
5.0 STAFF'S CONCLUSIONS AND RECOMMENDATIONS

5.1 SUMMARY OF THE STAFF'S ENVIRONMENTAL ANALYSIS OF THE PROPOSED ACTION

Based on information provided by Millennium, Columbia, Empire, Algonquin, and Iroquois and further developed from data requests, field investigations, literature research, alternative analyses, and comments from federal, state, and local agencies and individual members of the public, we have determined that construction and operation of the NE-07 Project would result in limited adverse impacts. This FSEIS finds that, compared to the impacts originally evaluated for the Millennium Pipeline Project in our FEIS issued in October 2001, the magnitude and severity of potential impacts to certain specific issues (involving pipeline crossings of coastal zone areas and protected species issues) would be reduced or avoided due to the exclusion of certain geographic areas from the proposed NE-07 Project.

Impacts would be most significant during the construction period. As part of our analysis, we have developed specific mitigation measures that we believe to be appropriate and reasonable for construction and operation of the proposed facilities. We believe that these measures would reduce environmental impact and have concluded that this project can be constructed and operated in accordance with these mitigation measures with acceptable environmental impact. We are recommending that our mitigation measures be attached as conditions to any authorization issued by the Commission.

Public Review and Comment

As part of our analysis of the environmental impact of the proposed NE-07 Project, we requested written scoping comments. We participated in several public information/comment meetings held by the pipeline companies, which were open to anyone who wanted to provide comments about any issue that might affect individuals or communities along the project's route. We have also conducted a comment meeting, site visits of the project areas and have met with affected landowners, communities, and federal and state agencies. The information provided through these meetings and in these comments has been taken into consideration throughout our analysis of the project and the conclusions summarized below.

Alternatives

In accordance with NEPA and Commission policy, we evaluated numerous alternatives to each section of the NE-07 Project to determine whether it would be reasonable and environmentally preferable to the proposed action. As part of this evaluation, we analyzed the No Action or Postponed Action alternative for each project component. In addition, we evaluated system alternatives (although none of the pipeline companies involved with these system alternatives has filed applications to construct or operate these alternatives), major route alternatives, minor route variations, and aboveground facility alternatives for each NE-07 Project component.

For the Millennium Phase I Project, system alternatives were previously evaluated in the 2001 FEIS, and the currently proposed NE-07 Project is generally similar to portions of some of these system alternatives. In particular, the proposed Empire Connector Project is generally similar to the National Fuel's U.S. Niagara Spur System Alternative. The Algonquin/Iroquois Pipeline System Alternative is generally similar to the proposed Algonquin Ramapo Expansion Project and the Iroquois MarketAccess Project. These proposed projects would generally replace the western and eastern portions of the original Millennium Pipeline Project.

The route variations considered for the Phase I Project include a comparison of segments of the previously approved Millennium Pipeline Project pipeline route to the NYSEG Chemung Route Variation, the NYSEG Tioga-Broome Route Variation, the NYSEG Delaware Route Variation, and the

Warwick Isle Route Variation. We have recommended that Millennium incorporate all of these variations. In addition, we evaluated the modified proposal for crossing the Neversink River. Millennium now proposes to acquire and keep in service a 7.1-mile-long segment of Columbia's 24-inch-diameter Line A-5 Pipeline which includes the Neversink River. This would avoid direct disturbance to the Neversink River which is considered a sensitive waterbody due to the possible presence of federally endangered species. Continued use of this pipeline segment would also mean that there would be no impact on other resources in that area since construction would not be required. We have recommended this alternative. We conclude that Millennium's proposed Corning Compressor Station site is reasonable because it would be constructed adjacent to Columbia's existing compressor station and would be a reasonable land use compared to constructing it at an undeveloped site.

For the Columbia Line A-5 Replacement Project (Columbia has requested that this project be incorporated into the Millennium Pipeline Project – Phase I), we evaluated three route alternatives that would avoid construction through the Laurel Ridge community in Tuxedo Park, New York: the County Road 84 and Warwick Brook Road Alternative, the Route 17/17A Alternative, and the Sterling Forest ® State Park/Laurel Ridge Alternative. Although the Sterling Forest ® State Park/Laurel Ridge Alternative would affect land within the Sterling Forest ® State Park, Millennium has a developed an EM&CP which describes the environmental construction and mitigation procedures Millennium would use to minimize environmental impacts to the park in consultation with the PIPC. We believe that use of the EM&CP would mitigate construction impacts and that this alternative route would avoid construction through the residential area. We have recommended that the Sterling Forest ® State Park/Laurel Ridge Alternative be incorporated into the project route.

We also evaluated an alternative to the proposed HDD crossing of State Route 17, the Metro-North railroad, the Ramapo River, and Interstate 87 on the Columbia Line A-5 Replacement Project. As proposed, the pipeline route would pass through a planned residential community. The real estate developer suggested moving the pipeline route to a location closer to the original Millennium Pipeline Project route. Millennium developed an alternative, the Ramapo River HDD Variation, which it filed in its May 3, 2006 amendment application. We compared this alternative to the proposed route and the route approved for the Millennium Pipeline Project. We believe the Ramapo River HDD Variation is reasonable and would avoid the planned development; so, we have recommended that it be incorporated into the project route.

For the Empire Connector Project, we evaluated a system alternative connecting with Tennessee's system, but did not find this to be a reasonable alternative. We also evaluated numerous broad corridors and minor route variations within the Victor to Corning, New York area, and determined that the proposed route would be a reasonable combination of the evaluated areas to avoid impacts to environmental resources, and in particular to minimize impacts to agricultural resources. Originally, Empire considered constructing a pipeline loop of its existing Empire State Pipeline along the northernmost 1.2 miles of the proposed project. However, during the pre-filing period, and based on landowner input, Empire decided instead to propose replacing that segment of pipeline with a larger diameter pipeline to minimize impacts to abutting landowners. We compared these alternatives and concur with this decision because it would reduce the land requirements for construction and operation of this segment of the pipeline. We also compared three aboveground facility site alternatives to the proposed Oakfield Compressor Station site (Alternative Site 1), and concluded that Empire's proposed site would be reasonable for the new compressor station.

For the Algonquin Ramapo Expansion Project, a system alternative previously evaluated in the 2001 FEIS for the Millennium Pipeline Project was to use the existing Algonquin system to cross the Hudson River at Stony Point, New York. The general idea behind this system alternative is embodied in the currently proposed Algonquin project component of the NE-07 Project. As part of Algonquin's proposal it would modify facilities at three existing compressor stations, modify a meter station, relocate

MLVs, construct a new M&R station, and construct a new compressor station. We did not evaluate alternative sites to the proposed modification of Algonquin's existing compressor stations because we believe that the proposed modifications of existing facilities are preferable to development of new facilities at alternative sites. Because the proposed replacement of existing pipeline was considered to be preferable to creation of new routes or corridors, no major route alternatives or minor route variations were considered for the pipeline replacement portion of the project. However, we did consider the alternative of pipeline looping to increase capacity to the replacement pipeline, but concluded that the proposed replacement of 26-inch-diameter pipeline with 42-inch-diameter pipeline would effectively increase pipeline capacity and would have less environmental impact. Finally, we evaluated five alternative sites (Sites B through F) to the originally proposed site (Site A) for the Oxford Compressor Station. Algonquin informed us that Site A may no longer be available for sale to Algonquin. The Commission subsequently issued a Notice of Alternative Project Site for the Algonquin Ramapo Expansion Project on March 8, 2006, to inform the public that Site F was being considered as the preferred site. We concluded that both Sites A and F would be reasonable in the June 2006 DSEIS. Algonquin subsequently filed a June 13, 2006 request that Site F be the preferred site for the Oxford Compressor Station. There is more support from local officials for Site F which would be adjacent to a planned commercial development and the Site A property owner has expressed some concern about selling the land for a compressor station. We concluded that Site F would be reasonable, and have recommended that Algonquin use Site F for the Oxford Compressor Station. Site F

For the Iroquois MarketAccess Project, Iroquois proposes constructing a new compressor station adjacent to its existing Brookfield Sales Meter Station and Algonquin's existing regulating station #251 off High Meadow Road in Brookfield, Connecticut. This would enable it to receive natural gas from Algonquin's pipeline system which is co-located on Iroquois' property at this location. In combination with this EIS and the previous analysis we conducted in 2002 as part of Iroquois' then-proposed Brookfield Expansion Project, we evaluated five alternative sites, including the Vale Road site suggested by the Town of Brookfield officials and other concerned citizens and parties. The Vale Road site is only crossed by Iroquois' pipeline, so a pipeline of about 1.25 miles in length would have to be constructed back to the High Meadow Road site. The other alternative sites are all on properties where both the Iroquois and Algonquin pipelines are co-located. One of these sites has been developed and is no longer available. We identified wetlands and other resources on these properties that would limit the available area for construction of a compressor station. Although the Vale Site Alternative is preferred by a number Brookfield residents and public officials who feel that the proposed site is too close to Whisconier Middle School and a number of private residences, the Commission previously evaluated the Vale Road Alternative, acknowledged the filed concerns about the proposed site, and concluded that the Vale Site Alternative was not preferable to High Meadow Road in its October 31, 2002 Order. It concluded that the compressor station could be safely constructed and operated at the High Meadow Road site and found no conflicts or significant safety issues with the location relative to the school. The comments filed in the currently pending proceeding for the MarketAccess Project are similar to those filed and addressed in the Commission's October 31, 2002 Order. Construction impacts at the Vale Site Alternative would be greater than at the proposed site. On June 30, 2006, the Connecticut Siting Council filed its Findings of Fact, and Opinion and Recommendations about the proposed Brookfield Compressor Station. It stated that it believes that in comparison to the Vale Road site, the proposed site on High Meadow Road is the preferred location for the compressor station. It stated that construction of the compressor station at the proposed site would have less environmental impact and there would be fewer residences in close proximity. We believe construction and operation of the Brookfield Compressor Station and related facilities at the proposed High Meadow Road site can be accomplished in a safe and reliable manner. Therefore, we do not recommend use of the Vale Road alternative site, and we believe the proposed site for the Iroquois' compressor station in Brookfield, Connecticut, if constructed and operated in accordance with the procedures identified in Iroquois' application and supplemental filings and with our recommendations is the preferred alternative.

