

**SUPPLEMENT TO THE BIOLOGICAL ASSESSMENT
AND ESSENTIAL FISH HABITAT ASSESSMENT FOR
THE MILLENNIUM PIPELINE PROJECT**

Docket No. CP98-150-000, et al.

**Federal Energy Regulatory Commission
Office of Energy Projects
888 First Street, NE
Washington, DC 20426**

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1.0 Background

On January 17, 2001, the Federal Energy Regulatory Commission (FERC) submitted a Biological Assessment (BA) to the National Marine Fisheries Service (NMFS) and requested initiation of formal consultation in accordance with section 7 of the Endangered Species Act (ESA) of 1973, as amended, for the proposed Millennium Pipeline crossing of Haverstraw Bay on the Hudson River. On April 4, 2001, the NMFS requested additional information to supplement the BA. On June 1, 2001, FERC submitted additional information to the NMFS. June 1, 2001 was determined to be the date of initiation of formal consultation. On September 14, 2001, NMFS issued a biological opinion, concluding that the proposed action may adversely affect, but is not likely to jeopardize the continued existence of listed species under NMFS jurisdiction (specifically, the endangered shortnose sturgeon). The biological opinion also included an Incidental Take Statement for endangered shortnose sturgeon, along with reasonable and prudent measures and the terms and conditions necessary for the FERC to minimize impacts to the species.

Also on January 17, 2001, FERC requested an Essential Fish Habitat (EFH) consultation with NMFS as required by the Magnuson-Stevens Fishery Conservation Management Act (MSA), amended by the Sustainable Fisheries Act of 1996. FERC prepared and submitted an EFH Assessment to support the consultation. FERC concluded in its EFH Assessment that based on the proposed crossing methods and Millennium's proposed mitigation, including conditions to Millennium's water quality certification from the New York State Department of Environmental Conservation (NYSDEC), there would be no substantial adverse impact on EFH in Haverstraw Bay.

Subsequent to the consultations discussed above, Millennium identified that some blasting may be required to complete its proposed crossing of Haverstraw Bay and the Hudson River. The use of blasting during construction at this location was not evaluated in the BA, biological opinion, or EFH Assessment. On December 19, 2001, FERC issued an Interim Order authorizing construction of the Millennium Pipeline Project. On February 19, 2002, the NMFS filed with FERC a letter requesting additional consultation under the ESA and MSA, and suggested additional effort under the Fish and Wildlife Coordination Act, to address the proposed blasting. On March 1, 2002 and April 23, 2002, respectively, Millennium filed with FERC its Blasting and Mitigation Plan - Millennium Pipeline Project - Haverstraw Bay Crossing, and its Impact Assessment and Mitigation Plan for Blasting on the Millennium Pipeline Haverstraw Bay Crossing.

Proposed Action and Scope of this Supplement

Millennium has confirmed that consolidated rock would be encountered within the required trench depth along approximately 185 feet of the proposed route, at the eastern shoreline of the Hudson River crossing. The potential impacts from blasting on shortnose sturgeon and other federally managed (EFH) species under the NMFS' jurisdiction need to be evaluated. The scope of this supplement is limited to evaluating the potential impact from underwater blasting near the eastern shoreline of the proposed Hudson River crossing on the species previously addressed in the BA and EFH Assessment.

Millennium would first attempt to remove this rock using mechanical means (environmental dredge), but has prepared a blasting and mitigation plan (see attachment 1) to address the likely need to conduct underwater blasting in this area. Because of the limited depth and length of blasting required, Millennium believes that blasting could be completed with a single blasting episode. The single blasting episode would consist of multiple charges placed along the 185-foot of trench line, with all charges detonated at once (with millisecond delays). The blasting plan and proposed mitigation measures are summarized below, and described in detail in Millennium's Blasting and Mitigation Plan.

Millennium has stated that the size of the construction work area (river bottom) affected by blasting would not be greater than that originally proposed for the crossing, and that blasting would not impact the original construction schedule or construction window. Also, all other activities associated with the excavation of the trench in this area, including mechanical removal of any overlying sediments prior to blasting, partial or complete removal of bedrock by mechanical means, mechanical removal of fractured rock after blasting, and backfilling, are consistent with activities previously addressed in the original BA, EFH Assessment, and associated consultations. The only potential impact not addressed in the original BA, EFH Assessment, and associated consultation is the blasting itself.

