROSS SECTION           RIVER: Canada Chiquita
REACH: Tributary           RS: 1436.744

INPUT
Description: CS Modified 2:1 Slope, Sta 600
Station Elevation Data     num=      21
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  229.69   44.41  226.65   66.73   225.1   75.62  224.78   93.34  224.43
  235.55  221.86  263.04  221.37  290.98  221.85  299.77  222.01  302.57  222.07
     336  222.22  407.49  222.53  465.64  222.79  495.72  222.73  509.84  222.91
  517.94  222.73  519.66  222.74  524.73  222.78     600  223.39     700  273.39
  714.89  273.39

Manning's n Values          num=       2
     Sta   n Val     Sta   n Val
       0    .035     336     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
        235.55  290.98             36.22   35.03   33.69              .1       .3

CROSS SECTION           RIVER: Canada Chiquita
REACH: Tributary           RS: 1401.71*

INPUT
Description:
Station Elevation Data     num=      43
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  229.65    1.44  229.56    1.98  229.53    7.36  229.17   52.43  226.16
   78.77  224.38    82.6   224.2   83.57  224.17   89.27  223.93  102.25  223.55
  110.19  223.37  135.59  222.83  158.42  222.39  186.37  221.91   196.4   221.9
   223.8   221.9  230.91  221.89  233.15  221.91  255.94  221.52  278.06   221.1
  311.07  220.46  313.03  220.43  314.55  220.45  320.56  220.56  345.23  221.01
  353.01  221.16  355.48  221.21  385.06  221.39  448.31  221.77  499.76  222.08
  526.38  222.09  538.87  222.26  539.42  222.25  546.04  222.14  547.56  222.15
  552.04   222.2  554.85  222.23  565.47  222.37  579.94  222.52  591.13  222.63
  618.64  222.92     720   273.6   738.5   273.6

Manning's n Values          num=       7
     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val
       0    .035   196.4    .038  278.06    .047  345.23    .047  386.99    .047
  508.58    .035   738.5    .047

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
        278.06  345.23             36.22   35.03   33.69              .1       .3

CROSS SECTION           RIVER: Canada Chiquita
REACH: Tributary           RS: 1366.68*

INPUT
Description:
Station Elevation Data     num=      43
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  229.62    1.66  229.51    2.28  229.48    8.48  229.09   60.44  225.67
   90.82  223.65   95.23  223.43   96.34  223.38  102.92  223.09  117.88  222.53
  127.03  222.31  156.32  221.62  182.64  221.09  214.86  220.55  226.43   220.7
  258.02  221.11  266.21  221.21  268.79  221.26  295.07  220.85  320.57  220.34
  360.64  219.53  363.02  219.48  364.74  219.51  371.55  219.63  399.48  220.17
  406.24   220.3  408.39  220.35  434.12  220.56  489.14  221.01  533.88  221.38
  557.03  221.45   567.9  221.61  568.38  221.61  574.13  221.55  575.45  221.57
  579.36  221.62   581.8  221.66  591.04  221.84  603.62  222.01  613.35  222.13
  637.28  222.45     740  273.81   762.1  273.81
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Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	226.43	.041	320.57	.044	399.48	.044	437.99	.044
550.1	.035	762.1	.044						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
320.57	399.48	36.22	35.03	33.69	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 1331.66*

INPUT
Description:
Station Elevation Data num= 43

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	229.58	1.88	229.46	2.58	229.43	9.61	229	68.46	225.17
102.86	222.93	107.85	222.65	109.12	222.59	116.56	222.24	133.51	221.52
143.88	221.25	177.05	220.41	206.86	219.8	243.35	219.19	256.46	219.49
292.24	220.32	301.51	220.52	304.44	220.62	334.2	220.17	363.09	219.57
410.21	218.59	413	218.54	414.93	218.57	422.53	218.7	453.72	219.34
459.48	219.45	461.31	219.49	483.18	219.73	529.96	220.25	568.01	220.67
587.69	220.81	596.93	220.96	597.34	220.96	602.23	220.96	603.35	220.98
606.67	221.05	608.74	221.09	616.6	221.31	627.3	221.49	635.57	221.63
655.92	221.97	760	274.01	785.71	274.01				

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	256.46	.044	363.09	.041	453.72	.041	488.98	.041
591.62	.035	785.71	.041						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
363.09	453.72	36.22	35.03	33.69	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 1296.63*

INPUT
Description:
Station Elevation Data num= 43

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	229.55	2.1	229.42	2.89	229.38	10.73	228.91	76.47	224.68
114.9	222.21	120.48	221.87	121.89	221.8	130.21	221.39	149.15	220.5
160.72	220.19	197.78	219.2	231.08	218.5	271.85	217.84	286.48	218.29
326.45	219.53	336.82	219.83	340.08	219.98	373.33	219.5	405.6	218.81
459.78	217.66	462.99	217.59	465.12	217.62	473.52	217.78	507.97	218.5
512.71	218.59	514.22	218.63	532.24	218.9	570.78	219.49	602.13	219.97
618.34	220.17	625.96	220.31	626.29	220.32	630.32	220.37	631.25	220.4
633.98	220.47	635.69	220.51	642.17	220.77	650.98	220.98	657.8	221.12
674.56	221.5	780	274.22	809.31	274.22				

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
0	.035	286.48	.047	405.6	.038	507.97	.038	539.98	.038
633.14	.035	809.31	.038						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
405.6	507.97	36.22	35.03	33.69	.1	.3

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 1261.604

INPUT
Description: CS Modified 2:1 Slope, STA 693.2
Station Elevation Data num= 29

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	229.51	2.32	229.37	3.19	229.33	11.86	228.82	133.11	221.09
134.67	221.01	164.78	219.49	218.51	217.99	255.3	217.2	300.34	216.48
316.51	217.08	360.67	218.74	372.12	219.14	375.73	219.34	412.46	218.82
448.11	218.05	509.35	216.72	512.98	216.65	515.31	216.68	524.5	216.85
562.22	217.66	655.25	219.67	662.64	219.94	667.73	220.24	674.66	220.46
680.02	220.62	693.2	221.03	800	274.43	832.92	274.43		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.035	316.51	.05	674.66	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
448.11	562.22	200.55	184.85	174.75	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev	Permanent
888	F		

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 1076.731

INPUT
Description: Modify CS 2:1 Slope, STA 740
Station Elevation Data num= 24

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	225.39	38.27	223.82	57.81	222.67	102.57	220.22	159.15	217.03
166.17	216.76	181.78	216.75	307.53	218.03	385.37	216.65	387.62	216.6
415.26	216.37	436.81	216.36	465.93	216.34	501.77	216.32	542.17	216.25
568.76	216.34	588.61	216.4	631.52	216.24	683.41	216.57	700.71	216.66
732.91	216.81	740	216.89	861.74	277.76	910.02	277.76		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.035	436.81	.05	700.71	.035

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
501.77 568.76 240.12 252.42 203.34 .1 .3
Ineffective Flow num= 1
Sta L Sta R Elev Permanent
888 F

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 824.292

INPUT
Description: Manual Modification of Manning's N Values, Modify CS 2:1 Slope
Station Elevation Data num= 25

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	216.66	91.92	216.61	105.56	216.6	113.04	216.53	120.91	216.42
274.02	214.44	298.2	213.87	320	213.38	337.01	212.99	368.76	212.12
386.96	210.14	418	210.44	431.41	210.56	433.88	210.52	486.4	209.8
491.73	209.73	500.26	209.75	509.52	209.79	513.22	209.8	525.04	210.26
527.92	210.48	550.07	212.11	605.66	215.8	712.02	269.06	723.18	269.06

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.035	320	.05	525.04	.035

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
486.4 513.22 286.25 220.85 205.55 .1 .3
Ineffective Flow num= 1
Sta L Sta R Elev Permanent
888 F

CROSS SECTION RIVER: Canada Chiquita
REACH: Tributary RS: 603.449

INPUT
Description: Manual Modification of Manning's N Values, Modify CS 2:1 Slope
Station Elevation Data num= 37

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	216.25	2.71	215.91	14.5	215.55	14.87	215.54	53.56	213.21
75.28	212.46	108.91	213.35	141.18	212.44	185.63	211.23	254.29	209.66
272.96	207.31	276.4	206.85	294.8	205.24	299.94	204.84	308.82	204.25
313.28	203.82	341.71	202.7	354.73	202.03	368.33	202.85	383.93	203.72
396.26	207.55	407.37	210.29	410.14	210.43	415.8	210.66	455.43	211.6
478.04	212.09	491.66	212.12	567.69	211.81	569.39	211.81	570.91	211.64
574.86	211.18	579.58	210.63	585.64	209.92	587.61	209.29	602.05	203.94
613	209.4	724.92	265.15						

Manning's n Values num= 3

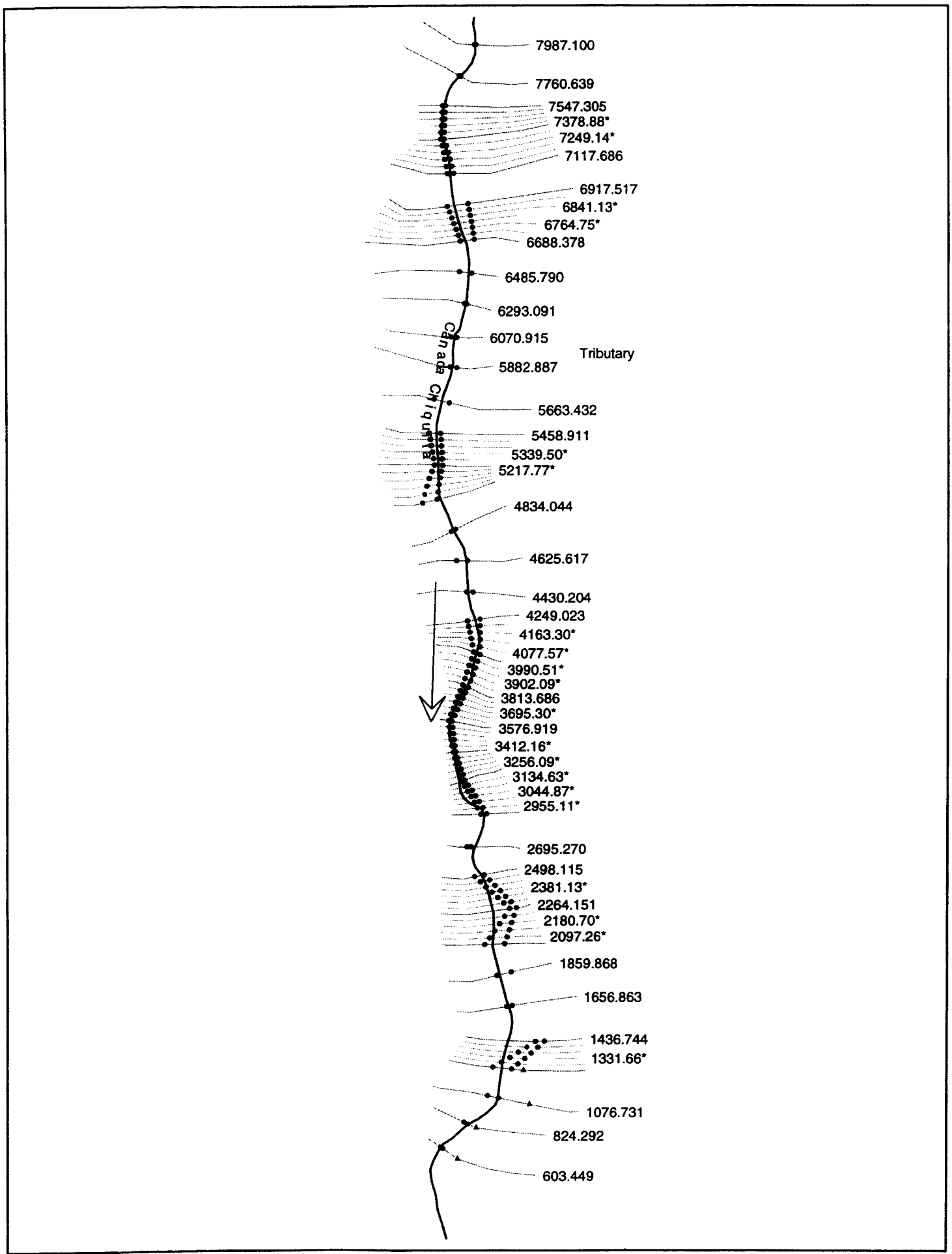
Sta	n Val	Sta	n Val	Sta	n Val
0	.02	14.5	.05	585.64	.035

