

B. ENVIRONMENTAL ANALYSIS

1. GEOLOGY AND SOILS

1.1. Geology

The proposed compressor station is located in the Great Valley sub-province of the Valley and Ridge physiographic province. The project site is predominantly glacial deposits and the overburden is thin relative to nearby sites. The topography is characterized by steep-sided, streamlined erosional remnants with relatively flat-lying hollows between them. Elevations at the project site range from 620 feet to 680 feet above sea level.

Bedrock is anticipated to be 5 to 10 feet below ground surface. Rock encountered during construction would be removed using one of the following techniques, depending on the relative hardness, fracture susceptibility, and expected volume of the material:

- conventional excavation with a backhoe;
- ripping with a dozer followed by backhoe excavation;
- hammering with a hydraulic hammer backhoe attachment followed by backhoe excavation; and
- blasting followed by excavation.

Blasting for the project would be conducted in accordance with Millennium's Blasting Plan which can be viewed on eLibrary under this docket (Docket No. CP11-515-000). All blasting would be performed by licensed professionals according to strict guidelines designed to control energy release. Proper safeguards would be taken to protect personnel and property in the area. Charges would be kept to a minimum required to break up the rock. Where appropriate, mats made of heavy steel mesh or other comparable material or trench spoil would be utilized to prevent the scattering of rock and debris. These activities would adhere to all local, state, and federal regulations that apply to controlled blasting and limiting blast vibration near structures and underground utilities.

Mineral/Geologic Resources

The principal resources mined in the project area include sand and gravel. The nearest commercial quarry is approximately 2 miles north of the project site. Movable thicknesses of sand and gravel are not located on site. The project would not impact existing or future extraction of mineral resources. There are no areas of paleontological significance within the vicinity of the compressor site.

Geologic Hazards

No active faults are known to exist in the vicinity of the project area. The closest fault is the Ramapo Fault in Rockland County approximately 40 miles to the east. Based on U.S.

Geological Survey seismic hazard mapping and lack of active faults near the project area, the seismic risk to the proposed compressor station is expected to be low.

The compressor station site is not at a high risk for flooding. According to the Federal Emergency Management Agency flood insurance rate maps, the project site is outside the area that has the lowest probability of flooding. There is one intermittent stream located on the property. Given the location and topography of the site, the stream does not have a large watershed and is not prone to flooding.

The project site has low landslide susceptibility and a low landslide incidence (less than 1.5 percent). Therefore, the proposed compressor station is not at risk from landslides. The soils at the proposed site are not susceptible to liquefaction. Due to the soil characteristics and the low probability of seismic activity, soil liquefaction is not considered a potential hazard to the project.

The bedrock at the project site is not subject to further consolidation or to dissolution, no dewatering is planned, and there is no history of underground mining in the project area. Therefore, there is very low potential for ground subsidence. There is no known karst terrain in the project area.

In conclusion, construction and operation of the project would not result in significant adverse effects on any geologic resources, nor do we anticipate any geologic hazard impacts on the project facilities.

1.2. Soils

There are three soil types affected by the project. The soils are classified as moderately well drained to somewhat excessively drained, with slight to moderate erosion hazard, and moderate revegetation and compaction potential. None of the soils are classified as hydric or prime farmland.

Approximately 4.05 acres of active agricultural land would be permanently impacted by the proposed compressor station and access driveway. As the landowner of the project site, Millennium does not anticipate returning any disturbed areas to agricultural production.

Millennium would implement the measures described in its Plan to minimize the potential for soil impacts. This includes installation of temporary erosion controls, including interceptor diversions and sediment filter devices (e.g., hay bales and silt fences) would be installed, as needed, after clearing but prior to initial grading. Millennium would regularly inspect and ensure that these devices are maintained until restoration and revegetation are complete.

Following completion of construction, Millennium would stabilize the site by installing permanent erosion control and the re-establishment of vegetative cover to prevent erosion and sedimentation of the areas outside the aboveground facility. The revegetation of the construction workspace would be done in accordance with our Plan. Additionally, Millennium has initiated consultation with the local Natural Resources Conservation Service to obtain recommended seed mixes, application rates, and planting dates. Once stabilization has been achieved, Millennium would remove temporary erosion control devices. Millennium would monitor the effectiveness of

revegetation and permanent erosion control devices during facility operation. Through adherence to our Plan, we believe the project would not significantly impact soils.

2. WATER RESOURCES

2.1. Groundwater Resources

Millennium proposes to construct its Minisink Compressor Station over the Northwest New Jersey 15 Basin Sole Source Aquifer (SSA), as mapped by the U.S. Environmental Protection Agency (EPA). A SSA is an aquifer that supplies at least 50 percent of the drinking water consumed in an area for which there are no alternative drinking water sources which could physically, legally, and economically supply water to all who depend on the aquifer.

Groundwater in the project area ranges from 5 to 15 feet below ground surface (bgs). This SSA is susceptible to contamination because of the thin or permeable soils and fractured bedrock. The EPA stated in a November 1, 2011 letter to Millennium that this project is not subject to a SSA review under Section 1424(e) of the Safe Drinking Water Act because there is no federal funding.

No private water supply wells occur within 150 feet of the disturbed site, nor do any public water supply wells occur within 1.5 miles of the project area. Millennium would drill a drinking water well and dispose of sewage through an underground septic system constructed according to state and local requirements. The well and septic system would be similar to that of residential systems.

The greatest risk of groundwater contamination from construction or operation of the project would be from potential spills or leaks of hazardous materials. Millennium would construct its project according to our Plan, our Procedures, and its SPCC Plan. Millennium's SPCC Plan ensures proper inspection and maintenance of equipment; fuel and material storage; spill response; and notification of appropriate federal, state, and local agencies should a spill occur.

We received several comments from concerned landowners adjacent to the project regarding groundwater impacts from project construction and operation. As commented on by concerned landowners, Millennium's SPCC Plan would only require them to report spills above a government stated reportable quantity. Millennium would, however, be required to contain and clean any spill of hazardous materials at its site, regardless of spill size in accordance with its SPCC Plan. Because no wells are within the immediate area and it would implement its SPCC Plan, we believe Millennium would adequately minimize and eliminate impacts on groundwater.

Millennium identified a leaking underground storage tank about 0.25 mile from the proposed site. This site is listed as closed by the New York State Department of Environmental Conservation (NYSDEC). We believe the limited scope of this project would have no effect on the listed site.

Millennium would hydrostatically test its facilities with about 85,000 gallons of water from off-site sources delivered to the site in tanker trucks. This water would be discharged in accordance with its National Pollution Discharge Elimination System permit and our Procedures to minimize the likelihood of any erosion.

2.2. Surface Water and Wetlands

One 2-foot-wide intermittent stream would be crossed with equipment mats during construction and Millennium would install a culvert for the stream crossing of the permanent access road. No other waterbodies, springs, or seeps would be impacted by the project.

Wetlands are areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and normally do support, a prevalence of wetland vegetation adapted for life in saturated soil conditions. Wetlands are a source of substantial biodiversity and serve a variety of functions that include providing habitat for wildlife, recreational opportunities, flood control, and naturally improving water quality.

Wetlands are regulated at the federal and state levels. On the federal level, the U.S Army Corps of Engineers has authority under Section 404 of the Clean Water Act (CWA) to review and issue permits for activities that would result in the discharge of dredge or fill material into waters of the United States, including wetlands. Section 401 of the CWA requires that proposed dredge or fill activities under Section 404 be reviewed and certified by the designated state agency (NYSDEC) to ensure that the proposed project would meet state water quality standards.

Millennium would impact one palustrine emergent (PEM) wetland and one palustrine scrub/shrub (PSS) wetland, associated with the intermittent stream crossing, during construction of the access road. PEM wetlands are characterized by herbaceous vegetation, while PSS wetlands are dominated by woody vegetation less than 20 feet tall. Construction and operation of the project would impact and fill a total of 0.09 acre of PEM and PSS wetlands from installation of a paved access driveway with a culvert. No other wetlands would be impacted by the project.

Millennium would implement our Procedures to minimize impacts on wetlands and waterbodies. Measures contained in the Procedures include:

- limiting the time equipment and construction activities occur within wetlands to minimize soil disturbance;
- installing temporary erosion and sediment control barriers;
- stabilizing upland areas near wetlands with permanent erosion control measures and vegetative cover; and
- repairing any erosion control features as needed until permanent revegetation is successful.

We believe Millennium's proposed project location and implementation of our Procedures would adequately minimize construction impacts on wetlands and waterbodies. In addition, we believe that the minor wetland impacts associated with the permanent access road would be minimized and/or compensated for by implementing the construction, restoration, and mitigation measures within Millennium's Procedures and as included in any Section 404 permit.

3. VEGETATION AND WILDLIFE

3.1. Vegetation

The Project would impact about 10.6 acres of vegetation during construction and about 4.5 acres during operation. Table 2 depicts the vegetation uses and acreage that would be affected by the project.

| Table 2: Vegetation Affected by the Project | | |
|--|-----------------------------|--------------------------|
| Habitat Type | Construction (acres) | Operation (acres) |
| Agricultural land | 9.83 | 4.05 |
| Woodland | 0.36 | 0.27 |
| Utility Corridor/Open Space | 0.28 | 0.08 |
| Upland Scrub/Shrub | 0.08 | 0.0 |
| Palustrine Scrub/Shrub Wetlands | 0.06 | 0.06 |
| Palustrine Emergent Wetlands | 0.03 | 0.03 |
| Total | 10.64 | 4.49 ¹ |

1 Millennium would allow the remaining 6.15 acres of land to revert to open space.

The majority of vegetation impacts would be on agricultural land composed of hay and alfalfa fields. Millennium has minimized impacts on the the forested areas at the site and it would revegetate about 6 acres of the disturbed area in accordance with Natural Resource Conservation Service seeding guidelines. While Millennium would permanently convert about 4.5 acres of upland vegetation to industrial use, these vegetative species are plentiful in the project area. Therefore, we believe impacts on upland vegetation would not be significant.

