

**APPENDIX O
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COMMENT SUMMARIES AND RESPONSES**

FEDERAL COMMENTS

F1 U.S. DEPARTMENT OF AGRICULTURE, NATURAL RESOURCE CONSERVATION SERVICE – C. Giaquinto (5/6/99)

Comment Summary F1-1: During demolition and construction include provisions in the contract specifications that will ensure that demolition and construction debris and waste is handled in a manner that prevents its discharge into any water course, wetland, or other waterbody or on agricultural land.

F1-1 Generally, pipeline construction does not require the demolition of existing structures. Most disturbance is related to grading of the right-of-way to establish a level surface for pipe installation and the installation of erosion controls (e.g., silt fence, hay bales) and other materials, such as log rip rap and mats to stabilize the right-of-way in wetland areas. Millennium is required to remove all construction debris following construction. Millennium's ECS contains provisions for the containment and cleanup of accidental spills of petroleum products or polluting materials (see section V of Millennium's ECS).

F2 U.S. DEPARTMENT OF TRANSPORTATION, FEDERAL AVIATION ADMINISTRATION – L. Fisher (4/22/99)

Comment Summary F2-1: Explain whether and to what extent aircraft would be used to inspect or service the pipeline and associated facilities.

As stated in section 2.4 of the EIS, Millennium would conduct aerial patrols on a routine basis during operation to identify any activities that may affect the integrity of the pipeline. Aerial patrols may also be conducted on a routine basis during construction to identify problem areas, such as erosion, along the right-of-way.

Comment Summary F2-2: Explain whether local general aviation traffic would be reasonably expected to follow the right-of-way as a visual reference.

To the best of our knowledge, we are not aware of extensive use of utility rights-of-way for navigation, although smaller aircraft might use the right-of-way for visual reference.

Comment Summary F2-3: Explain what effects, if any, aircraft activity may have on the environment.

The project would not result in any significant increase in aviation traffic in the vicinity of the pipeline and therefore no significant associated new environmental impact, especially because most of the right-of-way would be adjacent to or within existing pipeline and powerline rights-of-way.

Comment Summary F2-4: Refer to 49 CFR 77.13 and apply the criteria for "notice of filing", a study with the FAA where pipeline facilities and construction equipment may create a hazard to air traffic near airports and navigation facilities. Concerned about the cutting of power to airports and navigation facilities during trenching.

Comment noted. We have revised section 2.7, table 2.7-1, to include the requirements under 49 CFR 77.13. We also note that the pipeline would not cross any airports.

F3 U.S. FISH AND WILDLIFE SERVICE, Cortland, New York – D. Stilwell (5/14/99)

Comment Summary F3-1: Federally listed species that are potentially within the project area include the bald eagle, dwarf wedge mussel, and bog turtle. Specific plans should be submitted for crossing areas where these species, or their habitat, is present.

Comments noted. Sections 4.6 and 5.6 of the FEIS include the information on the bald eagle, dwarf wedge mussel, and bog turtle. Also see the biological assessment issued January 17, 2001.

Comment Summary F3-2: Species of concern that are potentially within the project area include the longhead darter, bean villosa, green floater, yellow lamp mussel, and swollen wedge mussel. These species should be considered in the project planning process.

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Comments noted. Sections 4.6 and 5.6 of the FEIS include information on the longhead darter, bean villosa, green floater, yellow lamp mussel, and swollen wedge mussel and it has been updated

F4 U.S. FISH AND WILDLIFE SERVICE, Boston, MA – A. Raddant (6/3/99)

Comment Summary F4-1: Sensitive areas such as wetlands and streams should be delineated with orange flagging prior to the initiation of clearing and construction and restrictions such as no refueling, minimal soil disturbance, and special construction techniques in these areas should be included in Millennium's ECS.

F4-1 In compliance with Millennium's ECS and our Procedures, temporary erosion controls would be placed at the limit of sensitive areas (wetlands and streams) within and adjacent to the construction work area. Temporary erosion control measures include silt fence and staked hay bales, and must be installed by the end of the work day following grading activities at any wetland edge. The erosion control measures serve the dual purpose of trapping sediments that could be transported into wetland resource areas and visually alerting construction personnel to the boundaries of wetlands.

Millennium would locate and mark sensitive resources during the right-of-way survey, as well as the limits of the construction work area and buffer zones (see section 2.3.2). Millennium may use both flagging and signs to identify these areas as is typically done on other projects. The signs may also include the wetland or stream designation making it easier to check for any site-specific construction or restoration conditions that may apply. To comply with its ECS and our Procedures, Millennium would also need to mark the "no refueling zone" buffers adjacent to wetlands and waterbodies.

Comment Summary F4-2: Clearly identify the sections of the pipeline that are being abandoned by sale or where the abandoned right-of-way will be maintained.

The facilities to be abandoned are identified on table 2.1-2 and the impacts are analyzed in the EIS.

Comment Summary F4-3: Cumulative impacts of an enlarged right-of-way or multiple rights-of-way within a shorter distance of each other should be considered. Cumulative impacts should include a discussion on wildlife movement, slope stability, aesthetics, fragmentation, and reduction of forested habitat.

F4-3 Except for segments where the pipeline deviates off of the existing right-of-way for environmental, landowner, engineering or other reasons, the pipeline would be placed adjacent to or within existing rights-of-way. There is one 10-mile-long segment in Broome County (near Union Center) where there are two parallel rights-of-way within 500 feet to 1 mile of each other. There is also one 13-mile-long segment in Westchester County where there is one electric transmission right-of-way and a number of road rights-of-way within about 2.5 miles. There are no other significant segments where the pipeline would be within 500 feet or parallel to another right-of-way for long distances. We have considered the impacts of wildlife movement, slope stability, aesthetics, fragmentation and reduction of forested habitat associated with construction of the proposed pipeline and have taken into consideration potential cumulative impacts from adjacent rights-of-way. We have also considered if these cumulative impacts can be mitigated by specific construction or operation practices.

Comment Summary F4-4: The EIS should include alternatives to increase fish and wildlife use of the project area. Construction along the existing right-of-way and new right-of-way could provide an opportunity to include enhancement and creation of habitat areas that will attract fish and wildlife.

Our Plan and Procedures, and Millennium's ECS are intended to return the construction right-of-way to nearly the same condition as before construction except for forested areas where a permanent right-of-way must remain cleared. They require the removal and proper disposal of construction debris which includes brush, stumps, logs, and rock. We agree that using biotechnical erosion controls and planting vegetation or seeding with a mixture to attract wildlife could enhance the restoration of the construction right-of-way. Leaving construction debris such as brush, stumps, and rock on the right-of-way has been done on other projects to create "wildlife enhancement areas." Our Plan allows construction debris to be disposed of on or along the right-of-way with the landowner's concurrence and as long as the disposal area is not within a wetland. Section V.C.1 of our Plan already includes the requirement that restoration of waterbodies, that have been classified

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by the state as coldwater fisheries, should use clean gravel or native cobbles for the upper 1 foot of the trench backfill.

Comment Summary F4-5: Enhancement techniques could include the use of biotechnical erosion controls, installation of fish structures, and planting of vegetation to attract wildlife. Brush piles could be left within open areas of the right-of-way, vegetation could be composted, stumps and rocks could be left within the permanent right-of-way.

F4-5 Millennium states that it would be willing to consider the creation of wildlife enhancement areas along the construction right-of-way and that any plans pertaining to the creation of wildlife enhancement areas would be developed and sited in consultation with the FWS, the COE, the NYSDEC, and landowners, but no such plans have yet been developed. We have included a recommendation in section 5.4.2.1 for Millennium to consult with the FWS, COE, NYSDEC, and landowners about creating wildlife enhancement areas in uplands and at waterbodies. These plans would be marked on the CAS and would be filed with the Commission for review and written approval by the Director of OEP before construction.

Composting vegetative debris for use in restoring organic material to soils where topsoil was not segregated could be done. However, additional work space would be required for stockpiling this material. Millennium's ECS (sections II.C.1 and II.C.2) describes how Millennium would dispose of wood products and brush. Millennium may chip brush and dispose of it by spreading it on the right-of-way, followed by an appropriate application of nitrogen during restoration when the landowner has agreed to this disposal method in the easement.

Acres of impact on forest, agriculture, open land, industrial/commercial land, residential land, water, and other uses are listed by county in table 5.8.1.2-1 of the EIS. Wetland acres are summarized in table 5.7.3-1 and by wetland in appendix I of the FEIS.

Comment Summary F4-6: Water from dewatering bore pits and the trench should not be released within 25 feet of a waterbody and sediment filter bags and traps should be inspected throughout the period of active use (e.g. at least 4 hours, unless it is determined that more or less frequent inspection is warranted).

F4-6 Our Procedures (sections V.B.11 and VI.C.4) and Millennium's ECS (section II.H.1) require that trenches be dewatered in a manner such that no heavily silt-laden water flows into waterways. To meet this requirement, periodic monitoring would be required. Additional restrictions are not necessary as we believe that these dewatering measures are adequate to protect and minimize impact on aquatic resources.

Comment Summary F4-7: In areas that have perpetual and permitted off-road vehicle use of the right-of-way, a permanent access road with appropriate culverts for wetland and stream crossing should be constructed.

F4-7 Because Millennium only has an easement for construction, maintenance, and operation of a natural gas pipeline, other permitted uses of the land along with secondary impacts resulting from that use are not generally considered as part of the FERC certification process. Millennium states that because its pipeline right-of-way would consist of easements, it does not have the right to construct permanent roads on the right-of-way or to control how the property is used by the landowner. Millennium is also concerned about its long-term liability and maintenance costs, so it does not intend to develop permanent ORV trails. However, Millennium would be required to restore existing ORV trails along the right-of-way to at least preconstruction condition pursuant to its ECS (section II.G), just as it would for any other trail crossing.

Comment Summary F4-8: The Department of the Interior is concerned about Millennium's proposed crossing of Lake Erie since there has never been a pipeline crossing of this waterbody. Information required to evaluate the environmental consequences of the pipeline on the fish and wildlife resources of Lake Erie include: an estimation of the risk of a break in the pipeline and consequent impacts on water quality and biota; proposed work schedule for the jetting system section of the pipeline, if jetting is to be performed 24-hours a day an analysis of the impact of artificial lighting on fish and wildlife; clarification of whether there will be an inadvertent drilling mud release or an unavoidable release of drilling mud; a description of the impact footprint and estimated time to recovery of benthic biota; impact of an open trench on fish migration; estimation of the time it will take the lake bed to reestablish contours; area of potential impact should be presented in acreage and include the turbidity plume; and compensatory mitigation which could include the

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creation of a lake trout spawning reef. In addition, the Department of the Interior prefers the Niagara River Alternative which could utilize an existing right-of-way.

F4-8 The area of Lake Erie is about 10,000 square miles. Pipeline construction would affect about 798 acres of water in the U.S. and a total of about 2,262 acres of water in both the U.S. and Canada. This is a very small part of the Lake and its habitat. Although a pipeline crossing of the entire lake has never been constructed, there are many miles of natural gas pipeline in the lake on the Canadian side.

See section 5.12, for a discussion of the rate of accidents. Methane is the primary component of natural gas, is not toxic. The pipeline would be encased in 3 inches of concrete and would be buried at a depth to reduce the risk of a break from ice scour (6.6 to 11.2 feet). Millennium would maintain the pipeline in accordance with applicable Federal regulations. This would include monitoring the pipeline 24 hours a day by gas controllers that detect pressure drops in the pipeline that could indicate a leak (see section 2.5 of the EIS). In the event of a break in the pipeline, the gas flow would be shut down and the defective pipe repaired and the work would be done in compliance with Federal regulations (see section 5.3.3.3, pipeline repair). Between 14 and 21 days would be required to complete the repair.

Millennium states that pipeline would be installed in Lake Erie at a rate of about 4,000 feet per day (see section 2.3.1 of the EIS). This would equate to about 43 days to install the pipeline over a distance of 32.9 miles in the U.S. segment of Lake Erie. Millennium further states that pipe laying would continue 24 hours a day, 7 days a week. We have included a discussion of the effects of artificial lighting on fish and wildlife in section 5.3.3 of the FEIS.

Section 5.3.3, page 5-33, of the DEIS stated that Millennium estimates that drilling fluids (composed of about 2,000 cubic yards of spoil, 4,000 cubic yards of extended bentonite, and 575,000 barrels of water) would be discharged from the exit hole in Lake Erie. The discussion in this section went on to state that the drilling mud deposits would range between 0.0047 and 0.094 inches thick for a distance of about 4,430 feet from the exit hole. Section 5.4.1.2 of the FEIS now includes more discussion of potential impacts on benthic biota from the directional drill. Section 5.3.2.3 of the DEIS discussed inadvertent drilling mud releases associated with directional drills, where the drilling mud can escape along fractures along the drill path. Although the same situation could also develop along the Lake Erie directional drill, the directional drill in Lake Erie would result in an intentional release of drilling fluids at the exit hole.

Fish migration would not be affected by the open trench. Millennium expects that backfilling would begin immediately after the pipe is placed in the trench (see discussion in section 5.3.3, jet sled construction).

The plume of TSS greater than 1,000 mg/l would affect between 1.2 and 119.3 acres of the lake at any given point depending on the location within the lake and the ambient lake current. This is a relatively small percentage of the total lake area. Millennium revised its estimates to take into account the deeper trench depths (see section 5.3.3, sediment disposition, of the FEIS). Wave and wind drift were not taken into account because of the complexity of these parameters and the uncertainty of the results.

Millennium states that it is willing to develop plans for compensatory mitigation in consultation with the regulatory agencies, but that no such plans have yet been developed. We have recommended that Millennium work with appropriate agencies to develop a mitigation plan (see section 5.4.1.2 of the FEIS). The Niagara River Alternative is discussed in section 3.2 and 3.3 of the FEIS.