Summary of Proposed Blasting Plan and Mitigation Measures

Millennium estimates that it would need to remove approximately 260 cubic yards of rock within the trench along the easternmost 185 feet of the Hudson River crossing. In this area Millennium would first remove any overlying sediment with an environmental bucket. Sediment would be removed from the trench, as well as a setback distance on either side of it to minimize slumping of the

overlying sediments into the trench. The resulting width of impact to the river bottom would be similar to that of the original proposal (i.e., where the entire trench depth is excavated with an environmental bucket). If rock is encountered, it is likely that the environmental bucket would remove at least some of the rock. At this point, a determination would be made as to whether the rest of the rock is susceptible to removal via mechanical means. If so, the environmental bucket or barge-mounted excavator would be used to remove the rock. If a barge-mounted excavator is used, it would only be used after the sediment and at least some rock has already been removed by the environmental bucket, which would reduce turbidity generated during excavation with an open-bucket backhoe. All sediment and rock removed by the environmental bucket or barge-mounted backhoe would be stored on shallow-draft barges. There would be no sidcasting of spoil.

If Millennium determines that blasting would be required, all blasting would be performed in compliance with applicable federal, state, and local regulations. Millennium estimates that a maximum of 200 boreholes would be required along the 185 feet of trench. Boreholes would be between 6 and 11 feet deep, spaced between 3 and 5 feet apart. Charges would be set on delays, with 1 to 2 holes set per delay. Maximum charge per delay would be 35 lbs. Each bore hole would be stemmed with 3 to 7 feet of crushed stone placed in the hole over the charges.

Because of the limited depth and length of blasting required, Millennium believes that blasting could be completed with a single blasting episode. Following blasting, fractured rock would be removed with a barge-mounted backhoe and stored on shallow-draft barges. Following installation of the pipeline, the trench would be backfilled using spoil and/or rock from the shallow-draft barges, and capped with the original sediment to the approximate original elevation. Backfilling would be done in the same manner as proposed for the remainder of the Hudson River crossing.

Millennium proposes to implement a number of mitigation measures that would minimize potential impact on aquatic resources along the eastern shoreline of Haverstraw Bay. These mitigation measures are summarized below.

Use of a Single Blast Episode

Millennium has indicated it would use every reasonable effort to conduct the blasting in one episode. Use of a single blast episode would limit potential impact from blasting to a single event. Otherwise, for the multiple locations along the right-of-way (ROW) that will require blasting to fracture the rock, the cumulative effects of multiple blasts would exceed the effect of a single episode.

Stemming of Boreholes

Stemming is the use of a selected material to fill a drill hole above the explosive charge. Stemming serves to decrease the amount of blast energy coming out of the drill hole, which reduces impact on aquatic resources.

Use of Time Delays

The single blast episode would actually be conducted as a series of blasts separated by defined millisecond delays. Use of delays would minimize blast overpressure (pressure waves generated from the blast), since the maximum overpressure produced would be related to the size of the charge in each hole, rather than the summation of all charges. Reducing blast overpressure would reduce potential impact on fish in the vicinity of the blast. Blasting without time delays could result in release of pressure waves of greater magnitude that would travel a greater distance, which could result in a significantly greater impact on aquatic resources.

Use of Minimum Charge Necessary

Millennium's blasting plan specifies a maximum charge weight per delay of 35 lbs. Millennium has stated that it would ensure that only the minimum charge necessary to fracture the rock would be used. Use of the minimum charge necessary would limit impact of the blast (pressure waves) to that necessary to fracture the rock and excavate the trench.

Use of Pre-blast Survey

Millennium would conduct a pre-blast survey of the blast area using side scan sonar. The survey would indicate whether large schools of fish are present in the blast zone. If large schools of fish are identified, blasting would be delayed until the fish move from the blasting zone, or noise generating devices would be used to scare the fish out of the blast zone. Use of this mitigation measure should reduce the number of fish that could be in the blast area at the time of the blast, which, when combined with other mitigation measures, would serve to minimize or avoid impact on fish.

Use of Scare Devices

If the pre-blast survey identifies large schools of fish in the blast area, noise generating devices would be used to attempt to scare fish out of the blast area. Noise would be used in combination with an air bubble curtain (see below) to move fish out of the blast area and keep them out prior to blasting. Use of this mitigation measure would minimize the chance that fish were in the blast area at the time of the blast, which, when combined with other mitigation measures, would serve to minimize or avoid impact on fish.