3.2. Wildlife

Wildlife species inhabiting the project area are characteristic of the vegetation communities, which is predominantly agricultural land. Representative wildlife species include song and game birds, deer, bear, fox, raccoons, skunks, voles, turtles, and snakes.

Migratory raptor, game, and songbird species are protected under the Migratory Bird Treaty Act (MBTA) and Executive Order 13186 (section 66 of the Federal Register, part 3853). The MBTA protects species or families of birds that live, reproduce, or migrate within or across international borders during their life cycle. Under authority of the MBTA, it is unlawful to take, kill, or possess migratory birds, their parts, nests, or eggs. The executive order was enacted, in part, to ensure that environmental analysis of federal actions evaluate the impacts of actions and agency plans on migratory birds. It also states that emphasis should be placed on species of concern, priority habitats, and key risk factors and it prohibits the take of any migratory bird

without authorization from the U.S. Fish and Wildlife Service (FWS). The destruction or disturbance of a migratory bird nest that results in the loss of eggs or young is also a violation of the MBTA.

Millennium's construction timing could disrupt breeding of bird species on or adjacent to the proposed site. Habitat change caused by construction and operation of the project facilities may directly impact individuals of migratory bird species if construction were to occur during a species' nesting period. However, Millennium would limit construction activities to a fairly small area, and its Minisink Compressor Station would mostly be constructed within agricultural land, which is routinely disturbed by mowing activities. No forest interiors and only 0.36 acre of forested habitat would be impacted by project construction. Although some migratory birds could be affected during project construction, we believe that Millennium's proposed project location would have minimal impacts on migratory birds. Further, our Indiana bat recommendation below could further minimize the likelihood of tree nesting birds being directly impacted. Additionally, Millennium would implement our Plan during operation of the project, which would prohibit vegetation maintenance of the project area during typical breeding seasons (i.e., between April 15 and August 1). Therefore, we believe Millennium's construction and operation measures would meet the intent of Executive Order 13186 and minimize any disruption of migratory birds.

We anticipate minor impacts on wildlife species in the project area from construction and operation, and would not expect any project impacts on wildlife at a community or population level.

3.3. Special Status Species

Special status species are those species for which state or federal agencies afford an additional level of protection by law, regulation, or policy. Included in this category are federally listed species that are protected under the Endangered Species Act (ESA), as amended, federal candidate species, and state sensitive species. Millennium, acting as the FERC's non-federal representative for the purpose of complying with Section 7(a)(2) of the ESA, initiated informal consultation with the FWS and NYSDEC's Division of Fish, Wildlife and Marine Resources, and it reviewed the New York State National Heritage Program's database regarding federal and state-listed species within the potential project area.

Section 7 of the ESA requires the lead federal agency (i.e., FERC) to ensure that any action authorized, funded, or carried out by the agency does not jeopardize the continued existence of a federally listed endangered or threatened species, or result in the destruction or adverse modification of the designated critical habitat of a federally listed species. The agency is required to consult with the FWS to determine whether any federally listed endangered or threatened species or any of their designated critical habitats are located in the vicinity of the project, and to determine the proposed action's potential effects on those species or critical habitats.

Based on Millennium's consultation, the federally endangered Indiana bat, federally threatened bog turtle, and federally threatened small whorled pogonia have the potential to occur in the project area. However, Millennium did not identify any suitable habitat for the bog turtle (2006 Phase I Survey) or the small whorled pogonia (March and April, 2011 field surveys). Based on our independent review of the survey reports, we believe the project would have *no effect* on the bog turtle or small whorled pogonia.

The Indiana bat was listed as federally endangered throughout its range on March 11, 1967. It is a medium-sized bat closely resembling the little brown bat, but differing in coloration, and hind foot size; and the calcar (heel of the foot) is strongly keeled on the Indiana bat. The Indiana bat occurs in the Midwest and eastern United States from the western edge of the Ozark region in Oklahoma, to southern Wisconsin, east to Vermont, and as far south as northern Florida.

Indiana bats hibernate during the winter in caves or abandoned mines. After hibernation, Indiana bats migrate to their summer habitat in wooded areas where they usually roost under loose tree bark on dead or dying trees. The decline of the Indiana bat is attributed to commercialization of roosting caves, wanton destruction by vandals, disturbances caused by increased numbers of spelunkers and bat banding programs, use of bats as laboratory experimental animals, and possibly insecticide poisoning. The Indiana bat is nearly extinct over most of its former range in the northeastern states.

No abandoned mines or caves occur in the immediate vicinity of Millennium's project. Further, Millennium would impact only 0.36 acre of forest during construction and no significant stands of dead or dying trees were observed in its surveys. In a letter dated June 20, 2011, the FWS stated that because there are known Indiana bat roosts within 0.75 mile of the proposed site, any project related tree removal should occur between October 1 and March 31 to avoid potential direct effects with Indiana bats. Millennium requested a waiver from this restriction to allow construction until April 15; however, the FWS did not agree with this request. Millennium's proposed construction schedule could conflict with the FWS treeclearing timeframe requirement. In order to comply with our responsibilities under Section 7 of the ESA, **we recommend that Millennium conduct all tree removal greater than 5-inch-diameter breast height between October 1 and March 31 and not begin construction of facilities and/or use of any work areas until:**

- a. **the staff completes ESA Section 7 consultation with the FWS relating to the Indiana bat; and**
- b. **Millennium has received written notification from the Director of the Office of Energy Projects (OEP) that construction or use of mitigation may begin.**

Millennium's project would result in operational noise, which could impact Indiana bats in the project vicinity. Millennium's project would result in a noise increase of about 2.5 decibels on the A-weighted scale (dBA), from 39.1 dBA day-night average sound level (L_{dn}) to 41.6 dBA, at about 0.25 mile (less than a 3 decibel increase is not perceptible to the human ear). Millennium's compressor station noise would be less perceptible at the nearest Indiana bat roost (about 0.5 mile from the project). Therefore, we believe that potential noise impacts on the Indiana bat from compressor station operations would be negligible. Further, we believe the project is *not likely to adversely affect* Indiana bats because of the minimal impacts on forested acreage and our recommendation for Millennium to conduct tree clearing in accordance with FWS guidelines and outside of the time of year when Indiana bats would be present.

Local residents have identified bald eagles in the project area. Although no longer on the federal threatened and endangered species list, bald eagles are protected under the Bald and Golden Eagle Protection Act, and the MBTA. Further, bald eagles are listed as threatened by the NYSDEC (NYSDEC a). Bald eagles typically hunt in aquatic habitats where their primary food

source is fish, although they can opportunistically supplement their diet with turtles, birds, and mammals (FWS a). Because of this, they are generally found in coastal areas, bays, estuaries, or near large freshwater lakes and rivers.

According to the National Bald Eagle Management Guidelines (FWS, 2007), eagles exhibit variable individual sensitivity to human disturbing activity. However, bald eagles are most sensitive to disturbance during the breeding season. Potential direct effects on bald eagles include temporary displacement from possible foraging habitats during construction and operation activities, and the disturbance of roosting or foraging birds near the project due to noise and activity of construction. If construction were to occur near active nests, noise and visible activity has the potential to cause nest abandonment, or increased mortality of young if parental care and feeding would be frequently interrupted.

Preferred nest sites for bald eagles are the tops of tall pine trees, usually overlooking or near a large waterbody (NYSDEC b). Bald eagle nests are typically at least 5 feet in diameter, 3 feet tall, and weigh between 500 and 4,000 pounds. The same pair will return to a nest year after year. Bald eagle territories can contain both active nests and alternate constructed nests that are not being actively used.

The lack of large bodies of water capable of supporting a bald eagle in the project's vicinity indicates that the bald eagle sightings in the project area are likely transient eagles (between wintering and nesting habitats). Further, neither the FWS, nor the NYSDEC have identified bald eagle nests in the Minisink area during their annual winter bald eagle surveys and no nests were identified during Millennium's biological survey of the project area. Noise from construction of the project would be temporary, while noise from project operations would be minimized to the extent practicable. Further, air quality impacts associated with construction and operation would be within the state's legal limits (noise and air quality impacts are further discussed in section B.7). Additionally, it is unlawful to take, harm, or harass any bald or golden eagles.

Direct mortality of adults is highly unlikely, but could occur due to impact with vehicles or equipment. Bald eagles are occasionally known to feed on carrion, including roadkill, and are therefore at higher risk of impact from increased vehicle traffic than many other birds. However, Millennium would use existing roadways and the project would result in minor increases in vehicle traffic.

Construction and operation of the proposed project would not destroy or remove any known bald eagle nests or roost trees, but may disrupt foraging activities of individual bald eagles. Additionally, given the distance of the proposed project from known nest locations (7 miles according to the FWS), minimal forested disturbance, no disturbance of perennial waterbodies, and minimal wetlands impacts, we believe the project's impacts on bald eagles would be minimized to the extent practicable. However, if a bald eagle nest be spotted prior to or during construction, Millennium is required to comply with the National Bald Eagle Management Guidelines.

4. CULTURAL RESOURCES

Section 106 of the National Historic Preservation Act, as amended, requires the FERC to take into account the effect of its undertakings on properties listed, or eligible for listing, on the National Register of Historic Places (NRHP), and to afford the Advisory Council on Historic

Preservation (ACHP) an opportunity to comment. Millennium, as a non-federal party, is assisting the FERC in meeting our obligations under Section 106 and its implementing regulations at 36 CFR Part 800.