Comment Summary F4-9: Haverstraw Bay is a productive estuary that is a regionally significant nursery and wintering habitat for anadromous, estuarine, and marine fish species and is a migratory and feeding area for birds and fish. Haverstraw Bay and Tappan Zee occupy the area between Piedmont Marsh and Stony Point, which is a wide, shallow section of the river and is the area of the seasonal, and annual, salt front. It is very high in primary and secondary biological productivity and serves as a major nursery and feeding area for anadromous and estuarine-dependant species. A network of marshes behind Grassy Point adjacent to Haverstraw Bay is one of the few wetland areas along the lower Hudson River. Information required to adequately evaluate the environmental consequences of the Hudson River crossing includes: a discussion of the potential impacts of the pipeline on overwintering birds in Haverstraw Bay;

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the potential footprint of impact and an assessment of the impact; and compensatory mitigation for unavoidable impacts on the Hudson River.

Comment noted. We have provided updated project information in sections 2.2.4 and 3 of the SDEIS. Additional information on the environmental consequences of crossing the Hudson River was provided in our BA and EFH assessment.

The pipeline would not displace overwintering birds because construction would occur during late summer and autumn.

The FEIS includes responses to all comments the FERC received on the Hudson River alternatives. As proposed, there would be no drilling mud releases in the Hudson River because Millennium does not plan to drill the shorelines or any other part of the river (see section 5.3.4 discussion of alternative construction techniques for the Hudson River). Based on analyses conducted to date, there would be no long-term impact on the bay. Appendix J of the FEIS contains a description of anticipated construction impacts and was prepared by Millennium as part of its coastal zone consistency determination. The NMFS will also be preparing a Biological Opinion for the Hudson River/Haverstraw Bay crossing and may require compensatory mitigation for potential impacts on the endangered shortnose sturgeon.

Comment Summary F4-10: Mainline valves should not be sited within floodplains and the mainline valve within the Mongaup River valley should be relocated outside of the valley to avoid impact to sensitive species.

F4-10 Millennium states that the proposed valve in the Mongaup River valley would replace the existing one at this location (MP 330.0). Although this valve is not located in a floodplain, Millennium states that it would relocate it east to MP 330.3 (see section 2.1 of the FEIS).

Comment Summary F4-11: The statement on page 2-11 of the DEIS regarding the control of speed should include a recommended jetting system speed to minimize impact on water quality. If a speed cannot be recommended prior to construction, then a method for monitoring water quality impacts and appropriate contingency plans for regulating jetting system speed should be incorporated into the EIS.

F4-11 The full statement on page 2-11 of the DEIS states "By controlling the speed of the jetting system, the spoil discharge velocity can be maintained at the minimum required to excavate the trench and to minimize the dispersion of the spoil into the surrounding water." We cannot specify a preferred speed because the speed may need to be varied depending upon sediment and water conditions encountered at any specific location on any particular day. Millennium has indicated that it would use the minimum speed necessary to excavate the trench. However, we have revised our recommendation in section 5.3.3 of the FEIS to require Millennium to include in the finalized site-specific plan for the Lake Erie crossing a procedure for monitoring and minimizing dispersion of the spoil in the lake bottom.

Comment Summary F4-12: Wetland and stream contours should be surveyed prior to clearing and construction.

Millennium states that, before construction, survey personnel would walk the construction work area taking photographs, noting locations of grade changes, and noting locations where existing grade within the construction work area is different from existing grade outside of the construction work area. Following construction, the construction work area would be regraded to match the grade of areas outside of the construction work area. Special features noted in the preconstruction survey would be restored. The specification for adequate restoration is that final grade must be within 6 inches of preconstruction grade. The postconstruction inspection program would also ensure that proper grade is maintained following construction. This inspection program would continue for 2 years (growing seasons) after construction and for 3 years in wetlands (see section VI of Millennium's ECS). If wetland areas are not restored appropriately, Millennium would take the necessary steps to correct any problem areas. However, in some wetlands a difference of 6 inches may be significant, and we have added a recommendation to section 5.7.3 requiring that a "wetland specialist" be present during final grading of all affected wetlands. This person would be familiar with the hydrology of the affected wetlands and would direct modifications to the final grade as necessary to ensure

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restoration. With these measures, we conclude that topographic surveys are not required to ensure proper regrading following construction.

Comment Summary F4-13: Existing vegetation should be conserved during the clearing of wetland and streambanks.

F4-13 Conservation of the existing vegetation via transplantation within cleared wetland areas would be unreasonable, prohibitively costly, and labor intensive. Section VI.C.2.e of our Procedures requires that wetland vegetation be cut off at ground level, leaving existing root systems in place; section VI.C.2.f requires that removal of tree stumps and grading be limited to the trenchline and to areas where it may be needed for construction safety; and section VI.C.2.g requires topsoil segregation over the trenchline, except where standing water or saturated soils are present. These requirements mitigate the effects of construction within wetlands by minimizing the disturbance to existing root systems, which often develop new growth after (and sometimes before) construction is completed. In addition, our experience is that the wetland seed bank in disturbed areas is usually robust enough to regenerate a herbaceous community similar to that which existed prior to construction.

Comment Summary F4-14: The statement on page 2-15 of the DEIS regarding temporary erosion controls should be changed to: "Temporary erosion controls would be installed prior to disturbance of soil except w[h]ere impracticable; otherwise these controls would be installed promptly after initial disturbance of the soils. Temporary erosion controls would be maintained throughout construction and through successful revegetation as described in the ECS."

F4-14 While it is practical to install erosion controls at the boundaries of areas (such as waterbody and wetland crossings) where there would be no immediate disturbance, it is not practical to install erosion controls (which include slope breakers) before clearing and grading. During clearing, there is enough vegetation in the form of slash, other woody debris, and root systems to minimize erosion. Any erosion controls installed would be superfluous and would need to be removed to complete the grading process. Once grading is complete, then it is necessary and required to immediately install erosion controls to minimize the potential for erosion and off right-of-way siltation. Therefore, we conclude the ECS (section II.D.3) and our Procedures (section V.F) are acceptable as written.

Comment Summary F4-15: To reduce the potential for erosion, sedimentation, and increased turbidity of streams and wetlands the trench should be rough filled with appropriate trench breakers that are installed within one week of pipe laying.

F4-15 Trench breakers or barriers (typically sand bags) are normally installed in the trench and around the pipe to slow water flow along the pipeline on slopes (see figure 12 of the ECS). Millennium intends to promptly install trench breakers every 15 feet as soon as the trench is completed. Trench plugs (typically about 6 to 8 feet wide) are left in the open trench at intervals (depending on topography) to keep trench water (from rainfall events or seepage) within the trench. The trench plugs are installed (e.g., the trench is excavated and then refilled for the plug, or soft plug) or the plugs are left in place (e.g., not excavated, a hard plug) during trenching. The plugs remain in the trench until the pipe is ready for laying in.

Comment Summary F4-16: The statement on page 2-17 that reads "In area of new right-of-way. ." should be changed to "All areas of right-of-way..."

F4-16 The Commission has jurisdiction in this docket over the Millennium pipeline right-of-way and cannot regulate use of other adjacent rights-of-way. Millennium states that it would offer to install ORV barriers in areas of new right-of-way and presumably would extend existing ORV barriers on adjacent rights-of-way onto the new right-of-way as requested by the landowner. However, the Commission's certificate applies only to those areas that would be disturbed for construction of this pipeline and does not allow for Millennium to install ORV barriers on adjacent property.

Comment Summary F4-17: The statement on page 2-20 regarding annual maintenance in wetland and within 25 feet of waterbodies should be changed to read "Generally, within 35 feet of water bodies and wetlands and in wetlands, annual maintenance would be confined to the 10-foot-wide corridor centered over the pipe and periodic maintenance would be confined to the removal of trees over 15 feet in height within a 30-foot-wide corridor centered over the pipeline."

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We find that 25 feet is adequate. However, a 50-foot-wide buffer could be established where requested by landowners or land managing agencies. See revised section 5.7 and our recommendations in the FEIS.

Comment Summary 4-18: On page 3-5, Lake Erie System Alternative, there is no discussion on whether the other alternatives presented will have more or less environmental impact than the Lake Erie crossing. An explanation as to why the Niagara Spur System Alternative was not considered a viable alternative should be provided. In addition, the Comparison of Alternatives section should address why in-water construction has less impact than construction along an existing right-of-way.

Generally, a longer route would have potentially greater impacts than a shorter route. Similarly, a route that is entirely land-based would have greater impact on private property, agricultural areas, and sensitive resources, such as wetlands, forest, streams, water supplies, cultural resources, roads, parks, and recreational areas, than a water-based route such as the proposed Lake Erie crossing. That is not to say that the Lake Erie crossing would have no impact, only that this may be less than a land-based route (see revised discussion in sections 3.2.4 and 3.3.1 of the FEIS).

The Niagara Spur System Alternative described in section 3.2.1.1 of the DEIS was selected from one of several possible system configurations that might be used to transport gas from the Niagara Import Point. The alternatives evaluated were based on known information about the existing natural gas systems. In comments on the DEIS, CNG, Tennessee, and National Fuel provided other alternatives that have been considered and are included in section 3.2 of the FEIS. However, none of the evaluated system alternatives in either the DEIS or FEIS has been proposed or filed with the FERC as construction projects, and the Commission cannot compel the companies to make such a filing.

Comment Summary F4-19: On page 3-8, explain why the need for additional compression eliminates an alternative from further consideration and present the environmental impacts associated with additional compression in a manner that facilitates a comparison of alternatives.

F4-19 The discussion did not state that additional compression would necessarily eliminate a system alternative from further consideration, except in combination with significant added miles of pipeline construction. However, added or new compression requirements in sensitive areas, such as residential areas, could influence the overall environmental advantage of an alternative. Table 3.0 of the DEIS compares the compression requirements of the different system alternatives evaluated.

Comment Summary F4-20: On page 3-10, the statement that reads "Clearly, the environmental impacts associated with the additional 51.5 miles of pipeline..." is not clear, in light of the fact that the Niagara Spur System Alternative would be 53.3 miles shorter and yet not considered a preferable alternative.

The TriState-Millennium System Alternative would require more miles of construction than the proposed facilities and is less desirable. See discussion in our response to comment F4-18.

Comment Summary F4-21: On page 3-17, with regard to the statement on cost effectiveness and potential environmental impact on land there is no comparison of the potential impacts on Lake Erie with the use of existing right-of-way for the Niagara River Alternative, nor has the cost of mitigation for impacts on Lake Erie been included in the cost analysis. In addition, an evaluation has not been presented regarding the possibility of damage to the pipeline from ice scour. The risk to Lake Erie from potential pipeline break from ice scour should be weighed against the cost of on-land construction.

F4-21 The placement of a pipeline adjacent to existing rights-of-way does not necessarily avoid environmental impacts. It is also difficult to objectively compare construction impacts on Lake Erie against construction impacts on land, since the impacts are so totally different. Millennium considered costs in its evaluation of a water versus a land route and concluded that the costs associated with a land route would be considerably higher. The issue of ice scour and impacts on Lake Erie are discussed in detail in section 5.3.3 of the EIS. Impacts associated with a land route would be similar to those described throughout the EIS.

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Comment Summary F4-22: On page 3-21, Hudson River Alternative, a discussion about timing of the Hudson River crossing was not discussed. NYSDEC's recommendation that there be no work between December 1 and March 31 to avoid impacts on the bald eagle should be incorporated into the EIS.

F4-22 Because the FWS had not filed any information with the FERC regarding timing restrictions for the bald eagle at the Hudson River crossing, such information could not be included in the analysis of the Hudson River in the DEIS. Information provided by the NMFS and FWS regarding listed species under their jurisdiction of the ESA have been incorporated into the FEIS where it was timely filed. At this time, in consideration of all biological resources in the Hudson River and comments from the NMFS, the NYSDOS, and the NYSDEC, the timing window of September 1 through November 15 seems to be the most appropriate. All relevant information provided by the NMFS, FWS, and Millennium subsequent to the publication of the DEIS has been included in the FEIS (see revised discussion in sections 4.6.1 and 5.6.3).

Comment Summary F4-23: Abandoned mining pits or quarries that have no reclamation plans are opportunities for restoration to enhance fish and wildlife habitat. The NYSDEC and Fish and Wildlife Service should be consulted on restoration plans.

Comment noted. However, Millennium can only restore that portion of the abandoned mine or quarry that would be disturbed by construction. Any reclamation plans for abandoned mine pits or quarries would need to be developed by the landowner and are outside the scope of the EIS.

Comment Summary F4-24: A quarry indicated on the U.S. Geological Survey topography map at MP 309 is not listed in table 4.1.2-1.

F4-24 Comment noted. Table 4.1.2 has been amended to include this gravel pit.

Comment Summary F4-25: A discussion of landslides induced by vegetation removal and or soil disturbance is not provided.

Landslides can be induced in part by vegetation removal and/or soil disturbance. However, use of appropriate erosion controls, including slope breakers, trench plugs, silt fence, and hay bales, as described in the ECS, and our Plan and Procedures, is the best way to minimize the potential for major erosion events. The FEIS includes a discussion of factors contributing to landslides in section 4.1.3, and of construction techniques, erosion control, and maintenance procedures that would be used to minimize slope instability in section 5.1.1.

Comment Summary F4-26: A discussion of other land incentive areas or Federal restoration areas such as lands within the Wetlands Reserve Program, Environmental Quality Incentives Program, Partners for Fish and Wildlife program, or conservation easements established by the Farmers Home Administration should be discussed.

F4-26 Millennium states that the Wetland Reserve Program and Environmental Quality Incentives Program are managed by the NRCS on behalf of the U.S. Department of Agriculture. Millennium contacted the Deputy State Conservationist and all of the county offices of the NRCS for information on these programs. One of the county offices reported that none of the properties that would be crossed by the project are enrolled in either of these programs, and several additional county offices promised to review their files to determine if any of the properties that would be affected by the project were enrolled in these programs. However, the vast majority of the county offices and the Deputy State Conservationist all replied that the names and locations of participants in these programs are protected under the Federal Privacy Act.

The Partners for Fish and Wildlife Program is administered by the FWS for the U.S. Department of the Interior. The FWS indicated that one individual property within or near the project area might be affected. In subsequent review, Millennium determined that the property in question would not be affected by the project.

Millennium contacted the U.S. Department of Agriculture concerning conservation easements established by the Farmers Home Administration. This agency is no longer in existence and was phased out during a restructuring of the department. Millennium could not identify anyone within the agency who was familiar with

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the conservation easement program or how or where it was presently administered. None of the county offices of the NRCS had any information concerning the program.

