

**UNITED STATES OF AMERICA
BEFORE THE
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

**COMMENTS OF THE NEW YORK STATE ATTORNEY GENERAL
CONCERNING ADVERSE ENVIRONMENTAL IMPACTS OF THE
"CONED OFFSET/TACONIC ALTERNATIVE" PIPELINE ROUTE ON THE
NEW YORK CITY DRINKING WATER WATERSHED**

I. INTRODUCTION

These comments are submitted by New York State Attorney General Eliot Spitzer to the Federal Energy Regulatory Commission ("FERC") concerning the proposed Millennium Pipeline Project. The Attorney General is supportive of efforts, such as this proposed project, that will increase the supply of natural gas to the New York City Metropolitan area. The Attorney General has also encouraged improvements to the flexibility of the regional energy supply system that are reflected by this project. These important consumer and energy policy goals can be achieved while protecting other fundamental priorities, including our environment. With this in mind, these comments address significant adverse impacts that a portion of the "ConEd Offset/Taconic Alternative" ("ConEd Alternative") pipeline route will likely have on the quality of the drinking water supplied by the New Croton Reservoir, which is part of the New York City Watershed ("Watershed").¹

Under the ConEd Alternative, the Millennium Pipeline would be constructed on a presently undisturbed and vegetated 2.5 mile stretch of the Watershed's New Croton Reservoir basin, along and within a steep and rugged portion of a Consolidated Edison power line right-of-way. Along this stretch, the pipeline would travel within one mile of the reservoir itself and

¹ Assistant Attorney General James M. Tierney serves in the position of New York City Watershed Inspector General within the Attorney General's Office. This position was created pursuant to the 1997 New York City Memorandum of Agreement ("1997 MOA") and a Gubernatorial Executive Order. The 1997 MOA established and funded a comprehensive program to protect the drinking water that is supplied to over 9 million people from the Watershed. The Inspector General position provides the Attorney General's Office with heightened responsibilities concerning the protection of the Watershed's drinking water supply.

would cross several streams. The construction of the pipeline itself, as well as any operational errors, could have serious negative impacts on the New York City Water Supply. The New Croton Reservoir serves as a direct drinking water source for some 900,000 persons on an average daily basis and as the drinking water source for over 2 million individuals under emergency and drought planning scenarios. Importantly, the New Croton is an *unfiltered* drinking water supply for the vast majority of its consumers; this means that the only treatment that water drawn from this reservoir receives before it reaches the tap is disinfection through chlorination.

These circumstances make the New Croton Reservoir highly sensitive to the impacts of polluted runoff, nutrient loading, erosion and sedimentation that are associated with land clearing, soil disturbance, excavation in wetlands and water bodies, and heavy equipment construction. FERC's Draft Environmental Impact Statement ("DEIS"), FERC's Supplemental Draft Environmental Impact Statement ("SDEIS"), and Millennium's June 15, 2001 submission addressing the ConEd Alternative, however, do not identify or discuss the potential environmental and public health impacts of the pipeline on the Watershed's drinking water supply. Nor do these documents address the heightened and specialized environmental mitigation measures that are standard practice for construction projects that are allowed to take place within the Watershed.

For the reasons that follow, we recommend that FERC place the Millennium Pipeline along an alternate pathway that avoids the Watershed and its New Croton Reservoir drainage basin. We note that the proposed pipeline route has been altered on at least 12 other occasions in response to public comments.² Given the extensive and costly efforts presently underway to improve the quality of the highly stressed New Croton Reservoir, including the purchase of lands to prevent development, moving the pipeline out of the reservoir basin is reasonable and appropriate. We cannot rely on mitigation measures to reliably and adequately avoid the foreseeable and significant adverse impacts to the drinking water that are posed by the pipeline project.