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
587.61 613 331.3 603.46 438.86 .1 .3
Ineffective Flow num= 1
Sta L Sta R Elev Permanent
888 F
Blocked Obstructions num= 1
Sta L Sta R Elev
0 478.12 212.12

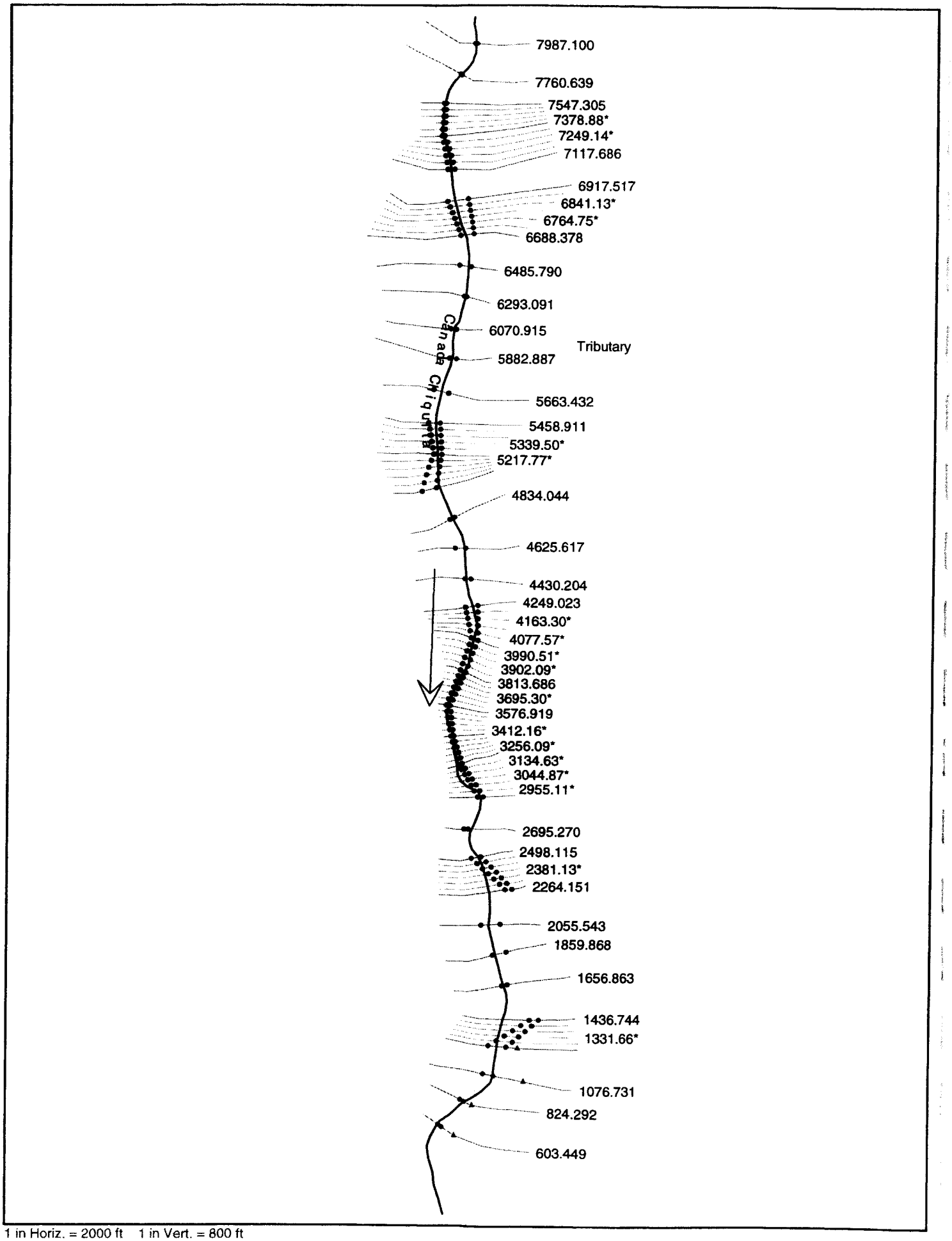
Profile Output Table - Standard Table 1

Reach	River Sta	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
		(cfs)	(ft)	(ft)	(ft)	(ft)	(ft/ft)	(ft/s)	(sq ft)	(ft)	
Tributary	7987.100	1226.00	320.27	325.72	325.72	327.35	0.019471	12.00	129.51	39.90	0.95
Tributary	7760.639	1226.00	313.52	319.48	317.86	319.97	0.005407	6.95	227.68	59.61	0.51
Tributary	7547.305	1226.00	310.88	316.74		318.05	0.015121	10.90	143.97	42.58	0.84
Tributary	7336.782	1226.00	308.71	313.51	313.41	315.07	0.018448	10.90	131.10	40.11	0.91
Tributary	7117.686	1226.00	305.80	311.67	310.06	312.22	0.004740	6.03	212.41	53.76	0.49
Tributary	6917.517	1226.00	308.38	309.91	309.91	310.44	0.021982	6.10	217.50	208.51	0.94
Tributary	6688.378	1226.00	302.02	303.96	303.25	304.04	0.002749	2.18	535.46	437.05	0.30
Tributary	6485.790	1226.00	301.74	302.63	302.59	302.94	0.020473	3.82	279.46	384.10	0.73
Tributary	6293.091	1226.00	295.04	299.31	299.31	300.52	0.008267	6.84	174.54	85.25	0.60
Tributary	6070.915	1226.00	294.93	298.02	297.31	298.37	0.005154	4.28	282.97	147.71	0.45
Tributary	5882.887	1226.00	293.71	295.85	295.85	296.55	0.022957	7.25	189.28	137.37	0.89
Tributary	5663.432	1226.00	288.73	290.93	290.43	291.22	0.008453	4.34	284.58	182.91	0.54
Tributary	5458.911	1226.00	285.04	287.49	287.49	288.35	0.026563	7.70	171.69	105.31	0.96
Tributary	5259.894	1226.00	281.10	284.19	283.52	284.46	0.006599	4.73	305.62	173.80	0.50
Tributary	5049.293	1226.00	281.40	282.72	282.72	283.14	0.028505	5.78	241.88	283.11	0.92
Tributary	4834.044	1226.00	267.90	273.30	271.76	273.72	0.008807	5.70	256.70	84.75	0.46
Tributary	4625.617	1226.00	268.93	271.87		272.09	0.007871	3.78	327.19	140.08	

0.40											
Tributary	4430.204	1226.00	266.78	269.46	269.46	269.86	0.017127	6.26	254.03	295.11	
0.77											
Tributary	4249.023	1226.00	262.53	264.92	264.48	265.29	0.010596	5.14	261.40	164.39	
0.61											
Tributary	4034.719	1226.00	260.16	263.05	263.05	263.67	0.015072	7.15	228.62	177.02	
0.76											
Tributary	3813.686	1226.00	255.03	258.07		258.99	0.020061	8.37	165.04	73.70	
0.88											
Tributary	3576.919	1226.00	248.17	254.67		255.13	0.007205	5.91	235.92	55.90	
0.43											
Tributary	3370.982	1226.00	247.85	252.20		253.17	0.014202	9.19	165.51	56.44	
0.79											
Tributary	3179.510	1226.00	244.41	248.18	247.69	248.68	0.004775	6.72	239.63	112.59	
0.64											
Tributary	2910.241	1226.00	242.04	246.24	245.47	246.77	0.008357	6.46	223.37	86.55	
0.59											
Tributary	2695.270	1226.00	241.15	243.79	243.77	244.25	0.017889	7.23	257.12	227.84	
0.81											
Tributary	2498.115	1226.00	237.84	240.05		240.64	0.021105	6.86	214.73	158.71	
0.85											
Tributary	2264.151	1226.00	234.60	236.17	236.17	237.36	0.037511	10.80	176.28	215.09	
1.55											
Tributary	2055.543	1226.00	230.72	232.50	232.12	232.78	0.010756	4.43	297.44	216.50	
0.59											
Tributary	1859.868	1226.00	228.61	230.11	229.85	230.38	0.013076	4.26	299.65	277.14	
0.63											
Tributary	1656.863	1226.00	223.70	226.31	226.28	226.96	0.022660	7.91	212.58	168.35	
0.91											
Tributary	1436.744	1226.00	221.37	223.20	223.20	223.55	0.011487	6.20	314.57	415.69	
0.87											
Tributary	1261.604	1226.00	216.65	219.35	218.78	219.40	0.001502	1.88	667.48	470.44	
0.23											
Tributary	1076.731	1226.00	216.25	217.14	217.14	217.48	0.033173	4.85	263.62	445.20	
0.93											
Tributary	824.292	1226.00	209.73	213.50	211.48	213.57	0.001186	2.47	615.71	256.50	
0.22											
Tributary	603.449	1226.00	203.94	210.97	210.97	212.76	0.010378	10.86	119.85	39.49	
0.92											



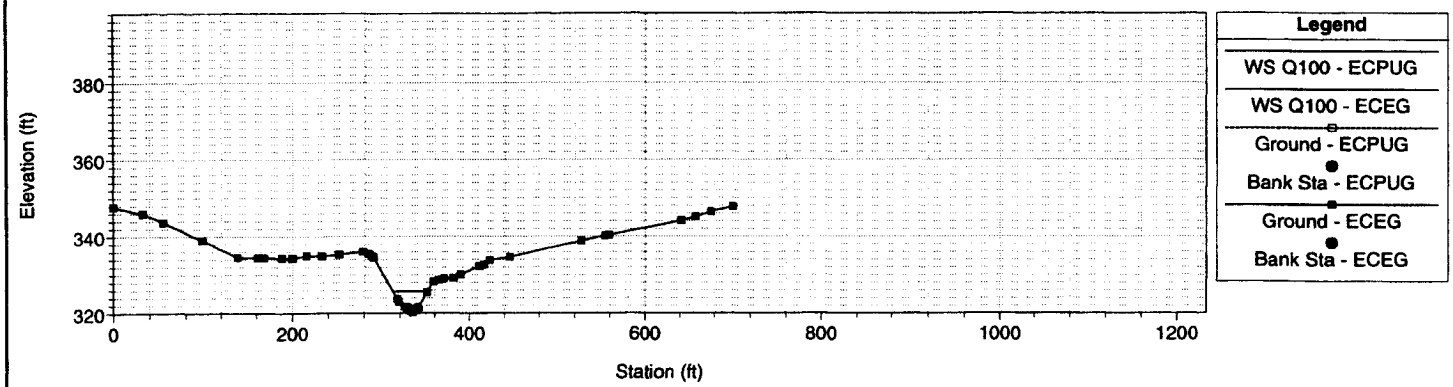
1 in Horiz. = 2000 ft 1 in Vert. = 800 ft