Millennium completed a cultural resources survey for the proposed project. A 31.2-acre parcel was surveyed for the compressor station site. Survey methodology included surface reconnaissance and excavation of 396 shovel tests. The survey also included a viewshed analysis for aboveground resources. A survey report, which included a literature search and review of historic maps, the NRHP, and files at the State Historic Preservation Office (SHPO) and New York State Museum, was provided to the FERC and the New York SHPO.

As a result of the survey, no artifacts were recovered and no archaeological sites were identified, but a modern springhouse was located within the surveyed parcel. In addition, a historic farm complex consisting of a house, barn, privy, several outbuildings, and the foundation of a razed structure, was identified immediately adjacent to the project area. The survey recorded, described, and photo-documented the farm complex, and the report included a SHPO Historic Resource Inventory Form for the complex. Both the springhouse and the farm complex were recommended as not eligible for the NRHP. The SHPO had initially indicated that the project would have “no effect upon cultural resources in or eligible for inclusion in the National Register of Historic Places.” However, upon receipt of additional information from a concerned citizen (see below comment regarding the “Lewis Lee House”), the SHPO (letter dated December 13, 2011) has indicted that the property is significant under NRHP criterion “A”, and the farmhouse under criterion “C”. Further, the SHPO requested additional information from Millennium regarding the station arrangement and characteristics, and potential physical and visual effects. Millennium has not yet provided this information to the SHPO. **Therefore, we recommend that Millennium not begin construction of facilities and/or use of staging, storage, or temporary work areas and new or to-be-improved access roads until:**

- a. Millennium provides the New York SHPO with the information requested in the SHPO’s December 13, 2011 letter;**
- b. Millennium files with the Secretary of the Commission (Secretary) the information and the SHPO’s comments on the information;**
- c. Millennium files any required avoidance, treatment, or mitigation plan, and the SHPO’s comments on the plan;**
- d. The ACHP is afforded an opportunity to comment if historic properties would be adversely affected; and**
- e. The staff reviews, and the Director of OEP approves the cultural resources report and any plan, and notifies Millennium in writing that treatment plans/mitigation measures may be implemented and/or construction may proceed.**

All materials 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."

Millennium provided a plan to deal with the unanticipated discovery of historic properties and human remains during construction. We requested minor revisions to the plan. Millennium provided a revised plan which we find acceptable.

Millennium contacted the Delaware Nation, Delaware Tribe of Indians of Oklahoma, Stockbridge-Munsee Band of the Mohican Nation of Wisconsin, and the St. Regis Mohawk Tribe regarding the project. The Stockbridge-Munsee Band of the Mohican Nation of Wisconsin responded and requested additional information and a copy of the survey report, which Millennium provided, and also requested to be notified in the event of inadvertent discoveries. In a subsequent letter, the Stockbridge-Munsee concurred that there were no NRHP properties within the project area. The Delaware Tribe of Indians of Oklahoma indicated "that there are no religious or culturally significant sites in the project area", wished to continue as a consulting party, requested a copy of the survey report, and asked to be informed of any inadvertent discovery of human remains. Millennium provided the tribe a copy of the survey report. The unanticipated discoveries plan provides for notification of Native American tribes. No other responses have been received to date. We sent our NOIs to each of the tribes. No responses to our NOIs have been received.

We received a comment concerning the historic farm (which the commenter referred to as the "Lewis Lee House") identified by the survey. The commenter indicated that the farm was locally significant and nominated to the New York State Historic Register, was concerned about impacts to the farm, and also inquired about the survey methods employed. The farmstead and survey methods are discussed above.

We received public comments regarding the historic nature of the Kezialain Farm, visual impacts to the farm, and potential effects on the stone house at the farm from low-frequency noise. The commenters indicate the farm is on New York State's "register of historic buildings". The farm is located about 1.5 miles (according to a commenter) from the proposed compressor station site and would not be impacted by construction. Due to the distance and intervening topography, the compressor station would not be visible from the Kezialain Farm. Low frequency noise is discussed in section 7 of the EA.

5. LAND USE, RECREATION, AND VISUAL RESOURCES

5.1. Land Use

Construction of Millennium's Minisink Compressor Project would disturb a total of about 10.6 acres of land within a 73.4-acre parcel of land for which Millennium has an option to purchase from the current landowner. The parcel primarily consists of agricultural hayfields, but also includes forested land along the northern section of the parcel. This acreage includes disturbance from the suction and discharge pipelines required to interconnect the station with Millennium's mainline. Approximately 4.49 acres of land would be permanently affected by operation of the proposed facility including the pipeline interconnection. Millennium would construct an 830-foot-long private, paved driveway to provide access to the compressor station facility. The proposed access driveway would have a paved width of 16 feet and would be located

within the 4.49-acre area designated for permanent disturbance for operation of the compressor station. Overall, 0.09 acre of forested lands and 3.08 acres of open lands would be converted to permanent industrial land use. Following construction, Millennium would restore and revegetate the disturbed areas not required for operational purposes. In addition, Millennium stated that it would consider entering approximately 42.5 acres of the 73.4-acre parcel of land into a conservation easement. A summary of the impacts on land use are outlined in section 3.1, Table 2.

The project site is located in a rural residential area that is zoned as agricultural/residential by the Town of Minisink. There are about 86 residences within 0.5 mile of the compressor station and there are no industrial facilities comparable to a compressor station in the vicinity of the project area. Millennium's proposed aboveground facility would introduce a new industrial facility into a rural residential area and is incompatible with the current zoning ordinance. Figure 3 shows the location of the compressor station and the surrounding residences (note that a residential development 0.25 miles northwest of the proposed site is currently under construction and would increase the number of residents living in proximity to the proposed compressor station). While existing forest land and topography would obstruct views of the station from most of the surrounding residents, the station would be visible by several residents in close proximity to the station along Jacobs Road (see Visual Resource section below).

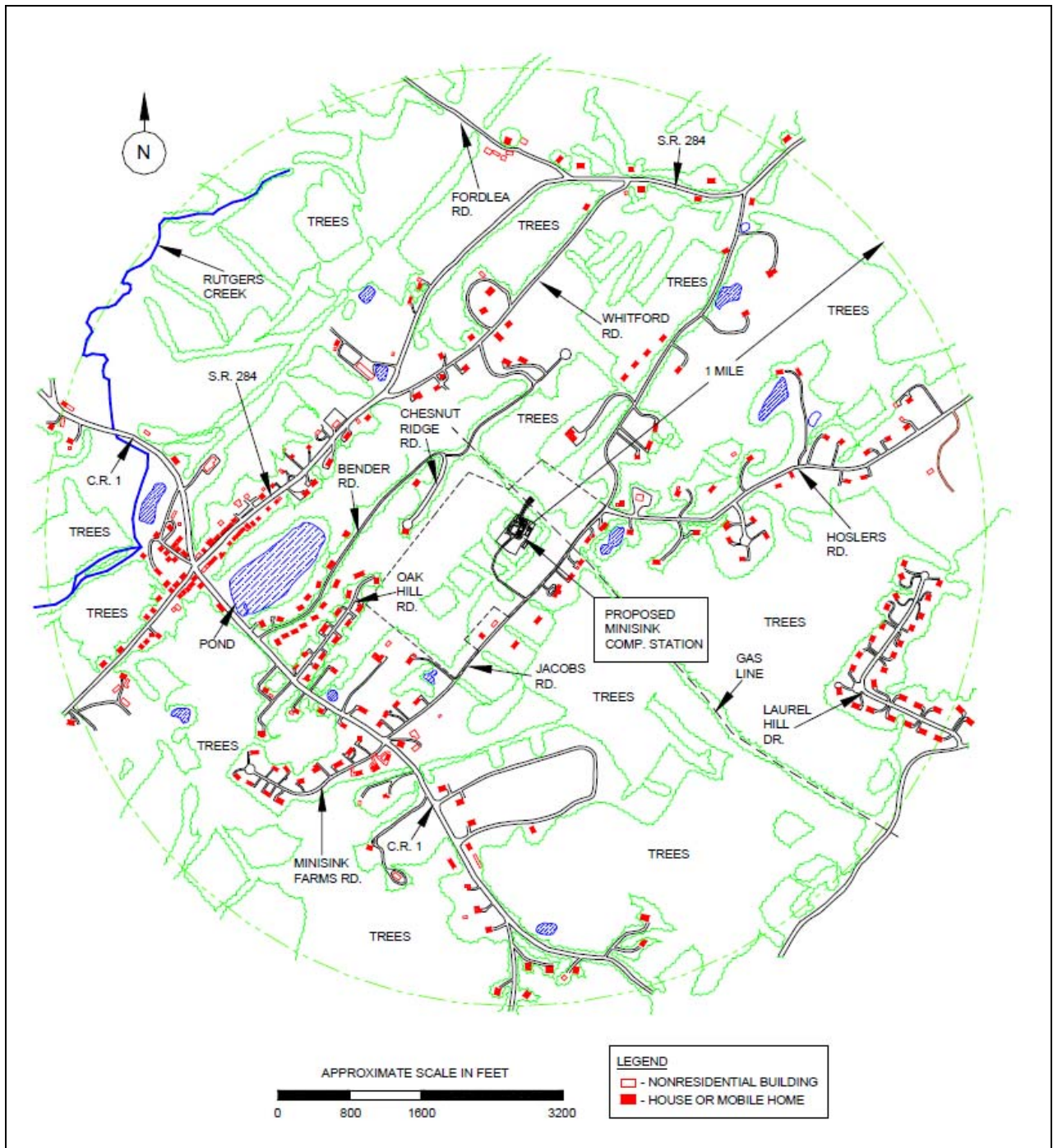


Figure 3: Proposed Compressor Station and Surrounding Residences

Millennium states that under the Minisink Zoning Ordinance there is no zoning district in which the Minisink Compressor Station would be considered as either a permitted use or a conditional use. The Town of Minisink also filed comments indicating that the project does not meet town zoning laws. However, Millennium has informed the Town’s representatives that it is prepared to work cooperatively with them in an effort to reach reasonable accommodations.