Should FERC retain the Millennium Pipeline in the Watershed, we request that a supplemental draft environmental impact statement be developed for public review that specifically evaluates potential significant adverse impacts of the pipeline on drinking water drawn from the New Croton Reservoir. Such a supplement would also be necessary to evaluate heightened, site-specific, mitigation measures to address polluted runoff and damage to existing natural resources that protect water quality. Because the Watershed was not addressed or even mentioned in FERC's prior environmental assessments, this supplement would appear to be compelled by the National Environmental Policy Act ("NEPA").³

² SDEIS at ES-7

³ See 40 CFR § 1502.22(a) (environmental impact statements must contain information relevant to reasonably foreseeable significant adverse impacts to allow for a reasoned choice

II. ENVIRONMENTAL AND REGULATORY SETTING OF THE PROJECT

The terrain covered by the Watershed portion of the ConEd Alternative is "often very rugged with hard crystalline or microcrystalline bedrock at the surface."⁴ These attributes would likely require "that most of the trenching for pipeline installation would have to be accomplished by blasting open a trench."⁵ Blasting would also be required "to create level workspace along the construction right-of-way."⁶ Our comparison of the U.S.G.S. map with a detailed map of the Watershed indicates that the ConEd Alternative extends through 2.5 miles of the Watershed's New Croton Reservoir basin. The SDEIS indicated that due to the rugged terrain in this area "a construction right-of-way that is greater than 75 feet wide might be required for two-tone construction and rock storage."⁷ This, in addition to the blasting that is necessary to create level work staging areas, "could increase the land requirements for the construction right-of-way by about 33 percent."⁸ Thus, the average width of the cleared construction right-of-way within the Watershed will be approximately 75 to 100 feet.⁹ By way of comparison, the width of two roadway lanes of an interstate highway is 24 feet.

The portion of the Watershed that would be affected by the ConEd Alternative is almost entirely vegetated. The creation of this construction right-of-way would result in the removal of roughly 20 to 25 acres of vegetation within the Watershed. The stumps and roots that stabilize soils would be grubbed. The generally thin existing soils would be further disturbed by blasting, stockpiling, or compressed by the operation of heavy machinery. The pipeline trench within the Watershed would extend through at least two wetlands, various streams, and the 33-acre Teatown Lake, which is part of the 700 acre Teatown Lake Reservation. This entire area is generally drained by Bailey Brook, which flows directly into a portion of the New Croton Reservoir that is classified by the New York State Department of Environmental Conservation ("State DEC") as an "AA" surface water.¹⁰ Thus, by virtue of DEC classification, the New Croton Reservoir must be maintained at a pristine quality that allows it to serve as a direct source of unfiltered drinking water.

among alternative projects).

⁴ SDEIS at 6-11.

⁶ *Id.*

⁷ SDEIS at 6-15.

¹⁰ See 6 NYCRR § 864.6 Table I, Items No. 82 and 83

The construction of the pipeline and the disturbance of the soil would almost certainly result in significant discharges of phosphorus, now bound in the soil, to the New Croton. EPA has determined that erosion and sedimentation from construction sites are a major source of phosphorus and sediment loadings that cause the impairment of water bodies.¹¹ This discharge would have a major detrimental impact because the New Croton Reservoir already has excessive amounts of phosphorus. The New Croton Reservoir has been listed as "impaired" by phosphorus by State DEC on its 1998 list of impaired water bodies pursuant to Section 303(d) of the Federal Clean Water Act. As a result, it is subject to heightened protection criteria for phosphorus that were developed pursuant to the Clean Water Act -- known as the "total maximum daily load" ("TMDL") criteria. EPA has officially determined that the New Croton Reservoir has phosphorus levels in excess of those required to meet water quality standards pursuant to the Clean Water Act and has formally acted to reduce the targeted phosphorus level in the New Croton Reservoir by 25%.¹² This means that significant efforts are needed to *substantially reduce* pollutant loadings of phosphorus into the New Croton Reservoir that originate from surface runoff.

In practical terms, phosphorus pollution in the New Croton Reservoir is so severe that the New York City Department of Environmental Protection ("City DEP") has generally shut down this reservoir, or substantially blended its waters with waters from the Catskill portion of the Watershed, for two to four months a year during the growing season. Water is drawn from the New Croton directly into the drinking water distribution system.