1 in Horiz. = 2000 ft 1 in Vert. = 800 ft

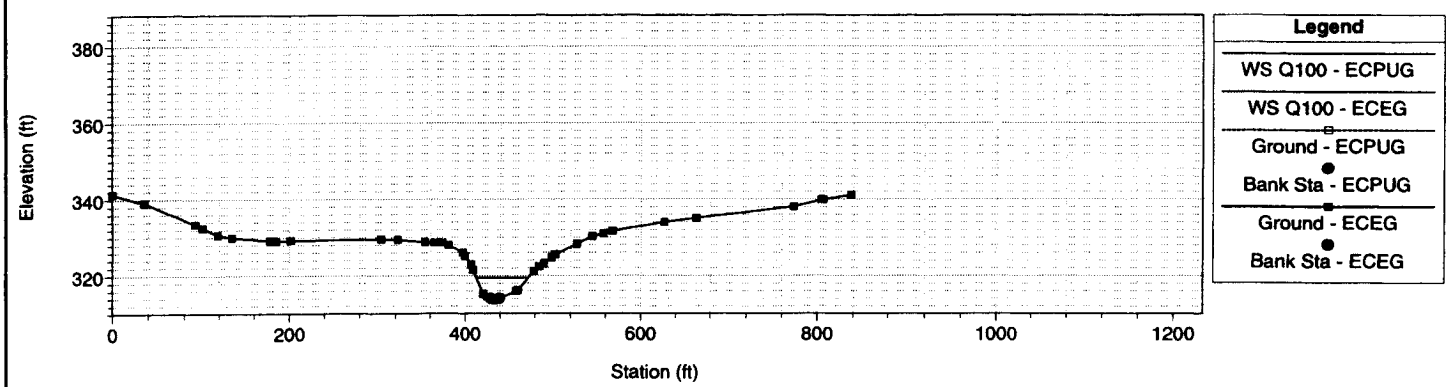
Project Model - D6

RS = 7987.100 A7C Alternative - Canada Chiquita Crossing



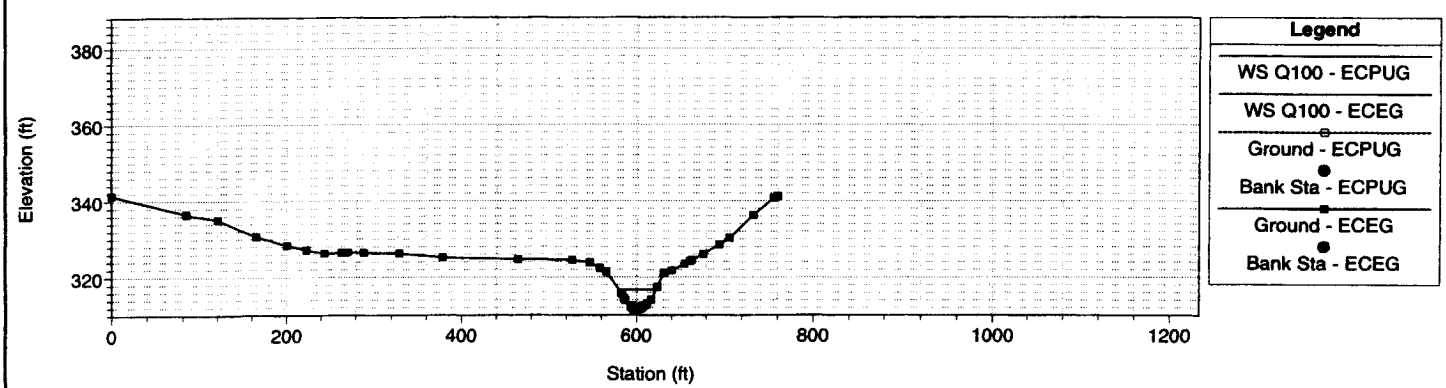
Project Model - D6

RS = 7760.639 A7C Alternative - Canada Chiquita Crossing



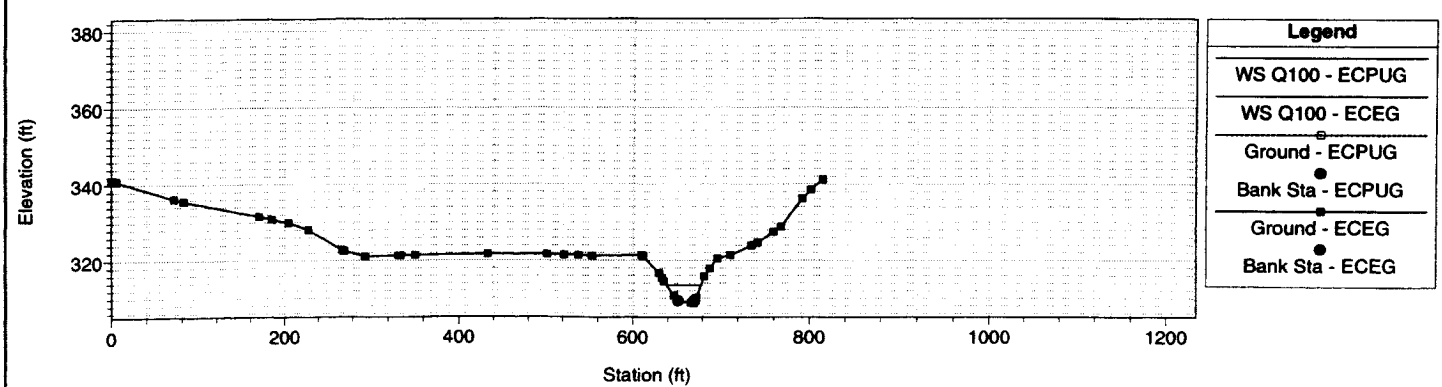
Project Model - D6

RS = 7547.305 A7C Alternative - Canada Chiquita Crossing



Project Model - D6

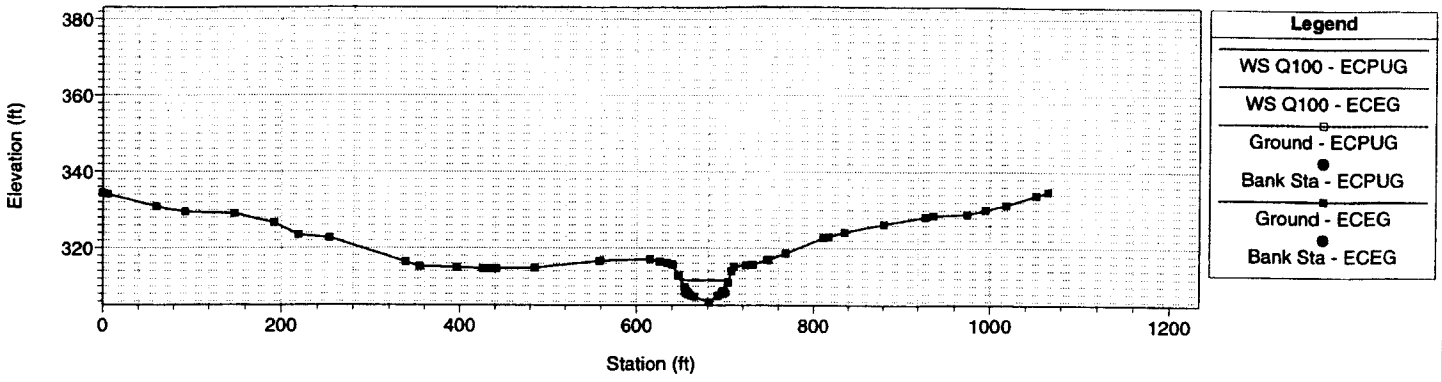
RS = 7336.782 A7C Alternative - Canada Chiquita Crossing