We compared the original Millennium Pipeline Project to the NE-07 Project. The original Millennium Pipeline Project would have required about 5,956.0 acres for construction including about 797.6 acres in U.S. portion of Lake Erie. The permanent land requirement for easements and aboveground facilities would have been about 3,139.0 acres. The land requirement for the NE-07 Project facilities would be about 3,494.9 acres for construction and 1,683.5 acres for operation of the proposed facilities.

Impacts to waterbodies would be less for the NE-07 Project compared to the original Millennium Pipeline Project considering the NE-07 Project would not include 32.9 miles of construction in the U.S. waters of Lake Erie, or a 2.1-mile-long crossing of the Hudson River.

The proposed NE-07 Project would have less impact on wetlands than the original Millennium Pipeline Project. Construction of the Millennium Pipeline Project would have directly affected about 414.3 acres of wetlands and operation would have affected about 247.8 acres of wetlands. The NE-07 Project would affect about 228.7 fewer wetland acres during construction and 128.4 fewer acres during operation than the Millennium Pipeline Project. Impacts to all wetland types would be less for the NE-07 Project. For example, the original Millennium Pipeline Project would have affected about 71.6 acres of forested wetlands during construction and about 43.8 acres during operation. Impacts to forested wetlands during construction would be reduced by about 39.9 acres and permanent impacts would be reduced by 22.5 acres by construction of the NE-07 Project.

Geology

The NE-07 Project's impact on exploitable mineral resources would be minimal. The October 2001 FEIS for the Millennium Pipeline Project listed active mining operations that would be crossed or within 1,500 feet of the pipeline; no additional active mining operations would be traversed by the Millennium Phase I portion of the project. The only other project component that would traverse active mining operations would be Empire's proposed pipeline. Just south of the NYS Thruway (at CMP 4.8), Empire's proposed ROW would cross one active NYSDEC-permitted sand and gravel pit property. In addition two apparently inactive private fill borrow pits and one reclaimed (inactive) sand and gravel mining location are located within 200 feet of the proposed construction ROW. During ROW procurement, parties could determine a value of exploitable mineral resources that would be lost and reach agreement on adequate compensation, or settle this in an appropriate court.

Geologic hazards (seismicity, landslides, and karst terrain) would not pose a significant hazard for the project. Some blasting would be required where other methods of trench excavation are not successful in areas of shallow, hard bedrock. Where blasting is required, Millennium, Empire, and Algonquin would conduct pre- and post-blast surveys of all structures with willing landowners and utilities within 150 feet of the construction work area to be able to assess damage to existing structures, if any. Blasting would be conducted by licensed blasting contractors in accordance with appropriate regulations. Iroquois does not anticipate requiring blasting.

Soils

Construction of the pipelines would disturb soils and increase the potential for soil erosion, compaction, loss of soil productivity, and damage to existing drainage tiles. Each company has proposed to implement specific erosion and sedimentation control measures which are consistent with our Plan and Procedures, compaction testing and mitigation, and would repair any damaged drainage tiles encountered during construction of pipeline facilities. About 3.3 acres of prime farmland soils, as classified by the NRCS, would be permanently converted to developed areas at Empire's Oakfield Compressor Station. In addition, agricultural areas containing soils with high water tables, and which would be prone to compaction, would be traversed by the Empire Connector Project pipeline. Empire would implement its ESCAMP, developed in consultation with the NYSDA&M, to minimize potential impacts on agricultural

lands and would develop overwintering procedures for use in these areas if restoration cannot be completed before October 1. We have recommended that Millennium continue to work with the NYSDA&M regarding specialized construction and overwintering procedures in agricultural areas. We believe that implementation of these procedures would adequately minimize impact on soils.

Groundwater

The project components would overlies a number of groundwater aquifers, including four NYSDOH-mapped principal aquifers beneath the proposed Empire Connector Project and four EPA-designated principal aquifer areas in the vicinity of the Algonquin project. The Algonquin project facilities would overlies two EPA-designated sole source aquifers, a town-designated aquifer (Haines Pond Aquifer System), and a Primary Recharge Zone of the Town of Brookfield Aquifer Protection District (under Algonquin's proposed Brookfield M&R Station and Iroquois' Brookfield Compressor Station). The Great Swamp Aquifer underlies Iroquois' proposed Dover CS, and is a principal aquifer for the region.

In addition to the private water supply wells and/or springs listed within the original Millennium FEIS, 63 private wells and/or springs would be within 150 feet of the proposed construction areas for the three NYSEG route variations and the Warwick Isle Route Variation. Seven private water supply wells have been identified within 150 feet of the proposed construction area along the Line A-5 Replacement Project, and nine private wells and/or springs would be within 150 feet of Empire's proposed construction areas. Eleven private water supply wells have been identified within 150 feet of Algonquin's Ramapo pipeline replacement construction area, and Algonquin plans to conduct pre-construction surveys to verify the presence and location of any other wells within 150 feet of the pipeline construction ROW and the Brookfield Meter Station. We have recommended that Millennium, Algonquin, and Iroquois provide an update to the information filed about locations of water wells and springs within 150 feet of construction workspaces of the Phase I Project.

We have recommended that Millennium, Empire, Algonquin, and Iroquois develop a plan to report any complaints that they may receive during project construction concerning water supply yield or quality and how each was resolved.

All of the project sponsors have SPCC Plans that include procedures to avoid spills of hazardous materials, to clean up spills, and to report incidents during construction and operation of the proposed facilities. We believe additional measures should be included in Algonquin's and Iroquois' SPCC Plan to address daily vehicle maintenance to inspect for leaks. We have recommended that they modify their SPCC Plans to include procedures for daily maintenance.

Construction and operation of the project is not expected to adversely affect groundwater quality. Construction and operation of the project would be conducted in accordance with approved project-specific environmental construction plans, SPCC plans, as well as our Plan and Procedures, to minimize any potential for groundwater impacts. Impacts to groundwater resources would be avoided or minimized by the use of both standard and specialized construction procedures. Regulated wellhead protection zones around public groundwater supplies would be identified and appropriate protection measures would be implemented during construction and operation in these areas. The pipeline companies would offer to conduct pre- and post-construction testing of private water wells within 150 feet of the construction work areas. If it is determined that any private water supply well is damaged as a result of the project, the company would ensure that a temporary source of water is provided until the damaged supply well is restored to its former capacity.

A landowner in Broome County (approximate MP 242.0) has expressed concern that his spring-fed water supply system would be interrupted or destroyed by construction on his property. This issue

was addressed in the original Millennium Pipeline Project EIS (issued October 2001) and in the Interim and Final Millennium Orders. Millennium was required to develop a water supply testing plan and to prepare a report that evaluated possible construction impacts to the water supply system. Testing is ongoing at this time. If the results of the testing indicate the pipeline trench would convey water away from the spring, Millennium is required to develop engineering and/or other mitigation measures (including a reroute upslope to avoid the water table) to maintain uninterrupted flow to the spring and cistern. Since this study is ongoing, we have recommended that Millennium continue its piezometer monitoring and to provide us with the required report as soon as it is available (recommendation 23).

Surface Water

Surface waters would be affected by several components of the NE-07 Project. These are mainly associated with pipeline construction, and the individual impacts of each project are summarized below. Construction of aboveground facilities would not directly affect surface waters. Appropriate erosion and sediment controls and SPCC Plans would be used to minimize and control runoff from areas disturbed by their construction; and all construction workspaces would be restored after construction. Operation of NE-07 Project facilities is expected to have minimal impact on surface water.

The Millennium Phase I Project would affect a total of 556 waterbodies (including waterbodies crossed by access roads and located adjacent to workspaces), of which 500 would be crossed by pipeline construction using dry crossing techniques (e.g., dam and flume, HDD, or dry ditch). This includes all of the intermittent streams and all but three of the perennial waterbodies. An additional 53 streams would be crossed by access roads or would be adjacent to the project. The pipeline crossings of Owego Creek and Nanticoke Creek would be in areas where there has been severe erosion which may require restorative work outside construction workspaces. Millennium has filed site-specific plans addressing how these areas would be restored after construction. Millennium proposes crossing the Wallkill River by a dam and flume, but if water flow is too high, it indicates that it may use an HDD as a contingency plan. Millennium has filed site-specific plans for crossing the Wallkill River and for crossing it by HDD as a contingency plan. Due to the potential presence of federally endangered Indiana bats in some parts of the project area, tree clearing would be conducted during the period of October 1 to March 30. Equipment bridges across waterbodies would need to be installed to facilitate this activity and so the NYSDEC has informed us that it may require a variance from the section 401 WQC since it would conflict with the waterbody construction timing window. Millennium has identified the waterbodies that would be affected. The NYSDEC requested that Millennium investigate the feasibility of crossing Catharine Creek by HDD. The NYSDEC identified Catharine Creek as the highest quality trout stream in western New York and that, along with the NYSDEC-regulated wetland, is the most sensitive location on the west end of the Phase I Project. The COE concurs with the NYSDEC's request. Millennium has filed site-specific plans to cross Catharine Creek by HDD. We have determined that these plans are acceptable. Since the NYSDEC requested the change, we expect that the plan would be approved by the NYSDEC. The NPS, Upper Delaware Scenic and Recreational River, is concerned about project impacts on the Delaware River and the cumulative impact of multiple waterbody crossings within the drainage basin. We have recommended that Millennium keep the National Park Service, Upper Delaware Scenic and Recreational River, informed about the schedule for crossing waterbodies within this area.

As a result of detailed engineering and constructability reviews subsequent to issuance of our 2001 FEIS and June 2006 SDEIS, Millennium proposed changes to waterbody crossing methods for 231 waterbodies. Most of the changes involve the substitution of a type of dry-ditch crossing method over the method identified previously. Only a few of the changes in the proposed construction methodology were substantive in nature. Millennium has consulted with the NYSDEC, COE, USFWS, TNC, and Trout Unlimited regarding the crossing methods for the larger or more sensitive waterbodies to develop the most appropriate crossing method that would also have a high degree of being successfully completed. In addition, we have made several recommendations to Millennium regarding these crossing plans. On July 31, 2006, Millennium filed site-specific plans for crossing several of these waterbodies. We have reviewed and approved the plans and their use. Because the NYSDEC and COE have been consulted and requested these changes we expect that they would be approved as part of their permitting processes.