The high amounts of sediment and colloidal particles washed by storm water from construction sites also serve as a conduit for the transport of pathogens in drinking water, and create taste and color problems. These particles also interfere with the effectiveness of chlorination -- making it more likely that pathogens will reach water consumers.¹³ The construction disturbance associated with the ConEd Alternative is located within the "60 day travel time" for precipitation landing on this site to flow to a drinking water faucet. This "60 day" area has been designated by City DEP and includes the entire drainage basin of the New Croton Reservoir. A development project within the 60 day travel time area raises special

¹¹ See Attachment 1, 64 Fed. Reg. 68722, 68728 to 68731 (December 8, 1999).

¹² See Attachment 2, October 2000 letters from Jeanne Fox, Regional Administrator for EPA Region 2 to John Cahill, Commissioner of State DEC.

¹³ National Research Council, "Watershed Management For Potable Water Supply: Assessing New York City's Approach" at 15, 123 and 126 (1999 Prepublication Copy) (hereafter "NRC Watershed Report"). This peer-reviewed book was prepared by a working group of the National Research Council, whose members were selected for their special expertise and drawn from the National Academy of Sciences, the National Academy of Engineering and the Institute of Medicine. The report exhaustively reviews the New York City Watershed program and the applicable scientific literature.

concerns because 60 days is generally viewed as the life span for many pathogens (disease-causing microbes) in fresh water. Public health professionals view this portion of an unfiltered drinking water supply as one that must be treated with heightened sensitivity.

Because the ConEd Alternative route is near the water intake structure of this terminal reservoir, construction related impacts could be particularly severe. A project of this sort would, under situations where federal pre-emption did not apply, have to obtain prior approval by City DEP of a detailed, engineered, and site-specific "storm water pollution prevention plan" to address phosphorus and sedimentation issues prior to the initiation of any construction.¹⁴

III. PHOSPHORUS SENSITIVITY OF THE NEW CROTON RESERVOIR

As noted above, phosphorus pollution already injures the purity of water in the New Croton Reservoir and is at levels that exceed recognized environmental thresholds. The "limiting nutrient" in the New Croton Reservoir is phosphorus which, if allowed to increase, would promote an increase in biological life during the warm weather growing season.¹⁵ In other words, phosphorus levels control the extent to which plant life can grow in the New Croton.¹⁶ Excessive phosphorus levels result in "eutrophic" conditions, characterized by algae blooms and limited water transparency in the warmer weather.¹⁷

Algae blooms trigger an adverse "chain reaction" on water quality. Over time, the individual algae die off, and while the bloom itself continues in the surface waters, the dead algae will fall to the bottom of the reservoir's water column. As it descends, the dead plant material is consumed by an expanding population of bacteria and other animal life. A rapid decline in the levels of dissolved oxygen in the water ensues because the increased population of algae consuming bacteria also consume oxygen as they respire, or breathe. As the levels of oxygen decrease, the water may become almost completely deprived of dissolved oxygen, and an anaerobic (low oxygen) condition will result.

¹⁴ See 15 Rules of the City of New York "RCNY" §18-39(b) and (c).

¹⁵ NRC Watershed Report at 5 and 123.

¹⁶ City DEP, "Development of a Water Quality Guidance Value for Phase II Total Maximum Daily Loads (TMDLs) in the New York City Reservoirs" (March 1999) at 1, 7 (hereafter "DEP Report"). See also, U.S. EPA and U.S. Department of Agriculture, "Clean Water Action Plan" (Feb. 14, 1998) at 56 ("Excessive nutrient loadings will . . . result in excessive growth of macrophytes or phytoplankton and potentially harmful algal blooms . . . , leading to oxygen declines, imbalance of aquatic species, public health risks, and a general decline of the aquatic resource.").

¹⁷ NRC Watershed Report at 79.