1 in Horiz. = 200 ft 1 in Vert. = 50 ft

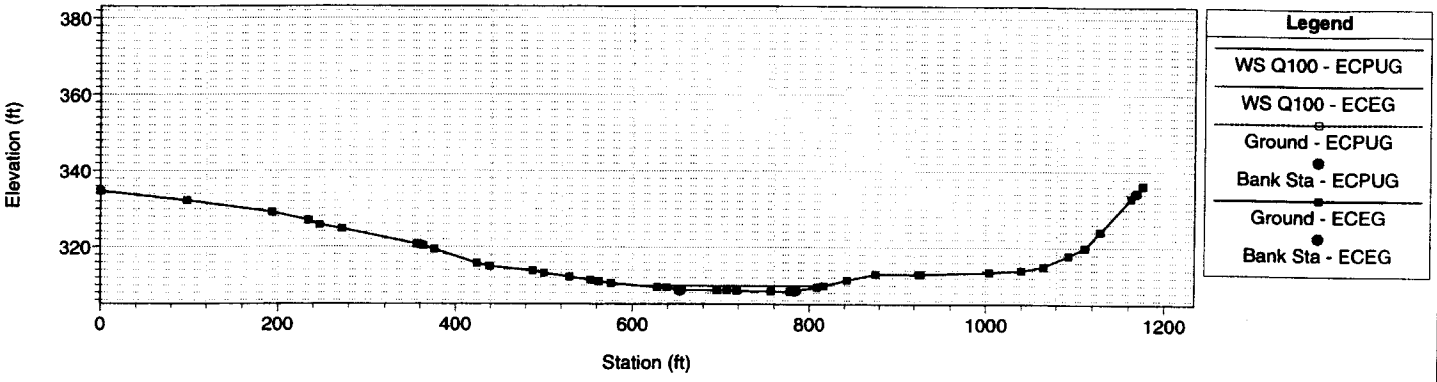
Project Model - D6

RS = 7117.686 A7C Alternative - Canada Chiquita Crossing



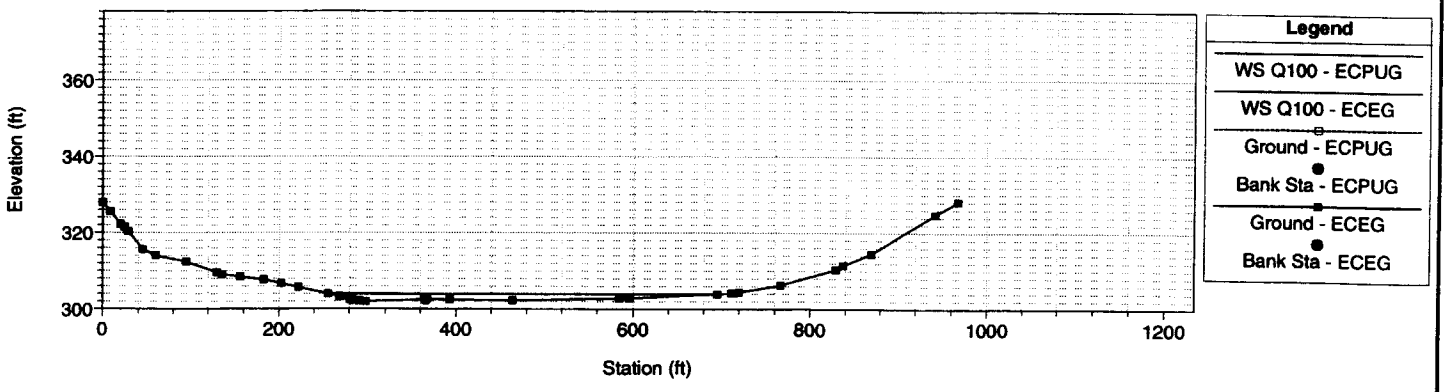
Project Model - D6

RS = 6917.517 A7C Alternative - Canada Chiquita Crossing



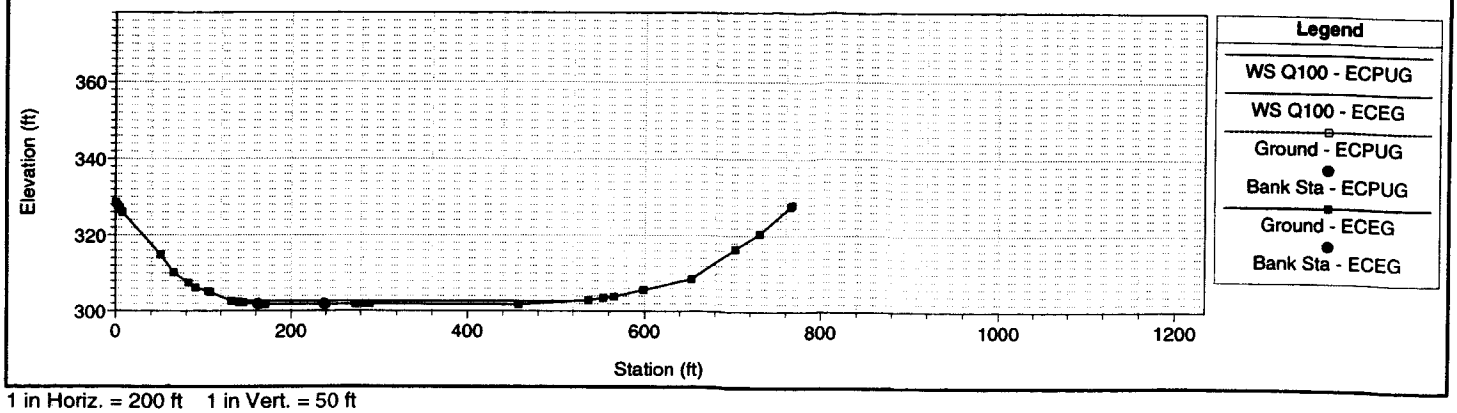
Project Model - D6

RS = 6688.378 A7C Alternative - Canada Chiquita Crossing



Project Model - D6

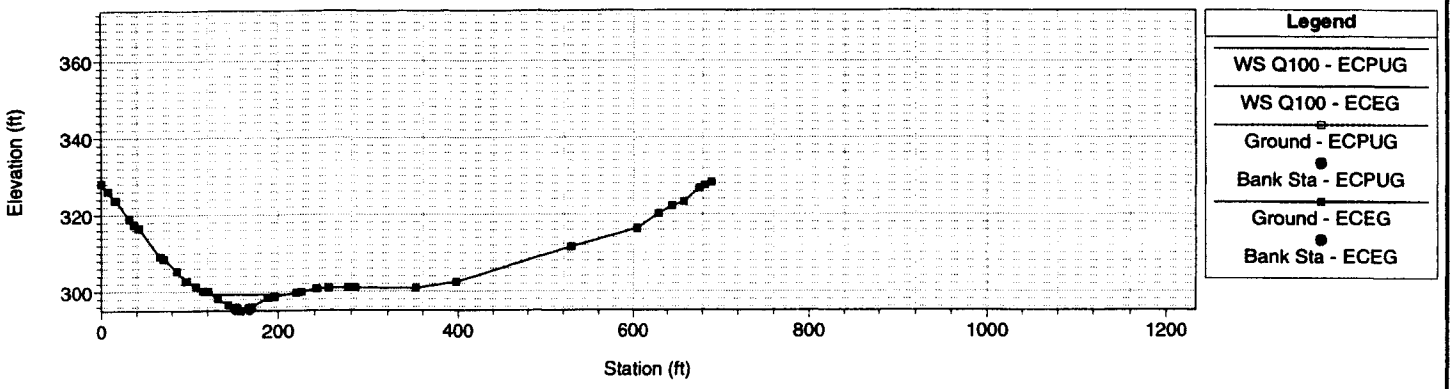
RS = 6485.790 A7C Alternative - Canada Chiquita Crossing



1 in Horiz. = 200 ft 1 in Vert. = 50 ft

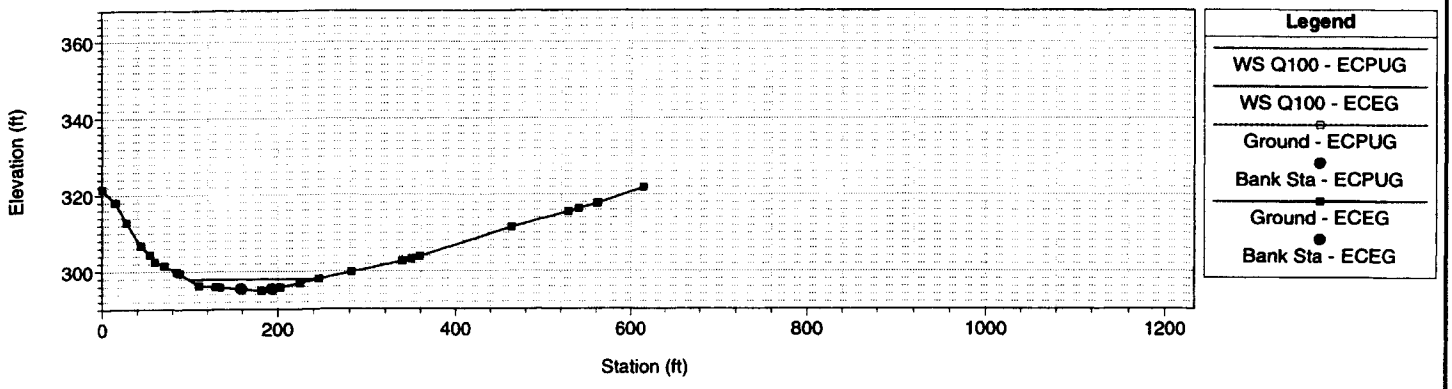
Project Model - D6

RS = 6293.091 A7C Alternative - Canada Chiquita Crossing



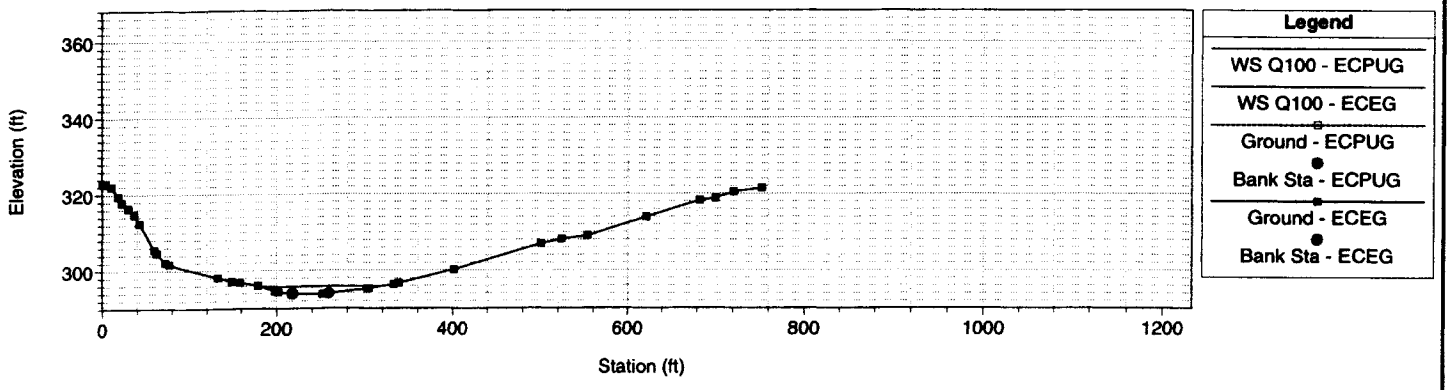
Project Model - D6

RS = 6070.915 A7C Alternative - Canada Chiquita Crossing



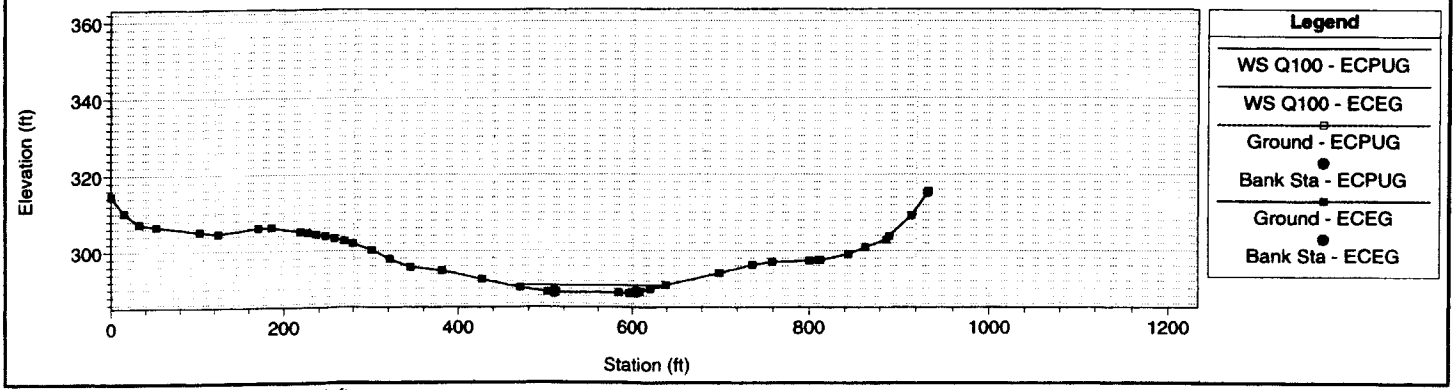
Project Model - D6

RS = 5882.887 A7C Alternative - Canada Chiquita Crossing



Project Model - D6

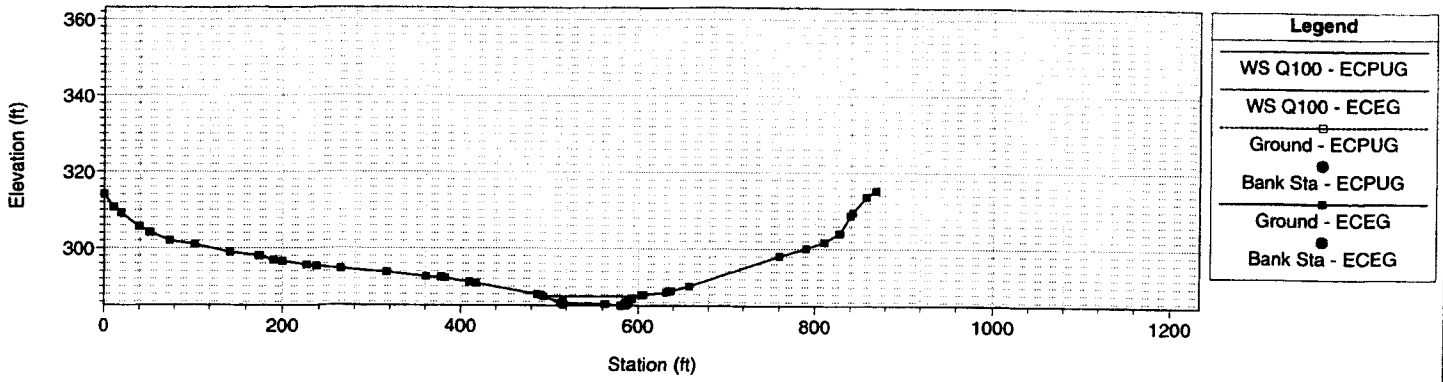
RS = 5663.432 A7C Alternative - Canada Chiquita Crossing



