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Department of Environmental Protection

465 Columbus Avenue
Valhalla, New York
10595-1336

David Boergers
Secretary
FEDERAL ENERGY REGULATORY COMMISSION
888 First Street, N.E., Room 1A
Washington, D.C. 20426

Joel A. Miele Sr., P.E.
Commissioner

Re: OEP/DEER/Gas Group 2
Millennium Pipeline Company, L.P.
Docket No. CP98-150-000
Columbia Gas Transmission Company,
Docket No. CP98-151-000

Dear Mr. Boergers,

Enclosed please find two copies of the comments of the New York City Department of Environmental Protection (DEP) regarding the Final Environmental Impact Statement (FEIS) issued by the Federal Energy Regulatory Commission (FERC) in October 2001.

Comments on the FEIS were necessitated by both FERC's failure to consider seriously the implications of the Millennium pipeline on one of the nation's largest public water supply infrastructure components and the need to correct a number of crucial errors. Based on the need to protect the water supply and FERC staff's premature conclusion regarding the impacts and feasibility of an aqueduct crossing, DEP vehemently opposes the pipeline route and rejects the findings of the FEIS, which fails to provide an adequate basis by which to make a determination.

The basis for DEP's determination and the necessary corrections to key facts are presented in the attached comments.

Very truly yours,

Michael A. Principe

Michael A. Principe Ph.D.
Deputy Commissioner

Enclosure

cc: Millennium Pipeline Company
Christine Todd Whitman, Administrator, EPA
Senator Charles E. Schumer
Senator Hillary Rodham Clinton
Sandra Allen, NYSDEC

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Bureau of Water Supply

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UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

FEDERAL ENERGY
REGULATORY COMMISSION
Millennium Pipeline Company L.P.)
Docket No. CP98-150-000

Columbia Gas Transmission Corporation)
Docket No. CP98-151-000
OEP/DEER/Gas 2

**PROTEST AND COMMENTS OF THE CITY OF NEW YORK
CONCERNING ADVERSE PUBLIC HEALTH AND
ENVIRONMENTAL IMPACTS OF THE MILLENNIUM PIPELINE**

Pursuant to the Commission's Rules of Practice and Procedure, including Rule 211 (18 CFR §385.211), the New York City Department of Environmental Protection (DEP) on behalf of the City of New York, New York files this Protest and Comment on the proposed Final Environmental Impact Statement (FEIS) issued by staff at the Federal Energy Regulatory Commission (FERC) in October 2001 regarding the application by Millennium Pipeline Company, L.P. (Millennium) for the proposed natural gas pipeline project.

I. INTRODUCTION

DEP is responsible for the provision of water to 9 million New York State residents, including residents of the City of New York and many communities in Westchester and Putnam County. In order to fulfill its mandate to protect water quality and supply, DEP must critically evaluate potential projects with impacts on both pristine watershed land and essential aqueduct infrastructure. As such, DEP views with the utmost concern any proposed activities that may present a threat to its ability to provide water without interruption.

Under the route proposed in the FEIS, the Millennium Pipeline would include pipeline construction over each of the three major water supply aqueducts. These aqueducts supply the 1.3 billion gallons of water that are used each and every day by residents of the City of New York and dozens of upstate communities. Even a minor disturbance to the Delaware, New Croton, or Catskill Aqueduct would have enormous impacts on public health, emergency services, and the regional and national economy. The catastrophic impacts of any disruption to such a crucial public utility would be unparalleled in our regional history.

It is with this responsibility that DEP seriously examined each of the proposed crossings of vital water supply aqueducts. The route proposed for the Millennium Pipeline has four aqueduct crossings that, following analysis by DEP, have been found to be acceptable to DEP with the proposed mitigation. These crossings include the proposed crossing of the Delaware Aqueduct and the three proposed crossings of the New Croton Aqueduct.

The fifth aqueduct crossing is the proposed crossing of the Catskill Aqueduct at the critical juncture of the Bryn Mawr Siphon. Millennium proposed construction with approximately two-foot separation between the gas pipeline and the Bryn Marr Siphon. Due to the FEIS's failure to provide any documented evidence that such a precarious design is feasible without risk to the water supply aqueduct, DEP is entirely opposed to a pipeline crossing in this area. Such vehement opposition is necessary in order to preserve and protect a crucial component of the region's infrastructure.