This anaerobic environment causes serious problems when the water is to be used as a drinking water supply. Generally, drinking water is drawn from the bottom of a reservoir, since this water will less likely contain algae. While this practice can avoid the algal mats, it is more likely to draw the anaerobic water that results from an algae bloom. Anaerobic water contains bacteria that generate serious odor and taste problems as well as color. In addition, anaerobic conditions cause contaminants such as iron, manganese, hydrogen sulfide and even additional phosphorus to be released from reservoir bottom sediments into the water, further deteriorating the quality of the water.¹⁸

Eutrophic water conditions triggered by excess phosphorus also result in increased levels of organic carbon in the water.¹⁹ Chlorine is used to disinfect water from New York City reservoirs prior to distribution to consumers. The chlorine-based disinfection of waters that are high in organic carbon results in the formation of a class of chemicals known as "disinfection byproducts" -- chemicals that are suspected of being carcinogenic and of increasing the risk of early term miscarriages.²⁰

Typically, the concentration of phosphorus within the New Croton Reservoir ranges between 16 and 18 ug/L (parts per billion) during the growing season, with the average phosphorus levels for 1992 through 1996 being 17.2 ug/L for the entire reservoir.²¹ Even at this normal level, the New Croton suffers from algae blooms, anoxia (low dissolved oxygen), poor taste, increased color and other problems associated with serious eutrophication -- requiring the reservoir's use to be limited or suspended during significant portions of the growing season.²²

For example, during the six year period from 1990 through 1995, the New Croton reservoir had a minimum of 54 "algal events"²³ which resulted in the reservoir being shut down

¹⁸ NRC Watershed Report at 123; DEP Report at 7.

¹⁹ NRC Watershed Report at 79.

²⁰ NRC Watershed Report at 2, 5-6, 76-77, 123. According to EPA, certain disinfection byproducts have been shown to be carcinogenic in animal studies. Others have caused adverse reproductive or developmental effects in laboratory animals. EPA also cited a study that suggested an association between early term miscarriage and exposure to drinking water with elevated levels of the disinfection byproduct trihalomethane. 63 Fed. Reg. 69389, 69394 (Dec. 16, 1998) ("Disinfectants and Disinfection Byproducts; Final Rule").

²¹ City DEP, "Proposed Phase II Phosphorus TMDL Calculations for the New Croton Reservoir" (March 1999) at 16-17.

²² DEP Report at 22-25.

²³ DEP Report at 22.

for an average of 16% of the time; several of the suspensions lasted as long as 4 months.²⁴ During this 6-year period, the reservoir aqueduct was closed off 11 separate times, for a total of 299 days. City DEP has attempted to keep the reservoir (and hence, the Croton portion of the Watershed) online by significantly reducing its flow and blending New Croton water with Catskill water.

Even when algae blooms induced by excessive phosphorus are not severe enough to warrant a complete shutdown of the water supply, higher than normal algae levels can nevertheless impair drinking water disinfection. Higher levels of sediments and organic materials found in eutrophic waters transport microbes, which may become embedded in these materials, and operate to protect the microbes from being destroyed by chlorine disinfection.²⁵

IV. SPECIFIC COMMENTS

A. Conflicts with the Watershed Protection Program

The three volume 1997 Watershed MOA²⁶ created a partnership among local, state and federal governments and environmental organizations to address comprehensively the Watershed's drinking water quality at an overall cost well in excess of \$1 billion, and growing. For example, over \$320 million in City and State funds have been set aside for the acquisition of Watershed lands so as to preserve these lands in a natural state -- to protect water quality and serve as natural barriers to pollution sources. Westchester County has announced its own \$50 million program to purchase lands, including Watershed properties. (Some 85% of the residents of Westchester County receive their water from the Watershed). The portion of the Watershed traversed by the ConEd Alternative pipeline route is in an area of the Croton portion of the Watershed that has been prioritized by City DEP for acquisition or permanent preservation through conservation easements. The disruption of vegetated Watershed areas associated with the ConEd Alternative would be inconsistent with this land acquisition/preservation effort.