The Empire Connector Project pipeline would cross a total of 111 waterbodies, including 50 perennial waterbodies, of which 48 would be crossed using dry crossing techniques. Empire would cross the 61 intermittent waterbodies during no-flow periods or would employ dry crossing methods. An additional five waterbodies would be crossed by access roads for the pipeline facilities. Empire is conducting engineering analyses concerning the feasibility of crossing of Ganargua Creek by HDD, at the request of the NYSDEC; and has proposed crossing of Canandaigua Outlet and Keuka Lake Outlet by HDD, but has not yet completed its engineering review of these proposals. Empire is also investigating the feasibility of crossing Shequaga Creek with a bore. We have recommended that Empire complete these analyses and file site-specific plans for the crossings. The pipeline crossings at Glen Creek and Townsend Creek are known to be areas where there has been severe erosion which may require restorative work outside construction workspaces. We have recommended that Empire develop plans addressing how these areas would be restored after construction.

The Algonquin pipeline replacement would cross 10 surface waters, of which one (Mahwah River) is perennial. Algonquin filed a site-specific crossing plan for the Mahwah River and associated wetlands. The meandering Mahwah River has moved over Algonquin's two pipelines within the permanent ROW. Algonquin has requested approval from the FERC, COE, and NYSDEC to permanently relocate a section of the Mahwah River channel by about 30 feet to the south to prevent scour over the pipelines. Algonquin states that this would facilitate construction, minimize construction impacts to the river, and allow Algonquin to restore and maintain cover over the two pipelines in the future. We believe that Algonquin's plan is acceptable and addresses the complicated issue of constructing its pipeline at this location, and also anticipates the possibility of continued meandering of the Mahwah River channel which may affect pipeline operation in the future. Algonquin has requested variances from sections V.B.2.a. and VI.B.1.a. of our Procedures so that it may place extra workspaces within the 50-foot-wide setback from waterbodies and wetlands. Algonquin provided specific locations where it would use the variances, and we recommended that Algonquin use the variance only at the identified locations and to file site-specific plans showing all construction workspaces where the variance is used prior to construction.

The pipeline companies would adhere to in-stream construction timing restrictions for waterbodies containing designated fisheries. We believe that there would be no significant effect on surface waters from construction of the project, provided that our Procedures, the pipeline companies' approved environmental construction plans, federal permit conditions, relevant environmental conditions of any Order the Commission may issue for the NE-07 Project and our additionally assigned recommendations are followed.

Fisheries

A description of potential impacts to fisheries due to construction of the Millennium Pipeline Project was included in the 2001 FEIS. The proposed pipeline route modifications to the previously

approved project, including the NYSEG and Warwick Isle Route Variations, would not affect the previously reported scope of potential fishery impacts or the mitigation measures proposed by Millennium or required by the Commission in its Interim and Final Orders for that project. Rather than attempt a crossing of the Neversink River, as originally proposed, Millennium proposes to use a 7.1-mile-long segment of Columbia's existing 24-inch-diameter Line A-5 pipeline for the river crossing. This would avoid any impacts to fisheries or other aquatic resources in the Neversink River. Most of the streams in the Columbia Line A-5 Replacement portion of the project are identified by the NYSDEC as coolwater or warmwater fishery streams, while the Ramapo River and Stony Brook are classified as coldwater fishery streams. Two Ramapo River channels would be crossed using the HDD crossing method and Stony Brook would be crossed using a dry crossing method. The Empire Connector Project would cross 47 perennial streams classified as warmwater fishery streams, and three coldwater fishery streams. Algonquin's pipeline replacement would cross the Mahwah River, which supports both warmwater and coldwater fisheries, and an additional nine intermittent waterbodies that support only warmwater fisheries. There would be no impact on fisheries due to construction or operation of Iroquois' facilities.

Construction impacts to fishery resources for the project would include temporary habitat alteration and substrate disturbance at the site of the pipeline installation across waterbodies. In addition, some invertebrates would likely be lost at the immediate waterbody crossing locations. Each pipeline company has proposed a waterbody crossing method for each waterbody crossing, and these are being reviewed by the COE and the applicable state permitting agencies as part of the required permitting process. The crossing methods would be approved based on consideration of the most appropriate technique based on stream conditions including minimization of impacts to fisheries. The use of HDDs and dry-ditch crossing methods would reduce or eliminate downstream turbidity and sedimentation resulting from construction activities. HDD crossings, when successfully completed, would have no in-stream impacts and, therefore, no fisheries impacts. Dry crossing techniques and the use of specified construction timing windows would minimize impact on water quality and would avoid interruption of spawning runs at waterbodies. Operation and routine maintenance of the project would not adversely affect fishery resources.

Implementing our Procedures, as well as the procedures identified by each pipeline company in its environmental construction plans (Millennium and Columbia's ECS, Empire's ESCAMP, Algonquin's E&SCP) and SPCC Plans, would minimize impacts on fisheries resources. Based on the measures planned by each pipeline company to avoid or minimize project impacts on water resources and fisheries and our additional recommendations, we conclude that the construction and operation of the NE-07 Project would not constitute a significant impact to fishery resources.

Vegetation and Wildlife

Construction and operation of the NE-07 Project would result in temporary and permanent alteration of wildlife habitat, as well as direct impact on wildlife such as disturbance, displacement, and mortality. The clearing of forest for construction and operation of the pipeline and aboveground facilities would result in a change of forested wildlife habitats to herbaceous and shrub habitat types. About 439.4 acres of upland forest within the permanent ROW and about 14.0 acres of forest within aboveground facility sites would be permanently affected by construction of the NE-07 Project. After construction, the temporary construction ROW and extra work areas in previously forested areas would be allowed to revegetate naturally and would eventually return to pre-construction conditions.

Within the permanent ROW, forested areas would be converted from forest habitat and maintained as herbaceous and shrub cover for operation of the pipeline. Permanent impact to forests would be about 367.8 acres for the Phase I Project, 81.0 acres for the Empire Connector Project, 5.2 acres for the Algonquin Ramapo Expansion Project, and 2.9 acres for the Iroquois MarketAccess Project.

The NYNHP identified nine significant natural communities that would occur near the Phase I Project, including the Line A-5 Replacement Project, within Harriman State Park. Millennium's construction plans in these areas have been developed with the PIPC and are described in the EM&C Plan for Harriman State Park. The NYNHP has not yet responded about potential significant natural communities near Iroquois's proposed Dover Compressor Station.

The Algonquin pipeline replacement component of the project, the Ramapo M&R Station, the Stony Point CS, and the Hudson River Valve Site are located in the New York - New Jersey Highlands, an area designated by the state of New York as a Significant Habitat Complex of the New York Bight Watershed. However, all activities and facilities that would be constructed within the New York - New Jersey Highlands would occur along existing ROWs or at existing aboveground facility locations. Therefore, no significant impacts to the wildlife of this significant habitat complex are anticipated as a result of the project.

We believe that the potential impacts on wildlife have been reduced to a level that is not significantly adverse, due to the routing of the pipeline facilities within or adjacent to existing cleared ROWs for a significant percent of its total length and restoration procedures which would promote revegetation of temporary work areas to preconstruction habitat conditions. In addition, our recommended vegetation maintenance procedures during operation of the project include limitations on the timing and frequency of mowing and other activities, in consideration of maximizing habitat use opportunities for general wildlife and avian species, while allowing for operation of the pipeline and aboveground facilities.

Endangered and Threatened Species

We have consulted informally with the FWS regarding the presence of federally listed or proposed species in the project area. A total of six federally listed endangered or threatened species were considered as potentially occurring in the vicinity of the proposed project facilities. The species include the endangered Indiana bat, shortnose sturgeon, and dwarf wedge mussel; and the threatened bald eagle, bog turtle, and Leedy's roseroot. To comply with the requirements of Section 7 of the ESA, we have conducted informal consultation with the FWS and the NMFS regarding the presence of federally-listed or proposed endangered or threatened species and their critical habitats in the project areas. Our final BA for the NE-07 Project is included in this FSEIS.

The FWS indicated that suitable summer habitat for the Indiana bat might be present in the vicinity of the NE-07 Project. At the request of the FWS, Millennium conducted field surveys in 2005 to assess potential effects of the project on the Indiana bat in Orange and Rockland Counties, New York. Fifteen Indiana bats were captured by Millennium during mist netting surveys, including reproductive adult females, adult males, and juveniles. Radiotelemetry studies on the bats captured by Millennium identified 11 roosts, including maternity roosts, in nearby habitat outside the project construction areas. No known bat roosts exist within the project ROW. However, some potential Indiana bat roosting habitat would be removed during construction. Considering that the proposed pipeline construction is a linear project along an existing cleared ROW, this is estimated to be an insignificant portion of the overall suitable habitat available in the vicinity of the project area. We have determined that the Phase I Project may affect, but is not likely to adversely affect, the Indiana bat if tree clearing for the proposed construction is limited to the period between October 1 and March 30. We have recommended that Millennium only clear trees during this time period for construction and that Millennium conduct future maintenance activities which might require tree pruning or clearing also only be conducted during this time. If Millennium must clear trees outside this construction window, then we recommend that it employ the services of a qualified bat scientist to investigate trees and/or conduct other surveys as may be recommended by the FWS for the presence of Indiana bats, to avoid a take of bats.

A known Indiana bat hibernaculum exists within six miles of Algonquin's Hanover Compressor Station in Morris County, New Jersey, and suitable habitat may occur near Algonquin's Stony Point Compressor Station and pipeline replacement component in Rockland County, New York, and Southeast Compressor Station in Putnam County, New York. Limited clearing of suitable summer roosting, maternity and foraging trees in these project areas could affect this species if it occurs during bat activity periods. Algonquin completed field surveys of the project locations identified as potential habitat in May and August of 2006. No Indiana bats were found based on the executive summary of a report filed by Algonquin on July 31, 2006. A complete report for the surveys, including detailed information on capture results for six other bat species, as well as habitat assessments and data supporting compliance with FWS guidelines, is pending. Acceptance of the report by the FWS is also pending. While preliminary results indicate that no Indiana bats were found in the project areas, potential Indiana bat habitat may still be affected by construction. Therefore, we believe that Algonquin should implement the mitigation recommended by the FWS to minimize impacts on Indiana bats that might be using certain trees for roosting. We have determined that the project may affect, but is not likely to adversely affect, the Indiana bat.

The FWS commented that impacts to the Indiana bat would be unlikely in Empire's proposed project areas since Indiana bat habitat does not appear to be within the vicinity of Iroquois' project components. We concur with this conclusion.