There are no recreation or conservation areas on or within the immediate vicinity of the project site.

Millennium estimates that between 75 and 100 workers would be required for the construction of the project. These workers would increase the amount of traffic on local roads during the construction period which is expected to last 6 to 8 months. The minor and temporary increase in traffic would return to normal levels once construction is complete. Commentors were also concerned about potential damage to road surfaces. Jacobs Road has a weight limit of 20 ton (40,000 pounds) and the approximate package shipping weight for each of the compressor units is 32.5 ton (65,000 pounds), so transportation of each compressor unit would exceed the weight limit of the road. Millennium stated that the two uses of Jacobs Road would not result in any material damage to that road. Millennium also stated that it intends to apply for all local and state road permits required to take delivery of the compressor units and that such permits usually require posting of a bond to insure that any damage to the road caused by the permitted use will be repaired. We agree with Millennium's conclusion.

5.2. Visual Resources

The aboveground facilities (compressor building, fencing, and aboveground piping) associated with the project would result in a permanent change in the visual appearance of the project areas and result in long-term impacts on visual resources. The magnitude of these impacts depends on factors such as the existing landscape, the remoteness of the location, and the number of viewpoints from which the facility could be seen. About 5 residences are within the viewshed of the project site. Existing vegetation and topography shield the remaining residences from any direct views of the compressor station site. Several landowners filed general comments about the potential negative visual impact, particularly from those residences along Jacobs Road and within the viewshed of the compressor station site. While existing vegetation partially obstructs views of the site from these residences during the summer and early fall, the aboveground facilities would be clearly seen during the remaining seasons.

Construction would result in temporary visual impacts including increased numbers of company personnel, presence/storage of additional equipment and materials, removal of vegetative and woody cover, and disturbance of soils. These impacts would generally cease following the completion of construction and successful restoration.

Millennium states that it would preserve as many of the existing trees and as much of the vegetation along the compressor station property boundary in order to aid in screening views of the site from points along the roadway and adjacent residences. The facility buildings would look like metal pole barn buildings with green vertical siding and metal roofs. Lights would be designed to minimize visual effects at night and be as non-intrusive as possible. No lights would be installed on Jacobs Road to illuminate the station access driveway. While Millennium states that its building design and coloration that would blend in with the surrounding landscape, staff believes that Millennium could improve the design of the facility to remain consistent with a rural residential agricultural landscape and structures. We encourage Millennium's ongoing consultation with the Town of Minisink regarding the facility's design. Therefore, **we recommend that:**

Prior to construction, Millennium should file a copy of the final building design and any comments received from the Town of Minisink for review and written approval by the Director of OEP. The final design should include specific measures to blend in with surrounding rural residential agricultural landscape and structures.

Millennium provided a visual simulation depicting the compressor station from various points around the property and from a nearby residential area. During most of the year, the Minisink Compressor Station would be slightly visible from points along Jacobs Road and perhaps from surrounding vantage points in the vicinity of the facility. In the winter, however, the absence of foliage on the trees would make significant portions of the project facilities visible from Jacobs Road and nearby residences resulting in a negative aesthetic impact. Millennium developed a visual screening plan for the compressor station. As part of its plan, Millennium would plant about 127 Norway Spruce and about 28 Colorado Blue Spruce trees along the property boundary adjacent to Jacobs Road and the access road to the compressor station. The trees would provide additional screening of the facility and supplement the existing wooded area along Jacobs Road. A drawing of the visual screening plan is included in appendix A. While we find that the measures detailed in the plan would eventually minimize visual impacts over time, **we are specifically seeking comments from the Town of Minisink on this plan.** Therefore, **we recommend that:**

Prior to construction, Millennium should file a copy of its final landscaping and site screening plan, and any comments received from the Town of Minisink, for review and written approval by the Director of OEP.

If Millennium implements the mitigations recommended above, we conclude that there will be no significant impact on visual resources.

6. SOCIOECONOMICS

Construction would occur over a 6 to 8 month period and would require approximately 75 to 100 total on-site workers. Millennium would not hire any additional permanent employees. Overall, the project may result in short-term, beneficial impacts in terms of employment and local material purchases.

Several commentors expressed concern over the impact of the Minisink Compressor Station on their property values as a result of noise levels or reduced aesthetic appeal. As referenced in the Appraisal Institute's *The Appraisal of Real Estate* (Appraisal Institute 1992), environmental conditions are one of four basic forces which may influence value by impacting the neighborhood of a property or its geographic location, and may be either natural or man-made. Nuisances and hazards are listed as important environmental considerations to be taken into account when performing a real estate appraisal, and may otherwise be referred to as environmental liabilities or environmental impairments. Such factors could likely decrease a home's sales price but it is difficult to precisely quantify the extent of this effect. To our knowledge, there are limited studies specifically evaluating the effect of natural gas compressor stations on property values. However, studies have shown that just as a home's value will be increased if a high-quality scenic vista is enjoyed from the property (e.g., Seiler et al., 2001), the converse is true. Specifically, studies have shown that if a home's scenic vista overlaps with a view of a disamenity, the home might be devalued, as is the case for high-voltage transmission lines (Kroll and Priestley, 1992; Des-Rosiers, 2002). Proximity to the proposed compressor station

could also have an impact on property values if various nuisance effects are prominent, such as noise, health or safety concerns, or other impacts, real or perceived. This could impact property values in the same way as homes near roads might be devalued (Bateman et al., 2001).

Certain prospective home-buyers may find the new compressor station to be a significant detractor and it could influence a potential buyer to not purchase a property in proximity to the Minisink Compressor Station. The compressor station would be located on land owned by Millennium and would not preclude any existing or future use of nearby properties.

Millennium would enclose the facility in a fenced 2.4-acre site on the 72.4-acre parcel. Millennium would hold the remaining acres of land purchased at the compressor station site as a buffer. To further address visual impacts, we recommend in section 5.2 that Millennium file a final building design plan and a final landscaping plan for the Minisink Compressor Station to help screen the station and improve the appearance of the station from nearby roads and residences. We believe that the recommended building design and landscaping plans would eventually minimize the visual impact from the station on the surrounding residential properties and would not significantly reduce property values or resale values.

7. AIR QUALITY AND NOISE

7.1. Air Quality

We received several comments regarding air quality impacts associated with Millennium's Minisink Compressor Station. These are addressed in the following section.

Air quality would be affected by both construction and operation of the proposed facilities. The EPA has established National Ambient Air Quality Standards (NAAQS) for criteria pollutants for the purpose of protecting human health (primary standards) and public welfare (secondary standards). The EPA set NAAQS for the following air contaminants designated as "criteria pollutants": nitrogen dioxide (NO₂), carbon monoxide (CO), ozone (O₃), sulfur dioxide (SO₂), lead (Pb), particulate matter with an aerodynamic diameter less than or equal to 10 microns (PM₁₀), and particulate matter with an aerodynamic diameter less than or equal to 2.5 microns (PM_{2.5}). These NAAQS reflect the relationship between pollutant concentrations and health and welfare effects, and are supported by sound scientific evidence. The state of New York has adopted the NAAQS but maintains a more stringent standard of 0.050 parts per million (ppm) for the annual averaging period for NO₂. New York also regulates non-methane hydrocarbons, where 0.24 ppm is not to be exceeded more than once per calendar year. The states implement and enforce the NAAQS through State Implementation Plans (SIP), which must be approved by the EPA. The state of New York implements its SIP through the NYSDEC.

Air quality control regions (AQCR) are areas established for air quality planning purposes in which SIPs describe how ambient air quality standards would be achieved and maintained. AQCRs were established by the EPA and local agencies, in accordance with section 107 of the Clean Air Act of 1970 and its amendments (CAA), as a means to implement the CAA and comply with the NAAQS through SIPs. The CAA is the basic federal statute governing air pollution. AQCRs are intra- and interstate regions such as large metropolitan areas where improvement of the air quality in one portion of the AQCR requires emission reductions throughout the AQCR. Each AQCR, or portion thereof, is designated based on compliance with the NAAQS. AQCR

designations fall under three categories as follows: “attainment” (areas in compliance with the NAAQS), “nonattainment” (areas not in compliance with the NAAQS), or “unclassifiable/attainment” (areas that cannot be classified on the basis of available information as meeting or not meeting the NAAQS). Areas in nonattainment with the NAAQS for any criteria pollutant are held to more restrictive air emissions limits when determining whether the facility is a major source under federal programs. Table 3 shows the area designations for each criteria pollutant in the AQCR where the project is located.

| Table 3: Attainment Status for AQCR 161 – Hudson Valley Intrastate | |
|---|--------------------------|
| Pollutant | Attainment Status |
| SO ₂ | Attainment/ Unclassified |
| PM ₁₀ | Attainment/ Unclassified |
| PM _{2.5} | Nonattainment |
| NO ₂ | Attainment/ Unclassified |
| CO | Attainment/ Unclassified |
| O ₃ | Nonattainment (moderate) |
| Pb | Attainment/ Unclassified |

New York is also part of the Northeast Ozone Transport Region, a region comprising eleven northeastern states. States in this region are required to submit a SIP and install a certain level of controls for the pollutants that form ozone, even if they meet the O₃ standards.⁴

Existing Air Quality

Air quality data in the project area meets all of the NAAQS with the exception of O₃. Table 4 depicts air quality at various monitors in the regional vicinity of the project area from 2007 to 2009. The data was compiled from the New York State Ambient Air Quality Report for 2009 and the EPA Aerometric Information Retrieval System Database.