Moreover, all waste water treatment plants in the Watershed are being upgraded to tertiary treatment with micro-filtration (or equivalent technology), at a cost that is now estimated to exceed \$200 million. The purpose of these upgrades is to reduce levels of phosphorus, suspended solids and pathogens in the drinking water. Similarly, Westchester County, in conjunction with City DEP, is now finalizing a plan to completely divert the flow of two major sewage treatment plants located in Yorktown and New Castle to locations completely outside of the Watershed, at a cost in excess of \$25 million. The effluent from these plants presently ends

²⁴ Id.

²⁵ NRC Watershed Report at 15, 126.

²⁶ See New York City Water Supply System, <http://www.ci.nyc.ny.us/html/dep/html/agreement.html>.

up in the New Croton Reservoir. The City of New York has also provided Westchester County with \$38 million to help address pollutant loadings into the Watershed from such things as failing septic systems and storm water runoff. Thus, the risk of additional phosphorus and suspended solid loadings from the ConEd Alternative also is contrary to these, and other, water quality protection efforts.

B. Polluted Runoff and TMDL Consistency

FERC recognizes that "[m]any stages of pipeline construction, including vegetation clearing, grading, topsoil segregation, open trenching, and backfilling destabilize the soil material and make it susceptible to water and wind erosion."²⁷ FERC further has stated that with respect to surface waters, the "[c]learing and grading of stream banks, blasting, in-stream trenching, trench dewatering, and backfilling could result in modification of aquatic habitat, increased sedimentation, turbidity, decreased dissolved oxygen concentrations, stream warming, releases of chemical and nutrient pollutants from sediments, and introduction of chemical contamination, such as fuel and lubricants."²⁸ We agree with these statements.

Nowhere in the various environmental assessments, however, does FERC assess these concerns in the context of the Watershed and the particular sensitivities of the New Croton Reservoir. There is very little site specific information concerning such basic matters as slopes and soil types within the ConEd Alternative that would allow for specific comments on necessary erosion control measures necessary in the Watershed. Rather, FERC makes reference to three guidance documents that it views as adequately addressing these concerns: (i) Millennium Pipeline Company, L.P. Environmental Construction Standards, July 1999; (ii) FERC's Upland Erosion Control, Revegetation, and Maintenance Plan (December 1994); and (iii) FERC's Wetland and Waterbody Construction and Mitigation Procedures (Undated). These documents, however, contain only a brief description of a few limited erosion control devices. In our opinion, these guidelines are completely inadequate for use in an area as sensitive as the New Croton Reservoir basin. If construction is to occur in the Watershed, state-of-the-art engineering and mitigation measures should be employed.

For example, erosion control guidelines referenced by FERC contain no mention of the development of an engineered plan for the movement through, and treatment of, storm water within the pipeline construction site during storms of intensities that are frequent in Westchester County (i.e., 6.2 inches is the ten-year 24 hour storm, 3.4 inches is the two-year 24 hour storm, 2.8 inches is the one-year 24 hour storm).²⁹ There is little information concerning the effective

²⁷ SDEIS at 5-4.

²⁸ SDEIS at 5-8 to 5-9.

²⁹ Northeast Regional Climate Center, "Atlas of Precipitation for the Northeastern United States and Southeastern Canada" (a.k.a. RR93-5) (September 1993).

management of turbid water drawn from de-watered streams, except to recommend that such waters be pumped into the woods. There is no mention of construction phasing to limit the amount of total disturbed area at any one time; nothing concerning the effective use of long-term sedimentation basins during construction in sensitive areas; nothing on effective methods to deal with the increased force, velocity and erosive action of storm waters flowing down steep slopes; nothing with respect to phosphorus removal; and nothing concerning the engineered diversion of storm water flows from up-slope areas away from disturbed areas. In fact, it does not appear that soil characteristics are required to be assessed, a particular problem in the "60 day" travel area of the Watershed because small colloidal or clay particles that become suspended will remain suspended in the water for 6 to 9 months – meaning that they will likely come out of a faucet. In addition, information concerning the problem of re-establishing vegetation on bedrock surfaces exposed by the ConEd alternative is cursory and inadequate, especially given that the terrain in this area is often steep and rugged.