In addition to the aqueduct crossings, the recommended pipeline route would include construction activity on pristine water supply lands located in the New Croton Reservoir Watershed. DEP is especially concerned about the construction activity in this area due to the absence of any analysis regarding the potential water quality impacts in the FEIS¹. As DEP has previously mentioned, the water supplied by the New Croton Reservoir, like all City reservoirs, is unfiltered before it is consumed. Therefore, watershed protection efforts are the sole practice used to ensure that water quality is maintained at the highest levels. Since the construction activity would take place on currently undisturbed and vegetated portions of the watershed near the intake for the New Croton Aqueduct, DEP remains concerned about the construction activity in this area. Failure to complete the construction of the pipeline according to strict construction practices would result in significant water quality impairment and undermine the unprecedented protection efforts undertaken by not only the City of New York but also Federal, State and Local governmental agencies. Therefore, all efforts should be taken to see that the pipeline route is rerouted to avoid this sensitive watershed land. If no alternate route can be found, efforts should be made to ensure that the impacts to the water supply reservoir are minimized to the maximum extent possible.

II. AQUEDUCT CROSSING

One of the earliest, yet most essential, components of the water supply system is the Catskill Aqueduct. As its name implies, the Catskill Aqueduct transmits water from the base of the Catskills, through Orange, Putnam and Westchester Counties, to the water supply system of the City of New York. Along this path, the Catskill Aqueduct supplies water to dozens of upstate communities and transports approximately 40% of the 1.3 billion gallons of water consumed in New York City each day.

The FEIS proposes that the Millennium Pipeline cross the Catskill Aqueduct at the Bryn Mawr Siphon in Yonkers, New York. The Bryn Mawr Siphon is a critical component of the Catskill Aqueduct and the City's water supply infrastructure because it is the portion of the aqueduct that is pressurized. The Catskill is also a cut and cover aqueduct and, in the area of the siphon, it is only approximately three feet below the ground surface. This is important to note since the DEIS, SDEIS, and FEIS² incorrectly state that the Bryn Mawr Siphon is eight feet below the ground surface.

The aqueduct was built nearly 90 years ago and is composed of three ten-foot diameter steel pipes constructed of individual curved plates riveted together. Due to the age

¹ FEIS at Section 5.3.2

² FEIS at Section 5.3.5

of the aqueduct system, the present structural integrity of the pipes and rivet connections is unknown.

If the siphon pipes were subjected to deformation from a blast or soil displacement, it would cause fracturing of the rivets and a separation of the plates. Blasts that would cause soil displacement of a magnitude that would cause siphon rupture have occurred in Washington, New Jersey and New Mexico. If a similar rupture occurred at Bryn Mawr, soil displacement around the siphon would create a crater leaving the siphon suspended and unsupported. Since the siphon was not designed to be self-supporting, the siphon sections would pull apart, resulting in complete failure. Additionally, if the pipe were subjected to fire from escaping gas as has occurred elsewhere, the allowable shear would be weakened, thereby causing pipe failure.

Any siphon failure would be catastrophic due to the resulting release of an enormous quantity of water. The release would include the approximately 1 *million* gallons contained in the fourteen miles of pipe from the Kensico Reservoir to Hillview Reservoir plus the volume of water that would continue to flow into the aqueduct from both reservoirs until control valves could be closed. This volume would total between 10 and 20 million gallons. The volume of water would wash out vast amounts of soil from around the siphon pipes and the footings of the power line transmission towers resulting in possible collapse. Additionally, the volume of water would flood the Sprain Brook Parkway, thereby causing a washout of the roadway.

In the event of an aqueduct failure either during construction or due to pipeline ruptures, the magnitude of the repair effort would be enormous. Due to the flooding and washout conditions that would result from an aqueduct failure and the unique construction requirements of the aqueduct, the effort to repair the aqueduct would take a minimum of several months. This contrasts significantly with the much quicker repair requirements of the ConEd powerlines that were represented in the FEIS. The lengthy process to repair the siphon would include the shutdown of about 40% of the City's water and a complete shutdown of water for all the communities supplied from the aqueduct. Some of the upstate municipalities that could no longer receive water from the Catskill Aqueduct in the event of a failure include Valhalla, Hawthorne, North Tarrytown, Tarrytown, Greenburgh, Elmsford, New Rochelle, Scarsdale, Yonkers, and Mount Vernon.