At the time of right-of-way procurement, Millennium would determine, based on discussions with landowners, if any land enrolled in any of the above programs would be affected. If such land is determined to be affected, Millennium states that it would coordinate with the NRCS or FWS to identify any special mitigation requirements that would be necessary to maintain eligibility in the specific program.

Comment Summary F4-27: On page 4-15, the statement that reads "the two largest waterbodies crossed, Lake Erie and Haverstraw Bay in the Lower Hudson River have perhaps the highest fish diversity of the waterbodies crossed by the proposed pipeline." should be supported with evidence, if this is the reason for discussing these two waterbodies separately.

This statement is not intended to be the basis for why the Lake Erie and Haverstraw Bay crossings are discussed separately. Rather, the statement is made in recognition of the importance of these two surface water resources as fish habitats.

Comment Summary F4-28: A discussion of the importance of fisheries to recreational fishing in New York State along the waters proposed to be impacted should be discussed.

Recreation is discussed in sections 4.8.3 and 5.8.3 of the EIS. Section 4.4.1 of the FEIS has been revised to include additional discussion of the importance of recreational fishing in waters crossed by the project.

Comment Summary F4-29: American eel should be added to the list of anadromous/catadromous fish known to occur in the project area in Table 4.4.1-1.

F4-29 Comment noted. Table 4.4.1-1 of the FEIS has been revised to include the American eel.

Comment Summary F4-30: On page 4-19, the discussion of the Mongaup WMA did not provide a discussion of the timber rattlesnake or denning black bears.

Comment noted. The discussion of the Mongaup WMA in section 4.4.2 of the FEIS has been expanded to include the rattlesnake and denning black bear.

Comment Summary F4-31: On page 5-4, Site-Specific Impact, there is no discussion about the impact of two rights-of-way on the Chautauqua Creek Gorge and it is recommended that this area be avoided or an annual monitoring and contingency plan for identification and remediation of slope instability be developed for this area.

The existing right-of-way has to a certain extent "naturalized" since the installation of the original pipeline. At the time of our field review, it was well vegetated and stable. Because wildlife have adjusted to the existing right-of-way and the habitat it provides, it would be difficult to assess the incremental impact of two rights-of-way other than to identify the impact associated with the new right-of-way, which we have done. As stated in section 5.5.2 of the EIS, we identified no route variation that would avoid the gorge nor one that would cross the gorge in a less steep area without the creation of a significant amount of new right-of-way. We have also required that Millennium develop a plan for this crossing in consultation with NYNHP and NPS to protect this resource (see section 5.5.2 of the EIS). Finally, additional monitoring or contingency plans would not need to be developed for this area since Millennium would be conducting regular air and ground patrols and would be responsible for repairing any erosion problems (see section 2.4 of the EIS). Furthermore, we would be monitoring the pipeline through restoration to ensure that revegetation would be adequate and that unstable conditions are corrected. See new discussion in section 2.3 of the FEIS on the FERC's construction and restoration inspection program.

Our Plan (section VI.A.1) and Millennium's ECS (section II.J.1) require that final cleanup or grading be completed within 10 calendar days of backfilling, weather permitting, although a travel lane may be left open if it is needed. Section VI.D.e. of our Plan and section II.J.2 of Millennium's ECS require restoration to begin within 6 days of final grading, weather and soil conditions permitting.

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Comment Summary F4-32: On page 5-6, the statement regarding “Many potential impacts from soil erosion can be reduced by minimizing the duration of time...” should be followed by the recommended time between each of the activities. Initial rough grading and backfilling should be conducted within 1 week of pipe laying. Final grading should be completed within 30 days of rough grading, with final restoration beginning within 6 days of the final grading, dependent upon weather, time of year, and soil conditions. If the time of the year prevents seeding then temporary overwintering stabilization should be completed.

We are not sure what you mean by pipe laying. If pipe laying is defined as the point when the pipe is strung or laid adjacent to the trench, it would be impractical to complete initial rough grading and backfilling within 10 days because of the intervening steps between the time the pipe is laid and backfill (e.g., bending, if required, welding, installing the pipe in the trench). If pipe laying is defined as the point when the pipe is installed the trench, Millennium’s ECS (section II.J.1) states that final grading would be completed within 10 calendar days of backfilling, and restoration would begin within 6 days of final grading, weather and soil conditions permitting (ECS section II.J.2 and our Plan section VI.D.e). Millennium has also stated that, on average, there would be no more than 44 days between initial grading and backfilling (see section 2.3.2 of the EIS). As stated in section VI.D.3.c of our Plan, temporary restoration measures (if seeding cannot be done) would include those specified in section V.F of the Plan. We have also recommended that Millennium modify its ECS to include a contingency plan for overwintering agricultural areas.

Comment Summary F4-33: On page 5-6, the sentence that reads “This can have severe impact in agricultural and residential areas.” should be changed to “this can have a severe impact on revegetation, which may be particularly problematic in agricultural and residential areas.”

F4-33 Comment noted. Section 5.2.1 of the FEIS has been modified.

Comment Summary F4-34: On page 5-7, Noxious Weeds or Soil Pests, there was no indication of the presence of *Phragmites australis* along the pipeline. A mitigation plan to avoid the spread of purple loosestrife and phragmites, if present near the pipeline, should be developed and incorporated into the ECS and EIS.

The presence of purple loosestrife and phragmites are discussed in sections 4.7 and 5.7 of the EIS. Our Procedures (section VI.D.7) require that Millennium consult with resource agencies to develop strategies to control the spread of exotic plant species, such as purple loosestrife or phragmites. This would include the development of plans, if required by the resource agencies.

Comment Summary F4-35: On page 5-7, the statement “Post-construction monitoring would be conducted for at least two years...” should be changed to “Post-construction monitoring would be conducted until revegetation is complete.

F4-35 Comment noted. Section 5.2.1 of the FEIS has been modified.

Comment Summary F4-36: On page 5-11, the statement “...all discharges should be within the same hydrogeologic regime or sub-basin from where the dewatering originated.” should be changed to “...all discharges must be within the same hydrogeologic regime or sub-basin from where the dewatering originated; any required deviations should be noted on CAS if known prior to construction. Otherwise, it should be part of the regular reporting procedures for changes from CAS.”

F4-36 Comment noted. We have revised section 5.3.1.1 to identify the known deviations from discharging water back into the same hydrogeologic regime or sub-basin.

Comment Summary F4-37: On page 5-12, the statement “Millennium would follow the district-specific procedures which may include...” should be changed to “Millennium would follow the district-specific procedures which include...”

Section 5.3.1.1 of the EIS states that Millennium would follow each district’s specific procedures. The word “may” is used because the list of example procedures presented is not the summary list for all districts. With respect to the delineation of aquifer protection districts, we revised section 5.3.1.2 to include a recommendation that aquifer protection district boundaries be shown on the CAS. We consider field delineation of these areas

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with signs and fencing because impacts would be expected to be minimal with implementation of the SPCC Plan and other requirements of the Plan, Procedures, and Millennium's ECS.

Comment Summary F4-38: On page 5-13, the statement "...all equipment should be inspected daily for leaks before work within an aquifer protection area;" should be changed to "this should be a standard for all areas of the pipeline, not just the aquifer protection areas.

Comment noted. Millennium states that it would inspect all equipment daily for leaks in aquifer protection areas and before beginning work in waterbodies or in wetlands. We concur that all equipment should be inspected daily and have amended our recommendation in section 5.3.1.2.

Comment Summary F4-39: Underlying aquiclude materials can create perched wetlands which are important to amphibians and other wildlife and should be identified and included in the EIS. In addition, techniques to minimize impacts on these areas should be identified and could include installation of trench breakers to bring the water above the fragipan or aquiclude material.

F4-39 Millennium states that cultural resources surveys (shovel testing) have been completed for about 95 percent of the proposed route, and impermeable fragipan has not been encountered. Since the proposed route would be within or adjacent to existing rights-of-way for about 335 miles or 87 percent of its length on land, Millennium did not identify any areas along this portion of the route where wetlands existed adjacent to the right-of-way, but not on the right-of-way, which would indicate that a previous aquiclude had been breached and not restored. Thus, Millennium concludes that it does not expect to encounter aquicludes or impermeable fragipan during construction. However, if such perched wetlands are encountered, Millennium would bring in clay to restore the aquiclude.

The determination of whether a wetland is hydrologically sustained by a fragipan or aquiclude is difficult and impractical. While we are not convinced that perched wetlands would not be encountered, we believe that Millennium would identify and restore such wetlands as part of construction requirements. Our Procedures require that Millennium monitor the success of wetland revegetation annually for the first 3 to 5 years after construction or until revegetation is successful (see section VI.E.3 of the Procedures on the FERC website at www.ferc.gov). Should construction activities affect a perched wetland by altering the hydrology, the change of hydrology would likely be apparent by the change in the postconstruction vegetative community. Millennium would then be responsible for successful restoration of these wetlands or mitigation for their loss.

Comment Summary F4-40: On page 5-16, Waterbody Construction and Mitigation Procedures, a discussion of conventional boring as a waterbody crossing technique is not presented. Note: This is not required by our Procedures.

Section 5.3.2.2 of the FEIS has been revised to include a discussion of conventional boring as a waterbody construction method.

Comment Summary F4-41: On page 5-17, Site Specific Impact - The summary of waterbody crossing techniques is incorrect, according to information received from Millennium. Of the 493 waterbody crossings 18 would be open cut.

F4-41 Comment noted. We have revised section 5.3.2.3 to include the most recent stream crossing information.

Comment Summary F4-42: On page 5-18, Millennium propose to use in-stream filter devices and turbidity curtains to minimize downstream sedimentation of selected waterbodies. These sediment filter devices are designed for small stream crossings. The crossings that are presently proposed to be open cut are greater than 40 feet in width with flows potentially greater than 1,700 cubic feet per second. According to the NYSDEC, these sediment filter devices have been found to violate water quality standards.

Millennium proposes to cross 13 waterbodies using an open cut and 1 waterbody using a combination conventional bore and open cut/diversion (East Branch Delaware River). Millennium believes the in-stream sediment filters under normal flow conditions would be expected to be effective for 6 of the open cut waterbodies: Cassadaga Creek (MP 59.9), State Drainage Ditch (MP 72.9), the ponds (MPs 235.2 and 387.5), Rutgers Creek (MP 344.0), and Indian Kill Reservoir (MP 367.1). Sediment filters may also be effective at other

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crossings under reduced flow conditions. Our experience is that turbidity curtains have some value in still water (i.e., ponds or lakes), but are of limited value in flowing water. Also, extreme care is necessary when removing sediment-laden curtains to avoid dispersion of the collected sediments. However, there have been improvements in the design of these curtains that may improve their overall performance in flowing water. Consequently, we believe that Millennium's proposed use of in-stream sediment filters may be appropriate in certain situations, given our understanding of their limitations.

Comment Summary F4-43: On page 5-20, the statement "Grading of stream banks within 25 feet..." should be changed to Grading of stream banks within 35 feet..."

F4-43 Based on our experience with numerous natural gas pipeline construction projects, a grading restriction extension from 25 to 35 feet would not appreciably increase the level of stream protection and may inhibit staging activities that would allow for a quick and efficient crossing that would minimize impact on the waterbody.

Comment Summary F4-44: On page 5-25, the sentence "In the drill area, storage containers (tanks) or excavated impoundments..." should be followed by, "These containments should be more than 35 feet from any waterbody or wetland."

In general, the directional drilling operation would be staged at least 35 feet, and typically a greater distance, from a waterbody for engineering reasons. In addition, the construction work area would be protected with silt fence or other erosion control devices.

Comment Summary F4-45: On page 5-26, the statement "These impacts would consist of an increase in suspended sediment, but probably at levels similar to those naturally occurring following significant storm events." should be substantiated or deleted; on page 5-29, Lake Erie - Comments on Lake Erie have been discussed in a previous section; and on page 5-33, Hudson River/Haverstraw Bay - Comments on the Hudson River have been discussed in a previous section.

F4-45 On recent construction of the PNGTS Pipeline Project, turbidity monitoring was required for some stream crossings, and turbidity monitoring devices were in place during storm events. It was noted that baseline turbidity readings became elevated to levels equal to those caused by construction. However, no specific data are known for the waterbodies that would be affected by the project, and the statement has been removed from the FEIS.

Comment Summary F4-46: On page 5-39 of the DEIS, Fisheries and Wildlife Resources - There should be a discussion of mitigation of unavoidable impacts on fish and wildlife such as through the purchase of lands for perpetual conservation or restoring degraded habitat.

Because the majority of impacts on wildlife habitats would be minor, localized, and temporary, a wildlife mitigation plan for the project is unwarranted. Moreover, the project would result in the conversion of some habitat types but not the complete loss of wildlife habitat. For significant wildlife habitat areas, such as the Mongaup WMA and the Doris Duke Wildlife Sanctuary, and other wildlife habitat areas, we have recommended that Millennium consult with the FWS, COE, and NYSDEC regarding the creation of wildlife enhancement areas in uplands and at waterbodies if the landowner concurs.

Comment Summary F4-47: On page 5-36, Fisheries Resources - There is no discussion of potential sedimentation downstream of the right-of-way. There should be a determination of the amount of sedimentation and turbidity for each open cut crossing.

F4-47 Millennium proposes to open cut 13 water bodies. Following consultation with NYSDEC, Millennium filed revised crossing plans to minimize turbidity in these waterbodies. Based on these revised plans with additional conditions, the NYSDEC issued a section 401 Water Quality Certificate on December 8, 1999. We believe that the conditions of the NYSDEC's Water Quality Certificate combined with our Procedures provide sufficient minimization of turbidity and sedimentation in stream reaches downstream from the construction right-of-way.

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Comment Summary F4-48: On page 5-37, the statement "In addition to these protective measure, other Federal, state, or local agencies may require Millennium to follow more stringent procedures." requires clarification as it implies that the FERC would not require Millennium to follow other permit conditions or similar measures set forth by other agencies.

F4-48 The statement does not imply this. It is a statement of fact that other agencies may have additional requirements. The FERC's position on compliance with the conditions and requirements specified in other Federal, state, county, and local permits required for construction and operation of the project is stated in section 2.7 of the EIS. The FERC does not enforce the requirements of the other agency permits.