⁴ O₃ forms from the reaction between nitrogen oxides (NO_x) and volatile organic compounds (VOC); as a result, controlling O₃ levels in the air depends on limiting NO_x and VOC.

| Table 4: Ambient Air Quality Data for the Minisink Compressor Project Area | | | | | | |
|---|-----------------------------------|-------------------------|-------------------|-------------|-------------|-------------|
| Pollutant | Monitor | Averaging Period | Units | 2007 | 2008 | 2009 |
| CO | Schenectady, NY | 1-hour | ppm | 2.4 | 2.7 | 1.7 |
| | | 8-hour | ppm | 1.7 | 1.8 | 1.2 |
| NO ₂ | Botanical Gardens, Bronx, NY | 1-hour | ppm | 0.084 | 0.083 | 0.086 |
| | | Annual | ppm | 0.024 | 0.023 | 0.022 |
| PM ₁₀ | Scranton, PA | 24-hour | µg/m ³ | 49 | 42 | n/a |
| | | Annual | µg/m ³ | 17 | 17 | n/a |
| PM _{2.5} | Newburgh, NY | 24-hour | µg/m ³ | 30.4 | 26 | 20.6 |
| | | Annual | µg/m ³ | 10.6 | 9.6 | 7.9 |
| O ₃ | Valley Central, Region 3, NY | 8-hour | ppm | 0.083 | 0.080 | 0.066 |
| SO ₂ | Mt. Ninham, Region 3, NY | 1-hour | ppm | 0.026 | 0.018 | 0.024 |
| | | 3-hour | ppb | 17 | 13 | 15 |
| | | 24-hour | ppb | 9 | 7 | 8 |
| | | Annual | ppb | 1.5 | 1.3 | 1.1 |
| Pb | Wallkill/Scotchtown, Region 3, NY | Calendar quarter | µg/m ³ | 0.060 | 0.086 | 0.069 |
| n/a: Data not presently available on either of the above listed websites. | | | | | | |

Air Quality Construction Impacts and Mitigation

Construction of the project would last approximately 6 to 8 months. Air quality impacts associated with construction of the project would result from mobile source emissions from fossil-fueled construction equipment and fugitive dust. The earth moving and other construction equipment would be powered by diesel or gasoline engines that emit a number of pollutants including nitrogen oxides (NO_x), CO, volatile organic compounds (VOC), SO₂, PM₁₀, and PM_{2.5}. Fuel consumption and combustion-related emissions during construction would depend on the type of construction activity and terrain. In addition, many construction activities, such as land clearing, grading, excavation, and vehicle traffic on paved and unpaved, would also generate fugitive dust and impact air quality in the vicinity of the construction sites. The amount of fugitive

dust depends greatly on the type of material being moved, its moisture content, and the wind speed. Estimates of the potential combustion and fugitive dust emissions from construction of the project are detailed in Table 5. The pollutant emissions are shown in tons per year (tpy).

| Table 5: Estimated Construction Air Emissions | | | | | | | | |
|---|-----------------|------------|-----------------|------------------|-------------------|------------|--------------|------------|
| Construction Activity | Tons per Year | | | | | | | |
| | NO _x | CO | SO ₂ | PM ₁₀ | PM _{2.5} | VOC | GHG | HAPs |
| Diesel Construction Equipment Exhaust | 6.2 | 0.5 | 0.3 | 0.6 | 0.6 | 0.5 | 909 | 0.1 |
| On-Road Vehicle Exhaust | 0.3 | 4.7 | 0.0 | 0.0 | 0.0 | 0.2 | 629 | 0.0 |
| Construction Activity Fugitive Dust | 0 | 0 | 0 | 65.9 | 9.9 | 0 | 0 | 0 |
| Surface Preparation Abrasive Blasting | 0 | 0 | 0 | 0.3 | 0.0 | 0 | 0 | 0 |
| TOTAL | 6.6 | 5.2 | 0.3 | 66.8 | 10.5 | 0.8 | 1,538 | 0.1 |

In order to minimize fugitive dust emissions, Millennium committed to implementing mitigation measures such as: using paved roadways to the extent possible, watering soil surfaces and dirt roads, covering haul trucks, minimizing construction vehicle speed, stabilizing disturbed areas, and inspecting and cleaning construction equipment when necessary. Idling of construction vehicles’ engines would be minimized to reduce the impact of exhaust emissions.

Emissions from construction equipment exhaust would be temporary in nature. Once construction activities in the project area are completed, fugitive dust and construction vehicle/equipment emissions associated with the facilities would subside. Therefore, we believe that emissions associated with the construction phase of the project would not result in a significant impact on local air quality.

Air Quality Operation Impacts and Mitigation

Long-term air emissions would result from operation of the two proposed 6,130-hp gas-fired compressor units, the emergency generator, and the fuel gas heater at the Minisink Compressor Station. Table 6 displays the potential-to-emit (PTE) emissions of criteria pollutants and hazardous air pollutants (HAP) for the station. The PTE emissions represent the maximum capacity of a stationary source to emit criteria pollutants, although actual operational emissions may be less.

| Table 6: Estimated PTE Operation Emissions | | | | | | | | |
|---|-----------------------|-------------|-----------------------|------------------------|-------------------------|-------------|---------------|-------------|
| Pollutant | Tons per Year | | | | | | | |
| | NO_x | CO | SO₂ | PM₁₀ | PM_{2.5} | VOC | GHG | HAPs |
| Proposed Turbines | 28.3 | 28.7 | 7.2 | 11.0 | 11.0 | 3.3 | 61,066 | 0.52 |
| Emergency Generator | 0.2 | 0.4 | 0.0002 | 0.004 | 0.004 | 0.1 | 44 | 0.10 |
| Fuel Gas Heater | 0.3 | 0.5 | 0.003 | 0.04 | 0.04 | 0.03 | 641 | 0.01 |
| TOTAL | 28.8 | 29.6 | 7.20 | 11.04 | 11.04 | 3.43 | 61,751 | 0.63 |
| Major Source Thresholds (NNSR/PSD) | 50/250 | NA/250 | NA/250 | NA/250 | 100/250 | 50/NA | NA/100,000 | NA/25 |
| NNSR/PSD - Non-attainment New Source Review/Prevention of Significant Deterioration | | | | | | | | |

Federal and State Air Quality Regulations

During operation, the proposed project facilities would emit quantities of regulated air pollutants and would be subject to federal and state air quality regulations that are driven by the CAA. Air emission sources in New York are regulated at the federal level by the EPA, and at the state level by NYSDEC. The federal and state regulations established as a result of the CAA that are potentially applicable to the project are as follows:

- Nonattainment New Source Review/Prevention of Significant Deterioration;
- Federal Class I Area Protection;
- Title V Operating Permits;
- New Source Performance Standards;
- Greenhouse Gas Mandatory Reporting Rule and Tailoring Rule;
- General Conformity;
- National Emission Standards for Hazardous Air Pollutants; and
- State regulations.

Nonattainment New Source Review and Prevention of Significant Deterioration

New Source Review refers to the pre-construction permitting programs under Parts C and D of the CAA that must be satisfied before construction can begin on new major sources or major modifications are made to existing major sources located in attainment or unclassified areas. This review may include a Prevention of Significant Deterioration (PSD) review. This review process

is intended to prevent new air emission sources from causing existing air quality to deteriorate beyond acceptable levels as codified in the federal regulations. For sources located in non-attainment areas, the Nonattainment New Source Review (NNSR) program is implemented for the pollutants for which the area is classified as non-attainment with the NAAQS.

The PSD review regulations are intended to preserve the air quality in areas where criteria pollutant levels are below the NAAQS that major new or modified stationary sources may contribute to. The PSD regulations apply to new major sources or major modifications of existing major sources located in an attainment area. The PSD regulations (40 CFR 52.21) define a “major source” as any source type belonging to a list of named source categories that emit, or have the PTE, 100 tpy or more of any regulated criteria pollutant. A major source under PSD can also be defined as any source not on the list of named source categories with a PTE equal to or greater than 250 tpy for criteria pollutants. Natural gas transmission compressor stations are not on the list of named categories; therefore, the major source threshold is 250 tpy.

The proposed Minisink Compressor Station would not be a major source; therefore, NNSR and PSD permitting requirements do not apply.

Federal Class I Area Protection

Congress designated certain lands as Class I areas in 1977. Class I areas were designated because the air quality was considered a special feature of the area (e.g., national parks or wilderness areas). These Class I areas are given special protection under the PSD program. The PSD program establishes air pollution increment increases that are allowed by new or modified air pollution sources. If the new source is required to demonstrate compliance with the PSD program requirements and is near a Class I area, the facility is required to demonstrate compliance with the PSD Class I increments. The source is also required to notify the appropriate federal land managers for the nearby Class I areas. The nearest Class I area to the proposed Minisink Compressor Station is the Lye Brook Wilderness Area which is approximately 225 kilometers away. Because the proposed station is more than 100 kilometers from the nearest Class I area and would be a minor source, Millennium is not be required to demonstrate compliance with the PSD Class I increments.

Title V Operating Permit

The Title V Operating Permit Program, as described in 40 CFR 70, requires major sources of air emissions and certain affected non-major sources to obtain a federal operating permit. If a facility’s PTE exceeds the criteria pollutant or HAP thresholds, the facility is considered a major source. The major source threshold level for an air emission source is 100 tpy for criteria pollutants. The major source HAP thresholds for a source are 10 tpy of any single HAP or 25 tpy of all HAPs in aggregate. The Minisink Compressor Project would have a potential to emit less than the Title V major source thresholds. Therefore, the project is not be subject to Title V permit requirements.