The NYSDEC determined that the shortnose sturgeon potentially occurs in the vicinity of Algonquin's Hudson River Valve site. However, the proposed modifications to the Hudson River Valve Site would not involve any in-water activities in the Hudson River, nor would any of the project components result in any temporary or permanent disturbances to the Hudson River. However, Algonquin proposed using the Hudson River as the source for hydrostatic test water which would mean it would place intake hoses into this waterbody. The COE commented that intake hoses installed in navigable waters may be a section 10 regulated activity, and there may be an unknown impact on the federally endangered shortnose sturgeon as well. Algonquin subsequently stated that it would not use the Hudson River as a supply source for hydrostatic test water, and that it would use an alternative water supply source for hydrostatic test water. Therefore, we have determined that the Ramapo Expansion Project is not likely to adversely affect the shortnose sturgeon or its critical habitat. Final comments from the NMFS are pending.

The dwarf wedge mussel occurs in the Neversink River in Orange County, New York. Millennium proposes to incorporate a segment of Columbia's existing 24-inch-diameter Line A-5 pipeline into the project to avoid making a new crossing of the Neversink River. The continued utilization of this segment of the existing Line A-5 pipeline would result in the avoidance of any construction in the vicinity of the Neversink River. Based on this proposed alternative, the Phase I Project would not adversely impact the dwarf wedge mussel.

The NYNHP indicated that the Millennium Phase I Project would cross five known bald eagle nesting or wintering areas. No adverse effects on bald eagles are expected at four of those activity areas, based on the NYSDEC's statements in the 2001 Millennium Pipeline Project FEIS. The NYSDEC requested that there be no construction in areas adjacent to the Mongaup River/Rio Reservoir area between December 1 and July 31 to avoid the nesting and overwintering periods in this bald eagle activity area. Coordination between Millennium and the FWS led to an agreement to construct the crossing of the Mongaup River between October 15 and November 30. With implementation of this agreement, we believe that construction of the Millennium Phase I Project would not adversely affect or jeopardize the continued existence of the bald eagle. Regarding the other proposed NE-07 Project facilities, the FWS commented that transient bald eagles may potentially occur at the Hanover Compressor Station and

Hudson River Valve Site, but that there are no known bald eagle nest sites in close proximity to any other project area. Therefore, we believe that the project would not adversely affect the bald eagle.

The FWS indicated that the bog turtle is known to occur in the vicinity of the Phase I Project in Orange County, New York and requested that a Phase I Habitat Assessment survey be conducted to determine if suitable habitat existed for the species. Millennium conducted Phase I bog turtle habitat surveys in the spring and fall of 2005 and in April and May 2006. Of the 96 wetlands surveyed in 2005 and 2006, three wetlands contain potential bog turtle habitat. One wetland exhibits suitable habitat within two breached manmade ponds. The landowner has indicated an interest in rebuilding the ponds. If this occurs, the wetland would no longer offer suitable habitat for the species. Also, this wetland is located in an area of Orange County where no known bog turtle populations occur and is lacking suitable surrounding habitat. Therefore, the site is likely temporary and it is unlikely to contain bog turtles. Another wetland may contain suitable bog turtle habitat, but the vegetation consists primarily of the common reed (*Phragmites australis*), an invasive plant species whose habitat is not used by the bog turtle, due to the lack of basking and nesting habitat. In addition this wetland is located near the summit of Pound Mountain, an area that is likely inaccessible to the species due to steep slopes and rough, rocky terrain. Therefore, the site is unlikely to contain bog turtles. Another wetland with suitable bog turtle habitat adjacent to the project construction area and is separated from the ROW by a rock wall. We have recommended that Millennium install turtle exclusion fencing during the bog turtle window of activity (April 15 to October 31) along the wetland identified as potential bog turtle habitat; and to employ a bog turtle monitor to be on hand when construction coincides with the bog turtle window of activity, to conduct a daily preconstruction survey of the project site and to provide daily monitoring and relocation of bog turtles to suitable habitat outside the construction area when necessary. If the recommended mitigation is used during construction then we believe that the bog turtle is unlikely to be adversely affected by construction of NE-07 Project facilities. We have determined that if Millennium enacts suitable avoidance measures, exclusion fencing, and monitoring during construction, the bog turtle is unlikely to be adversely affected by the Phase I Project.

Algonquin conducted a Phase I Habitat Assessment survey of all areas of potentially suitable bog turtle habitat at the pipeline replacement, Stony Point Compressor Station, Southeast Compressor Station, and the Oxford Compressor Station project areas. Suitable habitat was not found at the Oxford Compressor Station; some marginal wetland habitat was found along the pipeline replacement and near the Southeast Compressor Station; and suitable bog turtle habitat was found near the Stony Point Compressor Station. In a letter dated January 11, 2006, the FWS concurred with the survey findings for the Oxford Compressor Station site. However, concurrence is pending for the remainder of the project sites. Due to the marginal nature of the habitat at the Southeast Compressor Station and the pipeline replacement area, it may be unlikely that the project would adversely impact the bog turtle at these sites. No wetlands would be directly impacted or disturbed during construction and modifications to the Stony Point Compressor Station. Regardless, Algonquin has proposed bog turtle avoidance measures for these sites, due to the fact that suitable habitat was found nearby. Algonquin has agreed to assign a biological monitor to survey for the presence of turtles prior to and during the initial clearing and site preparation required for the staging areas. The biological monitor would inspect the site periodically during the construction phase of the project to provide oversight for the construction crews, as needed, and believes that a full-time biological monitor is not necessary for the proposed activities at this site. Due to the location of the potential habitat compared to the construction areas and the use of turtle exclusion fencing, we agree that a full-time turtle monitor would not be necessary at the Stony Point Compressor Station. Therefore, we believe these measures would minimize potential impact to bog turtles. In conclusion, we have determined that construction and operation of the Algonquin Ramapo Expansion Project would not adversely affect the bog turtle. Iroquois conducted field surveys for bog turtles at the Dover Compressor Station in October 2001 and located potential bog turtle wetland habitat. However, the proposed construction workspace would be at least 300 feet away from the wetland. Therefore, we believe that the proposed Iroquois MarketAccess Project would be unlikely to adversely affect the bog turtle.

The FWS indicated that Leedy's roseroot occurs along the face of shale cliffs located approximately two miles from the Empire Connector Project; but, the FWS believes that the proposed work would not adversely affect Leedy's roseroot provided that the project activities avoid disturbance of any adjacent cliff vegetation. Because no cliff areas have been observed at Empire's project site and no disturbance of cliff vegetation would occur, we believe that Leedy's roseroot is unlikely to be adversely impacted by the proposed Empire Connector Project.

The federally-listed threatened bald eagle occurs in the Phase I Project area and project impacts to bald eagles were addressed in the 2001 FEIS. We determined that the project would not adversely affect bald eagles. However, there may be limited impact on eagles if blasting is required in designated bald eagle activity areas that are used for nesting and winter habitats near the Mongaup River/Rio Reservoir which would be crossed by the Phase I Project pipeline construction near MP 330.0. Therefore, we recommended that Millennium consult with FWS and the NYSDEC to develop a bald eagle activity area construction plan to address blasting in activity areas. Further, we have recommended that Millennium consult with the NYSDEC and FWS prior to construction to get an update on any additional nests that may have been found in the project area. With implementation of our recommended mitigation, we believe the proposed action would not adversely affect or jeopardize the continued existence of the bald eagle.

Millennium, in consultation with the NYSDEC, identified 14 locations where the New York state-listed threatened timber rattlesnake may be affected by pipeline construction. , On July 31, 2006, Millennium filed a a minor route variation that would avoid impacts to one identified den and its associated timber rattlesnake habitat, and has proposed to implement the previously agreed-to avoidance and mitigation measures for an additional rattlesnake den site. In addition, a NYSDEC rattlesnake expert would assess the site to determine further avoidance measures that may be necessary. Algonquin has proposed that a rattlesnake monitor be on hand during construction of various components of the Ramapo Expansion Project.

Wetlands

According to field delineations and reviews of NWI maps conducted by the project sponsors, the proposed pipeline facilities would cross about 674 wetlands for a total crossing length of 28.2 miles, affecting about 185.6 acres during construction. Included would be about 30 crossings of NYSDEC-regulated freshwater wetlands for a total crossing length of 3.1 miles, affecting about 25.7 acres during construction. Construction of the proposed aboveground facilities for the four NE-07 projects would convert a total of 0.1 acre of wetland to developed land. In addition, Millennium would permanently fill 13 small wetlands within its permanent ROW, impacting 0.26 acre of wetland.

The primary effect on wetlands from pipeline construction would be the temporary and permanent conversion of PFO (i.e., forested wetlands) to non-forested wetland within the pipeline ROW and other temporary workspaces. A total of about 31.7 acres of PFO would be cleared for the NE-07 pipeline segments, of which about 21.3 acres would be permanently converted to PEM and PSS within the permanent ROW. The remaining 10.4 acres of PFO would be allowed to revert to forested wetland, representing a long-term impact as it would take over 25 years to reestablish forest vegetation. We believe that the potential impacts on PFO have been minimized as a result of routing the pipeline facilities within or adjacent to existing cleared ROWs for a significant percent of the NE-07 Project's total length. Generally, following an existing ROW corridor through forested areas is preferable to establishing a new corridor, since a portion of the cleared corridor can be used for some of the construction and permanent ROW. Further, Millennium, Empire, and Algonquin would be required by the COE to develop wetland mitigation plans that address compensation for permanent forested wetlands loss and for restoration of forested wetlands affected by clearing temporary workspaces. There would be minimal, short-term

effects on PEM and PSS wetlands within temporary workspaces and the permanent ROW as these areas would be allowed to revegetate naturally and would be restored in vegetative cover similar to that found prior to construction. If seeding is used in wetland areas, the seed mix would contain native plant species. Consistent with section VI.C.4 of our Plan, wetland restoration plans would include measures for re-establishing herbaceous and/or woody species, controlling the invasion and spread of undesirable exotic species (e.g., purple loosestrife and phragmites), and monitoring the success of the revegetation and weed control efforts. The success of restoration would be monitored for at least 3 years. If revegetation is not successful at the end of 3 years, the applicants would need to develop and implement (in consultation with a professional wetland ecologist, the COE, or the NYSDEC, as appropriate) a remedial revegetation plan to actively revegetate the wetland. We believe that if the project were constructed in accordance with the procedures identified by each pipeline company in its environmental construction plan (Millennium and Columbia's ECS, Empire's ESCAMP, and Algonquin's E&SCP) and SPCC Plan, as supplemented with COE-approved mitigation plans, our recommendations and the recommendations of the COE and the NYSDEC, impacts on wetlands would be minimized.