Comment Summary F4-49: On page 5-37, the statement "...at least 10 feet from the streambanks and would be Should be changed to "...at least 10 feet from edge of trench and would be ..."

F4-49 The sentence is correct as stated in the DEIS, because it is the stream resource that is to be protected, not the trench.

Comment Summary F4-50: On page 5-38, Other Impacts - Impacts on young -of-the-year fish from hydrostatic testing, turbidity, and sedimentation should be included in this and preceding sections.

F4-50 Many of the impacts discussed are applicable to various life stages of fish. Turbidity affects respiration of young-of-the-year fish just as it does juvenile and adult fish, and entrainment can occur to the young-of-the-year, larvae, and eggs. Although the DEIS analysis did not specifically exclude impacts on young-of-the-year, the text in the FEIS has been revised to include this life stage.

Comment Summary F4-51: On page 5-38, Site Specific Impact - There should be a calculation of the number of stream construction spreads that would be required during a typical weather year. To determine construction spreads consider proposed construction time frame, time of the year restrictions for minimization of impacts, and normal rain events greater than one-half -inch. Other impacts that should be addressed include habitat degradation, fish and invertebrate movements along streams, water temperature, escalated depletion of oxygen in previously compromised areas, potential cumulative impacts (including those to fish, wildlife, and recreation) on large rivers (such as the Delaware River) from multiple crossings of its tributaries during a short time period.

F4-51 Following publication of the DEIS, Millennium made a significant effort to reduce the number of open-cut crossings in consultation with the NYSDEC and as reflected in the requirements of the section 401 permit issued on December 8, 1999 (see appendix K of the FEIS). In light of these changes, in particular the limited number of streams in any one river basin that would be open cut, much of the requested information is no longer relevant.

Comment Summary F4-52: On page 5-40, Site Specific Impact - There was no discussion of significant bird areas other than Haverstraw Bay. A number of areas within the construction area were identified by the National Audubon Society and potentially include: Ripley Hawk Watch, Center at Horseheads, Mongaup, Sterling Forest, and Hook Mountain. Potential direct and indirect impacts on these areas should be discussed in the EIS.

F4-52 The Haverstraw Bay area was specifically identified in the DEIS because of its designation as a Significant Coastal Fish and Wildlife Habitat. The discussion on the Mongaup WMA in section 4.4.2 and section 4.6.1 of the DEIS included the use of areas along Mongaup River by the bald eagle. Review of the identified publication indicates that the maps of significant bird areas are regional and cannot be used for site-specific evaluation. In any event, because birds are a mobile species, impact on these areas would be as discussed in section 5.4.2.

Comment Summary F4-53: On page 5-49, General Construction and Operation Impacts - The need for annual clearing 10 feet on either side of the centerline has not been presented. It is implied in this section that a 10-foot clearing is allowed in the FERC procedures. To protect wetlands and streambanks, the Department recommends that any clearing in wetlands, the 35-foot buffer area, and within 35 feet of streambanks, be completed every 3 years and restricted to vegetation greater than 15 feet in height.

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The purpose of maintaining this herbaceous corridor is to facilitate periodic pipeline corrosion/leak surveys that are required by the USDOT. The FWS is correct in that section VI.E of the FERC's Procedures allows the maintenance of a 10-foot-wide herbaceous corridor centered on the pipeline within wetlands. Trees may also be selectively cut within the 15-foot-wide corridor centered on the pipeline.

Comment Summary F4-54: On page 5-49, Wetland Construction and Mitigation Procedures - based upon experience with right-of-way restoration, the Department of the Interior suggests that wetlands be surveyed prior to construction. Alteration of wetland vegetation can occur as a result of mounding material over the trench, which may alter saturation. A way to alleviate this is to verify contours by surveying the area rather than visually verifying it.

See response to comment F4-12 and our recommendation in section 5.7.3.

Comment Summary F4-55: On page 5-51, the statement "As part of the COE review and permitting process,..." The Department of the Interior will be requesting compensatory mitigation for unavoidable impacts on wetlands and does not support fees in lieu of wetland creation as this can result in a net loss of wetlands. The mitigation should be in form of creation or restoration of wetlands at ratios of 1:1 (1 acre for every 1 acre lost) for open/emergent wetlands; 1.5:1 for scrub/shrub wetland; and 2:1 for forested wetland.

F4-55 A compensatory wetland mitigation plan for unavoidable impacts on wetlands, if required, should be determined through coordination between Millennium and appropriate regulatory agencies during the section 404 permitting process.

Comment Summary F4-56: On page 5-51, Site Specific Impact - The summary of wetland impacts needs to be reviewed as numerous wetlands have been identified as predominantly emergent that are classified as predominantly forest by the NWI maps.

F4-56 Millennium has reviewed the wetlands in question and has submitted its report to the FWS, Cortland Field Office. The revised wetland table is included in table I1 of appendix I of the FEIS, and sections 4.7 and 5.7 have been revised accordingly.

Comment Summary F4-57: On page 5-54, the statement "The NYSDEC commented that steep slopes that terminate at stream crossings and associated wetlands should be considered as environmentally sensitive areas." The Department concurs with this comment and would like to recommend that these areas be considered as a unit with site-specific plans that identify erosion control measure that will be installed, revegetation requirements, and reduced maintenance as previously described for wetlands and streambanks for the entire area.

F4-57 Steep slopes terminating at wetlands and stream crossings are considered environmentally sensitive areas. In accordance with Millennium's ECS (sections II.D.3 and II.J.2), erosion control barriers would be installed across the right-of-way on any slopes leading into wetlands or streams, steep slopes would be restored immediately after final grading (weather permitting), and jute netting may be used on steep slopes (as directed by the Environmental Inspector) to help stabilize the construction work area. Further, section V.F of our Plan includes requirements for erosion control on slopes, and section VIII.A describes upland maintenance requirements. Section V.B.10 and VI.C.3 include the erosion control requirements at waterbodies and wetlands, respectively.

Comment Summary F4-58: On page 5-54, Land use - There should be a mitigation of impacts on forests due to the length of time until complete restoration and for the permanent losses due to conversion. This should be in the form of forest restoration or preservation.

F4-58 We do not require mitigation for forest impacts at this level. However, our Procedures do require that in wetlands and at stream banks only a 30-foot-wide strip centered on the pipe can be maintained clear of trees greater than 15 feet in height, and only a 10-foot-wide strip centered on the pipe can be maintained in a herbaceous state.

Comment Summary F4-59: On page 6-1, Major Route Alternatives - the statement "The Lake Erie and State Route 17 Alternatives were eliminated from further consideration since it did not appear that they would be environmentally

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superior to the route proposed by Millennium's." Is premature. Studies are still being conducted and others have been requested that need to be considered before it can be determined which alternative is environmentally superior.

F4-59 We revised the discussion on the Lake Erie Alternatives in section 3.3 of the FEIS as a result of comments on the DEIS. We do not consider the State Route 17 Alternatives as environmentally superior for the reasons stated in section 3.3.2 of the EIS. We are aware of no other studies that are underway that would alter our conclusion.

Comment Summary F4-60: On page 6-17, the Department supports the Bauer Variation A as it would avoid a potential, but as yet unverified, wetland and spring-fed pond.

F4-60 Thank you for your comment.

Comment Summary F4-61: There are many sections of the DEIS where information is not available or incomplete which hampers the Department of the Interior's ability to adequately address environmental consequences. As described in NEPA, the environmental information must be of high quality in order for public officials to make decisions based on the understanding of environmental consequences. Because the DEIS is inadequate and precludes meaningful analysis, a revised DEIS should be prepared and circulated.

On March 16, 2001, we issued an SDEIS which provides updates on various aspects of the project. The FEIS contains additional information and analyses based on new information provided by Millennium and commenters on the DEIS and SDEIS. NEPA does not require perfect information.

F5 U.S. FISH & WILDLIFE SERVICE, Cortland, NY – D. Stillwell (6/4/99)

Comment Summary F5-1: The project description in the DEIS, which is proposed to be considered as the biological assessment and initiating of formal consultation, differs from the description provided during informal consultations with the applicant.

F5-1 Millennium did not file with the Commission the project changes discussed informally in the field with the FWS until after publication of the DEIS, and Millennium's Supplemental BA wasn't filed until June 24, 1999. The BA was issued on January 17, 2001. It contains additional information. See the FEIS for an update on this information.

Comment Summary F5-2: Specifically, the Neversink River, where dwarf wedge mussels are potentially present would be crossed using the coffer dam technique. However, discussions with Millennium indicate that a conventional horizontal bore technique will be used for this crossing. In addition, a preferred alternative has not been presented for the Hudson River crossing in the DEIS.

Millennium did not file with the Commission the project changes discussed informally in the field with the FWS until after publication of the DEIS. This was discussed in the BA (issued January 17, 2001) and the SDEIS (issued March 16, 2001). The FEIS has been updated to include the current proposed crossing of the Neversink River (e.g., conventional bore). Regarding the Hudson River, we identified two alternatives in the DEIS, but recommended neither because of high density residential development along both routes that would result in significant environmental impact on residences as well as on Harriman Park and cultural and historic resources. However, we have reevaluated the proposed Hudson River crossing and the alternatives in light of comments received on the DEIS. See revised discussion in part II, section 3.0 of the SDEIS and section 6.2 of the FEIS.

Comment Summary F5-3: The FWS requires that a clear description of the proposed crossing techniques (e.g. preferred crossing location, method, time-of-year restrictions for construction activities, and associated contingency plans for each waterbody crossed) be presented by the FERC.

Information on proposed crossing method, time of year restrictions, and additional site-specific considerations is included in appendix H1 of the FEIS. The crossing location is depicted on the maps in appendix B1 of the FEIS.

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Comment Summary F5-4: The Hudson and Mongaup River crossing areas have bald eagles present during a portion of the year. The Hudson River also has shortnose sturgeon present and the Neversink River potentially supports dwarf wedge mussels (no mussel survey has been performed).

See comment response F5-1

Comment Summary F5-5: The DEIS determined that the project is not likely to adversely affect bald eagles. The FWS cannot concur with this determination. The NYSDEC recommended a time-of-year restriction from December 1 through March 31 to avoid impacts on overwintering, Hudson River, bald eagles. Until time-of-year restrictions are addressed in project documents, the FWS cannot fully evaluate the project effects on the bald eagle.

F5-5 The timing of construction has been changed to late summer and fall; therefore, overwintering impacts on bald eagles would be avoided at the Hudson River. See revised discussion in section 5.6 of the FEIS and the BA (January 17, 2001).

Comment Summary F5-6: The DEIS determined that the project is not likely to adversely affect bog turtles. The FWS cannot concur with this determination since there are additional evaluations on-going. The FWS has requested that wetland areas along the pipeline within the Warwick and Sloatsburg topographic quadrangles be evaluated for any existing habitat with the potential to support the bog turtle. According to Millennium's Draft Supplement to the BA (May 11, 1999) three wetlands have potentially suitable habitat for bog turtles. We have requested that wetlands with potential habitat be surveyed by a qualified person to determine the presence or absence of these species. We cannot make an evaluation on the likelihood of effects on the bog turtle from the project until the results of the survey, and measures to minimize direct, indirect, or cumulative impacts on bog turtles, are submitted.

Our BA (January 17, 2001) contains the updated habitat survey information requested by the FWS for the bog turtle. We determined that the bog turtle would not be affected by the project as long as Wetland 9 is avoided by the project. The FWS concurred with this determination in a March 20, 2001, letter.

Comment Summary F5-7: The FWS does not concur with the determination that northern wild monkshood is likely to be affected by the project since it has been determined not to occur within the construction work area. The project is not likely to affect this species.

Comment noted. Our BA determined that the project would have no effect on the northern wild monkshood. The FWS concurred with this determination in its March 20, 2001, letter. Sections 4.6.1 and 5.6.3 of the FEIS have been revised to reiterate this.

Comment Summary F5-8: A description of direct, indirect, and cumulative impacts on the listed species should be included in the initiation package.

F5-8 See comment response F5-1

Comment Summary F5-9: The use of hydrostatic testing from any waterbodies that have state-listed species must be included in the discussions for potential impacts on listed species including reduction in water, increased water temperature, and decreased dissolved oxygen as well as the direct impacts of the mussels potentially being removed from the [Neversink] river by water removal.

Comment noted. Withdrawal and discharge of hydrostatic test water should have no appreciable effect on the total volume of water in the waterbody or the temperature and dissolved oxygen of the waterbody. Section 5.3.2.3 of the EIS notes that Millennium would have to obtain written permission from appropriate Federal, state, and/or local permitting agencies to use the Neversink River for hydrostatic test water because of the presence of a federally endangered species. This would provide regulatory agencies with an opportunity to stipulate additional conditions for the withdrawal, if any are needed.

Comment Summary F5-10: The FERC should provide any materials submitted by Millennium that are to be considered part of the project including: materials that support positions or would provide additional information to the FWS for use

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in preparing any forthcoming biological assessments, discussion of alternatives that were investigated and found to be deficient, and requested and suggested survey results and impact evaluations.

F5-10 Comment noted. All of the information filed by Millennium that is not confidential is available through FERC's public reference room and website.

Comment Summary F5-11: The FWS suggests that an estimate of the density of mussels, analysis of substrate, and hydrology changes within the potential impact area be completed in the event that the proposed crossing technique fails and a contingency plan must be adopted. If a contingency plan is not required and the crossing with conventional bore fails, consultation would need to be reinitiated before any further work in the Neversink River. Information from the study would be used in any forthcoming biological opinion and statement of incidental take, if required.

We have recommended that no construction take place within an 1.8-mile-long segment that includes the Neversink River until the bore is successfully completed. If the bore fails, we have recommended that Millennium prepare a contingency plan in consultation with the FWS, NYSDEC, and TNC before construction. See section 5.6.3 of the FEIS.

Comment Summary F5-12: The FWS cannot concur with the determinations of the biological assessment and cannot initiate formal consultation until we receive all of the information, or a statement explaining why that information cannot be made available. We will notify by letter you when we receive this additional information and we will outline the dates within which formal consultation should be completed and the biological opinion delivered on the proposed action.

Subsequent to this comment, we issued a BA on January 17, 2001. The FWS filed a letter dated March 20, 2001, concurring with the determinations in the BA.