The DEP has consistently maintained, and Millennium has agreed, that there should be *no risk* to the integrity of the siphon. Any risk would result in the danger of disruption of the delivery of water to the City of New York. That disruption would immediately create a public health, safety and economic crisis of proportions that far overshadows the need for an easy or less expensive route for the pipeline over the aqueduct. While the FEIS concludes that the proposed route would have "limited" impacts, such a determination is premature due to the lack of a review of the potential impacts and the lack of a feasible crossing plan that provides zero risk to the siphon.

III. SHORTCOMINGS OF THE FEIS

In order to fully evaluate a project of the magnitude proposed by Millennium, a hard look must be taken at a wide scope of potential impacts. DEP previously notified FERC of a

wide number of issues that should be reviewed and resolved prior to any conclusion regarding the environmental impacts of the project. Not least of these is the mitigation required to ensure that the environmental impacts are indeed "limited". The proposed mitigation fails to *eliminate* the risks to both the water supply and the water supply infrastructure and also neglects to discuss the mitigation that would be needed in the event that no acceptable crossing at the Bryn Mawr Siphon is found. It is therefore clear that FERC staff has acted prematurely in releasing an FEIS that contains numerous inaccuracies and unsubstantiated assertions regarding the feasibility of the proposed route near Bryn Mawr. Based on the record prepared for the preparation of the FEIS, it is not feasible to arrive at any conclusion regarding the potential impacts of the pipeline crossing at the siphon.

Without the study and analysis necessary to complete an FEIS, we strongly and unequivocally disagree with FERC's contention that the project "... would have limited adverse environmental impact." As previously mentioned, the FEIS does not take a "hard look" at the potential catastrophic impacts from the disruption of the flow of the water supplied by the Catskill Aqueduct. Additionally, the FEIS fails to provide any reasonably detailed discussion, analyses or evaluations of the impacts of a pipeline accident, vandalism, Act of God or terrorist act at the aqueduct as a result of the routing the gas pipeline in such proximity to the Bryn Mawr Siphon.

Pipeline Failure Impact Analysis

The FEIS should have included a thorough review of the public health, safety and economic impacts to New York City and the upstate communities that rely on water from the Catskill Aqueduct. This is necessary in order to balance the need of the gas pipeline crossing at the Bryn Mawr Siphon versus the potential negative impact of a deprivation of the water supply. Since the worst-case scenarios for catastrophic events can include the confluence of normally not interdependent events, the potential impact analysis must also include the concurrent loss of the Croton or Delaware water and the potential reduction in supply due to drought.

The FEIS fails to take into account the scope of risks that would be posed by the location of a gas pipeline in such proximity to a water supply aqueduct. FERC's scope of investigation was significantly limited by only acknowledging a "pipeline rupture" without mention of a pipeline "explosion." Such a distinction is important since there is a considerable difference in the amount of energy released between the two types of events. By only acknowledging a "rupture" FERC only had to address pipe wall thickness, cathodic protection and pipeline inspections. While these items may address normal day-to-day concerns, they do not address the problems and impacts of Acts of God, vandalism and terrorism. Due to the magnitude of potential threats, the impacts from such an event surely must be reviewed and included in the record in order to make an informed determination. Additionally, the Safety Standards referenced in the existing environmental reviews are based solely on the proximity of a gas pipeline to buildings with various population densities. These standards lack the required consideration of the safety of critical infrastructure. In order to review such threats, a Risk Assessment³ should be completed for accidents, acts of God and vandalism.

³ Risk Management per U.S. EPA's 40 CFR § 68

Although to date, FERC has neglected to review the impacts of a possible terrorist act, surely in light of the recent national tragedies in Washington D.C. and New York City on September 11, 2001, such real threats to vital public infrastructure can no longer be ignored. These recent terrorist acts demonstrate the need for a review of all possible impacts that could result from the placing of a natural gas pipeline. As you know, federal authorities have repeatedly highlighted the need for additional vigilance in securing and protecting the nation's water supplies. The absence of analysis of the risks posed by the pipeline is further indication that significant portions of the FEIS remain to be completed before any conclusions are reached regarding the pipeline.