We understand that the COE may require compensation for loss of forested wetlands. A conceptual wetland mitigation plan was included with Millennium's August 2005 Section 404 application to the COE. The primary components of the wetland mitigation plan include on-site restoration of affected wetlands, purchase of off-site properties to permanently protect mature forested wetlands, creation of off-site forested wetlands, and the funding of research specific to pipeline construction activities. We have required Empire and Algonquin to consult with the COE regarding development of mitigation plans to address impacts to forested wetlands.

Land Use

The Millennium Phase I and Empire Connector pipelines would generally be installed within a 75-foot-wide ROW, of which 50 feet would be maintained for operation. The Algonquin pipeline replacement would use a 100-foot-wide construction ROW, which includes an existing 75-foot-wide permanent easement for operation. Construction of the applicants' pipeline and aboveground facilities would directly disturb about 3,461.1 acres of land for the construction ROW, extra work areas, and aboveground facilities. Following construction, the applicants would retain 1,683.5 acres of permanent ROW for operation of the pipeline and associated aboveground facilities. (These areas may change based on Algonquin's final reporting of acreage.)

About 212.3 miles of the pipeline would be constructed adjacent to or within existing ROWs. The remaining 52.2 miles of pipeline would be constructed on new ROW. Segments of new ROW would be distributed throughout the length of the project and were incorporated into the proposed route because of topography, engineering, or residential constraints of areas adjacent to the existing ROWs.

Residential Areas

There would be about 173 residential structures within 50 feet of the construction work areas. However, five of these residences would be avoided by the Sterling Forest ® State Park/Laurel Ridge Alternative. The Warwick Isle Route Variation and the Ramapo River HDD Variation would avoid planned residential communities. Each company would implement mitigation measures contained in its environmental construction plans (Millennium and Columbia's ECS, Empire's ESCAMP, and Algonquin's E&SCP) during construction in residential areas or would use our Plan. These measures would include fencing the construction work area, preserving mature trees and landscaping, reducing the construction work areas as necessary to maintain 25 feet between the residence and the construction work area, using drag section or sewer line construction techniques to install the pipeline, and restoring residential properties immediately after backfilling the trench. We believe that the proposed mitigation would lessen impact on residences from construction and operation of the pipeline. We have

recommended that the project sponsors file site-specific plans for all residences within 25 feet of construction work areas.

Recreation and Public Interest Areas

The NE-07 Project pipelines would cross recreational trails (some privately managed) and state and local parklands including Soaring Eagle/Mark Twain State Park, Sterling Forest ® State Park, Harriman Forest State Park, , and Kakiat County Park. The Phase I Project would cross the Appalachian Trail; and impacts to this crossing were addressed in the 2001 FEIS for the Millennium Pipeline Project and are incorporated by reference. Other recreation and public interest areas crossed by the pipeline include campgrounds, church grounds, and private shooting ranges. Impact on these areas is expected to be minimal due to effective routing, use of existing corridors, minimizing width of construction ROW, timing of construction activities based on consultations with the appropriate local government and owner representatives, and post-construction restoration. Millennium would use the EM&CP it has developed in consultation with the PIPC to mitigate environmental impacts due to construction in Sterling Forest ® State Park, Harriman Forest State Park. It would consult with state and local authorities to address construction and restoration issues related to environmental impacts in the park and to disruptions in park use. Algonquin would consult with the PIPC about construction in Harriman State Park and with the Rockland County DER about construction in Kakiat County Park.

Coastal Zone Management Consistency

Algonquin's proposed Hudson River Valve Site modification construction areas would be within the NYS Coastal Zone Management Boundary. The State of New York Department of State (NYDOS), Division of Coastal Resources, has determined that Algonquin's project meets its general consistency concurrence criteria and that no further review of the proposed activity would be required by the NYDOS. This General Concurrence was dated March 15, 2006. No other project areas would affect coastal zone areas.

Visual Resources

About 212.3 miles (80 percent) of the pipelines would be adjacent to existing ROWs or in roads, reducing the need to establish new utility corridors. This expansion of existing corridors may result in visual impacts, particularly in areas where existing vegetation provides screening of powerline ROWs from nearby residences. To mitigate for this visual impact, the applicants would minimize clearing of trees and vegetation that provide important visual screening of an existing ROW from adjacent residences. Where screening must be removed for safety considerations, applicants would offer to plant fast growing trees or shrubs within temporary work areas between a residence and an existing ROW.

Aboveground facilities would result in various visual impacts. The proposed Millennium Corning Compressor Station would be installed adjacent to an existing compressor station that is already a dominant visual element. The proposed modifications to existing compressor station sites would not significantly change the viewshed. The proposed new Oakfield Compressor Station would be constructed on agricultural and open lands. It would change the viewshed of the residents that live along Lockport Road and adjacent properties. This impact may be substantial to these residents, but it would be minimized and partially obscured by topography. Empire would consider additional screening to mask the facility. The proposed new Oxford Compressor Station would be constructed within an area that would be obscured from the viewsheds of many areas by forest. (This would apply to both alternative sites A and F.) The proposed new Brookfield Compressor Station would be installed adjacent to existing aboveground natural gas facilities. The property and the surrounding area are also visually affected by these existing easements: the cleared 90-foot-wide Algonquin pipeline ROW, the cleared 50-foot-wide Iroquois pipeline ROW, a powerline ROW, and a railroad. The new facilities would be viewed together

with these existing features. Iroquois would retain the wooded buffer along High Meadow Road, and the 68.3-acre property is mainly covered with forested areas which would be retained during operation of the facility. These forested areas would visually screen the facility. The buildings Iroquois would construct to house the new facilities and to minimize visual impact would be “barn-like” and similar in architecture to other buildings in the general area, it would minimize lighting, and it would develop additional landscaping if needed.

No visual affects to State or National Register of Historic Places (S/NRHP) eligible or potentially eligible properties have been identified, therefore, no additional mitigation measures would be recommended for the proposed amended facilities.

Cultural Resources

The applicants have filed with the Commission and the SHPOs cultural resource survey reports for surveys covering about 245.6 miles (93 percent) of the pipeline route and extra work areas, including access roads, pipe storage/contractor yards, compression station properties, and measuring stations. About 8.8 miles along the Phase I Project and 9.6 miles along the Empire Connector Project have yet to be surveyed due to denial of access. No areas remain to be surveyed for the Ramapo Expansion Project or the MarketAccess Project. The NYSHPO and CTSHPO commented on the reports and made recommendations for additional work to several specific components of the projects. We concur with the SHPO's recommendations. Because additional surveys and testing are still required and final determinations of eligibility and effect have not been made for this project, we anticipate executing a programmatic agreement with the New York State Historic Preservation Officer and the Advisory Council on Historic Preservation for construction in the state of New York, and have recommended that construction be deferred until all cultural resource surveys, testing, and any required mitigation plans have been completed and the reports filed, along with SHPO comments, as appropriate.

Socioeconomics

Construction and operation of the projects would not significantly increase total employment or population along the proposed routes. Consequently, there would be little additional demand on housing or public services. However, short-term limitations on the availability of hotel/motel rooms may occur in the vicinity of construction spreads. Some traffic congestion could result when bulk equipment and materials are moved onto the construction ROW and when workers commute to and from a work site. However, this impact would be mostly temporary at any one location due to the migration of construction activity down the pipeline routes. During construction, the projects would generate a positive economic stimulus as a direct result of local expenditures for labor, materials, and equipment, and short-term jobs. During operation, the projects would contribute to the tax base of the towns crossed by the pipelines.

With the implementation of each company's environmental construction plan (Millennium and Columbia's ECS, Empire's ESCAMP, Algonquin's E&SCP and SPCC Plan or our Plan and Procedures; proposed mitigation measures, and our recommendations, we believe that construction and operation of the projects can be done safely. We recognize that the construction process is an annoyance to many people and it will cause temporary disruptions to people and services. This is particularly true where construction activities would cause temporary road closures. However, this is not unlike the disruption created when any work is done on utilities that are buried beneath streets or when significant road maintenance, repairs, or improvements occur.

Air and Noise

We have identified no significant short- or long-term impact on air or noise quality that would result from construction and operation of the project. It is anticipated that the project would meet all

applicable federal, state, and local air quality and noise regulations. This would ensure compliance with the SIP of the CAA and the timely attainment of the NAAQS. With the implementation of recommended mitigation measures, sound levels attributable to the project would be adequate to protect human health and welfare with an adequate margin of safety.

Algonquin, Millennium, Empire, and Iroquois cumulatively propose the construction of four new compressor stations, the modification and/or upgrading of four existing compressor stations, and the construction of 270 miles of pipeline and related facilities. During operation, the compressor stations would emit varying quantities of criteria pollutants. However, the combustion of natural gas produces significantly lower emissions when compared to the combustion of coal or oil. One of the project's primary goals is to increase the availability and use natural gas as opposed to other traditional fossil fuels.

To address the CAA general conformity rule, we performed an applicability analysis to determine if a formal conformity determination must be completed. The emissions from the project construction and operation would be below the applicability threshold and would not be regionally significant. Therefore, we determined that a formal conformity determination is not required.

Several components of the new and modified compressor stations, as well as construction associated with the project, would generate noise. The compressor station components include, but would not be limited to: the turbine, compressor, turbine exhaust and ducting, aboveground piping, lube oil coolers, gas after coolers, air intake system, air handling units, and blowdown equipment. The use of noise control measures for the compressor stations and associated equipment would be necessary to reduce the potential impact to surrounding areas and ensure compliance with federal, state, and local regulations. Noise control measures that have been evaluated and would be incorporated where necessary include, but would not be limited to: the use of appropriate building materials, installation of muffler systems, use of acoustical pipe insulation, and the installation of air intake and blowdown silencers. We have recommended that noise levels at all of the proposed new and modified compressor stations not exceed an L_{dn} of 55 dBA at nearby NSAs when the stations are operated at full load. Further, we have also recommended that reasonable efforts should be made to assure that predicted noise levels at nearby NSAs are not exceeded by operation of Empire's Oakfield Compressor Station, Algonquin's Oxford Compressor Station, and Iroquois' Brookfield Compressor Station which are all new facilities. We have also required that post-construction noise surveys be conducted no later than 60 days after placing the compressor stations in service. If the surveys show that noise level have exceeded an L_{dn} of 55 dBA at the NSAs, we have recommended that additional noise controls be installed to meet the level within 1 year of the in-service date.