F6 U.S. FISH AND WILDLIFE SERVICE, Cortland, NY – D. Stilwell (6/4/99)

Comment Summary F6-1: The FWS is concerned with the adequacy of the wetland impact information provided by the applicant. We reviewed a video tape of a portion of the pipeline and compared a majority of the pipeline route with NWI maps. We identified possible inconsistencies between Millennium's habitat designations and habitat types apparent on the video and NWI maps. It also appears that wetlands were typed along the existing right-of-way but adjacent wetland types that will also be impacted were not categorized.

F6- See response to comment F4-56. We only require characterization of wetlands within the construction work area.

Comment Summary F6-2: A synopsis of the video tape review includes: a tributary to Stony Hollow (near MP 290) was not mapped; a riverine wetland on the east side of East Branch of the Delaware River not mapped; W501, W500, W499, W508, W518, W519 appeared to be in predominantly forested area; W500, W499, and W498 appeared to be contiguous; W516 and W524 appeared to be predominantly shrub area; two open water areas near MP 300 and 304 were not mapped; areas near MP 303, 303.5, 312, Lh-55, and an area adjacent to the Walkill River should be verified; there is a deviation from the existing right-of-way around CA13, with forested wetlands associated with the larger emergent wetland.

Millennium conducted field investigations in the areas you identified. Sections 4.7 and 5.7, and table I1 in appendix I, of the FEIS have been revised accordingly.

Comment Summary F6-3: The FWS requests compensatory mitigation for unavoidable impacts on wetlands and typically bases the amount of compensation requested on the type of wetland impacted. This is typically in the form of creation or restoration of wetlands at ratios of 1:1 (1 acre for every 1 acre lost) for open/emergent wetlands; 1.5:1 for scrub/shrub wetland; and 2:1 for forested wetland.

See response to comments F4-55 and F4-56.

Comment Summary F6-4: Table 2 lists areas that were not indicated on the construction alignment sheets as wetlands but as NWI-mapped wetlands located in the vicinity of the project.

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Only wetlands that would be crossed by the proposed project are shown on the construction alignment sheets. Where wetlands are adjacent to the construction work area, sediment barriers would be installed along the edge of the work area as needed to prevent the transport of sediments into adjacent wetlands. The Procedures require field delineation prior to construction.

Comment Summary F6-5: The FWS recommends that the wetland delineation information be amended on any forthcoming public notice to adequately identify potential impacts for the project. This will assist the FWS in determining the impacts on fish and wildlife using the waters of the U.S. along the proposed pipeline right-of-way and within the construction work area.

The FEIS contains updated information on wetland delineations (see comment F6-2).

F7 NATIONAL PARK SERVICE – C. Hite (5/28/99)

Comment Summary F7-1: The Upper Delaware Scenic and Recreational River is a 73.4 mile segment of river designated as part of the National Wild and Scenic Rivers System.

F7-1 Comment noted. Section 4.8.3 and table 4.8.3 of the FEIS have been revised.

Comment Summary F7-2: Consideration needs to be given to the impact of pipeline construction on the historic resources of the Delaware & Hudson Canal, a National Historic Landmark included in the National Register of Historic places, near the hamlet of Huguenot in Orange County.

Millennium proposes to avoid potential impacts on the Delaware and Hudson Canal by boring under the canal and will file the work plan Commission. Along with the New York SHPO, we would review the boring plan when it is filed and comment on impacts on the Delaware and Hudson Canal at that time. Orange County, which owns the canal, would also have an opportunity to comment on the plan when it negotiates its easement with Millennium.

Comment Summary F7-3: In reviewing p. 2-3 Table 2.7-1 of the DEIS a number of omissions were noted: Wild and Scenic Rivers Act and Upper Delaware Scenic and Recreational River Act.

Table 2.7-1 is intended to identify the major Federal, state, or local regulatory agencies that may have environmental permit or approval authority over portions of the proposed project. It is not inclusive of all regulations that may apply to the project. However, we have added this information to table 2.7.1 of the FEIS.

Comment Summary F7-4: In reviewing p. 4-38 Table 4.8.3-1 of the DEIS it should include: Sullivan County; Approx. MP: 299.4-300.1, 301.6-301.9; 302.4-303.8, 305.5-307.1; Upper Delaware Scenic and Recreation River Corridor and Orange County; Approx. MP: 340.8 Delaware & Hudson Canal.

F7-4 Comment noted. Tables 4.8.3-1 and 5.8.3.2-1 of the FEIS have been revised.

Comment Summary F7-6: In reviewing p. 3, V. Waterbody Crossings, A. Notification Procedures and Permits: Provide written notification to the NPS (Upper Delaware Scenic and Recreation River) of proposed construction activities. Provide information by FAX or telephone on a weekly basis of proposed construction activities for the crossing of the West Branch of the Delaware River, south to the Neversink crossing (inclusive of all crossings between these streams).

Our Procedures are standard guidelines that are applied to all construction projects. Our recommendation No. 8 requires Millennium to provide weekly status reports to Federal and state agencies with permitting authority. The NPS should contact Millennium directly to request notification for construction activities related to stream crossings between the West Branch Delaware River and the Neversink River.

Comment Summary F7-7: In reviewing p. 4-13 Table 4.3.2-2 of the DEIS it identifies waterbodies with potential for contaminated sediments at the crossing location. The West Branch and East Branch of the Delaware River are identified as having heavy metals, pesticides, semi-volatile organic compounds, and PCBs found at sampling locations

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downstream of planned crossing sites. Has testing been done at the crossing sites to assess contaminants and potential consequences of disturbance to these sediments? Has this been factored into proposed crossing methods?

Millennium has revised its crossing methods for the East and West Branches Delaware River to ones that would have minimal disturbance of river bottom sediments (see sections 5.3.2.3, table 5.3.2.3-2, and table H1 in appendix H of the FEIS). The West Branch would be bored, and the East Branch would be partially bored and partially excavated in the dry. Concern for sediment contamination disturbance is no longer an issue on the West Branch. On the East Branch, known contaminated sediments are 1 mile downstream of the crossing location. See section 5.4.1 of the FEIS for discussion of contaminated sediments..

Comment Summary F7-8: In reviewing p. 5-27, Hydrostatic Testing, we have concerns about withdrawal and discharge of hydrostatic test water from the East and West Branches of the Delaware River since withdrawal volumes may amount to a significant percentage of flow volume at this time of year. Permits should be obtained from appropriate state agencies for both withdrawal from and discharge into these high quality streams.

F7-8 Our Procedures and Millennium's ECS require that hydrostatic test water withdrawals be protective of aquatic life, and continued use of all waterbodies downstream of the withdrawal locations. Millennium's ECS states that it would not use water from state designated high quality streams unless other water sources are not readily available and the jurisdictional state or local agency permits its use (see section II.L of Millennium's ECS in appendix E1 of the EIS). The West and East Branch Delaware Rivers are classified B and C, respectively. Millennium would be required to obtain any necessary permits before construction, including discharge permits.

Comment Summary F7-9: In reviewing p. 5-37, Sedimentation and Turbidity, the discussion presented greatly downplays the potential impact of sedimentation to fisheries and other aquatic resources. [Our] Experience from other open cut, wet crossings of streams similar to the West and East Branches of the Delaware River, has shown that these crossings often result in significant sedimentation downstream of the crossing even with the use of in-stream sediment filter devices. Another concern is that during this time frame, and because of the way in which Millennium is dividing their "spreads", many streams will be crossed and impacted during a short period of time in our area and potentially result in cumulative impacts on receiving waters such as the Delaware River.

We do not agree that the discussion downplayed potential impacts of sedimentation. Rather, it is our opinion that a quick open cut of a larger waterbody can reduce impacts on aquatic life when compared to a dry crossing that is attempted over a period of several weeks. A number of studies have investigated the effects of increased sedimentation on fisheries. Reid and Anderson (1998) summarize a number of studies, indicating that short duration events typically result in short term and localized effects. They also suggest that the duration of sedimentation events is critical to understanding effects: the shorter the event the less the impacts. Therefore, in the absence of suitable geologic conditions for directional drilling, a quick open cut may be preferable to a longer duration attempt to cross the waterbody in the dry (see discussion in section 5.3.2.3 of the EIS). Within the Delaware River watershed, only the Mongaup River and a portion of the East Branch Delaware River would be crossed using an open cut construction technique. Typically, on a given spread, only one or two stream crossings are done at a time (e.g. in a day) and the volume of water affected simultaneously should represent only a portion of the water in the mainstream Delaware River.

Comment Summary F7-10: In reviewing p. 5-64, 5.8.3, Recreation and Public Interest Areas, your discussion of pipeline construction impacts is confined to site-specific impacts on discrete areas. Consideration should also be given to potential impacts and possible mitigation actions for downstream and receiving waters. There is no discussion of downstream or cumulative impacts on receiving waters of the Upper Delaware Scenic and Recreational River.

F7-10 Because Millennium has reduced the number of open cut crossings within the Delaware River watershed to only the Mongaup River and a portion of the East Branch Delaware River, impacts on the Upper Delaware Scenic and Recreational River segment would be minimal.

Comment Summary F7-11: Even though the main stem of the Delaware River itself is not being crossed, this area should be mentioned for potential loss of scenic or recreational values in the Delaware, Sullivan, and Orange County segments on table 5.8.3.2-1 on pgs. 5-67 and 5-68.

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F7-11 We have included the main stem of the Delaware in our discussion of the West and East Branches of the Delaware River in section 4.8.3 of the FEIS. See response to comment F7-1. To maintain some limit on the number of properties listed in table 4.8.3-1, the only properties or resource areas listed are those that would be crossed by the pipeline.

Comment Summary F7-12: This construction will occur during the summer season when recreational activities are at their highest and the greatest number of people use the Delaware River. There is concern that we will be experiencing brown turbid water and explaining turbidity plumes to a questioning public.

F7-12 Millennium has modified its proposed stream crossing methods so that now only 13 waterbodies (not including Lake Erie) would be crossed by open cut. One of these waterbodies (the East Branch Delaware River) would be crossed using a conventional bore for part of the crossing and routing the water from the open cut portion across the bored part. Use of the dry crossing method would significantly reduce downstream sedimentation. Construction across any waterbody would be temporary (1 to 3 days) and would only affect recreational activities in the immediate vicinity of the crossing. During the actual crossing, there would be some visual impact from turbidity associated with installation of the pipe. There would also be some visual impact associated with the cleared and graded right-of-way, the equipment bridge, and the movement of construction equipment during construction and until restoration is complete.

F8 DEPARTMENT OF HEALTH & HUMAN SERVICES – K. Holt (6/1/99)

Comment Summary F8-1: If a shallow aquifer is impacted what steps will be taken to return the aquifer back to its original state? If the integrity of the pipeline is compromised what procedures will ensure the protection of drinking water?

As discussed in section 5.3.1, potential impacts on groundwater resources have been analyzed and mitigation measures developed to avoid or minimize impacts. If an aquifer is affected by a particular activity, Millennium has committed to identified mitigation measures for impacts arising from that activity. The integrity of the pipeline would be tested during installation and the pressure monitored during operation. Because natural gas is immiscible (e.g., doesn't mix) in water and is less dense than air, any leaking gas would rise through the soils and water and disperse in the atmosphere. Contact between the gas and groundwater would be minimal and pose little risk of contamination as the gas passes through the aquifer materials on its way to the surface. However, aquifers are usually deep and pipeline construction has shallow effects that are typically no more than 10 to 20 feet deep. Therefore, we do not anticipate significant impacts on aquifers due to construction or operation of the pipeline.

Comment Summary F8-2: This DEIS is vague on provisions for fixing fractures caused by grade and trench blasting. New fractures will give water additional drainage spots and could lower the yield and quality in water wells. What steps would be taken to prevent/minimize this potential impact?

During pipeline excavation in bedrock, it is possible that activities could cause previously sealed fractures to be opened, creating a new flow path for groundwater. If any changes were to occur in water level elevations, most likely only the immediate area of the pipeline right-of-way would be temporarily affected until the water level was reestablished. As discussed in section 5.3.1.1, if well yield or quality is diminished by construction activities, Millennium is committed to specific mitigation measures. However, comparison of well depths versus the depth of the excavated trench indicate that typically blasting doesn't have significant impact on wells.

Comment Summary F8-3: Millennium plans to use SEDIMAT to keep turbidity of flowing streams to a minimum, but it is unclear what method would be used to control suspended sediments when the project crosses a standing body of water such as a lake.

F8-3 The project involves only a few crossings of standing waterbodies and because there is minimal flow, heavier sediments would be deposited in the vicinity of the trench. Fine sediments may remain suspended for a longer time period but would ultimately settle out. Millennium would use silt curtains at these crossings. Additional sediment introduced to a waterbody should be minimized through implementation of our Procedures, Plan, and Millennium's ECS, all of which require timely restoration of areas adjacent to waterbodies with vegetation removed during construction. Similarly, necessary measures to control erosion and sedimentation from

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hydrostatic test water discharges include energy dissipators and sediment barriers and are specified in our Procedures and Millennium's ECS.

Comment Summary F8-4: How does Millennium plan to effectively reduce construction noise during directional drills?

Construction noise during directional drilling would be minimized by maintaining equipment in top operational form and applying noise control measures, such as enclosures or screens where the barriers do not cause safety hazards. We have recommended that Millennium prepare a site-specific plan to address noise at the directional drill sites (see section 5.11.2 of the EIS).

Comment Summary F8-5: Millennium's proposed route would pass through six hazardous waste sites; however, our review did not reveal how Millennium plans to protect the surrounding communities and the construction workers from possible exposure to hazardous material.

Sections 4.8.3 and 5.8.3 have been amended to better describe proposed mitigation.

Comment Summary F8-6: This DEIS does not state what potential long-term impact of this pipeline would be on the environment. How long after the initial disturbance will Millennium take to clean up the construction area?

Long-term impacts associated with project construction are described throughout section 5 of the EIS. Generally, long-term impacts (e.g., those that would require more than 3 years to recover after construction) and permanent impacts (e.g. those that would never recover over the life of the project) are primarily associated with the loss of trees within the permanent right-of-way, the regeneration of trees within the temporary right-of-way, the use of land for permanent utility structures, and the restriction on certain land uses (i.e., buildings, trees, etc.) within the permanent right-of-way. Most other impacts would be mitigated over time. As stated in section 2.3.2, Millennium would clean up and final grade the construction work area within 10 days of backfilling, and restoration would begin within 6 days of final grading; space, weather and soil conditions permitting.

