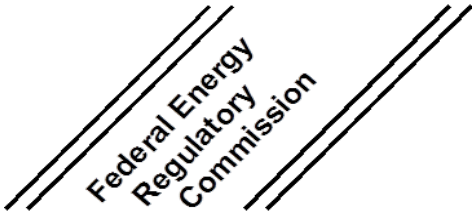

Office of Energy Projects

April 2019

Algonquin Gas Transmission, LLC **Docket No. CP19-13-000**

Yorktown Meter & Regulator Replacement & Reliability Project

Environmental Assessment

Washington, DC 20426

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TECHNICAL ABBREVIATIONS AND ACRONYMS

Algonquin	Algonquin Gas Transmission, LLC
APE	area of potential effects
AQCRs	Air quality control regions
CAA	Clean Air Act
Certificate	Certificate of Public Convenience and Necessity
CFR	Code of Federal Regulations
CH_4	methane
CO	carbon monoxide
CO_2	carbon dioxide
CO_2e	carbon dioxide equivalents
Commission	Federal Energy Regulatory Commission
Con Edison	Consolidated Edison, Inc.
dBA	A-weighted decibel
DOT	U.S. Department of Transportation
EA	environmental assessment
E&SCP	Erosion and Sediment Control Plan
EI	environmental inspector
EPA	U.S. Environmental Protection Agency
ESA	Endangered Species Act
FERC	Federal Energy Regulatory Commission
g	gravity
GHG	greenhouse gas
GWP	global warming potential
HAPs	hazardous air pollutants
Ldn	day-night sound level
Leq	equivalent sound level
M&R	Meter and Regulator
N_2O	nitrous oxide
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act of 1969
NESHAP	National Emissions Standards for Hazardous Air Pollutants
NGA	Natural Gas Act
NHPA	National Historic Preservation Act
NNSR	Nonattainment New Source Review
No.	Number
NO_x	nitrogen oxides
NOI	Notice of Intent to Prepare an Environmental Assessment for the Proposed Yorktown M&R Replacement & Reliability Project and Request for Comments on Environmental Issue
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
NYNHP	New York Natural Heritage Program

NYSDEC	New York Department of Environmental Conservation
OEP	Office of Energy Projects
PGA	Peak ground acceleration
Pipeline	natural gas pipeline
$PM_{2.5}$	particulate matter with an aerodynamic diameter less than or equal
PM_{10}	particulate matter with an aerodynamic diameter less than or equal to 10 microns
Project	Yorktown M&R Replacement & Reliability Project
PSD	Prevention of Significant Deterioration
Secretary	Secretary of the Commission
SHPO	State Historic Preservation Officer
SO_2	sulfur dioxide
SPCC	Spill Prevention Control and Countermeasure Plan
SSA	Sole Source Aquifer
U.S.	United States
USC	United States Code
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
VOC	volatile organic compound

A. PROPOSED ACTION

The Federal Energy Regulatory Commission (Commission or FERC) staff has prepared this environmental assessment (EA) to assess the environmental impacts of the construction and operation of the proposed Yorktown Meter and Regulator (M&R) Replacement & Reliability Project (Project) proposed by Algonquin Gas Transmission, LLC (Algonquin) in Docket Number (No.) CP19-13-000. We[1] prepared this EA in compliance with the National Environmental Policy Act (NEPA) according to the regulations issued by the Council on Environmental Quality at Title 40 Code of Federal Regulations (CFR) 1500–1508 (40 CFR 1500-1508) and the Commission's regulations at 18 CFR 380.

1.0 Introduction

On November 5, 2018, Algonquin filed an application with FERC in Docket No. CP19-13-000 for a Certificate of Public Convenience and Necessity (Certificate) under section 7(c) of the Natural Gas Act (NGA) to replace its existing facilities at the Yorktown M&R Station in Westchester County, New York.

FERC is the lead federal agency for the Project and for the preparation of this EA, as described in 40 CFR 1501.5. The principal purposes for preparing this EA are to:

- identify and assess potential impacts on the natural and human environment which could result from the proposed action;
- identify and recommend alternatives and specific mitigation measures, as necessary, to avoid and minimize project related environmental impacts; and
- facilitate public involvement in the environmental review process.

2.0 Purpose and Need

Under section 7(c) of the NGA, the Commission determines whether interstate natural gas transportation facilities are in the public convenience and necessity and, if so, grants a Certificate to construct and operate them. The Commission bases its decisions on technical competence, financing, rates, market demand, gas supply, environmental impact, long-term feasibility, and other issues concerning a proposed project.

Algonquin's stated Project purpose is to upgrade facilities to allow for increased capacity and reliability to Consolidated Edison, Inc. (Con Edison), an existing shipper on the Algonquin system. The Project would increase the capacity of the Yorktown M&R Station from about 9.5 million standard cubic feet to approximately 31.2 million standard

[1] "We," "us," and "our" refer to the environmental staff of the Commission's Office of Energy Projects.

cubic feet of natural gas per day. Algonquin states that the Project would respond to Con Edison's request for additional capacity at the Yorktown M&R Station.