Use of Air Bubble Curtain

An air bubble curtain would be used to cordon off the blast area prior to blasting. Implementation of the air bubble curtain would begin after fish have been scared from the blast zone (if necessary). The air bubble curtain would help to keep fish out of the blast area, minimizing the chance that fish would be impacted by the blast. The air bubble curtain would also attenuate the pressure wave produced by blasting, which would further reduce the direct impact from blasting.

4.0 FERC Staff Conclusions and Recommendations

4.1 Federally Endangered Species

The NMFS states that the effect of blasting activity on endangered shortnose sturgeon was not evaluated in its biological opinion. The shortnose sturgeon could potentially occur as adults and juveniles in the vicinity of the proposed blasting in Haverstraw Bay, and could potentially be affected by this activity. The NMFS in its letter filed with FERC on February 19, 2002, and Millennium in its Impact Assessment and Mitigation Plan (see attachment 2), identify results from several studies that document mortality and injury to fish (including shortnose sturgeon) from underwater blasting. Shortnose sturgeon are known to suffer from swimbladder ruptures and injuries to internal organs and hemorrhage to the body wall lining when unprotected from pressure effects of underwater blasting. These injuries were avoided by isolating fish from blast pressure effects. The NMFS also noted that blasting may result in indirect effects to shortnose sturgeon by destroying benthic habitat and producing underwater noise, thus altering and/or limiting their distribution and foraging patterns.

The potential impact on shortnose sturgeon as a result of Millennium's proposed blasting would be mitigated by several factors, including:

A relatively small area of impact. Blasting would affect less than 1 percent

of the area affected by the proposed Hudson River crossing. As modeled by Millennium for a 35-pound embedded charge (without use of the air bubble curtain), a 0 percent mortality result would be achieved for fish ranging in size from 0.25 pound to 15 pounds, that are located from 59 to 113 feet from the trench. This potential impact to fish within the water column would occur over an area of 0.5 acre to 1 acre.

Millennium proposes to use an air bubble curtain around the blast area to further reduce the area of impact. Studies cited by Millennium show a 10 times or greater reduction in pressure outside of an effective air bubble curtain. Use of an air bubble curtain would attenuate pressure waves, and effectively limit the impact of blasting to the area within the curtain. Millennium did not specify the dimensions of its proposed air bubble curtain, but presumably it would be equal to at least the minimum needed to achieve a 0 percent mortality result as described above.

Expected low potential occurrence of shortnose sturgeon in the impact area. As stated in the biological opinion, there is an expected low density of shortnose sturgeon in the overall Haverstraw Bay crossing area. Because they tend to prefer deeper water than the affected shallow area at the eastern shoreline, the potential for encountering shortnose sturgeon that could be affected by blasting would be even more remote.

Use of a single blasting episode. Millennium proposes to conduct the necessary blasting using a single blasting episode, which would limit the potential impacts to shortnose sturgeon to a single event.

Prior to blasting, Millennium would use: side scan sonar surveys to identify concentrations of fish in the blast area; noise generating devices to scare fish from the blast area if necessary; and an air bubble curtain to discourage movement of fish back into the impact area.

Use of measures to minimize pressure waves generating by blasting. Millennium would limit the weight of explosives used per charge to only that necessary to effectively fracture rock (a maximum of 35 lbs per delay), would use stemming of boreholes, and would use delayed charges. All of these measures would reduce the blast energy reaching the water column, and the magnitude of pressure waves generated by the blast episode. Millennium would also use an air bubble curtain around the blast area to attenuate pressure waves and effectively contain the impact of pressure waves to the area within the air bubble curtain.

Other than the direct impacts from blasting and Millennium's proposed mitigation discussed above, we believe the only potential indirect effects to shortnose sturgeon from the proposed blasting that are not previously addressed in our BA are the potential effects of noise generated from the blast episode itself, or noise purposely generated prior to blasting to scare fish from the blast zone.

Millennium has stated that the size of the construction work area (river bottom) affected by blasting would not be greater than that originally proposed for the crossing, and that blasting would not affect the original construction schedule or construction window. Also, all other activities associated with the excavation of the trench in this area are consistent with activities proposed for the remainder of the Hudson River crossing, including: the mechanical removal of any overlying sediments prior to blasting; partial or complete removal of bedrock by mechanical means; mechanical removal of fractured rock after blasting; backfilling; as well as noise generated by these activities. Therefore, potential indirect effects to benthic habitat and/or foraging patterns resulting from these types of related activities have been previously addressed in our original BA for the shortnose sturgeon.