F9 U.S. ENVIRONMENTAL PROTECTION AGENCY – R. Hargrove (6/21/99)

Comment Summary F9-1: The DEIS indicates that about 421 acres of wetlands would be directly disturbed by pipeline construction, including 54 acres of forested wetlands which would be converted to herbaceous and shrub cover, and 41.6 acres of wetlands used for staging and other work areas. Of this total 250.8 acres will be permanently impacted. The wetlands delineations referenced in the DEIS were not all conducted using the appropriate methodology; therefore, the document does not contain adequate information regarding the wetlands to be impacted. The FEIS must address wetlands impacts in a much more thorough manner, and in accordance with the CWA's section 404 (b) (1) Guidelines. Once affected wetlands have been adequately delineated, impacts must be quantified for each alternative and include an evaluation and adoption of feasible route variations that would reduce wetlands impacts.

F9-1 The 1987 COE Wetlands Delineation Manual was used to delineate wetlands except where access was denied, in which case NWI mapping and aerial photography was used. As listed in appendix I of the FEIS, 44 wetlands were delineated using NWI maps or aerial photography (7 percent of all identified wetlands). While use of NWI mapping and/or aerial photography may represent a conservative estimate (e.g., actual field delineation would typically be higher), we believe these delineations represent a reasonable estimate of the wetlands affected and that final field delineations would not significantly increase the number of wetlands crossed or acreage affected.

Regarding the adequacy of the information presented in the EIS, appendix I1 of the FEIS contains a listing of each individual wetland and identifies the wetland by number, milepost, station number, NWI cover classification, crossing length, acreage affected, and whether or not it is a state-regulated wetland. We believe this provides sufficient information on which to evaluate potential wetland impacts. Additional details on dominant species, diversity etc. of each wetland are available from Millennium's field delineation forms and are considered too voluminous to reproduce in this EIS.

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We do not believe it is reasonable to identify alternative routes for each of the 686 wetlands that would be crossed, since it is unreasonable to assume that a linear project could avoid all wetlands without undue impact on other resources. However, we did examine avoidance alternatives for all state-regulated wetlands and all predominantly forested wetlands where the crossing length would exceed 500 feet (see sections 3.4 and 5.7.3 of the EIS). Also, since Millennium proposes to place its facilities adjacent to or within existing rights-of-way, which would help minimize environmental impacts, avoidance of wetlands would require a significant increase in new right-of-way.

Comment Summary F9-2: The DEIS does not present an adequate discussion of measures to mitigate for wetlands impacts and presents only routine construction practices as mitigation for this significant impact. The FEIS must present a detailed mitigation plan, including a wetland mitigation map showing the acreage and location of all wetland vegetation communities and proposed adequate compensation for all unavoidable losses of wetlands values and functions. The project should strive to result in no net loss of wetlands and a five year mitigation monitoring plan should be provided.

F9-2 There would be no net loss of wetlands as a result of project construction. Also, see comment response F9-1 and S12-15. Our Procedures (section V.E.3) requires monitoring of wetland revegetation for 3 to 5 years. If revegetation is not successful after 3 years, Millennium would be required to develop and implement a remedial revegetation plan.

Comment Summary F9-3: The COE indicated that an individual permit under section 404 of the CWA would be required for this project; however, the applicant filed a joint permit application with the COE. The COE has not yet issued a Public Notice concerning the issuance of the permit and based on the information provided in the DEIS it is our opinion the this document fails to adequately address minimization and compensation for wetlands impact caused by the project. The proposal fails to comply with the section 404 (b) (1) Guidelines and should not be authorized.

As stated in response to comments F9-1 and F9-2, there would be no net loss of wetlands. Millennium's permit application filed with the COE in November 1998 and supplemental filings would be the basis for its compliance with section 404(b)(1) guidelines.

Comment Summary F9-4: Because the crossing of the Hudson River in the Haverstraw By would be 2.2-miles-long a directional drill would not be feasible as a construction option and the river would be open cut. The NYSDEC requested additional testing at the crossing location because of known presence of PCBs and other contaminants. We agree with the FERC's recommendation about the development of an in-stream monitoring plan in consultation with appropriate agencies and suggest that to avoid adversely impacting water resources, contaminants in the sediments should be identified prior to trenching. If the sediments have elevated contaminated levels they should not be used as backfill but rather disposed of in accordance with appropriate Federal and state regulations. The FEIS should evaluate the precautions to minimize resuspension and drift of contaminated sediments during trenching.

F9-4 Comment noted. Also, see response to comment F9-5.

Comment Summary F9-5: The DEIS estimates that about 200,000 cubic yards of sediment would be excavated from the navigation channel and states that there are no disposal sites on either shore of the crossing location that could handle this volume of material. The FEIS must present an analysis of alternatives for disposal of the excavated material including the measures needed to secure an appropriate disposal location and the impacts associated with disposal at a preferred location.

As stated in section 5.3.4, there would not be enough space on either shore to store and dewater the spoil or to store the spoil on barges. In addition, the use of barges to store spoil would lengthen the construction time window by about 1 month, due to the additional time required to handle material.

In the NYSDEC's Water Quality Certificate (issued on December 8, 1999), sediment backfilling using bottom dump barges is the approved method of disposal. A number of restrictions were placed into the authorization including limiting disposal to periods of low slack tide. Turbidity monitoring would be conducted during construction. Further, the Water Quality Certificate dictates that backfilling must be performed accurately. Use of differential global positioning system (DGPS), accurate to five (5) meters or better, must be used to align all

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offloading and dump barges used during backfilling operations. The final riverbed elevation must be within +/- 1 foot of the original elevation as determined by pre-and post-construction bathymetric surveys.

Comment Summary F9-6: FERC recommended an evaluation of different crossing strategies to minimize impact on the endangered shortnose sturgeon in consultation with the COE, NMFS, and DEC. We concur and note that the Neversink River contains the endangered dwarf wedge mussel and requires additional information and consultation which should be reported in the FEIS.

F9-6 Comment noted. The FEIS and our BA (issued January 17, 2001) include additional information that can be used by the FWS and the NMFS in developing its biological opinion.

Comment Summary F9-7: The FEIS should analyze the impact of the project on benthic resources and include appropriate measure to mitigate unavoidable impacts on these resources.

F9-7 Additional information about impacts on benthic resource habitats is in section 4.4.1 and 5.4.1 of the FEIS and in appendix J. Because of generally rapid reproductive rates, stream drift, and evolution of mechanisms for dealing with periodic episodic sedimentation events, many stream invertebrates are minimally affected by pipeline construction across streams. Our review of potential project impacts on surface water resources in both the DEIS and FEIS is inclusive of macroinvertebrates since the entire health of the aquatic system is included.

Comment Summary F9-8: As recommended by FERC, Millennium should consider an alternative crossing of the Hudson River 3.3 miles north of Millennium's proposed crossing. The FEIS should analyze the feasibility of using this alternative crossing.

Comment noted. Part II, section 3.0 of the SDEIS and section 6.2.1 of the FEIS include additional information on the Hudson River alternatives.

Comment Summary F9-9: Construction of the project would require a 93.3 mile crossing of Lake Erie of which 32.9 miles would be within the U.S. The FEIS should thoroughly evaluate the potential for disturbance of contaminated sediments in connection with the lake crossing and landfall area, as well as an alternatives for disposal of excavated materials.

Millennium submitted a comprehensive sediment quality sampling program to the COE, Pittsburgh District, for review and comment. The program involved the collection of recent sediments (i.e., from the water/sediment interface to the interface with the underlying glaciolacustrine sediment) at five locations along the proposed route on the U.S. side of the lake, including one at Ripley landfall. Based on its review of the analytical data, the COE indicated that elutriate testing of the sediment was not required. In addition, based on the sediment quality data, Millennium did not identify route variations (to avoid contaminated areas) or changes in construction methods (to minimize contaminant resuspension). Finally, we asked the U.S. Army Engineer Research and Development Center (ERDC) to assess the adequacy of the sampling program to identify contaminated sediments. The ERDC determined that no additional sampling or analysis are needed due to increased trench depths because the extra material excavated would be uncontaminated.

Comment Summary F9-10: A comprehensive cumulative effects analysis is needed in the FEIS to fully evaluate the project's direct, indirect, and cumulative impacts in conjunction with other proposed projects.

F9-10 The EIS provides a comprehensive statement of potential predicted direct, indirect, and cumulative impacts associated with construction and operation of the proposed project. Section 5.13 of the EIS only addresses the cumulative impacts associated with construction of the proposed project at the same time as other planned projects in the vicinity of the proposed project.

Comment Summary F9-11: The proposed pipeline runs parallel to the Catskill Aqueduct in Westchester County, New York for about 4,000 feet. Where the pipeline would cross the aqueduct (MP 418.8) the physical distance between the two pipes would only be a few feet. Every effort should be made to provide a more substantial buffer distance at this critical location and the FEIS should evaluate alternative crossing locations where the Catskill Aqueduct is buried deeper in bedrock to provide a greater margin of safety in the event of a catastrophic event..

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Comment noted. Section 5.3.2.3 (Aqueducts) of the FEIS includes additional discussion of the Catskill Aqueduct. Route variations to minimize impact on the aqueduct are included in section 6.3 of the FEIS.

Comment Summary F9-12: the NYCDEP expressed concern that a failure of the pipeline could result in interruption of water supplied via the Catskill Aqueduct. However, we feel that the analysis presented in the DEIS that addresses the NYCDEP's concern is too limited. We recommend that the FEIS include additional failure analysis that details the hazards associated with a pipeline rupture or catastrophic explosion along the entire proposed alignment. The analysis should include an assessment of risks and impacts on public health and surrounding environmental and should also consider the proximity of portions of the alignment to hazardous and solid waste sites.

F9-12 See comment F9-11. The EIS contains a safety section, and it discusses the risk of pipeline failure. It is not reasonable or practical to "detail" the hazards of a rupture for the entire route in pipeline safety when land use and other sections of the FEIS already discuss what is along the route.

Comment Summary F9-13: The DEIS notes that "Millennium personnel would work with local emergency response organizations and public officials to coordinate the response" and to ensure public safety. Millennium states that trained personnel would be available at five locations along the pipeline. We suggest that a more explicit protocol be developed by Millennium that addresses the specific emergency procedures that will be performed in case of a catastrophic incident and that these emergency procedures be tested periodically to ensure that coordination among Millennium and the emergency personnel of local communities remains strong and current.

F9-13 In accordance with USDOT regulations, Millennium would work with local municipalities in developing emergency procedures in the event of a pipeline failure. These procedures would be as explicit as necessary to address public safety.

Comment Summary F9-14: The DEIS evaluated a range of alternatives involving the use of other pipeline systems, 6 major route alternatives, 24 route variations, aboveground facility site alternatives, and the no action alternative. However, the document does not consider the non-construction alternatives including the implementation of conservation measures, and alternative energy source and fuels. This should be included in the FEIS.

Section 3.1 of the EIS addresses the no action alternative and the use of alternative fuels, including conservation.

Comment Summary F9-15: Millennium has initiated consultation with the New York State Department of State for a determination of consistency with the state's coastal zone management plan (CZMP); however, the document states that it has not initiated consultation with the PADEP for a determination of consistency with the CZMP for the Pennsylvania portion of Lake Erie.

Millennium received concurrence of its coastal zone consistency determination from PADEP on April 16, 2000.

F10 U.S. ARMY CORPS OF ENGINEERS, New York District – J. Seebode (6/22/99)

Comment Summary F10-1: The DEIS indicates that since 90 percent of the pipeline would be constructed adjacent to existing rights-of-way it would result in a more minimal impact overall and the need for clearing forested wetland vegetation would be reduced compared to the use of a new right-of-way; however this does not mean that this route is or may be the least environmentally damaging route. Based on a review of a flyover video tape of the route with the New York District, it appears that a significant portion of the existing right-of-way is within remote forested areas that contain high quality streams and wetlands. Route deviations may result in less impact to forested areas.

F10-1 While we agree in principle with use of variations to reduce impact on forest clearing, most of the impact on forest would be in the remote forested areas where the pipeline would be adjacent to existing rights-of-way or where it would be difficult to identify a variation that would significantly reduce forest impacts. Numerous environmental advantages are gained from maximizing the use of existing rights-of-way and we, and other resource agencies, are generally supportive of this strategy. This is especially true in forested areas where a new right-of-way would create a new corridor and promote fragmentation of habitats. By following existing rights-of-way, Millennium would either clear less forested habitat because of overlapping existing right-of-way

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or would clear forest adjacent to an existing corridor thereby reducing fragmentation. While isolated exceptions may exist, we believe that the proposed corridor is generally preferable.

Comment Summary F10-2: The DEIS indicates that about 5.5 miles (13 percent) of affected wetlands are forested; however, based upon the video review it was apparent that a large portion of the wetlands within the right-of-way were misidentified as emergent wetlands.

See response to comment F4-56.

Comment Summary F10-3: The DEIS indicates that FERC will monitor the construction and operation of the pipeline; However, in order to determine the potential impacts of the project we would like specific information as how this plan would be implemented.

Comment noted. Section 2.3 of the FEIS has been expanded to describe the FERC construction and restoration monitoring program.

Comment Summary F10-4: The DEIS indicates that there would be 9 construction spreads (excluding the Hudson River and the Bowline spread) at which Millennium would assign one full-time "lead environmental specialist" to support its environmental and agricultural inspectors. The Procedures state that at least one "Environmental Inspector" is required for each construction spread while section 7.0 of the DEIS states that Millennium shall employ at least a team of (i.e., two or more) environmental inspectors per construction spread. Clarify and provide details on the environmental inspection program.