Soil compaction by heavy equipment in the pipeline construction area, along with the potential for large areas of exposed bedrock, will reduce the perviousness (space between soil particles into which water flows) of this area to a dramatic extent over existing vegetated conditions. This will cause storm water flow, velocity and erosion levels to substantially increase because pervious surfaces retain and filter storm water. Moreover, erosion will increase as the construction area becomes devoid of vegetation that anchors soil in place. This is especially so, given the often steep slopes in the ConEd Alternative portion of the Watershed. The various guidelines identified in the SDEIS do not describe how increased storm water flow from increased imperviousness will be addressed, both during and after construction. It is our opinion that this is a serious adverse impact that will likely continue well after the completion of pipeline construction.

On many recent occasions, construction sites in the Croton Watershed have resulted in the discharge of substantial amounts of highly turbid waters into various reservoirs, including the New Croton Reservoir. For example, a highway project along the Taconic Parkway in Yorktown, conducted a few miles from the New Croton Reservoir, has resulted in numerous discharges of sediment laden water that turned an entire section of the reservoir brown. This occurred despite the fact that the 50 acre project had been the subject of a detailed "storm water pollution prevention plan" ("SPPP") that was reviewed by City DEP under far more stringent design criteria than are contemplated here. Our experience with the repeat failure of storm water controls in the Watershed is a major reason why we would prefer that any pipeline construction be routed outside of the Watershed. At a minimum, a detailed, fully engineered, and site specific SPPP should be developed and reviewed as part of a supplemental DEIS before any construction in the Watershed is initiated. This plan should include a detailed description of short- and long-term maintenance and monitoring procedures. Appropriate state-of-the-art erosion control techniques, such as those developed by the Center for Watershed Protection, also should be employed in the SPPP.

Importantly, FERC's environmental review of the ConEd alternative does not recognize

or assess the project in light of EPA's October 2000 phosphorus "Total Maximum Daily Load" criteria. The impact of phosphorus loading (resulting from erosion and sedimentation) on the ability of the New Croton Reservoir to achieve the TMDL criteria is a necessary aspect of the environmental assessment of this proposed project.

C. Wetland and Water Body Protection

The ConEd Alternative will cause the disturbance of a number of significant wetlands, wetland buffer areas and streams. Wetlands provide flood control, wildlife habitat, and improved drinking water quality by accumulating and retaining nutrients, trapping sediments, removing and transforming human and animal wastes, and degrading certain pollutants. Any disturbance to wetlands or their adjacent areas within the Watershed is highly disfavored. Though not described in the environmental review documents, the United States Army Corps of Engineers has issued highly restrictive wetland protection general permits that are specific to the Croton section of the Watershed.

Moreover, recent national scientific studies have recognized that the restoration or re-creation of disturbed wetlands are often unsuccessful. Given the importance of wetlands, extensive efforts have been made throughout the Watershed to re-direct development away from wetlands. As discussed above, the construction in and de-watering of wetlands and streams present another serious potential for discharges of turbid water into the New Croton Reservoir. Adverse impacts from construction in wetlands is another reason for our preference that the pipeline be routed to an area outside of the Watershed. At a minimum, the attributes of these wetlands, the construction methods employed, and the heightened mitigation measures to be adopted should be identified in a supplemental DEIS concerning the ConEd Alternative.

The excavation of a trench and installation of a pipeline on the bottom of the 33 acre Teatown Lake clearly should be avoided if at all possible. Teatown Lake empties into the New Croton. Such construction will inevitably result in the discharge of substantial levels of turbid waters into the lake, and probably the reservoir. It is hard to see how this activity could be undertaken without violating New York State Water Quality Standards with respect to turbidity and total suspended solids.³⁰ Plainly, a detailed site-specific examination of the methods and mitigation measures employed to cross Teatown Lake must be developed and presented in a supplemental DEIS should FERC decide to go forward with the route through the Watershed.