1 in Horiz. = 200 ft 1 in Vert. = 50 ft

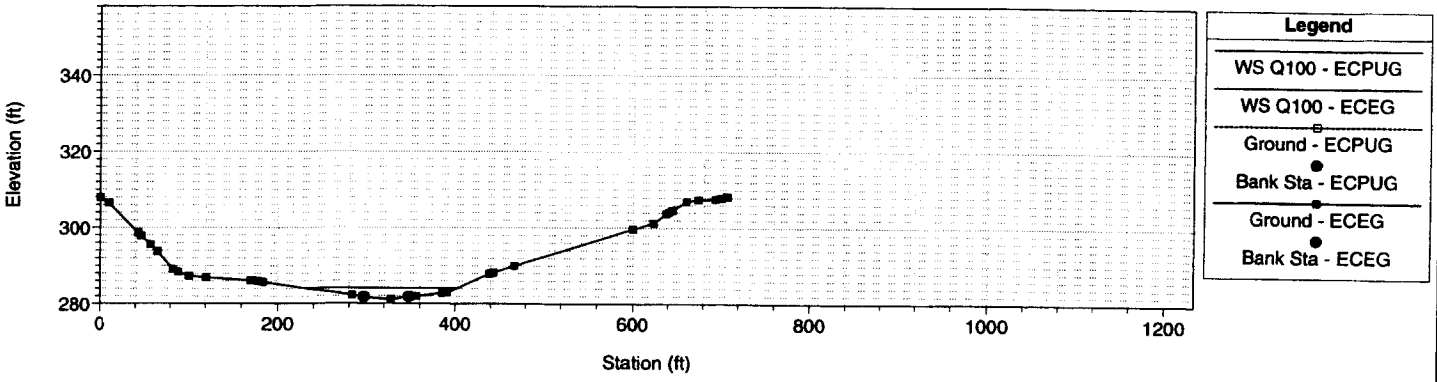
Project Model - D6

RS = 5458.911 A7C Alternative - Canada Chiquita Crossing



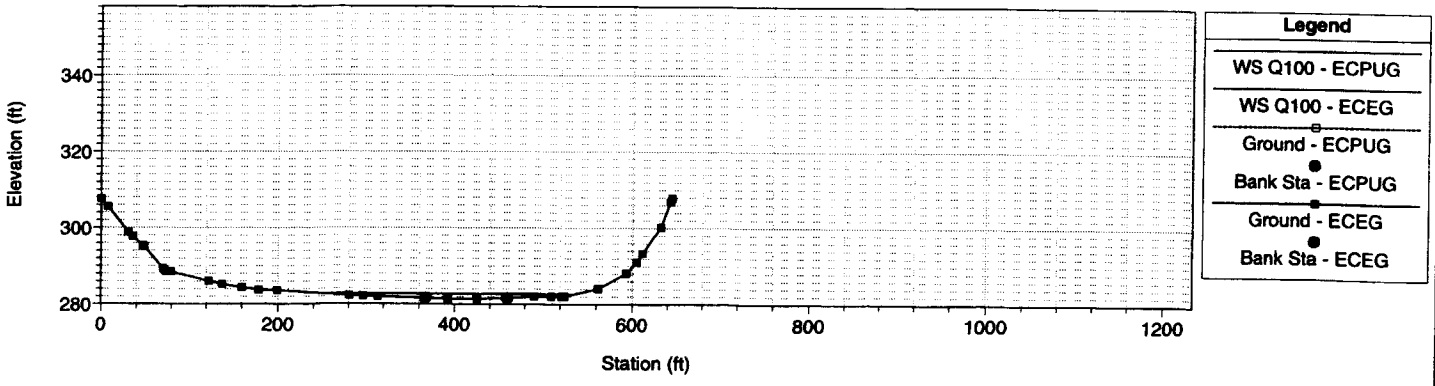
Project Model - D6

RS = 5259.894 A7C Alternative - Canada Chiquita Crossing



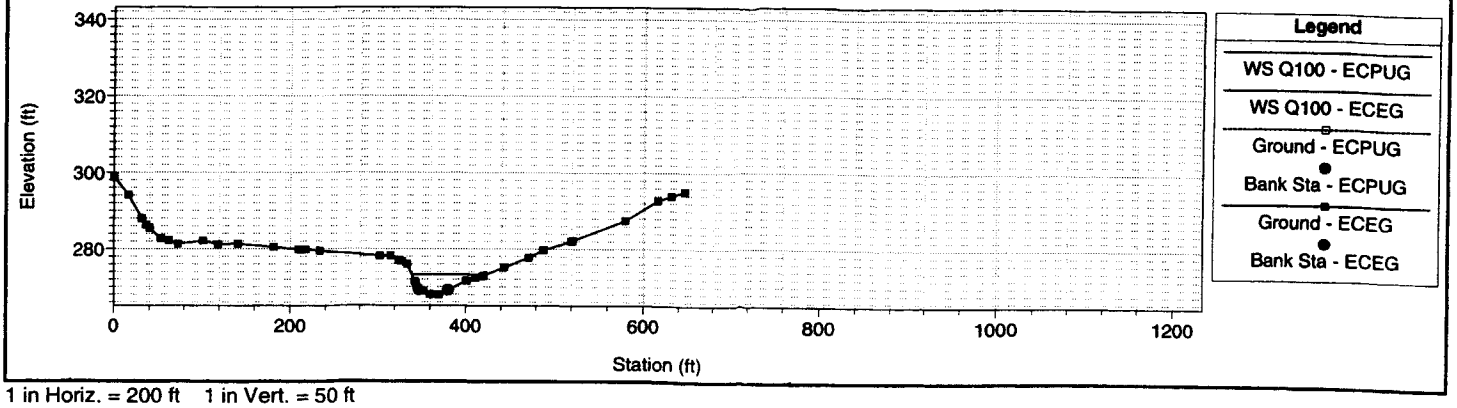
Project Model - D6

RS = 5049.293 A7C Alternative - Canada Chiquita Crossing



Project Model - D6

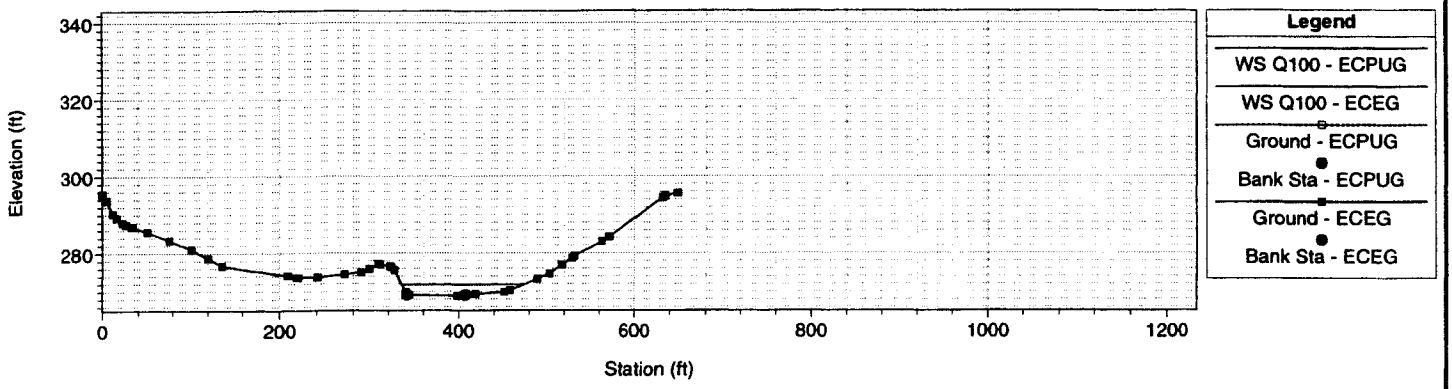
RS = 4834.044 A7C Alternative - Canada Chiquita Crossing