F10-4 Our Procedures are the standard minimum requirements for construction affecting waterbodies and wetlands and are not project-specific. The condition requiring Millennium to have at least two environmental inspectors per spread is a project-specific requirement and the company may elect to employ more than two environmental inspectors. Millennium states that it proposes to employ a Lead Environmental Inspector who would supervise two other environmental inspectors and the agricultural inspector (if required for that spread). The responsibilities of the environmental and agricultural inspectors are in Millennium's ECS (sections VII.B. and VII.C., respectively). In addition, each construction contractor would be required to have at least one Environmental Compliance Specialist per spread. The responsibilities of the Environmental Compliance Specialist are described in section VII.F. of Millennium's ECS. These people would be responsible for making sure that the project is constructed in compliance with the environmental conditions of the FERC certificate and other federal and state permits.

Comment Summary F10-5: We have concerns regarding several terms that Millennium uses in its ECS. Specifically the designation of "Inspectors," "Specialist," etc. as well as individual responsibilities is vague and confusing and needs further clarification.

F10-5 Millennium has modified table 1 of its ECS to include definitions for those job classifications that were not included in the DEIS version of the ECS. Also see response to comment F10-4.

Comment Summary F10-6: The ECS indicates that approvals for environmental variances would only be issued after "appropriate" agencies have been contacted. Further clarification is needed as to what agencies Millennium considers "appropriate"

F10-6 ECS section VII.H discusses environmental variances. Millennium cannot make any changes to the certificated conditions of the project without written approval of the Director of OEP. Millennium must also obtain written approval, if required, from all other appropriate agencies that may have permit conditions which would require modification prior to requesting the variance from FERC. However, no agency may require any activity or grant any variance that modifies a FERC certificate requirement. The appropriate agency may vary depending on the type of variance sought. Millennium has modified section VII.H of its ECS to identify the lead state agencies with jurisdiction over the project. Verbal approval in emergencies and on weekends would have to be given by the appropriate agency. The ECS states that verbal approval "may be given provided that written confirmation is provided as soon as possible."

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Comment Summary F10-7: It is not clear in the DEIS where the material (tree stumps, other cleared vegetation, or excess fill material) which would be removed to provide a level surface area for construction would be stockpiled.

In its ECS, Millennium states that stumps and large rocks would be buried within the construction work area, except in agricultural, residential, or wetland areas. Alternatively, stumps would be cut flush with the ground using a stump grinder, windrowed just off of the construction right-of-way, or hauled from the site and disposed of (ECS, section II, D.1.). Brush may be piled just off of the construction work area, but not within 50 feet of streams, floodplains, or wetlands. It may also be chipped and then given away, buried, or thinly spread (less than 2 inches) on the right-of-way, except in agricultural land or within 50 feet of streams, floodplains, or wetlands (ECS, section II, C.2.). In wetlands, stumps would not be removed except over the trenchline (ECS, section IV, B.4.). Excess material from grading operations would be stored in the construction work area and spread back over the work area after pipe installation is complete. In wetlands, the top 12 inches of soil would be conserved from graded areas. Excess subsoils would be placed on 6 inches of mulch to keep them segregated from the topsoil (ECS, section IV, B.2.). These measures would be implemented regardless of the landowner's preferences and should be adequate to ensure that construction debris does not remain in wetlands.

Comment Summary F10-8: We feel that the disposal of any excess material should not be left up to the discretion of the landowner, even if it is temporarily stockpiled by Millennium in upland areas for the landowner. It could potentially result in additional impacts on waters of the U.S. and the standards should state that no material shall be provided to any landowner for any reason except wherein the final disposal area has been designated as an upland area and approved by the environmental inspector.

F10-8 Comment noted. We note that landowners can have ownership rights to excess materials as specified in the easement agreements. While we believe these sections of the ECS (ECS, section II, J.1. and section VII.H) do not apply to wetlands, we have included a recommendation in section 5.7 that requires Millennium to employ a wetland specialist to ensure that wetlands are returned to preconstruction grade. Millennium has revised section VII.H to require approval for a variance from the appropriate agency.

Comment Summary F10-9: The DEIS states that barriers would be put up at landowner's discretion and the ECS states that off-road vehicle control will be left to the discretion of the landowner. During review of the video tape it appears that the existing right-of-way, in many locations, is used for public access by both on- and off-road vehicles. ORV use has resulted in rutting, diversion of stream flows into the right-of-way, right-of-way widening, and general degradation of aquatic areas. The use of barriers should not be left to the landowner's discretion since this problem may never be rectified. If it is desired to leave the right-of-way as an access for ORV's then it should be treated as such with proper crossings developed.

Millennium states that it would offer to install ORV barriers in areas of new right-of-way and presumably would extend existing ORV barriers on adjacent rights-of-way onto the new right-of-way, if requested by the landowner. In addition, we have recommended that Millennium install ORV barriers wherever requested by landowners. However, we cannot require landowners to install ORV barriers since it is up to the landowner to decide if ORV barriers should be installed on their land. We recognize that ORVs have a significant impact on restoration, but sometimes this activity is taking place on authorized ORV trails. Also, see response to comment F4-7.

Comment Summary F10-10: Millennium's ECS indicates that temporary access roads, and/or any additional width that is used for construction, will be graded and left intact for the landowners benefit or restored. If this is left for the landowner, the same concerns as described above could arise.

Our Procedures prohibit the use of access roads in wetlands, unless the road is an existing road that can be used with no modification and no impact on the wetland (see section VI, C.1.e of our Procedures). Landowners with existing access roads in areas other than wetlands may want to retain the modifications (i.e., road widening, grading, etc.) that were made or may want these areas restored. Access road restoration would be consistent with the right-of-way restoration requirements and with the terms of the easement agreement with the landowner. Access roads are restored to their original condition unless other arrangements have been made with the landowners.

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Comment Summary F10-11: The ECS indicate the hydrostatic test water will not be drawn from state designated high quality streams unless other sources are not readily available, and the state or local regulatory agency permits its use. The procedures proposed in the ECS conflict with the procedures outlined in the Plan and Procedures. In these, it states that written authorization from appropriate agencies would be necessary if using state designated "exceptional value" waters, waterbodies that provide threatened or endangered species, or public water supplies. This is more appropriate for Millennium's proposal to simply notify these agencies of withdrawal at least 48 hours prior.

F10-11 The second paragraph of the Introduction to Millennium's ECS states that our Plan and Procedures would be implemented as minimum standards. Therefore, Millennium is required as stated in our Procedures (section VII.C.2) to obtain permission from the FWS, NMFS, or NYSDEC for hydrostatic test water withdrawals from any surface water that could potentially affect Federal or state listed threatened or endangered species. This requirement was also stated in section 5.3.2.3 of the DEIS. The ultimate approval is therefore dictated by these regulatory agencies.

Comment Summary F10-12: the ECS indicates that equipment bridges will not be required at streams that do not have a state designated fisheries classification. Please clarify what a "fisheries classification" is.

F10-12 As specified in our Procedures (section V.B.7.b), waterbodies that do not have a state-designated fishery classification can be crossed without bridges (see table H2 in appendix H of the FEIS for New York State fishery classifications). However, water quality standards still would need to be met and the use of bridges may be the only way that Millennium would be able to meet its stream crossing permit requirements.

Comment Summary F10-13: The ECS states that if blasting is needed, it will not be done without prior approval from government agencies and that agencies will be notified at least 2 days in prior. However, we feel this information should be easily assessed prior to issuance of a Certificate or COE permit decision in those more sensitive streams areas presently known. A 2-day notification would not provide adequate time to assess these potential impacts.

F10-13 Fish and wildlife would likely move away from the construction work area as a result of the disturbance associated with the set up of blasting charges. Millennium has modified its ECS to provide landowners with 1 week prior notice for blasting with confirming notice at least 24 hours before blasting. Millennium would obtain all required blasting permits. Millennium states that it cannot predict the exact locations where blasting would be required before construction, although blasting would only be used as a last resort. Millennium would discuss with the appropriate agencies the specific conditions and techniques to be used during any blasting where there are known sensitive species or fisheries.

Comment Summary F10-14: The Procedures describe many activities that cannot occur within a specified distance from a waterbody and describes erosion control measures that should be implemented when working near a waterbody. Since wetlands and waterbodies were separately defined, these restrictions should apply to both.

F10-14 Many of the protective measures are the same for wetlands and waterbodies while some are not. This is due, in part, to the more dynamic hydrology characteristics of waterbodies. For example, refueling within 100 feet of either resource is to be avoided. However, spoil may be temporarily stockpiled in wetlands but not in minor and intermediate waterbody crossings. Uniform application of measures for wetlands and waterbodies would be infeasible and potentially result in greater environmental impact. The requirements in the Procedures have been designed to provide the best protection for each resource.

Comment Summary F10-15: Sections V. and VI of the Procedures indicates that these crossing activities require only that the project sponsor "provide written notification" to the COE for waterbody and wetland crossings. Please note that this office has determined that the construction of the Millennium pipeline would not meet the terms and conditions of the Nationwide Permit Program and we are requiring that the applicant obtain an Individual Permit.

F10-15 Section 2.7 noted that an individual permit from the COE is required.

Comment Summary F 10-16: Please clarify what is considered a "significant" waterbody by the state. To minimize overall impacts on the aquatic environment, dry crossing methods should be utilized whenever and wherever possible.

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F10-16 Typically, significant waters are defined as those with high water quality and/or significant warm or coldwater fisheries. In New York, water quality classifications of AA, A, or B and streams with a 't' or 'ts' fisheries designation are generally considered significant since they fall under the protected waters category. Millennium's revised waterbody crossing proposal eliminates nearly all open cut crossings through flowing waterbodies.

Comment Summary F10-17: Section V.C. indicates that all banks would be returned to preconstruction contours. Based on our field review, it was evident that long-term bank damage has occurred in many areas as a result of original pipeline installation. These areas do need to be repaired but not to preconstruction contours. Therefore, some flexibility should be incorporated to allow/encourage the project sponsor to repair/enhance these areas.

F10-17 Section II.I.J.1 of Millennium's ECS states that during final grading the slope may be altered from the original grade if the final grade would be more stable or provide other benefits to the environment, Millennium, and/or the landowner. Similarly, section IV.A.8 allows for some discretion in restoring grade to an "approximate original contour" and mechanical stabilization if the final soil grade could result in an unstable bank. This would allow flexibility to repair damaged banks resulting from past pipeline construction without the need for additional approvals. This could occur only if it is in the construction workspace area. Offsite work is not allowed.

Comment Summary F10-18: The lack of preliminary assessments by Millennium to develop crossing techniques which would minimize impacts on the aquatic environment indicates that simply following the ECS and the Procedures would not necessarily minimize stream impacts. The potential impacts on "all" aquatic ecosystems should be avoided or minimized to the maximum extent possible.

F10-18 Comment noted.

Comment Summary F10-19: The DEIS does not require the project sponsor to develop construction techniques for crossing of intermediate waterbodies and requires detailed site-specific construction procedures for major waterbody crossings be submitted to FERC for review and approval prior to construction. We believe it would be more appropriate if information were included in the FEIS and not as stated in section 7.0, submitted for review and approval prior to construction.

F10-19 Information on the proposed crossing methods and any site-specific considerations are included in table H1 in appendix H of the FEIS. Considerable additional information has been provided by Millennium, NYSDEC and commenters on the project between the time of the DEIS preparation and FEIS preparation, and has been considered in preparing the FEIS. However, there are many variables involved in stream crossing construction method selections, some of which cannot be assessed until construction is imminent. Some site-specific stream crossing decisions (such as the exact method of dry crossing) may need to be made at the time of the crossing based on flow characteristics at the time. We believe that those streams without site specific information have been adequately addressed by the selection of dry crossing techniques and by the levels of protection identified in our Procedures, Millennium's ECS, and section 401 Water Quality Certificate that are designed to prevent major impacts on waterbodies.

Comment Summary F10-20: In order to better assess the impacts of the project, all of the findings for utilizing alternative waterbody crossings (bore, directional drill) should have been present to the regulatory agencies for review and comment within this DEIS.

F10-20 Millennium has worked closely with the NYSDEC to develop its currently proposed crossing methods. It would be impossible and undesirable to include in the FEIS all the data supporting all the analyses on the project. However, additional detail is part of the public record and can be obtained from the FERC website. The CEQ regulations do not require this.

Comment Summary F10-21: The DEIS indicates that Millennium has prepared a detailed crossing plan to minimize impacts on downstream populations and habitats of the dwarf wedge mussel and would relocate any mussels in the construction work area before construction. However, with no apparent information to document the success of relocation this mussel species and with no population surveys conducted in the project area it would be difficult to determine if the species would be adequately protected.

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F10-21 See section 5.3.2 of the FEIS. Millennium has revised its crossing method for the Neversink River to a conventional bore. If successful, the bore would eliminate impact on aquatic habitats in the river, including those of the dwarf wedge mussel. The FWS concurred with this in its March 20, 2001, letter to the FERC.

Comment Summary F10-22: In evaluating an alternative route for the Neversink crossing the DEIS concluded that "overall environmental impact would be increased on residential and commercial properties..." What exactly are these "environmental impacts"?

F10-22 These impacts would include disruption to an adjacent horse farm, increased proximity of the pipeline to residences and commercial establishments, and additional land affected by construction and operation of the pipeline. While these impacts may not seem significant, they appear unnecessary since Millennium has proposed to avoid or mitigate all impacts on the dwarf wedge mussel in the Neversink River.

Comment Summary F10-23: The mucklands of Orange County is a unique area with an extremely high water table which would present difficulties in pipeline construction in that it would be impossible to dewater trenches. The DEIS states that Millennium would file site specific plans for the muck crossings. Since we have not seen these plans, the COE cannot adequately assess impacts on the aquatic environment.

F10-23 Millennium has developed a final site-specific plan for construction within the black dirt area. A discussion of the final plan is included in part II, section 2.1 of the SDEIS and sections 2.3.3 and 5.2.2 of the FEIS.

Comment Summary F10-24: The "drainage ditches" that were constructed around the perimeter of these agricultural fields are considered waters of the U.S. and should be indicated as such in the delineation.

F10-24 It is our understanding that the COE, in many regions of the country, does not consider drainage ditches along roads and in active agricultural lands as regulated waters of the U.S. During its review of the project, the COE could consider analysis of minor aquatic resources such as drainage ditches. However, because of the periodic, regular maintenance of these drainage structures to allow them to function in their intended purpose, we believe that a one-time crossing of a very short segment of an agricultural drainage ditch would have negligible impacts on aquatic resources.