³⁰ See 6 NYCRR § 703.2.

D. Risk Reduction: The Iroquois Pipeline

Given the sensitivity of the New Croton Reservoir, a key goal of public officials involved in drinking water protection is risk reduction to protect the public health. A protocol termed the "multi-barrier" approach, includes: "selecting the highest-quality source water, practicing watershed management, using the best available treatment technologies, maintaining a clean distribution system, practicing thorough monitoring and accurate data analysis, having well-trained operators, and maintaining operating equipment."³¹ The EPA, the National Research Council, and the American Water Works Association have all strongly endorsed this approach.³² As noted above, unlike almost all other drinking water supplies in the Nation, the drinking water drawn from the New Croton is not filtered before delivery to the vast majority of its users. Accordingly, this water supply is particularly sensitive and significantly different from most other drinking water reservoirs.

Another reason to be risk averse is that we have seen good faith efforts at mitigating the adverse environmental impacts of construction projects in the Watershed fail on repeated occasions, sometimes dramatically. That is why, in general, we strongly prefer that major projects, such as the Millennium Pipeline, be placed outside of the Watershed.

Prior experience with another major pipeline project is instructive. In 1991, the Iroquois Pipeline Operating Company installed a major natural gas pipeline from Canada, through portions of New York and Connecticut and into Long Island. The pipeline installation resulted in extensive and serious violations of the Federal Clean Water Act due to the placement of fill in wetlands, the sedimentation of waters, and the failure to install required erosion control equipment throughout long portions of the construction pathway. These violations resulted in the pipeline company pleading guilty to four felony violations of the Federal Clean Water Act and four corporate officers pleading guilty to misdemeanor environmental charges. Beyond having to undertake extensive remedial measures within the pipeline's route, the company was required to pay fines and penalties in the amount of \$22 million. See U.S. v. Iroquois Pipeline Operating Co., Plea Agreement, 96-CR-166 (N.D.N.Y. May 23, 1996).

We emphasize that this office has no reason to believe that the sponsors of the

³¹ NRC Watershed Report at 97

³² See, e.g., NRC Report at 97-98; American Water Works Association, "Source Water Protection Statement of Principles," AWWA Mainstream (1997); "State Source Water Assessment and Protection Programs Guidance" – Draft Guidance (EPA 816-R-97-007)(Office of Water). Charles Perrow, author of the classic book about high risk systems, "Normal Accidents," has an apt name for the theory of multiple barriers of protection: "defense in depth." Perrow notes that "nothing is perfect; every part of every system, industrial or not, is liable to failure," thus providing the fundamental rationale for the multiple barrier approach. C. Perrow, "Normal Accidents," Basic Books, 1984 at 40, 43.

Millennium Pipeline will act in an irresponsible or unlawful manner. However, the problems associated with the FERC-approved Iroquois Pipeline provide further justification for our position that removal of the Millennium Pipeline from the highly sensitive New Croton Reservoir basin is in keeping with sound environmental practice. This is particularly so given the steep and rugged Watershed terrain that would have to be traversed if the ConEd Alternative is adopted.

V. CONCLUSION

For the above stated reasons the New York State Attorney General requests that the Millennium Pipeline be located in a manner that avoids the New York City Watershed altogether, or at a minimum, that FERC develop a supplemental draft environmental impact statement that specifically addresses the foreseeable adverse environmental impacts associated with the construction of a portion of this pipeline within an unfiltered drinking water watershed.

Respectfully submitted,

ELIOT SPITZER
Attorney General of the State of New York

By: James M. Tierney

James M. Tierney
Assistant Attorney General
Watershed Inspector General
Environmental Protection Bureau
The Capitol
Albany, New York 12224
(518) 474-4843
James.Tierney@oag.state.ny.us

Peter Lehner
Assistant Attorney General in Charge
Environmental Protection Bureau

Charles Silver, Ph.D.
Watershed I.G. Scientist
Office of the Attorney General
(518) 473-6620

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