Construction noise would be intermittent and would vary from hour to hour at any single location depending on the equipment in use and the operation being performed. Since construction would move at about 400 feet per day, the duration of exposure to high noise levels related to construction would be limited to a relatively short period of time at any one location.

Reliability and Safety

We have not identified any unacceptable reliability or safety risks associated with the project. The pipeline and aboveground facilities proposed by Millennium, Columbia, Empire, Algonquin, and Iroquois would be designed, constructed, operated, and maintained in accordance with the DOT Minimum Federal Safety Standards in 49 CFR 192. These regulations are intended to ensure adequate protection for the public and to prevent natural gas facility accidents and failures. Part 192 specifies material selection and qualification, design requirements, and protection from internal, external, and atmospheric corrosion. Pipelines and compressor stations are built in areas of varying population density throughout the U.S. Because avoidance of populated areas is not always possible, the standards in the Federal regulations become more stringent as the human population density increases, as detailed in

section 4.12.1. Contractors would be selected by Millennium, Columbia, Empire, Algonquin, and Iroquois to construct the pipeline according to these standards and each company's individual project-specific plans. These facilities would be designed to maintain minimal hazard potential to the surrounding area. We believe this project does not present a substantial safety risk to the public.

PCB Contamination

The pipeline companies stated that they would conduct activities at existing compressor stations and for pipeline removal activities in accordance with the applicable requirements of USEPA-issued procedures in 40 CFR 761.3, TSCA, the companies' internal PCB testing and handling procedures, and/or applicable NYS regulations. We have not identified any unresolved issues regarding PCBs for this project.

5.2 FERC STAFF'S RECOMMENDED MITIGATION

If the Commission certifies the proposed projects, we recommend that the following measures be included as specific conditions to further mitigate the environmental impact associated with the construction and operation of the proposed facilities:

1. Millennium, Empire, Algonquin, and Iroquois shall each follow the construction procedures and mitigation measures described in their applications and supplements (including responses to staff data requests) and as identified in the FSEIS, unless modified by this Order for their respective projects. Millennium, Empire, Algonquin, and Iroquois must:
 - a. request any modification to these procedures, measures, or conditions in a filing with the Secretary;
 - b. justify each modification relative to site-specific conditions;
 - c. explain how that modification provides an equal or greater level of environmental protection than the original measure; and
 - d. receive approval in writing from the Director of the OEP **before using that modification.**
2. The Director of OEP has delegation authority to take whatever steps are necessary to insure the protection of all environmental resources during construction and operation of the projects. This authority shall allow:
 - a. the modification of conditions of the Order; and
 - b. the design and implementation of any additional measures deemed necessary (including stop work authority) to assure continued compliance with the intent of the environmental conditions as well as the avoidance or mitigation of adverse environmental impact resulting from project construction and operation.
3. **Prior to any construction**, Millennium, Empire, Algonquin, and Iroquois shall each file an affirmative statement with the Secretary, certified by a senior company official, that all company personnel, environmental inspectors, and contractor personnel will be informed of the environmental inspector's authority and have been or will be trained on the implementation of the environmental mitigation measures appropriate to their jobs **before** becoming involved with construction and restoration activities for their respective projects.
4. The authorized facility locations shall be as shown in the FSEIS, as supplemented by filed alignment sheets. **As soon as they are available, and before the start of any construction**, Millennium, Empire, Algonquin, and Iroquois shall each file with the Secretary any revised

detailed survey alignment maps/sheets at a scale not smaller than 1:6,000 with station positions for all facilities approved by the Order for their respective projects. All requests for modifications of environmental conditions of the Order or site-specific clearances must be written and must reference locations designated on these alignment maps/sheets.

5. Millennium, Empire, Algonquin, and Iroquois shall each file with the Secretary detailed alignment maps/sheets and aerial photographs at a scale not smaller than 1:6,000 identifying all route realignments or facility relocations, and staging areas, pipe storage yards, new access roads, and other areas that would be used or disturbed and have not been previously identified in filings with the Secretary for their respective projects. Approval for each of these areas must be explicitly requested in writing. For each area, the request must include a description of the existing land use/cover type, and documentation of landowner approval, whether any cultural resources or federally listed threatened or endangered species would be affected, and whether any other environmentally sensitive areas are within or abutting the area. All areas shall be clearly identified on the maps/sheets/aerial photographs. Each area must be approved in writing by the Director of OEP **before construction** in or near that area.

This requirement does not apply to route variations required herein or minor field realignments per landowner needs and requirements which do not affect other landowners or sensitive environmental areas such as wetlands.

Examples of alterations requiring approval include all route realignments and facility location changes resulting from:

- a. implementation of cultural resources mitigation measures;
 - b. implementation of endangered, threatened, or special concern species mitigation measures;
 - c. recommendations by state regulatory authorities; and
 - d. agreements with individual landowners that affect other landowners or could affect sensitive environmental areas.
6. Within 60 days of the acceptance of this certificate and **before construction** begins, Millennium, Empire, Algonquin, and Iroquois shall each file an initial Implementation Plan with the Secretary for review and written approval by the Director of OEP describing how they will implement the mitigation measures required by the Order for their respective projects. Millennium, Empire, Algonquin, and Iroquois must file revisions to the plan as schedules change. The plan shall identify:
 - a. how Millennium, Empire, Algonquin, and Iroquois will incorporate these requirements into the contract bid documents, construction contracts (especially penalty clauses and specifications), and construction drawings so that the mitigation required at each site is clear to on-site construction and inspection personnel;
 - b. the number of environmental inspectors assigned per spread, and how the company will ensure that sufficient personnel are available to implement the environmental mitigation;
 - c. company personnel, including environmental inspectors and contractors, who will receive copies of the appropriate material;
 - d. what training and instructions Millennium, Empire, Algonquin, and Iroquois will give to all personnel involved with construction and restoration (initial and refresher training as the project progresses and personnel change), with the opportunity for OEP staff to participate in the training session(s);
 - e. the company personnel (if known) and specific portion of Millennium, Empire, Algonquin, and Iroquois's organization having responsibility for compliance;
 - f. the procedures (including use of contract penalties) Millennium, Empire, Algonquin, and

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- g. Iroquois will follow if noncompliance occurs; and for each discrete facility, a Gantt or PERT chart (or similar project scheduling diagram), and dates for:
- i. the completion of all required surveys and reports;
 - ii. the mitigation training of on-site personnel;
 - iii. the start of construction; and
 - iv. the start and completion of restoration.
7. Millennium, Empire, Algonquin, and Iroquois shall each employ a team (i.e., two or more or as may be established by the Director of OEP) of environmental inspectors per construction spread for their respective projects. The environmental inspectors shall be:
- a. responsible for monitoring and ensuring compliance with all mitigative measures required by the Order and other grants, permits, certificates, or other authorizing documents;
 - b. responsible for evaluating the construction contractor's implementation of the environmental mitigation measures required in the contract (see condition 6 above) and any other authorizing document;
 - c. empowered to order correction of acts that violate the environmental conditions of the Order, and any other authorizing document;
 - d. a full-time position, separate from all other activity inspectors;
 - e. responsible for documenting compliance with the environmental conditions of the Order, as well as any environmental conditions/permit requirements imposed by other Federal, state, or local agencies; and
 - f. responsible for maintaining status reports.
8. Millennium, Empire, Algonquin, and Iroquois shall each file updated status reports prepared by the lead environmental inspector with the Secretary on a **weekly** basis **until** all construction-related activities, including restoration and initial permanent seeding, are complete for their respective projects. On request, these status reports will also be provided to other Federal and state agencies with permitting responsibilities. Status reports shall include:
- a. the current construction status of each spread, work planned for the following reporting period, and any schedule changes for stream crossings or work in other environmentally sensitive areas;
 - b. a listing of all problems encountered and each instance of noncompliance observed by the environmental inspectors during the reporting period (both for the conditions imposed by the Commission and any environmental conditions/permit requirements imposed by other Federal, state, or local agencies);
 - c. corrective actions implemented in response to all instances of noncompliance, and its cost;
 - d. the effectiveness of all corrective actions implemented;
 - e. a description of any landowner/resident complaints which may relate to compliance with the requirements of the Order, and the measures taken to satisfy its concerns; and
 - f. copies of any correspondence received by Millennium/Empire/Algonquin/Iroquois from other Federal, state, or local permitting agencies concerning instances of noncompliance, and the company's response.
9. Millennium, Empire, Algonquin, and Iroquois each must receive written authorization from the Director of OEP **before commencing service** from their respective projects. Such authorization will only be granted following a determination that rehabilitation and restoration of the ROW is proceeding satisfactorily.
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10. **Within 30 days of placing the certificated facilities in service**, Millennium, Empire, Algonquin, and Iroquois shall each file an affirmative statement with the Secretary, certified by a senior company official for their respective projects:
- a. that the facilities have been constructed and installed in compliance with all applicable conditions, and that continuing activities will be consistent with all applicable conditions; or
 - b. identifying which of the certificate conditions Millennium/Empire/Algonquin/Iroquois has complied with or will comply with. This statement shall also identify any areas along the ROW where compliance measures were not properly implemented, if not previously identified in filed status reports, and the reason for noncompliance.
11. Millennium, Empire, Algonquin, and Iroquois shall hire and fund a third-party contractor, to work under the direction of the Commission staff, for the sole purpose of monitoring compliance with the environmental conditions attached to the Order for their respective projects, including all measures proposed by the companies. A draft monitoring program shall be developed by the companies and filed with the Commission for review and approval of the Director of OEP, along with a proposal from potential contractors that will be available to provide the monitoring and reporting services. The monitoring program shall include the following elements:
- a. the employment by the contractor of one to two full-time, on-site monitors per construction spread;
 - b. the employment by the contractor of a full-time compliance manager to direct and coordinate with the monitors, manage the reporting systems, and provide technical support to the Commission staff;
 - c. a systematic strategy for the review and approval by the contract compliance manager and monitors of variances to certain construction activities as may be required by each company based on site-specific field conditions;
 - d. the development of an Internet web site for the posting of daily or weekly inspection reports submitted by both the third-party monitors and each company's environmental inspectors; and
 - e. a discussion of how the monitoring program could incorporate and/or be coordinated with the monitoring or reporting that may be required by other Federal and state agencies.
(page 2-28)
12. Millennium, Empire, Algonquin, and Iroquois shall each establish an environmental mitigation complaint resolution procedure that would be in place throughout construction and restoration of their respective projects. The procedure shall provide landowners and/or abutters with clear and simple directions for identifying and resolving their environmental mitigation problems/concerns during construction of the pipeline facilities and restoration of the ROW. **Prior to construction**, each company shall mail the complaint procedure to each landowner whose property would be crossed by the project and abutters whose properties are adjacent to a road or utility ROW that would be used for installation of the pipeline. The complaint resolution procedure must:
- a. include a local contact (and telephone number) and each pipeline company's "hotline" contact (and toll-free telephone number) that the landowner/abutter shall first call with his/her concerns;
 - b. indicate how long it would take after complaints/inquiries are made for the pipeline company to respond;
 - c. indicate that the response would inform the caller how and when problems were or would be resolved; and

- d. instruct the landowner/abutter that if they are still not satisfied with the response from contacting the pipeline company's "hotline," then the Commission's Enforcement Hotline may be contacted at (877) 303-4340.