In fact, the loss of water supply to the City and upstate communities would have public health, safety and economic consequences on par with the other recent tragic events in the City of New York. Although DEP repeatedly requested that FERC staff consider the real threats that are posed to the keepers of the region's water supply, clearly the need for a heightened awareness of and vigilance for the protection for such likely targets is now evident. Even a cursory review of such threats reveal that locating the pipeline in the vicinity of the Bryn Mawr Siphon presents exposure to exceptional risks beyond the threat to the water supply. In addition to the Catskill Aqueduct, the proposed siting for the pipeline crossing is already the location of the ConEd power line transmission towers and a major transportation route, the Sprain Brook Parkway. Clearly this underscores that the Bryn Mawr area is already a high-risk location since it is an area where major water, electrical and transportation infrastructure converge. These risks would only be heightened by the presence of a 24-inch gas pipeline that could serve as the source for an explosion.

Unsubstantiated Determination of the Impacts of Catskill Aqueduct Crossing

The FEIS also fails to acknowledge the critical nature of the water supply infrastructure for the City of New York and the potential for disruption. The FEIS minimizes the risks and potential impacts by ignoring the need for substantiation of the claims put forth by the applicant. Millennium's statement that the "concrete barrier would be designed to withstand the maximum pressure that would result in the remote event of a pipeline rupture and to fully protect the aqueduct" does not provide the necessary foundation on which to base a recommendation⁴. The statement is without merit since the applicant has not demonstrated a basis for claiming that any structure they have conceptualized could withstand the explosion energy without any damage to the aqueduct/siphon.

The FEIS mistakenly concludes that the crossing of the aqueduct is merely a "design issue."⁵ Relegating the feasibility of the crossing to merely the design is a trivialization of a profoundly critical issue. No crossing of such a vital public resource should be considered if *any* risk to the aqueduct must be assumed. The issue is not one of design but one of risk and the potential impacts to health, safety and the regional and national economy versus the convenience of a quick, economical crossing. Neither FERC staff nor Millennium has provided evidence that any crossing is remotely feasible that will not constitute a risk.

⁴ FEIS at Section 5.3.5

⁵ FEIS at Section 7.0, page 7-8

The FEIS proposed that the crossing design and the results of the independent analysis would be filed prior to construction. Such a recommendation contradicts the requirements of NEPA. All information relevant to the decision-making must be acquired prior to the completion of the NEPA process so that informed decisions can be made regarding the environmental impacts of the proposed project. It is inappropriate to conclude the NEPA process and allow the necessary information for the decision-making to be developed at a later date. Such post-certification mitigation would indicate that the record was incomplete at the time FERC staff issued its recommendations in the FEIS.

Based on a review of the FEIS, there is no reason why the pipeline crossing design and independent analysis for the Bryn Mawr Siphon should not have been a required component of the FEIS record upon which the conclusions were reached. There was ample time for the applicant to complete the design and the required independent analysis in advance of the FEIS. Completion of a design would have provided DEP and FERC with the data necessary to determine the potential risks and impacts from a pipeline crossing. The design and independent review are necessary components for the determination of a safe pipeline route.

DEP remains concerned about the Millennium's delay in conducting the design and review of the Bryn Mawr crossing because attempts to design a safe crossing and perform an adequate review could be a lengthy process. DEP must also protest FERC staff's suggestion that the concerns of the Bryn Mawr crossing could not be resolved until DEP "allows" Millennium to conduct the survey and design.⁶ As previously mentioned, DEP notified Millennium of its willingness to review a crossing design and outlined the steps needed to coordinate data transfers and site access in November 2000.⁷ Since the receipt of DEP notification, Millennium has delayed action and shown limited interest in acquiring the necessary information. Approximately six months after receiving that notification, Millennium applied for a permit to obtain site access. Millennium received the offer letter in August 2001 and received their permit from DEP on September 13, 2001. Since the time they received a permit, Millennium has taken no steps to initiate the survey required to design the crossing. Since the time DEP notified Millennium that a crossing design could be prepared – approximately twelve months – Millennium should have completed the required design and analysis. Instead, Millennium failed to pursue the acquisition and presentation of information for the proposed crossing of the siphon at Bryn Mawr. It is because the applicant failed to pursue this information that FERC staff lacks the data necessary to make an informed determination regarding potential impacts.