1 in Horiz. = 200 ft 1 in Vert. = 50 ft

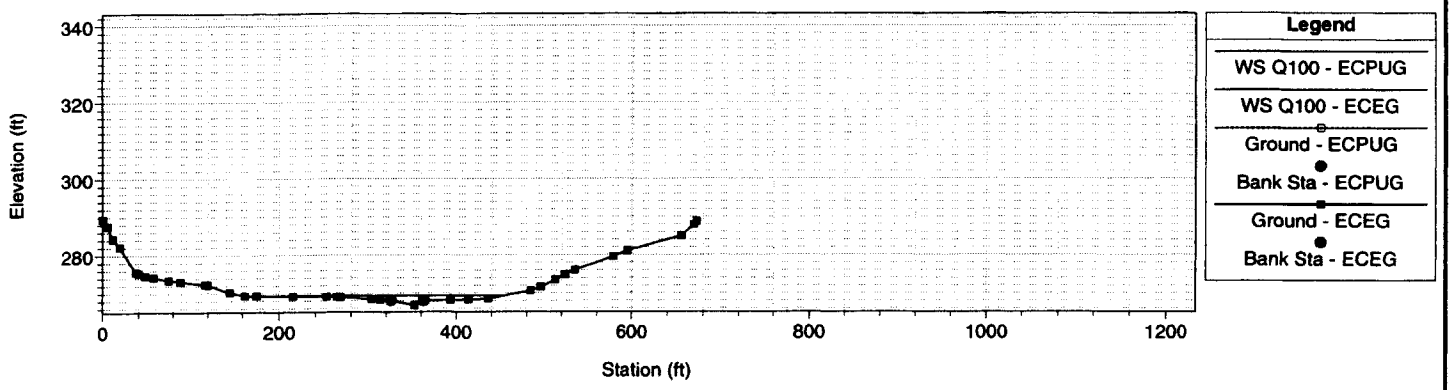
Project Model - D6

RS = 4625.617 A7C Alternative - Canada Chiquita Crossing



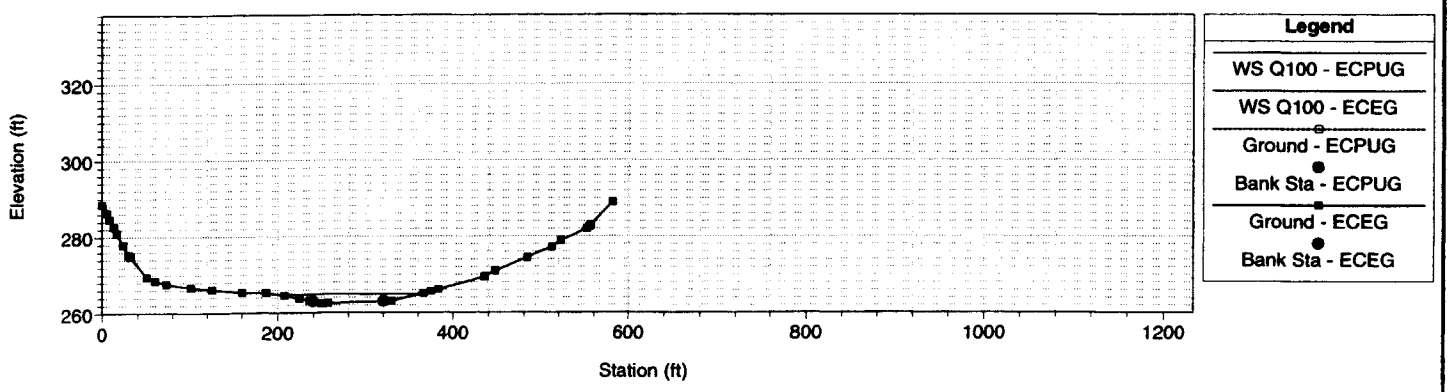
Project Model - D6

RS = 4430.204 A7C Alternative - Canada Chiquita Crossing



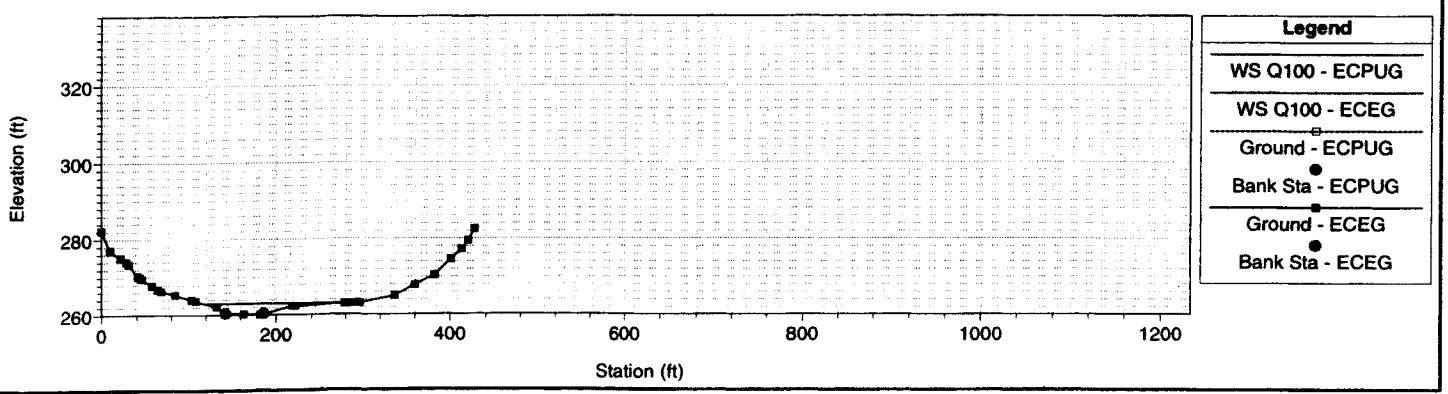
Project Model - D6

RS = 4249.023 A7C Alternative - Canada Chiquita Crossing



Project Model - D6

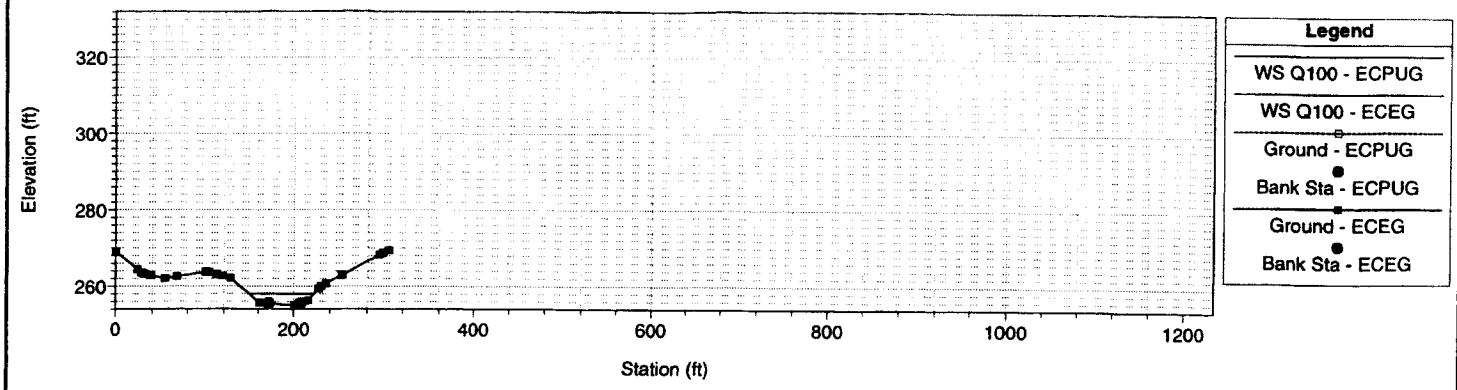
RS = 4034.719 A7C Alternative - Canada Chiquita Crossing



1 in Horiz. = 200 ft 1 in Vert. = 50 ft

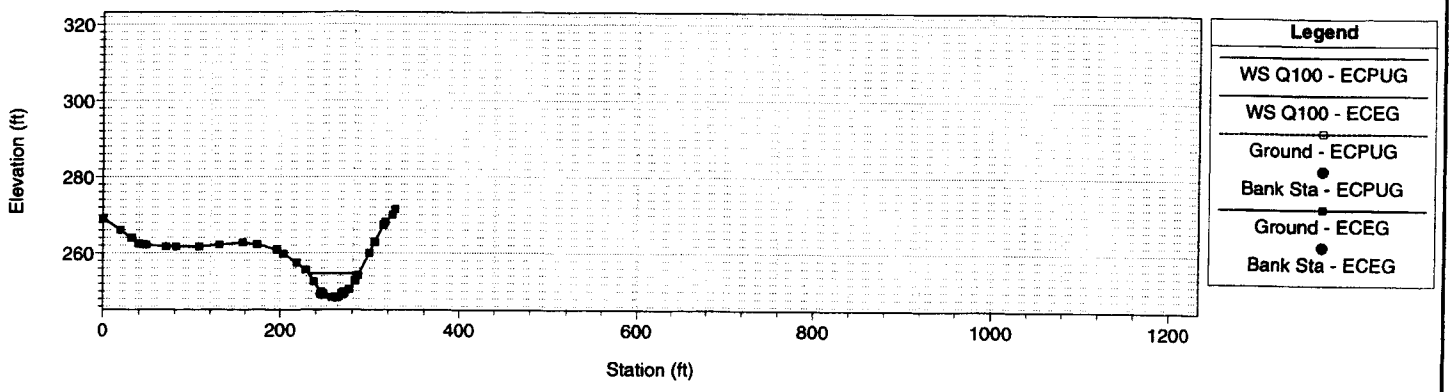
Project Model - D6

RS = 3813.686 A7C Alternative - Canada Chiquita Crossing



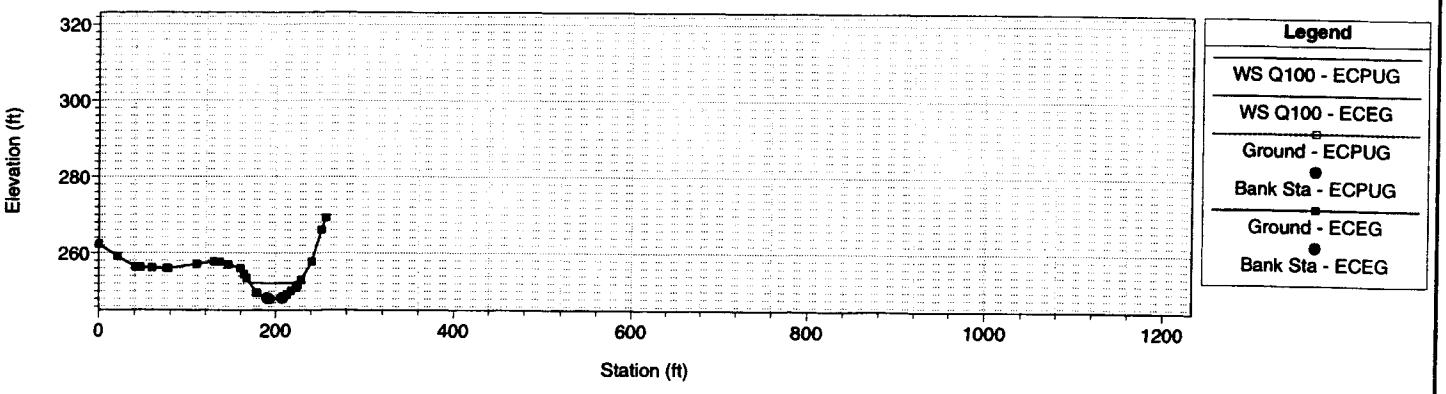
Project Model - D6

RS = 3576.919 A7C Alternative - Canada Chiquita Crossing



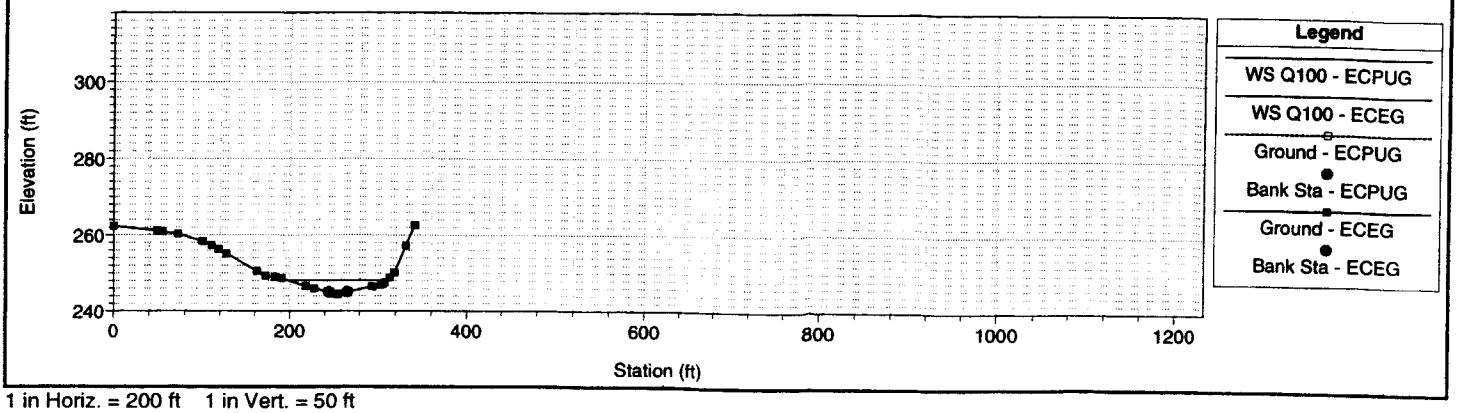
Project Model - D6

RS = 3370.982 A7C Alternative - Canada Chiquita Crossing



Project Model - D6

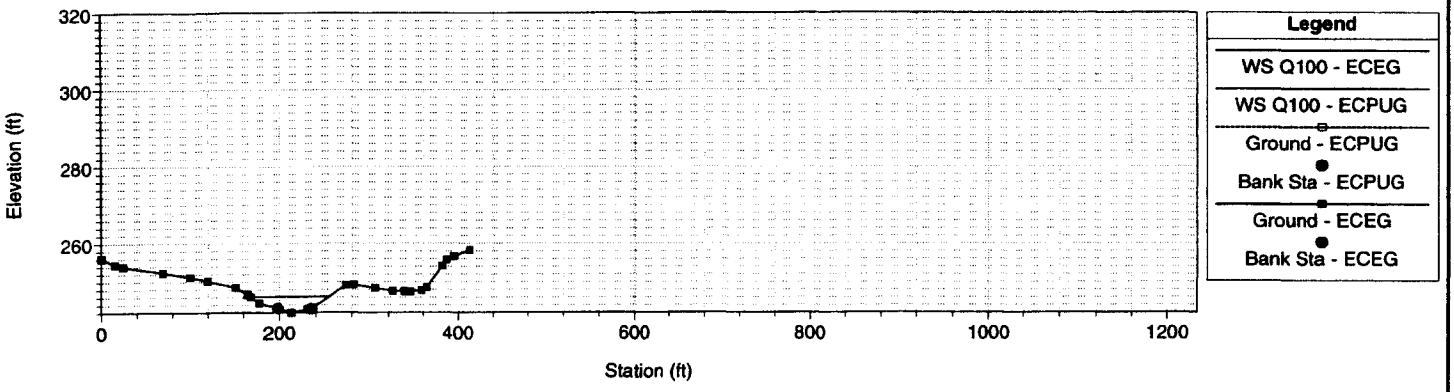
RS = 3179.510 A7C Alternative - Canada Chiquita Crossing