Noise generated from the blast episode itself, or noise generated purposely to scare fish from the blast zone immediately prior to blasting, could indirectly or directly affect shortnose sturgeon distribution and foraging behavior in the vicinity of the blasting. Shortnose sturgeon would likely move away from the impact area of the blast zone as a result of this noise. However, since the pre-blast "scare noise" and the blast itself would be for a single event with a very short duration (a brief period within one day), within a very small area of effect, we do not believe noise generated from the proposed blasting would have significant or long term direct or indirect effects on shortnose sturgeon's distribution or foraging behavior within the area of effect.

ESA Summary

We believe that with the exception of the blasting itself, potential direct and indirect impacts on the shortnose sturgeon from installation of the Millennium Pipeline along the eastern most 185 feet of the Hudson River crossing were previously addressed in our BA. We believe that the measures currently proposed by Millennium in its Blasting and Mitigation Plan, and further described in its Impact Assessment and Mitigation Plan, would result in a temporary and very short impact duration, and only a very limited area of impact from the blasting. We believe that although construction of the pipeline across the Hudson River at Haverstraw Bay may adversely affect the shortnose sturgeon, the impacts specifically related to the blasting as discussed above, are not likely to

add substantial cumulative adverse affects to the shortnose sturgeon

Therefore, our determination of effect remains the same as it was in our BA. **We believe that the proposed project may adversely affect, but is not likely to jeopardize the continued existence of the shortnose sturgeon. We are requesting comments and a revised biological opinion from the NMFS.**

4.2 Essential Fish Habitat

In its February 19, 2002 letter to the FERC, the NMFS states that the inclusion of blasting and related rock fracturing and extraction techniques not included in the FERC's EFH Assessment affects the basis for its conservation recommendations. The proposed blasting along the eastern shoreline of Haverstraw Bay at the Hudson River crossing could result in direct mortality or injury to fish species and life stages with designated EFH within this area. This potential impact would be in addition to potential impacts discussed in the EFH Assessment prepared for the overall crossing.

Potential impacts of the proposed blasting to EFH itself would be limited to a very small area, but would involve a permanent change to the substrate. Substrate materials (silt, sand, organic debris, biological organisms, etc.) that cover the existing bedrock and river bottom along the proposed ROW would initially be removed and segregated (stored separately) on a barge prior to blasting. Millennium states that it would store the material on shallow-water storage barges positioned in the portion of the trench that has already been excavated, and any material that cannot be stored on these barges would be placed on the shore. Millennium states that no excavated material would be sidecast in the river. We have included conditions on the December 19, 2001 Interim Order that pertain to sampling and monitoring sediments from the Hudson River, and monitoring for shortnose sturgeon during construction. Millennium will be required to file a final implementation plan that contains provisions we have requested for the Hudson River, and will also provide final alignment sheets that show the size limits and locations of storage and staging areas for the construction ROW at the Hudson River (and everywhere else). The ROW alignment and implementation plan must receive written approval from FERC prior to Millennium using them.

Based on the bottom sediment profiles that Millennium filed on January 24, 2002 (Hudson River East Shore Landfall Profile, Drawing no. 8525-CAD-5534), the amount of substrate material between the top of the rock surface and the riverbed varies. At the landfall, there is about 1 foot of substrate covering the rock, and 185 feet west of the landfall there is almost 9 feet of material covering

the rock. Because the rock is closer to the bottom's surface at some points along the 185 feet of proposed ROW than it is at other locations, the EFH's benthic characteristics (physical and chemical components, and biological organisms inhabiting it) are likely to vary both quantitatively and qualitatively along the 185 feet of proposed ROW.

Blasting would fracture the existing bedrock into various sizes that could be removed mechanically by equipment, and stored on a barge so it can be returned to the trench after installation of the pipeline. However, it could not be returned to the trench in the same condition that it was in prior to being blasted. The sediments that overlaid the rock prior to blasting would be returned to the area from which they were removed. Restoring the bottom contour and rock/sediment profile to its pre-construction condition would be difficult, since the amount of sediment covering the rock varies, but Millennium would attempt to replace the substrate to the equivalent depth that covered the rock prior to its removal.