Alternate Routes

The brief discussion of alternate crossing locations in the FEIS contained some incorrect information that warrants correction. Millennium presented incorrect information regarding alternative routes for the gas pipeline by claiming that the DEP "promoted" an alternative that would pass through large areas of high density residential.⁸ In actuality, DEP originally suggested in a positive and constructive fashion a number of options for

⁶ FEIS at Appendix P, page P-52

⁷ April 27, 2001 letter to FERC from Michael A. Principe (DEP)

⁸ FEIS at 6.3.16, page 6-103

Millennium to incorporate. The one alternative Millennium claims DEP promoted was only one of several suggested by DEP. DEP actually "promoted," two possible alternatives: 1) the Palmer Road crossing; 2) the crossing by way of the NYS Thruway. Both options would have a bedrock separation between the pipeline and the Catskill Aqueduct. To our knowledge, the applicant has not submitted sufficient information to the record to make a reasonable determination as to the feasibility of these options.

The FEIS also prematurely dismisses alternate crossing locations near Bryn Mawr. The FEIS suggests that alternate crossing locations near Bryn Mawr are unacceptable due to the presence of residential areas, yet the pipeline terminates in one of the most densely populated cities in the nation. Additionally, the terminal city, Mount Vernon, is entirely opposed to the siting of the pipeline in that area. Clearly, the fact that the pipeline terminates in Mount Vernon suggests that FERC is not opposed to siting a pipeline near a residential area regardless of the residents' position. Therefore, the FEIS's supposition that an alternate location near Bryn Mawr is not feasible due to resident opposition is false and misleading.

It is also important to note that a zero risk crossing at Bryn Mawr may not be technically feasible. Therefore, a significant route change would be required. Such a change would require the necessary environmental analysis and public hearings. The analysis required for such a major route change could not be done outside the scope of the NEPA process or following a determination.

IV. INDEPENDENT ASSESSMENT

The FEIS reiterates FERC's position originally outlined in the SDEIS and confirms the need for an independent analysis of the Bryn Mawr Siphon crossing design. Although the FEIS endorses the need for an independent expert assessment, it is important to clarify the agreement that DEP and Millennium have regarding the completion of this analysis. As previously stated, DEP originally rejected the proposed crossing outright because the critical nature of the siphon creates an unnecessary risk to the aqueduct. However, in November 2000, DEP agreed to review a crossing design provided that the design would be assessed by an independent engineer and would be subject to DEP approval. DEP and Millennium agreed that consultants specializing in this field of research would evaluate any crossing design. In order to ensure an independent review, Millennium agreed to provide a list of three nationally recognized consultants acceptable to DEP that specialize in the field and have experience in conducting the required review. Each of the three consultants would then prepare proposals on the analyses to be performed. Based on a review of the proposals, DEP would then select one of the consultants and administer the required review.

The independent assessment stems from DEP's need to know if an accidental or intended explosion of the pipeline or a gas cloud from a leaking pipe could damage or reduce the structural integrity, stability, or useful life of the siphon pipe. The selected firm must have extensive experience with aqueduct materials, gas explosions, and seismic behavior of unconsolidated soils and bedrock. Although DEP reserves the right to incorporate additional analyses based on the receipt of the proposals from the independent engineering experts, at a minimum, the analysis will include the following assessments:

- Deformation of any part of any steel pipe in the siphon;
- Displacement of soil from around any siphon;

Weakening, breaking or displacing any connecting joint between siphon sections or by weakening or breaking any rivets holding sections together;
Impact from the associated damage of any power lines or power line towers which stand over or adjacent to the siphon;

The methods to be reviewed that may cause the above include:

- Rupture of the pipe;
- Accidental or intended explosion;
- Heat from blast and/or fire;
- Seismic action or pressure from a blast;
- Fragmentation of concrete from a, to be designed, pipeline cradle;
- Explosion caused by earthquake damage to the gas pipeline;
- Undermining of the siphon by displacement of soil from a rupture and/or explosion.

Following the completion of the independent design analysis, the consultant would provide DEP with an assessment of the crossing design. This is a point that is misstated in the FEIS⁹. The FEIS contends that Millennium would supply FERC with the results of the analyses. As previously noted, the independent assessment will be coordinated by DEP who will receive and disseminate the results. This is essential in order to uphold the condition that the evaluation maintain some semblance of independence.