In addition, each pipeline company shall include in its weekly status report a table that contains the following information for each problem/concern reported:

- a. the identity of the caller and the date of the call;
 - b. the alignment sheet number, property identification number, and MP/survey station number of the property;
 - c. a description of the concern/problem; and
 - d. an explanation of how and when the problem was resolved, or why it has not been resolved. (page 2-64)
13. **Prior to construction**, Millennium, Empire, and Algonquin shall update the list of residences within 50 feet of the proposed facilities, and adopt the following measures to minimize the impact on residences within 50 feet of the construction ROW for their respective projects:
- a. avoid removal of trees and landscaping unless necessary to construct the pipeline or for the safe operation of the construction equipment;
 - b. restore all lawns, landscaping areas and driveways within the construction ROW area promptly after backfilling the trench; and
 - c. install and maintain construction fencing at the edge of the construction ROW for a distance of 100 feet on either side of the residence and at a minimum maintain this fencing throughout the open trench phases of the pipe installation. (pages 4-155, 4-171, 4-180)
14. For any residence within 25 feet of the construction workspace, Millennium, Empire, and Algonquin shall file a site-specific plan with the Secretary for the review and written approval of the Director of OEP **before construction** for their respective projects. The plan shall include:
- a. a description of construction techniques to be used (such as reduced pipeline separation, centerline adjustment, use of stone-pipe or drag-section techniques, working over existing pipelines, pipeline crossover, bore, etc.), and include a dimensioned site plan that shows:
 - i. the location of the residence in relation to the new pipeline and, where appropriate, the existing pipelines;
 - ii. the edge of the construction workspace;
 - iii. the edge of the new permanent ROW; and
 - iv. other nearby residences, structures, roads, or waterbodies.
 - b. a description of how the company would ensure the trench is not excavated until the pipe is ready for installation and the trench is backfilled immediately after pipe installation; and
 - c. evidence of landowner concurrence if the construction workspace and fencing would be located within 10 feet of a residence. (pages 4-156, 4-171, 4-180)
15. Millennium, Empire, Algonquin, and Iroquois shall file with the Secretary the location by MP of all drinking water wells and springs within 150 feet of the construction work area and include their distance and direction from the construction work areas for their respective projects, **before construction**. (pages 4-32, 4-39, 4-42, 4-46)
16. Millennium, Empire, and Algonquin shall include in its weekly construction progress reports any complaints concerning water supply yield or quality and how each was resolved. **Within 30 days of placing the facilities in service**, each company shall file a summary report identifying all

potable water supply systems damaged by construction and how they were repaired for their respective projects. (pages 4-34, 4-39, 4-44)

17. Millennium, Empire, Algonquin, and Iroquois shall **defer** implementation of any cultural resource treatment plan/measure (including archaeological data recovery), construction or use or all staging, storage and temporary work areas or new or to-be-improved access roads for their respective projects **until**:
 - a. each company files with the Secretary all additional required cultural resource inventory, evaluation reports, and any necessary treatment plans and the SHPO comments;
 - b. the Director of OEP reviews and approves all reports and plans and notifies the companies in writing that treatment plans/measures may be implemented or construction may proceed.
 - c. all material filed with the Commission containing location character and ownership information about cultural resources must have the cover and any relevant pages therein clearly labeled in bold lettering: “CONTAINS PRIVILEGED INFORMATION—DO NOT RELEASE.” (pages 4-205, 4-209, 4-211, 4-213)

Millennium/Columbia Conditions

18. Millennium shall use the proposed NYSEG Chemung Route Variation (MP 198.0 to MP 203.6), the NYSEG Tioga-Broome Route Variation (MP 232.2 to MP 245.0), and the NYSEG Delaware Route Variation (MP 284.4 to MP 284.9) rather than the segment of the original, approved Millennium Pipeline Project route between these MPs. (page 3-11)
19. Millennium shall acquire from Columbia and continue to use the approximate 7.1-mile-long segment of 24-inch-diameter Line A-5 pipeline between MPs 340.5 and 347.7 rather than replace this segment with new 30-inch-diameter pipeline. (page 3-11)
20. Millennium shall use the proposed Warwick Isle Route Variation (MP 350.8 and MP 351.6) rather than the segment of the original, approved Millennium Pipeline Project route between these mileposts. (page 3-12)
21. Columbia/Millennium shall incorporate the Sterling Forest ® State Park/Laurel Ridge Alternative between Millennium (MPs 367.8 and 368.5) of the Line A-5 Replacement Project portion of the Millennium Pipeline Project – Phase I. Columbia/Millennium shall consult with the FWS to determine the need for any additional surveys for federally-listed threatened or endangered species, and with the SHPO to determine the need for additional cultural resource surveys along the Sterling Forest ® State Park/Laurel Ridge Alternative. Columbia/Millennium shall file with the Secretary, for written review and approval by the Director of OEP, revised construction alignment sheets that show the modified route and workspaces, **prior to construction** in this area. (page 3-18)
22. Columbia/Millennium shall incorporate the Ramapo River HDD Variation (MPs 369.4 and 370.3) of the Line A-5 Replacement Project portion of the Millennium Pipeline Project -- Phase I Project. Columbia/Millennium shall consult with the FWS to determine the need for any additional surveys for federally-listed threatened or endangered species, and with the SHPO to determine the need for additional cultural resource surveys along the Ramapo River HDD Variation. Columbia/Millennium shall file with the Secretary, for written review and approval by the Director of OEP, revised construction alignment sheets that show the modified route and workspaces, **prior to construction** in this area. (page 3-22)

23. Millennium shall develop a site-specific plan for construction and restoration across the Supa property (approximate MP 242.0). In developing the plan, Millennium shall consider alternative construction methods, such as the stove-pipe method, and limited access across the Supa property along the construction ROW after construction. Millennium shall file the site-specific plan with the Secretary for review and written approval of the Director of OEP **prior to construction** in this area. (page 4-37)
24. Millennium shall file with the Secretary a plan for the crossing of any waterbody where the HDD is unsuccessful. This shall be a site-specific plan that includes scaled drawings identifying all areas that would be disturbed by construction. Millennium shall file this plan concurrent with its application to the COE and NYSDEC for a permit to construct using this plan. The Director of OEP must review and approve this plan in writing before construction of the crossing using this plan. (page 4-62)
25. Millennium shall file with the Secretary **prior to construction** a list of the waterbodies where equipment bridges would be installed to facilitate tree clearing along the construction ROW between October 1 and March 30 to avoid impacting the federally endangered Indian bat, and provide documentation of approval of this activity from the NYSDEC. (page 4-62)
26. Millennium shall provide the National Park Service, Delaware Scenic and Recreational River with an initial waterbody crossing schedule for Delaware River tributary crossings and to provide updates to that schedule as may be needed in a manner consistent with section II.A.2 of our Procedures. (page 4-69)
27. Millennium shall conduct tree clearing during the period of October 1 to March 30, to minimize adverse affects on the Indiana bat in the areas of known bat activity, between MPs 346 and 363. Future maintenance activities that involve tree removal, pruning, or similar activities, shall be scheduled to occur between October 1 and March 30 to avoid disturbing roosting bats. Millennium shall employ the services of a qualified bat scientist to investigate trees and/or conduct other surveys as may be recommended by the FWS for the presence of Indiana bats if removal of a limited number of trees is necessary between April 1 and September 30, to avoid a take of bats. (page 4-117)
28. Millennium shall install turtle exclusion fencing during the bog turtle window of activity (April 15 to October 31), where Wetland W611 borders the project construction area. Further, Millennium shall employ a bog turtle monitor to be on hand when construction coincides with the bog turtle window of activity (April 15 to October 31), to conduct a daily preconstruction survey of the Wetland W611 project site and to provide daily monitoring and relocation of bog turtles to suitable habitat outside the Wetland W611 construction area when necessary. (page 4-117)
29. If blasting is required in designated bald eagle activity areas when bald eagles are present, Millennium shall develop in consultation with the NYSDEC and FWS a bald eagle activity area construction plan that identifies the MP locations where blasting would occur within bald eagle activity areas and a schedule of when blasting would occur. The bald eagle activity area construction plan and all associated consultation documents shall be filed with the Secretary **before construction**. (page 4-118)
30. Millennium shall consult with the FWS and NYSDEC at least one month before the start of construction to determine if any additional bald eagle nests have been found in the vicinity of the project area. Documentation of the results of this consultation shall be filed with the Secretary **before construction**. (page 4-118)

31. Millennium shall file a post-construction noise survey with the Secretary **no later than 60 days** after placing its new compressor station in Corning, New York, in service. If the noise attributable to the operation of both Millennium's Compressor Station and the adjacent existing Columbia Corning Compressor Station at full load exceeds an L_{dn} of 55 dBA at any nearby NSAs, Millennium shall install additional noise controls to meet the level **within 1 year** of the in-service date. Millennium shall confirm compliance with this requirement by filing a second noise survey with the Secretary **no later 60 days** after it installs the additional noise controls. (page 4-232)