New Source Performance Standards

New Source Performance Standards (NSPS), codified at 40 CFR 60, establish emission limits and requirements for monitoring, reporting, and record keeping for specific emission source

categories. NSPS apply to new, modified, or reconstructed sources. NSPS regulations are issued for categories of sources that cause or contribute significantly to air pollution which may reasonably be anticipated to endanger public health or welfare. Subpart KKKK, *Standards of Performance for Stationary Combustion Turbines*, would apply to the proposed two new compressor units at the Minisink Compressor Station because the heat input at peak load would be greater than 10 million British thermal units per hour. The turbines would be required to meet specific emission limits, and performance testing, monitoring, recordkeeping, and reporting requirements would apply. The proposed Minisink Compressor Station would also include the installation of one 625-kilowatt lean-burn natural gas emergency generator. Subpart JJJJ of the NSPS, which deals with internal combustion engines, would apply to this unit and would require certain emission limits. Millennium would be required to comply with the applicable NSPS requirements.

Greenhouse Gases

On September 22, 2009, the EPA issued the final Mandatory Reporting of Greenhouse Gases Rule. It requires monitoring, reporting, and recordkeeping of greenhouse gas (GHG) emissions from suppliers of fossil fuels and facilities that emit greater than or equal to 25,000 metric tons⁵ of GHG per year and greater than 30 million British thermal units per hour.

GHGs occur in the atmosphere both naturally and as a result of human activities, such as the burning of fossil fuels. These gases are the integral components of the atmosphere's greenhouse effect that warms the earth's surface and moderates day/night temperature variation. The primary GHGs produced by fossil fuel combustion are water vapor, carbon dioxide (CO₂), methane, and nitrous oxide. During construction and operation of this project, these GHGs would be emitted from non-electrical construction equipment and any compressors, line heaters, and generators. Emissions of GHGs are typically expressed in terms of CO₂ equivalents (CO_{2eq}), where the potential of each gas to increase heating in the atmosphere is expressed as a multiple of the heating potential of CO₂, or its global warming potential.

Emissions of GHG pollutants associated with the operation of the project were calculated. In addition, GHG emissions were converted to total CO_{2eq} emissions based on the global warming potential of each pollutant. The combustion-related PTE GHG emissions for the proposed equipment at the Minisink Compressor Station would be 61,751 metric tons of CO_{2eq} per year. As such, Millennium would be required to calculate GHG emissions from the combustion sources using the Tier 1 approach, as outlined in the rule, and would submit its GHG report by March 31 of each calendar year, as required.

The EPA has also promulgated the Prevention of Significant Deterioration and Title V Greenhouse Gas Tailoring Rule.⁶ The first phase-in step of the tailoring rule began on January 2, 2011, and required application of PSD or Title V requirements for GHG emissions only if the sources are already subject to PSD or Title V due to their non-GHG pollutants. The second phase-in, which began on July 1, 2011, includes new sources and existing sources not previously subject to Title V that emit at least 100,000 tpy CO_{2eq}. The emissions from the Minisink Compressor

⁵ A metric ton is 2,205 pounds, or approximately 1.1 tons.

⁶ See volume 75 of the federal Register, page 31,514 (June 3, 2010).

Station would not exceed this limit and PSD or Title V permitting requirements would therefore not apply.

General Conformity

The General Conformity Rule, as codified in 40 CFR 93.153, requires a federal agency to demonstrate that every action that it undertakes, approves, permits, or supports will conform to the appropriate SIP. The federal actions would be subject to general conformity if the total direct and indirect emissions of NO_x and VOC, both precursors for O₃, exceeded 100 and 50 tpy, respectively, as specified in 40 CFR 93.153(b)1. The permanent emissions associated with the Minisink Compressor Station would need to be evaluated for applicability of General Conformity program requirements. In addition, the emissions during construction would need to be evaluated for General Conformity applicability. As shown in Table 5 and Table 6, the total NO_x and VOC emissions for the project would be below the thresholds for General Conformity; therefore, a General Conformity determination is not required.

National Emissions Standards for Hazardous Air Pollutants

National Emission Standard for Hazardous Air Pollutants (NESHAP), codified in 40 CFR 61 and 63, regulates HAP emissions. Part 61 defines requirements for industries that emit specific HAPs. Part 61 was promulgated prior to the 1990 CAA Amendments and may be superseded in Part 63. Natural gas transmission and compressor stations are not among the industries listed in Part 61 and do not emit any pollutants listed in Part 61. Therefore, the proposed compressor station is not subject to 40 CFR 61 of the NESHAP requirements.

The 1990 CAA Amendments established a list of 189 HAPs (currently 187 HAPs), resulting in the promulgation of Part 63. Part 63, also known as Maximum Achievable Control Technology standards, defines major source categories that emit HAPs above Title V major source thresholds. A major source under NESHAP is defined as a source with PTE emissions exceeding 25 tpy for all HAPs or 10 tpy for individual HAPs. The Minisink Compressor Station would not be a major source of HAPs and would not be subject to NESHAPs.

State Air Quality Regulations

Title 6, Chapter III, Subchapter B, Part 257 of the New York Codes, Rules and Regulations (NYCRR) outlines air quality standards that are applicable to the proposed project.

Air Quality Impacts

Millennium conducted dispersion modeling for the permanent air emission sources including two combustion turbine stacks, an emergency generator stack, and a fuel gas heater stack. The modeling was conducted with the EPA's AERMOD dispersion model in accordance with NYSDEC's *Guidelines on Dispersion Modeling Procedures for Air Quality Impact Analysis* (NYSDEC, 2006), and EPA's *Guideline on Air Quality Models* (EPA, 2008). The results are presented in Table 7 below.

| Table 7: Air Quality Impact Analysis | | | | | |
|--------------------------------------|------------------|---|---|--|------------------------------------|
| Pollutant | Averaging Period | Modeled Impact Minisink Compressor Station ($\mu\text{g}/\text{m}^3$) | Ambient Background ($\mu\text{g}/\text{m}^3$) | Total Modeled Plus Ambient Background ($\mu\text{g}/\text{m}^3$) | NAAQS ($\mu\text{g}/\text{m}^3$) |
| SO ₂ | Annual | 0.3 | 3.9 | 4 | 80 |
| | 24-hour | 6.3 | 23.6 | 30 | 365 |
| | 3-hour | 10.0 | 44.5 | 55 | 1300 |
| | 1-hour | 10.2 | 46.5 | 57 | 196 |
| PM ₁₀ | 24-hour | 9.7 | 49.0 | 59 | 150 |
| PM _{2.5} | Annual | 0.5 | 10.6 | 11 | 15 |
| | 24-hour | 7.5 | 25.7 | 33 | 35 |
| NO ₂ | Annual | 3.5 | 45.1 | 49 | 100 |
| | 1-hour | 64.2 | 97.2 | 161 | 188 |
| CO | 8-hour | 153.3 | 2,070 | 2,223 | 10,000 |
| | 1-hour | 373.6 | 3,105 | 3,479 | 40,000 |

Several commentors expressed concern about the effect of air emissions from the proposed compressor station on individuals in nearby homes with existing health conditions such as asthma. Other commentors also suggested that we should undertake a health impact analysis. As discussed earlier, the Minisink Compressor Station would not be a major source of air emissions under federal air quality permitting programs. In addition, the total potential emissions from the proposed station would comply with the EPA’s NAAQS, in accordance with the CAA. These standards were established to protect human health and public welfare and take into account “sensitive” populations such as asthmatics, children, and the elderly.⁷

Commentors were also concerned that air emissions could adversely impact organic farms in the area. As previously stated, however, the emissions from the proposed project would comply with the NAAQS which provides protection against damage to crops, vegetation, and animals.⁸

In conclusion, we find that potential impacts on air quality associated with construction and operation of the project would be minimized by strict adherence to all applicable federal and state regulations. Based on the analysis presented above, we believe that the Minisink Compressor Project would not have a significant impact on local or regional air quality.

⁷ <http://www.epa.gov/air/criteria.html>

⁸ <http://www.epa.gov/air/criteria.html>

7.2. Noise

The ambient sound level of a region is defined by the total noise generated within the specific environment and is usually comprised of natural and artificial sounds. At any location, both the magnitude and frequency of environmental noise may vary considerably over the course of a day and throughout the week. This variation is caused in part by changing weather conditions, the effect of seasonal vegetative cover, and human activities.

We received several comments regarding noise impacts of the Minisink Compressor Project. These are addressed in the following section. Construction and operation of the new compressor station would affect overall noise levels in the project area. Two measurements used by federal agencies to relate the time-varying quality of environmental noise to its known effects on people are the equivalent sound level (L_{eq}) and the L_{dn} . The L_{eq} is an A-weighted sound level containing the same sound energy as instantaneous sound levels measured over a specific time period. Noise levels are perceived differently, depending on length of exposure and time of day. The L_{dn} takes into account the duration and time the noise is encountered. Late night through early morning (10:00 p.m. to 7:00 a.m.) noise exposures are penalized +10 decibels (dB) to account for people's greater sensitivity to sound during nighttime hours.

The EPA has indicated that an L_{dn} of 55 dBA protects the public from indoor and outdoor activity interference. We have adopted this criterion and use it to evaluate the potential noise impact from operation of compressor facilities. An L_{dn} of 55 dBA is equivalent to a continuous L_{eq} noise level of 48.6 dBA.

Impacts are determined at receptors known as noise-sensitive areas (NSA). NSAs include residences, schools and day-care facilities, hospitals, long-term care facilities, places of worship, libraries, and parks and recreational areas (e.g., wilderness areas) valued specifically for their solitude and tranquility. Project proponents are required by the Commission to meet an L_{dn} of 55 dBA at the nearest NSAs. It is presumed that NSAs further from the compressor station than the nearest NSA would experience noise levels less than 55 dBA.