Additionally, the FEIS neglects to acknowledge DEP's position regarding the independent assessment of any proposed crossing plan. In the FEIS, FERC states that Millennium would provide the results of "... the independent engineering assessment of the proposed site-specific crossing plan, *and any comments from the NYCDEP . . .*"¹⁰. This is unacceptable to DEP and reflects an attitude that comments of note are not expected from DEP. Further, in light of the fact that prior DEP comments were not included in FERC's recommendations, DEP will provide the results of the assessment to both Millennium and FERC with its conclusion as to the acceptability of the crossing. As the public agency solely responsible for the protection of the water supply, DEP must not be required to abide by any outside conclusions. DEP will evaluate the results and recommendations by the independent engineering report keeping in mind the best interests of the public water supply.

V. WATER SUPPLY WATERSHED CROSSING

The ConEd Offset/Taconic Alternative includes 2.5 miles of pipeline construction within the watershed of the New Croton Reservoir near the intake for the New Croton Aqueduct. This portion of the New York City watershed is comprised of steep, rocky and generally undisturbed terrain along the ConEd power line right-of-way. Due to the unique site conditions and the fact that the water supply is unfiltered, heightened watershed protection regulations have been enacted.

Despite the inherent need for additional protective measures within water supply lands, the FEIS does not adequately address the impacts of the pipeline crossing within the New Croton Reservoir Basin. Unless adequate protective measures are incorporated into the

⁹ FEIS at page 7-8

¹⁰ FEIS at Section 7.0 Item 28, page 7-25

recommended project mitigation, the potential for significant impacts to the water supply remains. Toward that end, DEP is willing to work with Millennium to minimize the potential impacts on water quality. DEP therefore urges Millennium to comply with the New York City Watershed Rules and Regulations (WRR). This would ensure consistency of construction practices within the watershed and provide the enhanced protection measures needed to minimize the adverse impacts of pipeline construction. Included in the WRR are key permits that foster the necessary environmental reviews for large construction projects. These requirements include a Revocable Permit for access to New York City property and a Stormwater Pollution Prevention Plan (SPPP) for construction in the New York City water supply watershed.

Included in the SPPP should be a discussion of the crossing of the Teatown Lake Reservation, situated within the New York City watershed. The FEIS states that Millennium should prepare a detailed construction and restoration plan for construction through the Teatown Lake Reservation.¹¹ DEP recommends that similar assertions be included for the preparation of an SPPP in the NYCDEP watershed. Included in the SPPP should be a detailed construction sequence and maintenance plan. In addition, within the Spill Cleanup, of the Spill Prevention Control and Countermeasures (SPCC) plan, DEP Police Communication Center at (914) 245-6694 should be called immediately in the event a spill occurs.

It should be noted that the size and potential impact on the New Croton Reservoir watershed is misstated in the FEIS. The New Croton Reservoir watershed is approximately 37,700 acres. This contrasts sharply with the 241,920 acres reported in the FEIS. The acreage reported in the FEIS is approximately the size of the entire New York City watershed east of the Hudson River. Further, the impact on the New Croton Reservoir is not in relation to the size of the basin, as suggested in the FEIS¹², but rather the impact is determined by the magnitude of the disturbance.

Of particular concern to DEP is the erosion that will result from the 20 to 25 acres of vegetation that will be removed. Based on review of similar construction disturbances, complete removal of such a sizable amount of vegetation in a short period of time threatens to cause major turbidity events. This is of obvious concern given that downstream areas are tributary to the New Croton Reservoir. Due to the potential adverse impacts from construction activities in the watershed, DEP suggests that the following be incorporated as mitigation measures for the Millennium Pipeline:

DEP is concerned that trees be retained on the site during construction to the extent possible to prevent soil erosion. Forested watersheds have been proven to maintain lower stream water turbidities than similar watersheds with other types of vegetative cover. It is important that unique plant communities are located and mitigation plans are generated prior to the onset of construction. Restoration plans, likewise, should include planting of trees and shrubs rather than only herbaceous vegetation, whenever possible.