Empire Conditions

32. Empire shall file with the Secretary, **prior to construction across Ganargua Creek**, a site-specific plan for completing the crossing of the creek at CMP 3.6 and wetland 80B for review and written approval of the Director of OEP. The plan shall include scaled drawings identifying all areas and resources that would be disturbed by construction workspaces including pipe lay down areas. The Ganargua Creek crossing plan shall also be provided to the COE and NYSDEC for their review. Any comments Empire receives from these agencies shall be filed with the Secretary. (page 4-72)
33. Empire shall file with the Secretary shall site-specific plans for completing the crossings of Canandaigua Outlet (CMP 15.1) and Keuka Lake Outlet (CMP 40.6) by HDD, prior to construction of the waterbody crossings for review and written approval by the Director of OEP. The plans shall include scaled drawings identifying all areas and resources that would be disturbed by construction workspaces including pipe lay down areas. (page 4-72)
34. Empire shall file with the Secretary, **prior to construction of the waterbody crossing**, site-specific plans for completing the crossing of Shequaga Creek (CMP 67.0) by a bored crossing, for review and written approval of the Director of OEP. The plan shall include scaled drawings identifying all areas and resources that would be disturbed by construction workspaces. (page 4-73)
35. Empire shall file with the Secretary for review and written approval of the Director of OEP, site-specific restoration plans, including scaled drawings, for the crossing of Glen Creek (CMP 62.9) and Townsend Creek (CMP 63.8) that describe and show the areas that would be affected by restoration and how these areas would be restored, **prior to construction of the waterbody crossings**. Also, Empire shall provide any correspondence concerning this issue with the NYSDEC and the COE. (page 4-74)
36. Empire shall file with the Secretary, **prior to construction of the Oakfield Compressor Station**, a final site-specific plan for the access road to the proposed Oakfield Compressor Station, Genesee County, New York, which identifies how it would cross the unnamed waterbody on a permanent and temporary basis and identifies all of the temporarily and permanently affected areas for review and written approval of the Director of OEP. (page 4-76)
37. Empire shall consult with the COE to develop a wetland mitigation plan, consistent with that prepared for the Millennium Pipeline Project Phase I, to compensate for impacts to forested wetlands. The plan shall include on-site restoration of all affected wetlands, as well as off-site forested wetland acquisition, at a minimum ratio of 2:1, and forested wetland creation, at a minimum ratio of 1:1, for the total acreage of forested wetlands that would be converted to non-forested wetland communities, and shall address restoration of temporary workspaces. Empire shall file the final wetland mitigation plan with the Secretary as soon as they are available. (page 4-141)

38. Empire shall make all reasonable efforts to assure its predicted noise levels from the Oakfield Compressor Station are not exceeded at nearby NSAs, and file a noise survey with the Secretary **no later than 60 days** after placing the new compressor station in-service. However, if the noise attributable to the operation of the compressor station at full load exceeds an L_{dn} of 55 dBA at any nearby NSAs, Empire shall file a report on what changes are needed and install additional noise controls to meet that level **within 1 year** of the in-service date. Algonquin shall confirm compliance with the L_{dn} of 55 dBA requirement by filing a second noise survey with the Secretary **no later than 60 days** after it installs the additional noise controls. (page 4-235)
39. Empire shall file with the Secretary for review and written approval of the Director of OEP site-specific plans identifying how noise would be reduced during horizontal directional drilling at Canandaigua Outlet and Keuka Lake Outlet **prior to construction of the crossings**. The plan shall include projected daytime and nighttime noise levels at nearby residences and mitigation measures that would be used to minimize noise at these residences. (page 4-235)

Algonquin Conditions

40. Algonquin shall use Site F for construction of the Oxford Compressor Station in Oxford, Connecticut. (page 3-58)
41. Algonquin shall file with the Secretary for review and written approval by the Director of OEP, a request for site-specific variances to section V.B.2 of our plan. The request shall include milestone location(s), spacing for the permanent slope breakers, and reasons for the requested variance at the identified location(s). (page 4-27)
42. Algonquin shall expand its SPCC Plan to specifically include a requirement that all construction equipment be inspected daily for leaks. (page 4-44)
43. Algonquin may use extra workspaces within 50 feet of these resources: Mahwah River, AMP 0.54; Intermittent Stream (Wetland 02), AMP 0.76; Intermittent Stream, AMP 1.43; Intermittent Stream, AMP 2.35; Intermittent Stream, AMP 2.95; Intermittent Stream (Wetland 03), AMP 3.26; Intermittent Stream (Wetland 04), AMP 3.29; Intermittent Stream, AMP 4.12; Intermittent Stream, AMP 4.66; and Intermittent Stream, AMP 4.87. However, **prior to the use of these extra workspaces**, Algonquin shall file with the Secretary for review and written approval by the Director of OEP, site-specific plans for each of the identified locations that show the configuration and dimensions of the extra workspaces relative to the waterbody or wetland, the setback from these resources, the proposed pipeline construction ROW, and all existing or proposed pipeline facilities. The site-specific plans shall be included with the pipeline construction alignment sheets. (page 4-79)
44. Algonquin shall conduct tree clearing during the period of October 1 to March 30, to minimize adverse affects on the Indiana bat pending comment by the FWS.. Future maintenance activities that involve tree removal, pruning, or similar activities, shall be scheduled to occur between October 1 and March 30 to avoid disturbing roosting bats. shall (page 4-123)
45. Algonquin may use an additional 25 feet of temporary extra workspace adjacent to the existing Algonquin ROW at these locations: Wetland 01, AMP 0.29 to AMP 0.60; Wetland 02, AMP 0.73 to AMP 0.82; Wetland 03, AMP 3.25 to AMP 3.27; and Wetland 04, AMP 3.28 to AMP 3.31. However, **prior to the use of these extra workspaces**, Algonquin shall file with the Secretary site-specific plans for each location showing all workspaces and the existing and proposed pipeline facilities, for review and written approval by the Director of OEP. Algonquin shall also file with the Secretary concurrence from the COE about the use of these areas. (page 4-144)

46. Algonquin shall consult with the COE to develop a wetland mitigation plan, consistent with that prepared for the Millennium Pipeline Project Phase I, to compensate for impacts to forested wetlands. The plan shall include on-site restoration of affected wetlands, off-site forested wetland acquisition, at a minimum ratio of 2:1, and forested wetland creation, at a minimum ratio of 1:1, for all forested wetlands that would be converted to non-forested wetland communities; and shall also address restoration of temporary workspaces. Algonquin shall file the final wetland mitigation plan with the Secretary as soon as they are available. (page 4-144)
47. Algonquin shall file with the Secretary **prior to construction**, information about any additional pipe/contractor yard(s) it would use to construct the Ramapo Expansion Project including topographic maps showing the pipe/contractor yard locations; and quantified information about impacts on land use, residences, wetlands, wildlife, and vegetation for review and written approval of the Director of OEP. (page 4-177)
48. Algonquin shall file with the Secretary all mitigation plans for construction of the pipeline and restoration of the construction ROW developed with the PIPC for construction in Harriman State Park and with the Rockland County DER for construction in Kakiat County Park **before construction in the parks** for review and written approval of the Director of OEP. (page 4-183)
49. Algonquin shall file a post-construction noise survey with the Secretary **no later than 60 days** after placing the modified Hanover, Stony Point, and Southeast Compressor Stations in service. If the noise attributable to the operation of any of these compressor stations at full load exceeds an L_{dn} of 55 dBA at any nearby NSAs, Algonquin shall install additional noise controls to meet the level **within 1 year** of the in-service date. Algonquin shall confirm compliance with this requirement by filing a second noise survey with the Secretary **no later than 60 days** after it installs the additional noise controls. (page 4-240)
50. Algonquin shall make all reasonable efforts to assure its predicted noise levels from the Oxford Compressor Station are not exceeded at nearby NSAs, and file a noise survey with the Secretary, the Connecticut Siting Council and the Towns of Oxford and Middlebury **no later than 60 days** after placing the new compressor station in-service. However, if the noise attributable to the operation of the compressor station at full load exceeds an L_{dn} of 55 dBA at any nearby NSAs, Algonquin shall file a report on what changes are needed and install additional noise controls to meet that level **within 1 year** of the in-service date. Algonquin shall confirm compliance with the L_{dn} of 55 dBA requirement by filing a second noise survey with the Secretary **no later than 60 days** after it installs the additional noise controls. (page 4-241)

Iroquois Conditions

51. Iroquois shall develop in consultation with the CTDEP, a plan for handling waste materials that may be encountered during construction of any facilities at the Brookfield Compressor Station site on High Meadow Road in Brookfield, Connecticut. This plan should be filed with the Secretary for review and written approval by the Director of OEP, **prior to construction** of the compressor station. (page 4-192)
52. Iroquois shall make all reasonable efforts to assure its predicted noise levels from the Brookfield Compressor Station are not exceeded at nearby NSAs, and file a noise survey with the Secretary and the State of Connecticut Siting Council **no later than 60 days** after placing the new compressor station in-service. However, if the noise attributable to the operation of the compressor station at full load exceeds an L_{dn} of 55 dBA at any nearby NSAs, Iroquois shall file a report on what changes are needed and install additional noise controls to meet that level **within 1 year** of the in-service date. Iroquois shall confirm compliance with the L_{dn} of 55 dBA

- requirement by filing a second noise survey with the Secretary **no later than 60 days** after it installs the additional noise controls. (page 4-243)
53. Before construction and once the final site layout, building design and equipment selection are determined, Iroquois shall file with the Secretary a comprehensive noise analysis showing that the noise levels at nearby NSAs, such as schools (specifically the Whisconier Middle School), hospitals, and residences would not exceed an L_{dn} of 55 dBA, due to the operation of the Brookfield Compressor Station at full load. (page 4-243)
54. Iroquois shall file a post-construction noise survey with the Secretary **no later than 60 days** after placing the modified Dover Compressor Station in service with the proposed additional gas coolers. If the noise attributable to the operation of the modified compressor station at full load exceeds an L_{dn} of 55 dBA at any nearby NSAs, Iroquois shall install additional noise controls to meet the level **within 1 year** of the in-service date. Iroquois shall confirm compliance with this requirement by filing a second noise survey with the Secretary **no later 60 days** after it installs the additional noise controls. (page 4-244)