Comment Summary F10-25: The pipeline route as shown on Millennium's web site shows a branch of the pipeline extending from Orange County, New York directly into the northeast corner of Pennsylvania and the Pennsylvania and New Jersey border. Any discussion of this segment is lacking in this document.

F10-25 The line depicted on Millennium's web site map along the Pennsylvania/New Jersey border is the Milford Line that would be acquired by Millennium from Columbia (see section 2.1 and table 2.1-2 of the EIS). No construction is proposed on this pipeline.

NATIONAL MARINE FISHERIES SERVICE – S. Gorski (6/7/99)

Comment Summary F11-1: We have reviewed the DEIS and find it is deficient in several of the basic criteria. It offers general descriptions of several project alternatives and it does not adequately describe the proposed project or fully identify potential environmental impacts associated with the implementation of any alternative.

Comment noted. See sections 3 and 6 of the FEIS.

Comment Summary F11-2: There is no substantive, informative analysis provided to support a future decision for a preferred alternative. While NEPA does not require that a preferred alternative be identified in the DEIS, we suggest that FERC provide the detailed information necessary to support an informed assessment of impacts associated with each alternative that remains under consideration. We strongly recommend that FERC withdraw this version and prepare a DEIS that addresses the significant deficiencies of the present draft.

See response to comments F7-1 and F11-1

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Comment Summary F11-3: The proposed Hudson River crossing may affect the shortnose sturgeon. FERC has asked that the DEIS be used as the BA and requested formal consultation be initiated between our agencies. The NMFS has indicated to FERC that the potential crossing alternatives pose distinctly different threats to shortnose sturgeon in each alignment. Any request to initiate formal consultation with the NMFS must include a clear and comprehensive alignment description that the FERC proposes to authorize.

Additional information has been provided in our BA (issued January 17, 2001) and part II, section 3 of the SDEIS. Sections 4.6 and 5.6 of the FEIS have been revised accordingly. See comment response F5-1.

Comment Summary F11-4: FERC should consolidate all information concerning the Millennium Pipeline Project into a single, coherent presentation. This information may be conveyed through the NEPA action or as a "stand alone" document. In either case, the document should explain clearly how the information identifies and addresses impacts on endangered shortnose sturgeon. The NMFS has up to 135 days to detail all information received to deliver a biological opinion to the FERC and the FERC must not make any irreversible or irretrievable commitments of resources that would prevent us from proposing or implementing reasonable and prudent alternatives to avoid jeopardizing shortnose sturgeon.

Comment noted. We believe the EIS presents all aspects of the environmental impacts associated with the project, including all information required by the NMFS for compliance with the ESA.

Comment Summary F11-5: No Essential Fish Habitat has been designated pursuant to the 1996 amendments to the Magnuson-Stevens Fishery Management and Conservation Act; however, we expect that designations may be made in the coming months for several species managed by the New England, Mid-Atlantic and South Atlantic Fishery Management Councils before the FERC licencing and COE reviews are complete.

F11-5 Comment noted. Our EFH Assessment was issued January 17, 2001. A summary of consultation with NMFS is in section 5.3.4 of the FEIS. We have considered this designation in the FEIS (see sections 4.4.1 and 5.4.1).

Comment Summary F11-6: The DEIS does not include an ecological analysis of work proposed in critical water and wetland crossings, its impact, or methods to avoid, minimize, or mitigate these impacts. In particular, opportunities are available to avoid some of the more significant water crossings such as Lake Erie and Haverstraw Bay.

F11-6 The EIS contains a detailed discussion of waterbodies, wetlands, and other habitats crossed (see section 4.0). It also contains a description of potential impacts on these habitats (see general construction and operational impact sections in section 5.0) and proposed and recommended mitigation (see site-specific impact sections of section 5.0 and appendix E). The discussion in the FEIS on the Lake Erie and Hudson River/Haverstraw Bay crossings has been revised based on additional information provided by Millennium and comments on the DEIS (see sections 4.3.3, 4.4.1, and 5.3.3, and 4.3.4, 4.4.1, and 5.3.4 of the FEIS). In addition, Millennium has received its section 401 Water Quality Certificate from NYSDEC (see appendix J of the FEIS).

Comment Summary F11-7: Some activities are proposed in areas designated by the New York State or Federal government as significant coastal or aquatic sites (e.g. Significant Tidal Habitat in Haverstraw Bay). How have the FERC and the applicant reconciled this information with the proposed design alternatives in this special management area.

The FEIS includes additional discussion of the Hudson River/Haverstraw Bay crossing in part II, section 3 of the SDEIS and sections 4.3.4, 5.3.4 and 6.2 of the FEIS. Millennium states that it is continuing to work with the Department of State, Division of Coastal Resources and is committed to working with resource agencies to develop mitigation plans for the Haverstraw Bay crossing. NYSDEC's section 401 Water Quality Certificate (issued 12/8/99) includes 26 conditions for crossing the Hudson River, including detailed specifications on sampling protocol and reporting. We believe that the current construction proposal provides substantial reductions in habitat impacts over Millennium's original proposal.

Comment Summary F11-8: We recommend that the FERC or COE produce a revised draft that attends to the deficient of the present DEIS and suggest that the involved state and Federal agencies be convened for a joint scoping effort to identify which issues must be addressed in the subsequent supplemental review.

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F11-8 We held a resources agency meeting about the Hudson River crossing on November 30, 1999. The FEIS has been updated as appropriate based on comments provided on the DEIS, SDEIS, and supplemental information provided by Millennium. However, the EIS has been prepared to provide information to the Commission to allow it to make a decision on a project that involves the construction of approximately 417 miles of pipeline and appurtenant facilities. Although the proposed route, construction procedures, and mitigation measures described in the EIS are in fact quite detailed, the EIS has been prepared in accordance with CEQ regulations that specify that an EIS should be "analytic" not "encyclopedic".

F12 NATIONAL PARK SERVICE – P. Underhill (6/18/99)

Comment Summary F12-1: The existing pipeline right-of-way across Bellvale Mountain crosses the Appalachian Trail (AT) footpath on a high bench on the west side of the Mountain. Because of the break in the topography, the pipeline right-of-way is only visible for a short direction in either direction. As long as clearing does not exceed beyond the limits of the right-of-way, we do not anticipate any significant long-term visual effects. However, we expect that Millennium's landscape management plan will fully address reclamation, landscaping, and other mitigation measure to minimize impacts on scenery, soils, and vegetation.

F12-1 Millennium has developed a site-specific plan to cross the AT to minimize vegetation clearing and reduce potential visual impact (see section 5.8.3 of the EIS). We have recommended that Millennium finalize the site-specific crossing plan for the AT with the NPS before construction. Any specific concerns regarding restoration should be included in the development of that plan.

Comment Summary F12-2: Roads and the access provided for ORV's are two of the most significant and persistent management problems facing local trail managers and utility rights-of-way corridors, especially those with permanent access roads, are an invitations to ORV's, dirt and mountain bikes, horseback riders and four-wheeled drive vehicles. We expect Millennium will incorporate measures in its proposed ORV control mitigation plan into a site-specific management plan for the NPS Appalachian Trail Lands and will be willing to take additional measures, if necessary, to control; ORV use on NPS lands.

F12-2 We visited the pipeline crossing of the AT in Orange County and did not observe evidence of a lot of ORV use of the right-of-way. This is probably because the AT crosses the pipeline southeast of a ridge line and in a relatively remote area of steep and rocky slope. However, Millennium states that it would provide ORV barriers (see section 5.8.3 of the EIS) in its site-specific crossing plan.

Comment Summary F12-3: The AT is a recreational resource that is used year-round and cannot be closed. Safe passage for the public through the area must be provided at all times and Millennium's plan for trail crossing adequately addresses our concern.

F12-3 Thank you for your comment.

Comment Summary F12-4: The DEIS makes no mention of an important hawk-watch site located between Route 17a and the proposed pipeline right-of-way.

F12-4 The hawk watch site was noted as a concern in the DEIS (see section 5.8.3). We have revised the discussion in section 5.8.3 of the FEIS to identify the location of this site off of State Route 17A.

Comment Summary F12-5: The document states that access was denied for surveying Appalachian Trail lands for cultural resources. This is not the case: permission was granted to Millennium's contracted cultural resource specialist in August 1998. Although we have not received a formal report from them, we have been advised that no cultural resources were identified on NPS lands.

F12-5 Millennium filed results of the cultural survey for the AT in October 1999. Construction of the pipeline would be confined to the existing 50-foot-wide cleared right-of-way. No cultural resources were identified on NPS lands.

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Comment Summary F12-6: The use of herbicide on NPS lands is not appropriate due to the visual, physical, and personal safety concerns associated with herbicide application.

Millennium states in its ECS (section VI.B) that the right-of-way would be maintained by mowing or other mechanical means. No herbicides would be used. This is also included in Millennium's site-specific crossing plan for the AT.

Comment Summary F12-7: Millennium pipeline will need to acquire additional interests for the NPS to construct the pipeline across Appalachian Trail lands and both parties will have to enter into a land exchange to authorize the pipeline crossing and the NPS does not have the authority to issue a right-of-way or special use permit for oil or gas pipelines.

F12-7 Millennium states that, based on the deed, the pipeline would cross about 900 feet of NPS property within the existing right-of-way. Millennium does not propose to use any additional work space and therefore would not require any land outside of the existing right-of-way. Therefore, it believes that no land exchange necessary.

F13 ADVISORY COUNCIL OF HISTORIC PRESERVATION – D. Klima (6/30/99)

Comment Summary F13-1: Please clarify if potential effects to historic properties were considered in the evaluation of the major route alternatives.

Potential effects to historic properties were not individually considered in the evaluation of major route alternatives, since cultural resources surveys have not been conducted for the alternatives. Major considerations in looking at the alternatives discussed in DEIS, section 3.0 were the estimated length and cost of the alternatives compared to Millennium's proposed project. Longer alternatives, which were rejected because of "greater environmental impact" overall, include greater potential to affect historic properties by inference.

Comment Summary F13-2: On page 5-75 of the DEIS it states that deep testing has not been completed at over 30 areas. The DEIS should explain why the identification and evaluation effort has not been completed at specific locations.

F13-2 Identification and evaluation of historic properties are ongoing for the Millennium Pipeline Project. Recommendations for deep testing were made in part by examination of topographic maps and then followed up with examination in the field. A tract-by-tract listing of which streams and valleys had been examined in the field, which ones had not, and which ones actually met the criteria for deep testing is an excessive level of detail for the EIS, since many of these areas have not, and do not, produce any artifacts or cultural strata. Agencies are explicitly admonished by the CEQ regulations (section 1502.15) to avoid verbose descriptions of the affected environment and concentrate on important issues. Less important material is to be summarized, consolidated or simply referenced.

Comment Summary F13-3: It would be useful if the DEIS could clearly delineate the status of the evaluation effort listing those properties recommended for further study with a brief description along with those properties eligible for listing in the National Register.

F13-3 Describing every property which is recommended for further study, along with those properties which have been determined to be not eligible for listing in the NRHP would entail describing over 480 properties. This would not be consistent with the EIS's purpose, as specified in the CEQ's regulations, which is to be analytic and not encyclopedic. The DEIS already exceeded the CEQ's recommended page length by 90 pages. The addition of this level of detail, for properties which have no standing under the NHPA, would not assist the Commission nor any other reviewer in evaluating impacts on historic properties.

Comment Summary F13-4: the DEIS should present a complete list of tribes invited to consult, explaining why they have been included, and describing individual written and personal contacts.

F13-4 The DEIS does list the tribes whose comments were requested. Millennium contacted those tribes who were traditionally, or are now, close to the project area. The Onondaga, Oneida, and Cayuga Nations traditionally occupied lands north of the project area. We will include them on our mailing list and have directed Millennium

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to contact them to see if they have any concerns regarding the project. The proposed project does not cross any reservation lands. If it did, then Millennium would have to consult with the Indian tribes to negotiate easement agreements and right-of-way grants to cross the tribal lands. The Seneca Nation was consulted several times (in December 1997, March 1998 and most recently, on July 20, 1999 when Millennium met with Ms. Patricia John, Tribal Utilities Coordinator). No properties of religious or historic significance to the Seneca were identified by the Seneca.

Comment Summary F13-5: The DEIS states that the New York SHPO concurred in the recommendations of the final cultural resource survey report, but does not report those recommendations. We found it extremely difficult to complete our review of the DEIS without this information.

F13-5 The New York SHPO concurred with the recommendations summarized in table 4.9-3. Descriptions are not provided for each of the properties as stated in response to comment F13-3. It is not the purpose of an EIS (a NEPA document) to fulfill the requirements of the NHPA.

Comment Summary F13-6: According to table 5.9.2-1, old Croton Aqueduct is a NHL; therefore, the Commission must invite the Council's participation in consultation to resolve adverse effects to NHL's and the Commission must notify the Secretary of the Interior and invite participation in any consultation involving a NHL.

F13-6 Since the crossing of the Old Croton Aqueduct has not been finalized, the potential effect of the crossing of the aqueduct has not been determined. Certain types of crossing techniques, such as a horizontal directional drill, can result in a determination of no effect to a historic property, and others, such as a conventional bore, often do not adversely affect historic properties. Once the potential impact to the aqueduct has been determined, we would consult with the appropriate parties.

Comment Summary F13-7: Please clarify the statement "traditional cultural properties would be treated in accordance with section 106 requirements."

No traditional cultural properties have been identified to date, either by Millennium's cultural resources consultants, nor any Native American group. As the section 106 process continues, if any traditional cultural properties are identified, they would be treated in accordance with section 106 requirements, and the appropriate groups would be invited to consult.

Comment Summary: According to the DEIS, a property of traditional religious and cultural importance to an Indian tribe may have been identified in Cattaraugus County near Little Valley. We recommend that the Seneca Nation participate in consultations regarding the eligibility and effect, and that the Commission address this matter soon to ensure that a broad range of options, including avoidance, are available for consideration.

Millennium still has not been granted access to the tracts of land which reportedly contain rock formations similar to the "Rock City" formations in Rock City State Park. When access is granted, Millennium would complete its surveys, including recommendations to avoid or mitigate potential impacts on historic properties. If the rock formations do indeed exist in the proposed project area, and could not be avoided, all the appropriate parties, including the Seneca would be invited to consult.