3.0 Scope of the Environmental Assessment

As the lead federal agency for the Project, FERC is required to comply with Section 7 of the Endangered Species Act (ESA) and Section 106 of the National Historic Preservation Act (NHPA). These statutes have been considered in the preparation of this EA. The Commission will use this document to consider the environmental impacts that could result if it authorizes the Project. In addition to FERC, other federal, state, and local agencies may use this EA for issuing permits for all or part of the proposed Project. Permits, approvals, and consultations for the Project are discussed in section A.8.

The topics addressed in this EA include geology, soils, groundwater, wildlife, vegetation, species of special concern, cultural resources, air quality, noise, land use, aesthetics, reliability and safety, and cumulative impacts. This EA describes the affected environment as it currently exists and the environmental consequences of the Project, and compares the Project's potential impact with that of various alternatives. This EA also presents our recommended mitigation measures.

4.0 Public Comment

On December 20, 2018, the Commission issued *a Notice of Intent to Prepare an Environmental Assessment for the Proposed Yorktown M&R Replacement & Reliability Project and Request for Comments on Environmental Issues* (NOI). The NOI was published in the Federal Register and mailed to federal, state, and local officials; Native American tribes; agency representatives; potentially affected landowners; environmental groups; and local libraries. To date, FERC has not received any comments in response to the NOI.

5.0 Proposed Facilities

Algonquin proposes to replace the existing Yorktown M&R Station with upgraded facilities. The Project would include the replacement of an approximately 1,300-square-foot residential-style brick building that houses the existing M&R facilities and related appurtenances with a new, approximately 1,800-square-foot residential-style building to house a portion of the replacement facilities and an approximately 500-square-foot residential-style building to house replacement facilities including two ultrasonic meters, one low flow meter, a flow control valve, and regulation facilities.

The replacement of the existing Yorktown M&R Station would require the installation of temporary bypass facilities within the existing pipeline right-of-way. Algonquin would also remove the existing gas-fired heater and other appurtenant

facilities and install two new natural gas catalytic heaters, one new filter/separator, and one new natural gas-fired emergency generator. Once construction activities are complete for the new M&R facilities and the Project placed into service, Algonquin would remove all of the temporary bypass facilities.

An overview map of the Project is provided on figure 1 below.

6.0 Land Requirements

The Project would affect 2.5 acres of land during construction activities. This includes approximately 0.7 acre on Con Edison's property, upon which the existing Yorktown M&R Station is located, and 1.8 acres within and adjacent to Algonquin's pipeline right-of-way for temporary workspace. The new Project facilities would occupy 0.2 acre, all within Con Edison's property. See section B.5 (Land Use), for more information.

7.0 Construction Procedures

7.1. Construction Schedule

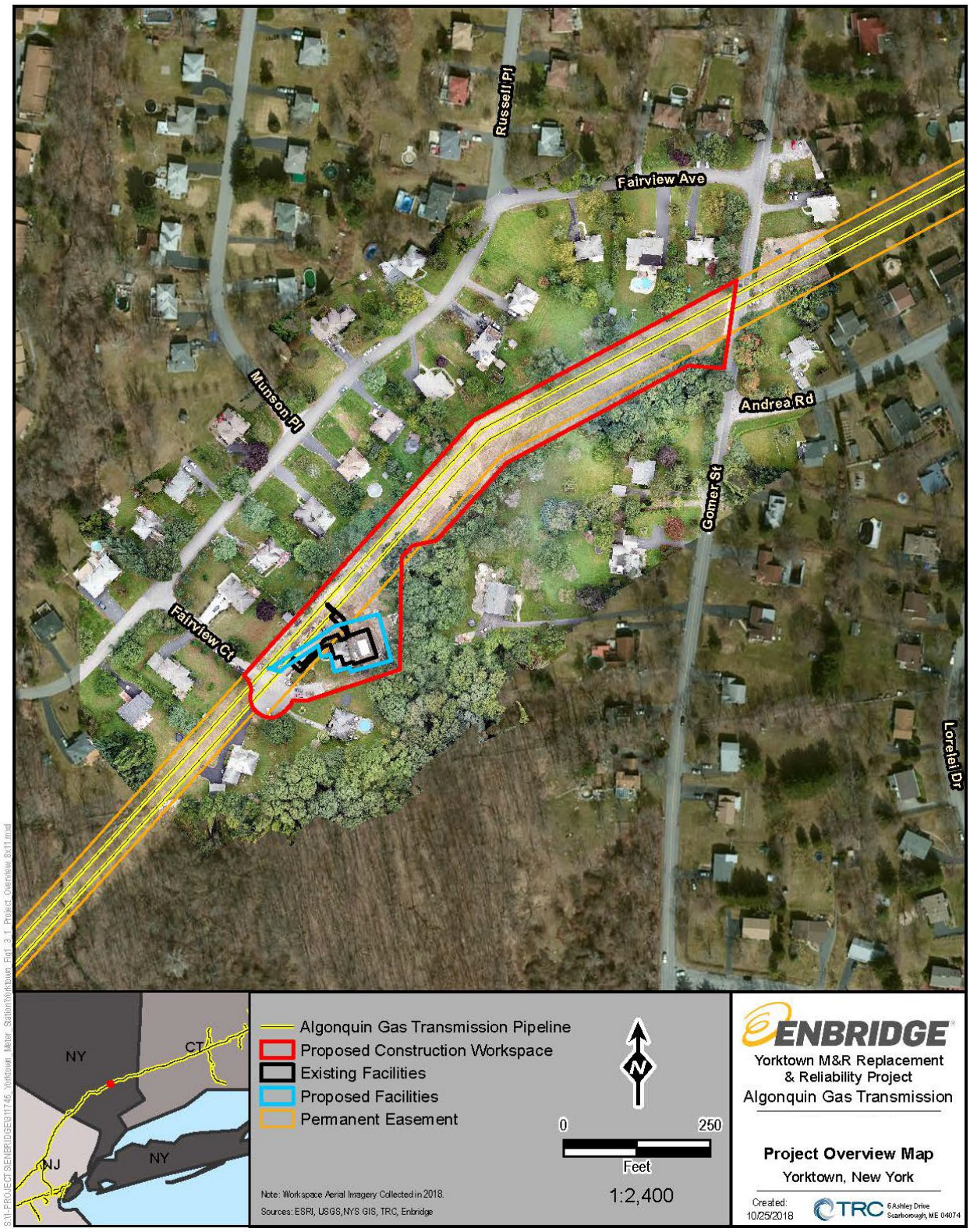
Algonquin anticipates that construction activities would begin with the installation of the temporary bypass facilities in July 2019. Once the 2019-2020 heating season has ended, replacement of the existing Yorktown M&R Station would commence in March 2020, with construction completed by October 2020. The Project would be returned to service by November 2020.