Also, the blasted rock that is returned to the ROW after pipeline installation would not be consolidated. It would be fragmented and impossible to return to the ROW in a pre-blast condition. Thus some changes to the EFH would be unavoidable, especially at the microhabitat level. It is possible there could be both beneficial and detrimental effects due to this change. Where consolidated sediments disturbed during trenching are replaced by loose (soft) sediments during restoration, there may be an increase in organisms that use unconsolidated rock materials in the substrate. Conversely, there may be a decrease in organisms that require consolidated sediments (hard bottom areas). Also, various life stages of vertebrates and invertebrates may be dependent on certain physical or chemical components within the substrate types and could be affected by these changes. However, a determination of whether these potential effects would be a beneficial or detrimental to the EFH overall would only be speculative here.

MSA Summary

We believe that with the exception of the blasting and the very small area of EFH within the ROW affected by blasting that were discussed above, the potential direct and indirect impacts on species with designated EFH from installation of the Millennium Pipeline across the eastern most 185 feet of the Hudson River were addressed in our EFH Assessment. We believe that the measures proposed by Millennium in its Blasting and Mitigation Plan, and further described in its Impact Assessment and Mitigation Plan, would result in only a very limited area of impact from the blasting. We believe that this impact would not significantly affect species with designated EFH. If Millennium does not

receive authorization to use blasting, the use of an alternative to complete its trenching may be required. Although we are not recommending this now, if an alternative trenching method were to be required in the future, it may need an additional subsequent review and approval from the FERC or other agencies. We are requesting comments and revised Conservation Recommendations from the NMFS.

4.3 Fish and Wildlife Coordination Act

In its February 19, 2002 letter to the FERC the NMFS stated it is vital that appropriate measures be incorporated to protect state and federally managed fish species and their habitats that are not protected under the ESA or MSA. We believe that measures described above that would minimize impact on the shortnose sturgeon and on species with designated EFH, would also minimize impact on other managed fish species. We have included the U.S. Fish Wildlife Service (FWS) and the NYSDEC on the distribution for this report.

Issues Specific to Blasting Raised by Other Agencies

In addition to the NMFS, several other agencies have raised potential issues with Millennium's proposed use of blasting within Haverstraw Bay. These issues are summarized below.

The U.S. Army Corps of Engineers (COE), in March 18 and April 19, 2002 letters to Millennium, noted that correspondence with the New York State Department of State (DOS), and certain language in the Blasting and Mitigation Plan, appear to suggest that sediments would be sidecast on the river bottom along the area of potential blasting. The COE asked for an explanation of why barges would not be used to store spoil as is proposed for the remainder of the Hudson River crossing. In letters dated April 9 and May 2, 2002, Millennium confirmed that it proposes to use shallow water storage barges along the area of blasting, and that no excavated material is proposed to be sidecast on the river bottom.

The FWS, in a March 5, 2002 letter to the COE, recommended that Millennium assess the possibility of installing portable cofferdams and pumping water from the area to be trenched, removing and stockpiling unconsolidated materials, and using a rocsaw to dig the trench. If it is determined that blasting would be required, the FWS recommended that blasting be done "in the dry" after installation of portable cofferdams and pumping water from the area to be trenched. The FWS further recommended that the pipeline be installed and

backfilled in the dry before removal of the cofferdams.

Millennium provided a response in an April 9, 2002 letter to the COE, and listed several reasons why it believes the trenching methods suggested by the FWS would cause substantially greater environmental impact than the proposed methods, or would be infeasible. In general, FERC staff agrees with Millennium's assessment, as explained below.

1. Installation of cofferdams would result in an equal or greater area of impact to the river bottom than the proposed methods. To provide for stable installation of cofferdams, and allow for the required trench depth and width within the area isolated by the dams, the cofferdams would have to be installed at an approximate width similar to the area that would be affected by Millennium's proposed plan.

2. Installation of coffer dams would not avoid in-river construction, and would extend the total duration of in-river construction. A potential benefit of cofferdams, and construction in the dry, is to protect potentially sensitive aquatic resources from trench excavation activities. However, use of cofferdams does not entirely avoid impact on aquatic resources, since in-river construction affecting the river bottom would be required for both the installation and removal phases of the coffer dams use. The time required for installation and removal of the cofferdams would increase the total duration of in-river work.