There are no state noise ordinances applicable to the proposed project. The Town of Minisink Zoning Law, Section 3.5.1.4 (C), contains a noise ordinance and Millennium stated that the predicted noise levels from the compressor station would meet all but the 4,000 and 8,000 hertz octave band sound pressure levels specified in that ordinance.

Construction Activities

Noise would be generated during construction of the proposed project facilities. While individuals in the immediate vicinity of the construction activities would experience an increase in noise, this effect would be temporary and local. The changing number and type of construction equipment at the site would result in varying levels of noise. Construction activities associated with the project would be performed with standard heavy equipment such as track-excavators, backhoes, bulldozers, dump trucks, and cement trucks. The most prevalent sound source during construction would be the internal combustion engines used to power the construction equipment. Millennium estimated the peak noise level for construction activities at the closest NSA to be approximately 64 dBA. Construction would not affect nighttime noise levels as it would be limited to daylight hours. Although construction noise would exceed 55 dBA at the nearest NSA,

it would be temporary and limited to the daytime; therefore, we conclude that the noise impact from construction would not be significant.

Compressor Station Operation

The land surrounding the Minisink Compressor Station is rural residential and the nearest NSAs are residences. Millennium conducted an acoustical analysis for the proposed compressor station. During the noise survey, audible noise sources at the NSAs included insects, birds, the sound of wind, several aircrafts, and distant traffic noise. The estimated noise attributable to operation of the proposed Minisink Compressor Station at the nearby NSAs is displayed in Table 8. A map of the NSAs is shown in Figure 4.

| Table 8: Noise Quality Analysis | | | | | | |
|--|--|------------------|---|---|--|--|
| NSA | Distance to Compressor Station (feet) | Direction | Ambient L_{dn} (dBA) | Estimated L_{dn} of Compressor Station (dBA) | Station L_{dn} + Ambient L_{dn} (dBA) | Potential Increase Above Ambient (dB) |
| 1 | 650 | E to SE | 42.2 | 39.0 | 43.9 | 1.7 |
| 2 | 1,125 | N/NE | 41.2 | 34.0 | 41.9 | 0.8 |
| 3 | 1,125 | S to SW | 39.9 | 34.0 | 40.9 | 1.0 |
| 4 | 1,175 | W to NW | 39.1 | 33.7 | 40.2 | 1.1 |
| Note: NSA 1 includes 6 residences; NSA 2 includes 1 residence; NSA 3 includes 3 residences; and NSA 4 includes 3 residences. | | | | | | |

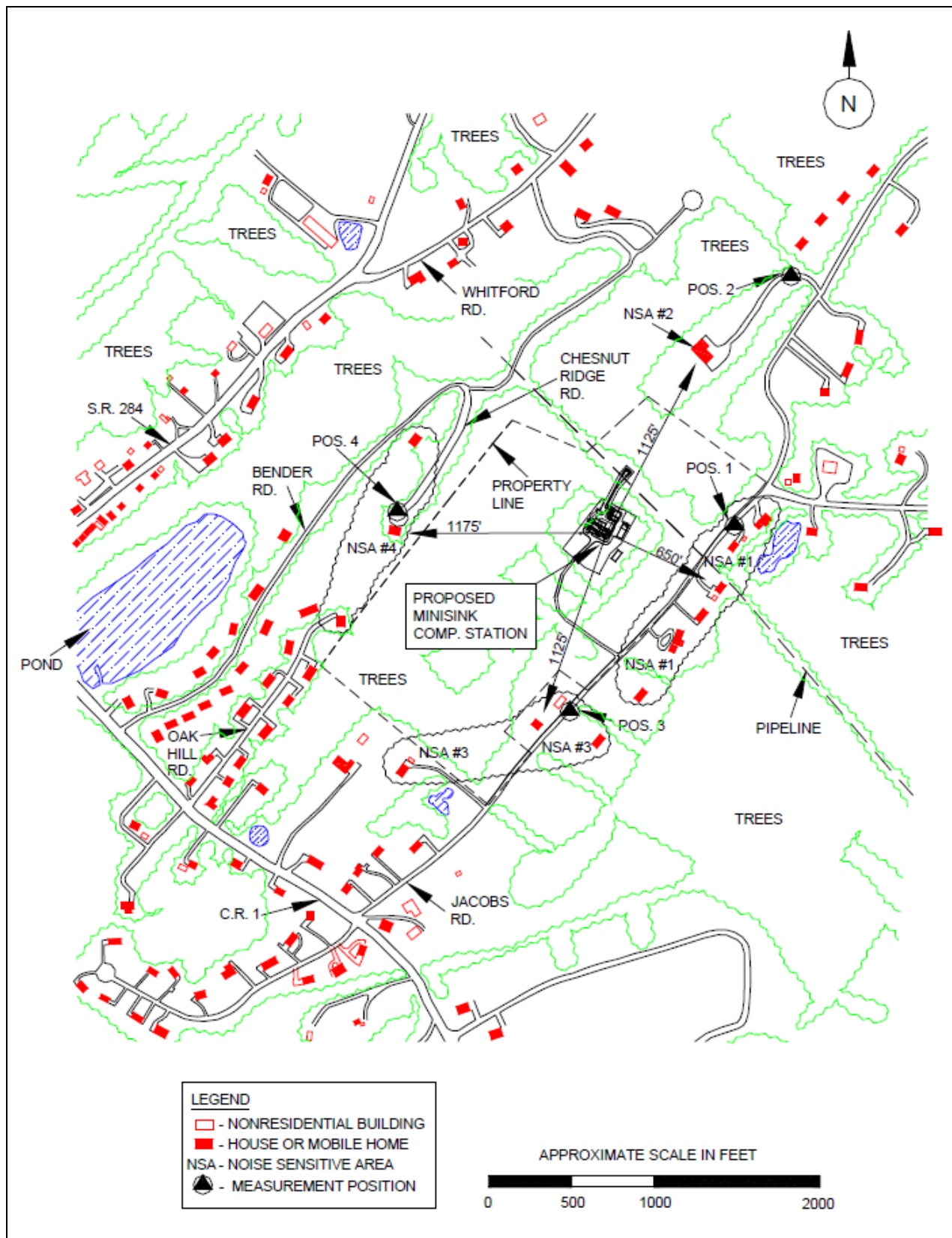


Figure 4: NSAs surrounding the proposed site

The noticeable noise increase threshold for humans is about 3 dB; 5 dB is a clearly noticeable different increase in noise, while an increase of 10 dB is perceived to be a doubling of noise. As shown in Table 8, noise from the proposed Minisink Compressor Station is estimated to be below our noise criterion of 55 dBA, potentially increasing the ambient noise by about 1.7 dB (at the nearest NSA), which would be barely noticeable, if noticeable at all.

In its *Updated Noise Impact Analysis* filed on September 30, 2011, Millennium committed to implementing the following noise-abatement measures to meet the predicted noise levels: addition of internal mass septum layer for the compressor building walls and roof; additional baffle length for the first and second stage exhaust silencers; high performance turbine exhaust and air inlet systems; low noise turbine lube oil coolers; and unit blowdown silencers. Although Millennium's predicted noise levels are well below our standard threshold of 55 dBA, the unusually low ambient noise in the project area would make noise produced by the compressor station more noticeable at lower levels than at many other locations. As described above, a 5 dB noise increase is clearly noticeable for humans. In this instance, the noise attributable to the station may exceed Millennium's design-predicted noise level by more than 15 dB, more than doubling the existing noise at the NSAs, and still be below the 55 dBA threshold. Millennium's commitment to a station design that would limit the resulting noise levels at the NSAs to such a low level is very important. However, due to the potential for a large change to the low ambient noise levels at the NSAs in the vicinity of the station, **we recommend that:**

Millennium should make all reasonable efforts to ensure its predicted noise levels from the Minisink Compressor Station are not exceeded at the nearby NSAs and file noise surveys showing this with the Secretary no later than 60 days after placing the Minisink Compressor Station in service. If the noise attributable to the operation of the Minisink Compressor Station at full load exceeds the predicted noise level at any nearby NSAs, Millennium should file a report identifying what modifications it intends to make in order to meet the predicted level within 1 year of the in-service date. Millennium should confirm compliance with this requirement by filing a second noise survey with the Secretary no later than 60 days after it installs any additional noise controls.

Commentors expressed concern about the possible health and nuisance impacts of vibration emanating from the compressor station while it is in operation. It is possible that mechanical vibrations could potentially affect nearby residences because of their proximity to the new compressor station. To address this concern, **we recommend that:**

Millennium shall file a vibration survey with the Secretary no later than 60 days after placing the Minisink Compressor Station in service. If vibration attributable to the operation of the Minisink Compressor Station is perceptible at any nearby NSAs, Millennium should install/implement additional vibration control mitigation measures within 1 year of the in-service date. Millennium should confirm compliance with this requirement by filing a second vibration survey with the Secretary no later than 60 days after it installs the additional vibration controls.

Landowners near the proposed Minisink Compressor Station expressed concern with the noise levels resulting from compressor station blowdowns. Millennium would incorporate blowdown silencers to minimize noise during planned blowdowns and would notify landowners of

planned blowdowns. To this effect, it has agreed to purchase a licensing agreement with the emergency notification company, CodeRED in which reverse 911 capabilities would be enabled in the area of the proposed compressor station. To ensure landowners receive notification prior to a planned blowdown, **we recommend that:**

Prior to construction, Millennium should develop a landowner notification plan for planned blowdowns of the Minisink Compressor Station in consultation with the Town of Minsink. The plan should include notification procedures for landowners within a 0.5-mile radius of the proposed station at least two business days prior to performing a planned station blowdown. Millennium should file a copy of the plan, and any comments received from the Town of Minisink, with the Secretary.