1 in Horiz. = 200 ft 1 in Vert. = 50 ft

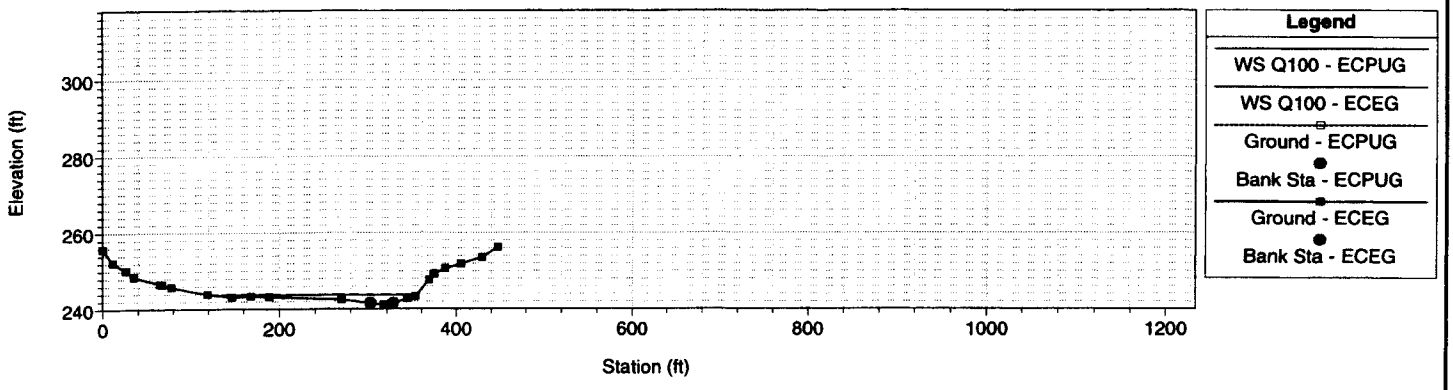
Project Model - D6

RS = 2910.241 A7C Alternative - Canada Chiquita Crossing



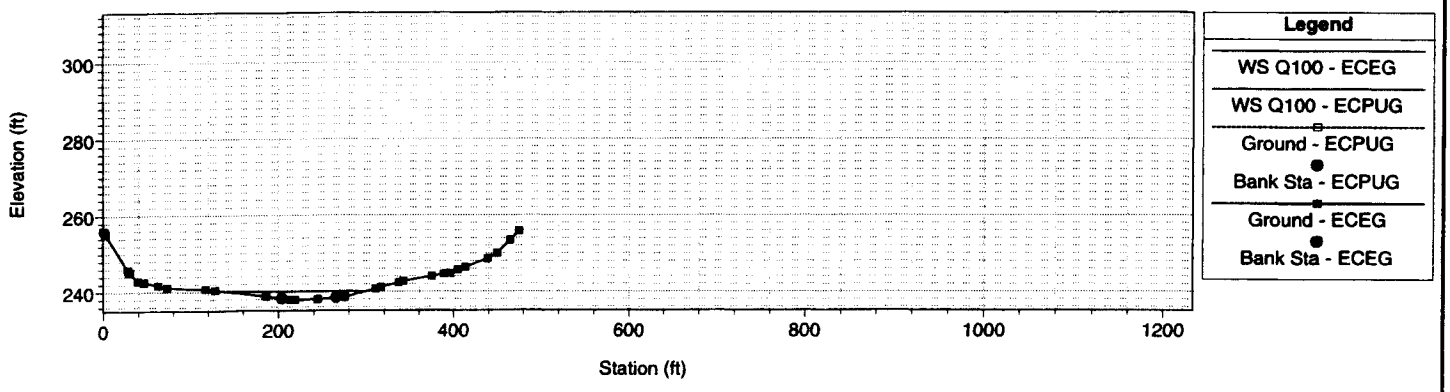
Project Model - D6

RS = 2695.270 A7C Alternative - Canada Chiquita Crossing



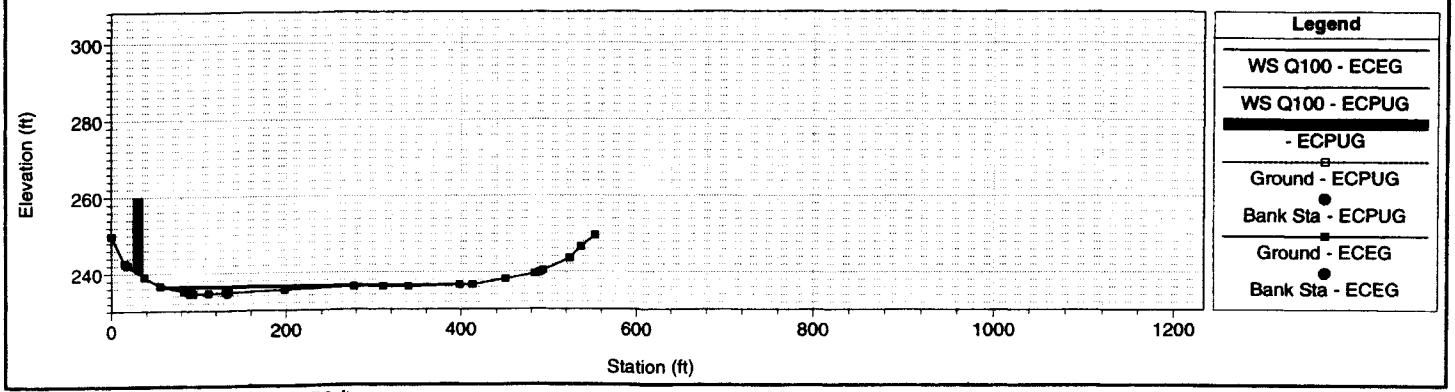
Project Model - D6

RS = 2498.115 A7C Alternative - Canada Chiquita Crossing



Project Model - D6

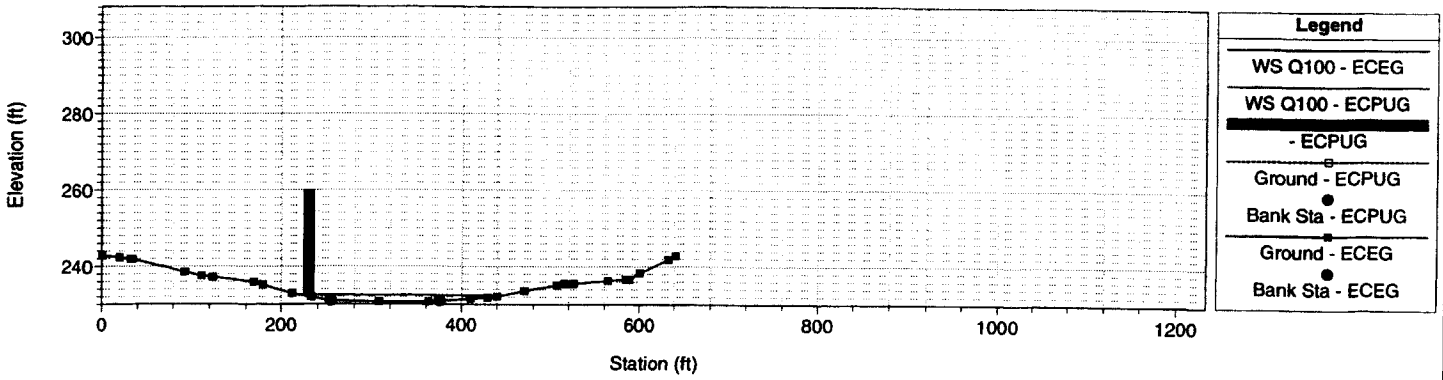
RS = 2264.151 A7C Alternative - Canada Chiquita Crossing