¹¹ FEIS at page 6-56

¹² FEIS at Section 6.2.6.1, page 6-37

- In order to minimize erosion and turbidity, in-stream construction in the watershed should be kept to a bare minimum. All streambanks should be revegetated with suitable vegetation, including shrubs and trees, as quickly as possible following disturbance. Within the New York City watershed, it is particularly prudent to re-establish streambank vegetation similar to what is being removed, to have an appropriate planting plan and species list, and to retain the maximum amount of existing vegetation.
- The burning of excess vegetation (brush, stumps, etc.) should not be allowed on the NYC watershed near any streams or water bodies.¹³ Burning of this material releases large amounts of nutrients, which are then easily washed into any nearby streams during storm events.
- The FEIS provides only general specifications for wetland crossings. Following construction, the wetland should be regraded back to the original contours with such work overseen by a wetland specialist familiar with the hydrologic patterns of the affected wetlands. Given DEP familiarity with hydrologic characteristics of watershed wetlands and our interest of avoiding, minimizing, and mitigating wetland encroachments in the NYC watershed, DEP should be provided the opportunity to review and comment on site-specific plans within the watershed.
- The discussion of disposal of brush and chips outlined in the FEIS is a concern due to exotic and invasive plant species.¹⁴ While we agree that the spreading of two inches of wood chips is excessive, it is more important that the chips and brush scattered on the site not contain material of noxious plants that could contribute to their spread.
- Any permanent wetland fills within the watershed should be mitigated in-kind, within the New Croton basin, at a minimum ratio of 1:1.

The New Croton Watershed also includes the presence of a number of potentially threatened and endangered plant species. The New York Rare Plant Status List, published by the New York Natural Heritage Program in April 2001, contains numerous threatened and endangered plants that occur in the counties through which the pipeline is slated to travel. These are not mentioned in the FEIS. It is unclear whether an attempt was made to sample and identify the plant communities in the proposed pipeline right-of-way, other than, possibly, to make a determination of their wetland status. NYCRR 193.3 protects threatened and endangered plants within New York State and includes all of the species listed in the New York Rare Plant Status List.

VI. CONCLUSION

As noted previously, DEP must vigilantly protect all components of the water supply infrastructure that provides clean, safe and reliable drinking water to approximately nine million residents of the State of New York. It is for that reason that we examine seriously the crossing of any of the City's water supply lands or vital water supply aqueducts.

The proposed route of the Millennium Pipeline has four aqueduct crossings that, following DEP analysis, have been found to be acceptable to DEP with the proposed

¹³ FEIS at Section 5.5.1

¹⁴ FEIS at Section 2.3.2

mitigation. The fifth aqueduct crossing, the crossing of the Catskill Aqueduct, proposes a precarious crossing of the Bryn Mawr Siphon with less than a two-foot separation. Clearly, in order to make any determination of the feasibility of such a crossing, detailed design and analysis is required. Although the applicant has been given ample time to prepare such a design, to date, there is nothing in the record that would suggest that a crossing is feasible without incurring risk to the water supply infrastructure.

Based on the record compiled, it is implausible for the FEIS to conclude that environmental impacts could be mitigated when there has been no analysis to determine the nature of those impacts. FERC acted prematurely in releasing an FEIS that contains numerous inaccuracies and unsubstantiated assertions regarding the feasibility of the proposed route. Therefore, the FEIS prematurely concludes that the serious potential impacts can be mitigated through the proposed recommendations. Without documentation in the record and approval by DEP, such a crossing is an imprudent and reckless proposition that must be opposed in order to preserve and protect a crucial component of the State's infrastructure. We therefore urge the commission to reject the conclusion of the FEIS, which fails to provide an adequate basis by which to make a determination.

Although a pipeline route with an aqueduct crossing at Bryn Mawr is unacceptable, DEP remains willing to work with the applicant to determine if an alternate crossing location is feasible. DEP remains confident that, given adequate review and analysis, a crossing that avoids critical junctions in the region's infrastructure can be identified.

In addition to the risks to the water delivery system, DEP remains concerned with the threats to water quality posed due to construction within the New York City Watershed. The cursory review received in the FEIS indicates a failure to acknowledge the valid threats posed by the blasting and construction activity that may occur near the water supply intake to the New Croton Aqueduct. In order to protect the unfiltered water supply, DEP urges FERC to incorporate the proposed mitigation within any final determination regarding the pipeline.