Based on the estimated sound levels and our recommendations, we believe that the noise attributable to operation of the Minisink Compressor Station would not cause a significant impact on the noise environment in the project area.

8. RELIABILITY AND SAFETY

The transportation of natural gas by pipeline involves some incremental risk to the public due to the potential for release of natural gas. The greatest hazard is a fire or explosion following a major pipeline rupture. During the scoping period, we received several comments regarding the general safety of natural gas compressor stations. These comments are addressed in this section of the EA.

Methane, the primary component of natural gas, is colorless, odorless, and tasteless. It is not toxic, but is classified as a simple asphyxiate, possessing a slight inhalation hazard. If breathed in high concentration, oxygen deficiency can result in serious injury or death. Methane has an auto-ignition temperature of 1,000 degrees Fahrenheit and is flammable at concentrations between 5.0 percent and 15.0 percent in air. An unconfined mixture of methane and air are not explosive; however, it may ignite if there is an ignition source. A flammable concentration within an enclosed space in the presence of an ignition source can explode. It is buoyant at atmospheric temperatures and disperses rapidly in air.

The DOT is mandated to provide pipeline safety under Title 49, U.S.C. Chapter 601. The DOT's Pipeline and Hazardous Materials Safety Administration's (PHMSA) administers the national regulatory program to ensure the safe transportation of natural gas and other hazardous materials by pipeline. It develops safety regulations and other approaches to risk management that ensure safety in the design, construction, testing, operation, maintenance, and emergency response of pipeline facilities. Many of the regulations are written as performance standards which set the level of safety to be attained and allow the pipeline operator to use various technologies to achieve safety. PHMSA ensures that people and the environment are protected from the risk of pipeline incidents. This work is shared with state agency partners and others at the federal, state, and local level. Section 5(a) of the Natural Gas Pipeline Safety Act provides for a state agency to assume all aspects of the safety program for intrastate facilities by adopting and enforcing the federal standards, while section 5(b) permits a state agency that does not qualify under section 5(a) to perform certain inspection and monitoring functions. A state may also act as DOT's agent to inspect interstate facilities within its boundaries; however, the DOT is responsible for enforcement actions. New York State has 5(a) certification.

Under a *Memorandum of Understanding on Natural Gas Transportation Facilities* (Memorandum) dated January 15, 1993, between the DOT and the FERC, the DOT has the exclusive authority to promulgate federal safety standards used in the transportation of natural gas. Section 157.14(a)(9)(vi) of the FERC's regulations require that an applicant certify that it will design, install, inspect, test, construct, operate, replace, and maintain the facility for which a Certificate is requested in accordance with federal safety standards and plans for maintenance and inspection, or shall certify that it has been granted a waiver of the requirements of the safety standards by the DOT in accordance with section 3(e) of the Natural Gas Pipeline Safety Act. The FERC accepts this certification and does not impose additional safety standards other than the DOT standards. If the Commission becomes aware of an existing or potential safety problem, there is a provision in the Memorandum to promptly alert DOT. The Memorandum also provides for referring complaints and inquiries made by state and local governments and the general public involving safety matters related to pipelines under the Commission's jurisdiction.

The FERC also participates as a member of the DOT's Technical Pipeline Safety Standards Committee which determines if proposed safety regulations are reasonable, feasible, and practicable.

The compressor station and aboveground facilities associated with the project must be designed, constructed, operated, and maintained in accordance with the DOT *Minimum Federal Safety Standards* in 49 CFR Part 192. The regulations are intended to ensure adequate protection for the public and to prevent natural gas facility accidents and failures. For example, Part 192 of 49 CFR specifically addresses natural gas pipeline safety issues, prescribes the minimum standards for operating and maintaining pipeline facilities, and incorporates compressor station design, including emergency shutdowns and safety equipment. Part 192 also requires a pipeline operator to establish a written emergency plan that includes procedures to minimize the hazards in a natural gas pipeline emergency. Key elements of the plan include procedures for:

- receiving, identifying, and classifying emergency events, gas leakage, fires, explosions, and natural disasters;
- establishing and maintaining communications with local fire, police, and public officials, and coordinating emergency response;
- emergency system shutdown and safe restoration of service;
- making personnel, equipment, tools, and materials available at the scene of an emergency; and
- protecting people first and then property, and making them safe from actual or potential hazards.

The DOT also requires that each operator establish and maintain liaison with appropriate fire, police, and public officials to learn the resources and responsibilities of each organization that may respond to a natural gas pipeline emergency, and to coordinate mutual assistance. The operator must also establish a continuing education program to enable customers, the public, government officials, and those engaged in excavation activities to recognize a gas pipeline emergency and report it to appropriate public officials. Millennium would provide the appropriate training to local emergency service personnel before the facilities are placed in service.

Comments from the public drew attention to a natural gas leak that was discovered on January 11, 2011 in a section of Millennium's pipeline that transports natural gas from Corning to Ramapo, New York. The leak resulted in the release of 1,328 million cubic feet of natural gas, which did not ignite and there were no injuries, fatalities, or property damage resulting from the leak. On July 6, 2011, PHMSA issued a Notice of Proposed Safety Order proposing that Millennium take certain measures with respect to their pipeline to ensure pipeline safety. October 13, 2011, PHMSA issued a letter recognizing that the proposed engineering analysis and integrity assessment work on the affected segment of the pipeline had been completed and that no actionable anomalies or weld defects were found at any of the excavated locations.

Based on DOT safety regulations and emergency planning requirements described above, we believe that operation of Millennium's compressor station would represent a minimum increase in risk to the public.

9. CUMULATIVE IMPACTS

Cumulative impacts associated with the project would be the result of multiple project impacts on the resources located near the project areas. Although the individual impact of the separate project might be minor, the additive or synergistic effects from multiple projects could be significant. Cumulative impact is the incremental impact on the environment of past, present, and reasonably-foreseeable future projects occurring within the same timeframe and vicinity as the proposed action. The only projects we identified that meet the criteria for this cumulative impact analysis are: an additional compressor station on Millennium's system, the proposed Wayawanda power plant, and nearby residential development. We received comments asking about a 2009 Iroquois Gas Transmission plan for an interconnect with Millennium in Minisink, NY and held an open season. However, to date, FERC has not received an application from Iroquois for the planned NYMarc Project. Therefore, staff has no means to assess additional impacts from the NYMarc Project.

During the scoping process we received numerous comments that Millennium has publically stated its intention to make additional modifications to its system, including an additional compressor station upstream of the proposed Minisink Compressor Station. As stated in Section A.8 of the EA, Millennium has acknowledged its intent to construct a second compressor station by November 2013. At this time, Millennium has not filed an application for such a project with the FERC; therefore, we have very little information about the project. Even so, the potential for significant cumulative impacts would likely be limited to air quality because the stations may be in the same airshed. Given the typical distances between compressor stations (70 miles) and the difference in construction timing, it is unlikely that there would be any cumulative effect on other resources.

We also received comments regarding the possible expansion of the Minisink Compressor Station to provide gas to a proposed CPV Valley LLC Wawayanda Power Plant. According to the February 2009 draft Environmental Impact Statement completed for the CPV Valley Energy Center, two options are available for gas transportation service to the power plant. Millennium could build a 7- or 8-mile pipeline or Orange and Rockland Utilities, Inc. could build a 2- or 3-mile pipeline to the power plant. Although there is no information on a supply pipeline for the power plant, which would be about 6 miles from the Minisink Compressor Station, they may be

within the same geographic area. While the timeframe is unclear when these power plant facilities may be built, they would likely result in some level of disturbance to soils and vegetation, and impact the air, noise, and visual resources in the project area. The extent to which environmental resources would be affected by the developments cannot be quantified without additional development details. Because our analysis of Millennium's facilities indicates that impacts of this proposed project on these resources would be avoided or result in minimal impacts, we believe that cumulative impacts attributable to the compressor station would not be significant.

Residential development within 0.25 miles of the proposed site, along Bender Road and Chestnut Ridge Road, is currently under construction and the expected completion date is unknown since there are still parcels available for purchase. Given the limited scope of the proposed Minisink Compressor Station, staff finds that the cumulative impacts attributable to the compressor station would not be significant.

We did not identify any other projects in the vicinity that would result in cumulative impacts when combined with the Minisink Compressor Project.

C. ALTERNATIVES

The FERC has two possible courses of action in processing a Certificate application. It may grant the application with or without conditions, or deny the application. The FERC will decide among these courses of action, depending on which would best serve the public convenience and necessity.

We considered several alternatives to the proposed action to determine if any were reasonable and preferable to the proposed action. Alternatives discussed in this section include the No-Action Alternative, Systems Alternatives, and Aboveground Facility Alternatives. The evaluation criteria we used for our alternatives analysis are:

- significant environmental advantages over the proposed project;
- technical and/or economic feasibility and practicability; and
- meeting the objective of the project: increase natural gas delivery capacity to Algonquin at Ramapo, New York, to about 675,000 dekatherms per day.

1. NO ACTION ALTERNATIVE

The no-action alternative would result in not implementing the proposed action and would avoid the potential environmental impacts that would be associated with the project; however, the project objectives would not be met. Millennium's customers would likely seek other sources of energy and/or alternative proposals, such as pipelines, to transport the requested volumes of natural gas.

Although a Commission decision to deny the proposed action would avoid the environmental impacts addressed in this EA, other natural gas projects could be constructed to provide a substitute for the natural gas supplies offered by Millennium. Such alternative projects could require the construction of additional and/or new facilities in the same or other locations to transport the gas volumes proposed by the Minisink Compressor Project. These alternatives would