1 in Horiz. = 200 ft 1 in Vert. = 50 ft

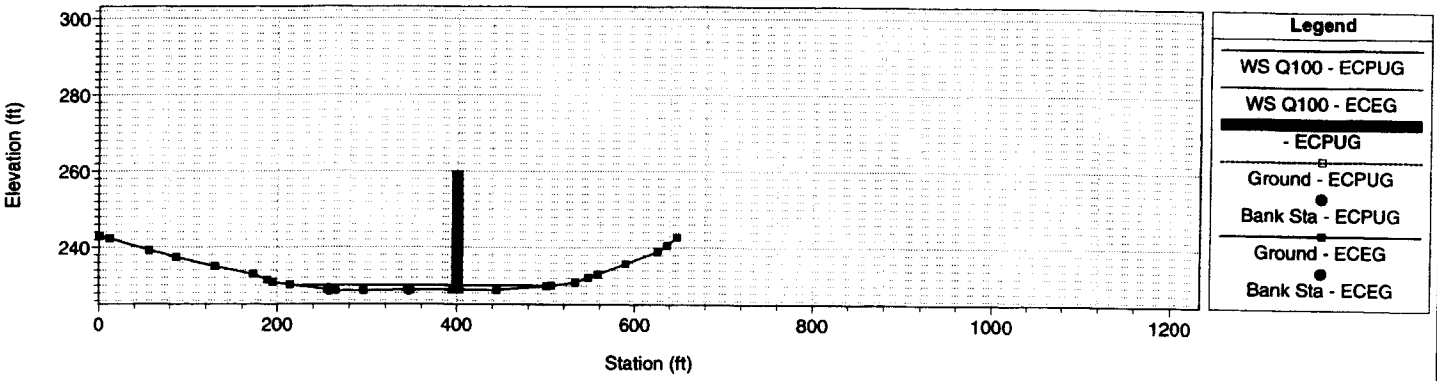
Project Model - D6

RS = 2055.543 A7C Alternative - Canada Chiquita Crossing



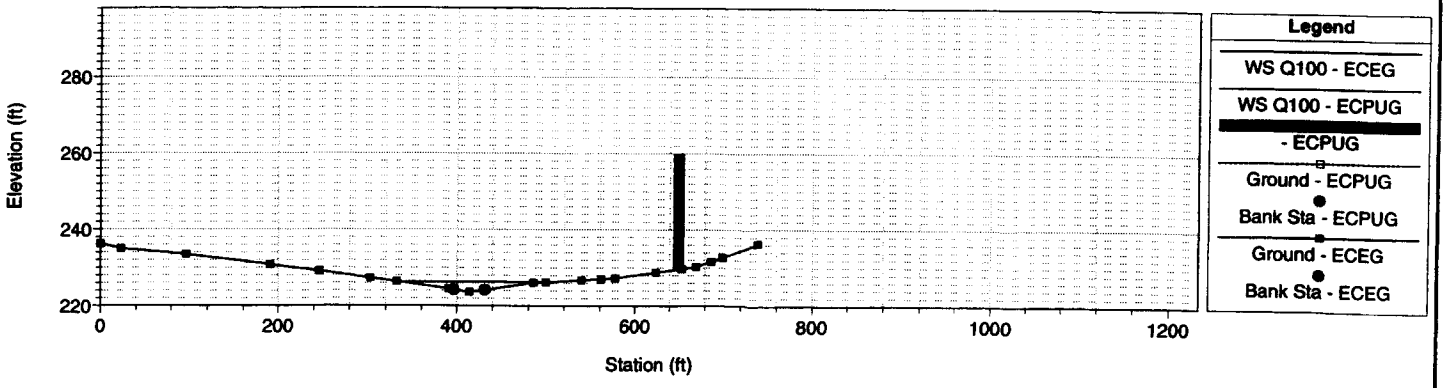
Project Model - D6

RS = 1859.868 A7C Alternative - Canada Chiquita Crossing



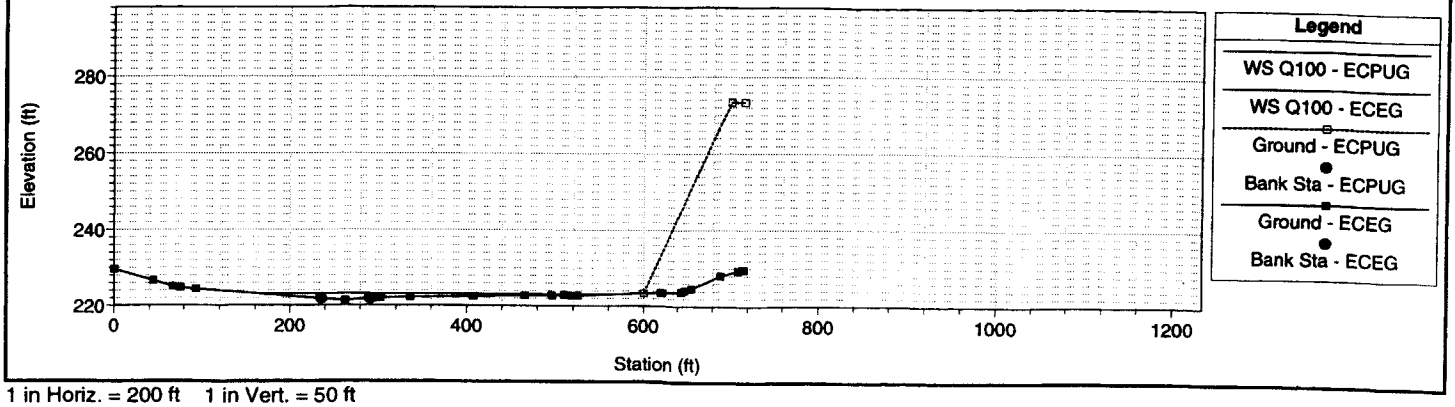
Project Model - D6

RS = 1656.863 A7C Alternative - Canada Chiquita Crossing



Project Model - D6

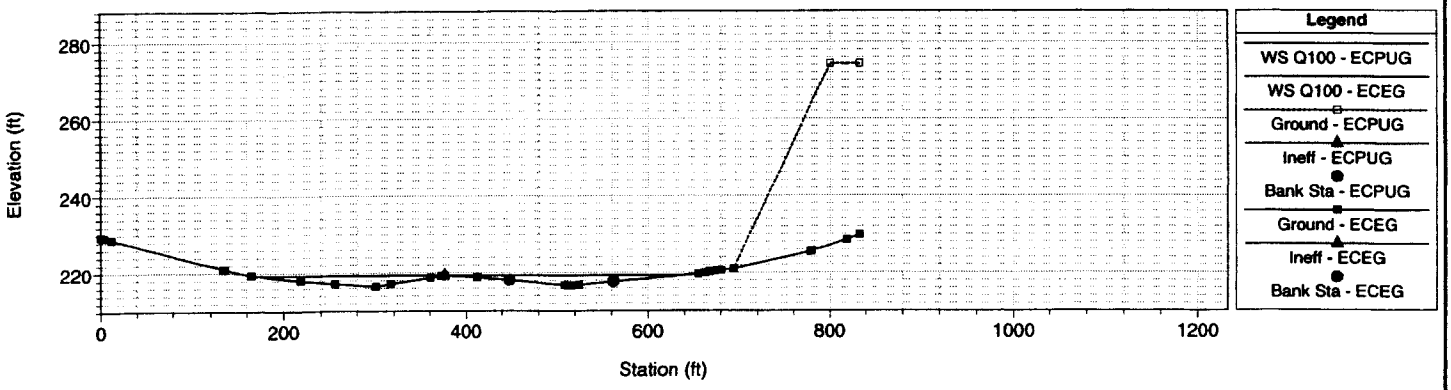
RS = 1436.744 A7C Alternative - Canada Chiquita Crossing



1 in Horiz. = 200 ft 1 in Vert. = 50 ft

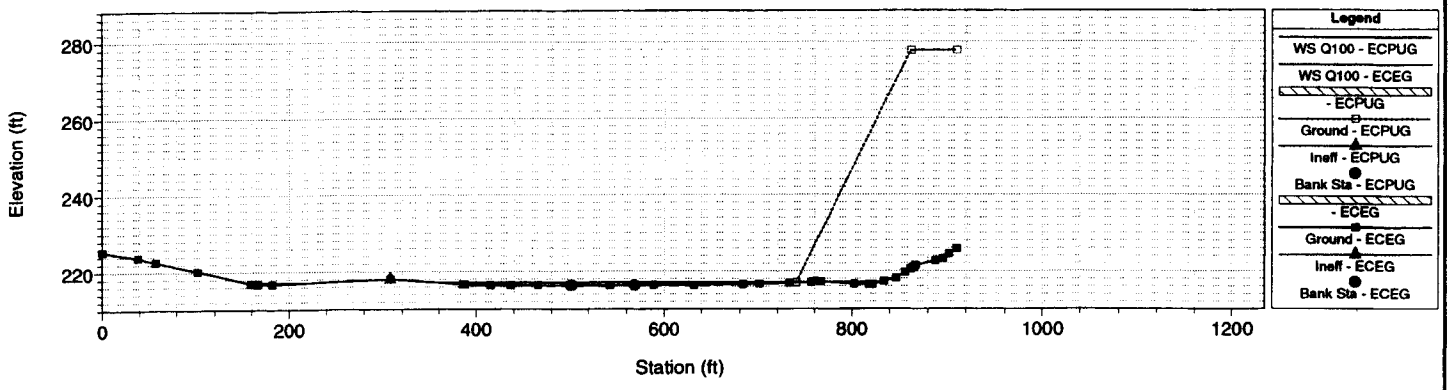
Project Model - D6

RS = 1261.604 A7C Alternative - Canada Chiquita Crossing



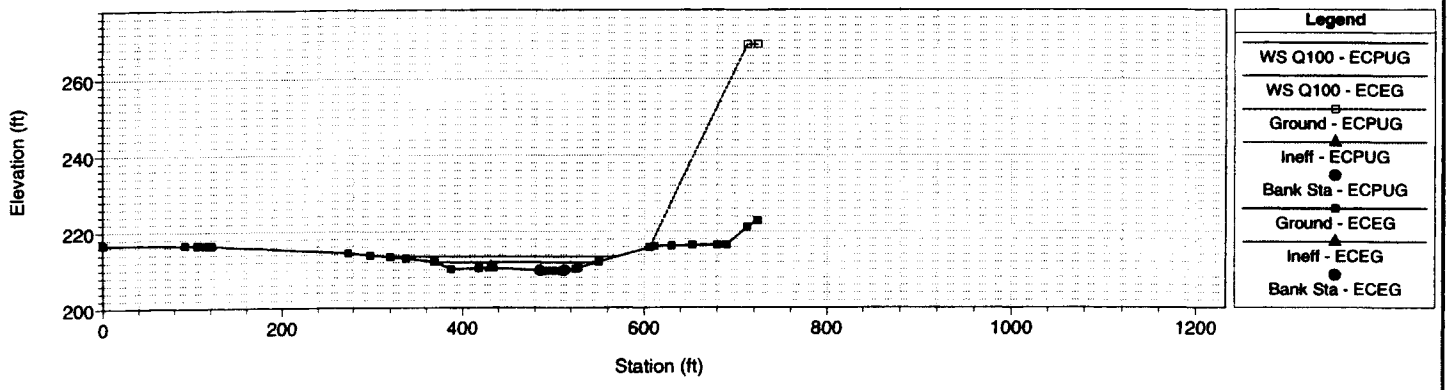
Project Model - D6

RS = 1076.731 A7C Alternative - Canada Chiquita Crossing



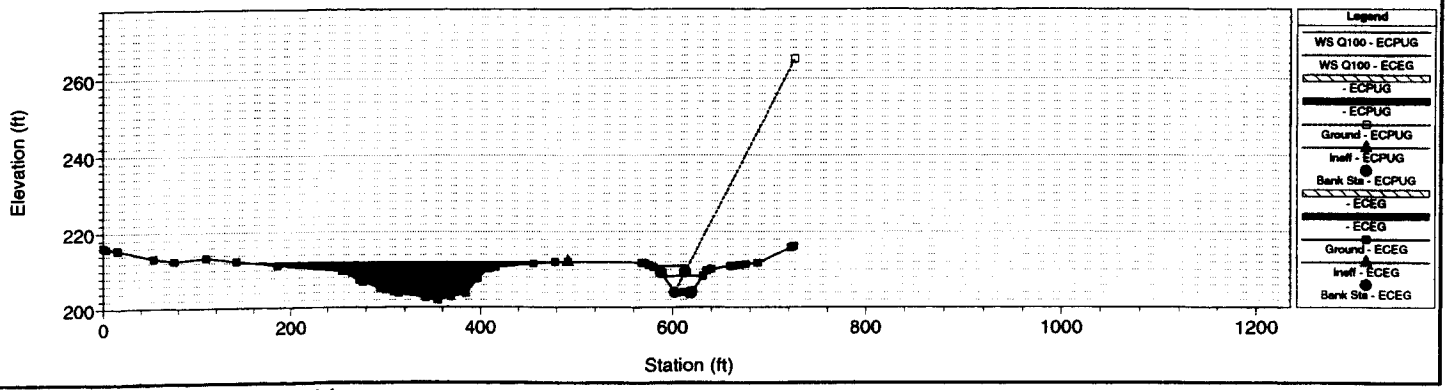
Project Model - D6

RS = 824.292 A7C Alternative - Canada Chiquita Crossing

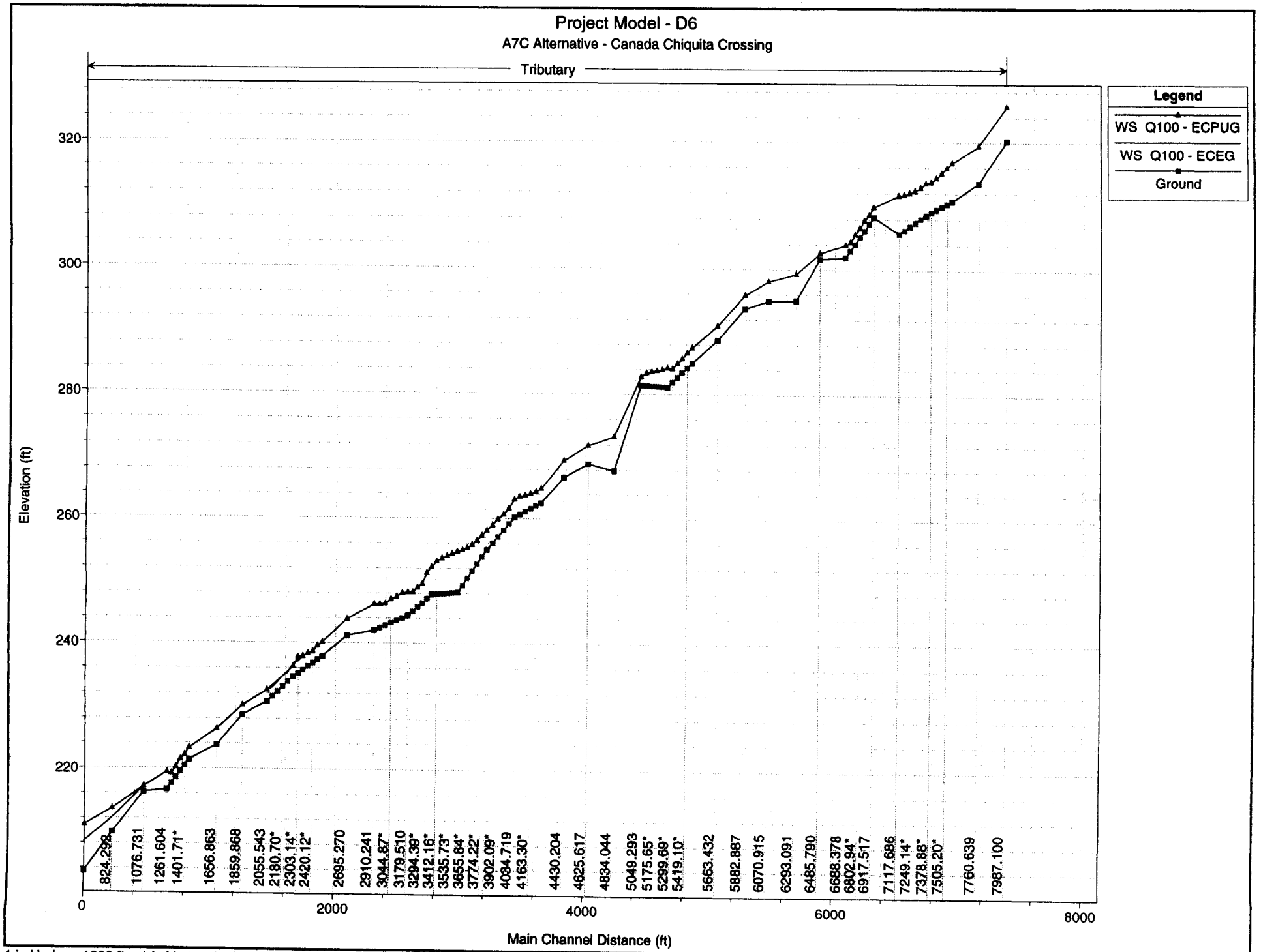


Project Model - D6

RS = 603.449 A7C Alternative - Canada Chiquita Crossing



1 in Horiz. = 200 ft 1 in Vert. = 50 ft



1 in Horiz. = 1000 ft 1 in Vert. = 20 ft