3. Installation of cofferdams would not avoid the need for blasting. Although the use of a rocsaw inside the cofferdams may alleviate the need for blasting, it may be infeasible. The rocsaw a heavy piece of equipment that would be difficult to get to the site, and it would be difficult to operate it within the confined area behind the cofferdam.

4. Millennium states that working in the dry area isolated by the cofferdams would introduce an unnecessary risk to the workforce should the cofferdams fail.

5. Installation of cofferdams would require a special tie-in to the remainder of the crossing. Installing and backfilling the pipeline in the dry before removing the cofferdams as suggested by the FWS would require a special tie-in between the section of pipeline installed within the cofferdams, and the remainder of the Hudson River crossing, which would be installed underwater. While we believe that such a tie-in may be possible, it would require special techniques such as a separate cofferdam to allow for a dry tie-in, or an underwater tie-in. Use of a second cofferdam or underwater tie-in would increase both the areal

extent and duration of construction activity, as well as significantly increase the complexity of the work and the safety risk to workers. We believe that such a tie-in would result in a minimal reduction in impact on aquatic resources, and may in fact increase impact because of the greater area of impact to the river bottom and greater duration of construction activity.

We believe the only potential advantage of using cofferdams and working in the dry would be to avoid the potential impact to fish resulting from the pressure waves generated from blasting. This potential advantage is offset by other potential environmental impacts, and workforce safety and feasibility questions, as summarized above, that would be associated with use of cofferdams. The potential advantage of using cofferdams is further offset by the fact that, as proposed, pressure wave impacts would be limited to a one-time blast, whereas installation and removal of the cofferdams alone would likely require one to several weeks of in-river work. We believe Millennium's proposed mitigation would adequately address the potential impacts from pressure waves generated from blasting, and therefore do not believe use of cofferdams is justified.

The DOS, in a letter to Millennium dated May 9, 2002, issued its objection to the consistency certification for the Millennium Pipeline Project, pursuant to the Coastal Zone Management Act. Although the DOS' objection is based on numerous issues in addition to blasting in the Hudson River, this supplement to the BA and EFH Assessment will only address the impacts related to blasting. In its letter, the DOS identified potential issues related to blasting along the eastern shoreline of the Hudson River crossing, including concerns and issues described by the FWS and NMFS. Some of the issues identified by the FWS and NMFS were discussed previously in this supplement, but two additional issues are addressed below.

The DOS stated that Millennium's Blasting and Mitigation Plan and Impact Assessment and Mitigation Plan rely on literature and studies conducted in waterbodies in other states, and that these studies may or may not approximate the nationally unique habitat of Haverstraw Bay. We acknowledge the DOS' concern. However, we believe that use of the best available modeling to predict potential impact and identify proposed mitigation is acceptable, since conducting actual blast tests or simulations at the proposed crossing location would result in its own set of impacts on the Haverstraw Bay environment, and is unnecessary.

The DOS also stated that blasting, in addition to trenching, would result in other adverse effects in addition to those resulting from trenching alone, and that Millennium's proposed mitigation would not avoid or fully mitigate the destruction

of the shallow benthic habitat and invertebrates occupying it. As explained above in this supplement, the size of the construction work area (river bottom) affected by blasting would not be greater than the work area originally proposed for the crossing, and that blasting would not impact the construction schedule. Any other activities associated with the excavation of the trench in the area that would require blasting, including mechanical removal of any overlying sediments prior to blasting, partial or complete removal of bedrock by mechanical means, mechanical removal of fractured rock after blasting, and backfilling, are consistent with activities that would be required for trenching and backfilling for the remainder of the Hudson River Crossing.

The only additional or other impact from blasting would be the modification of the substrate (fractured rock) replaced for the very small area of ROW where blasting would occur. The benthic habitat there would be changed, since the bedrock could not be restored to its original condition once it has been fractured and removed from the river. The river bottom would have its contours restored, but the rock material would be modified in this small amount of affected area. This was previously addressed above in section 4.2 in the discussion of EFH.

Blasting and Mitigation Plan
Millennium Pipeline Project
Haverstraw Bay Crossing

"CONTAINS PRIVILEGED INFORMATION--DO NOT RELEASE"

Impact Assessment and Mitigation Plan
for Blasting on the Millennium Pipeline
Haverstraw Bay Crossing

"CONTAINS PRIVILEGED INFORMATION--DO NOT RELEASE"