7.2. Construction, Operation, and Maintenance Procedures

Algonquin would design, construct, test, operate, and maintain the proposed facilities to conform with or exceed federal, state, and local requirements, including the United States Department of Transportation's (DOT) Minimum Safety Standards in 49 CFR 192, *Transportation of Natural and Other Gas by Pipeline: Minimum Federal Safety Standards*, and 18 CFR 380.15, *Siting and Maintenance Requirements*.

During construction and restoration for the proposed Project, Algonquin would implement the measures contained in its Erosion and Sediment Control Plan (E&SCP) and Spill Prevention Control and Countermeasure Plan (SPCC Plan). The E&SCP is inclusive of all of the requirements of FERC's 2013 *Upland Erosion Control, Revegetation, and Maintenance Plan* and FERC's 2013 *Wetland and Waterbody Construction and Mitigation Procedures* without modification.

Figure 1. Project Overview Map



8.0 Permits, Approvals, and Regulatory Consultations

Table 1 below provides a list of federal and state permits for the Project, as well as any responses received to date. Algonquin would be responsible for obtaining all permits and approvals required for the Project regardless of their listing in the table.

Table 1
Federal and State Permits and Approvals

Agency	Permit	Initiated	Pending/Approved Date
Federal			
FERC	Certificate of Convenience and Necessity	November 2018	Pending
U.S. Army Corps of Engineers, New York District – Regulatory Division	Section 404 Clean Water Act – 2017 Nationwide Permit for New York State No. 12	N/A	Conditionally Authorized
U.S. Fish and Wildlife Service, New York Field Office	Consultations: Section 7 ESA; Migratory Bird Treaty Act; Fish and Wildlife Coordination Act	September 2018	September 2018
State			
New York State Department of Environmental Conservation (NYSDEC), Division of Environmental Permits and Division of Fish and Wildlife - Bureau of Ecosystem Health	State Pollutant Discharge Elimination System General Permit for Stormwater Discharges from Construction Activity (GP-0-15-002)	January 2019	Pending (anticipated June 2019)
	Blanket Section 401 Water Quality Certification pursuant to Section 401 of the Clean Water Act	N/A	Blanket Section 401 Certification Issued by NYSDEC for NWP No. 12
NYSDEC, New York Natural Heritage Program (NYNHP)	Consultation: State-listed threatened and endangered species	October 2018	October 2018
New York State Office of Parks, Recreation & Historic Preservation, State Historic Preservation Officer	Consultation: Section 106, NHPA	October 2018 and January 2019	January 2019

9.0 Non-jurisdictional Facilities

Under Section 7 of the NGA, the Commission is required to consider, as part of the decision to approve facilities under its jurisdiction, all factors bearing on the public convenience and necessity. Occasionally, projects have associated facilities that do not come under the jurisdiction of the Commission. These "non-jurisdictional" facilities may be integral to the need for the proposed facilities or may be minor components of the

jurisdictional project. Algonquin identified one non-jurisdictional facility associated with the Project.

Con Edison would construct tie-in piping to connect the new station to the Con Edison distribution system. The piping is anticipated to be less than 20 feet in length and would be installed by Con Edison personnel during the same construction timeframe as the proposed Project. The Con Edison tie-in piping was included as part of the Project during all agency consultations. The Con Edison tie-in piping would be buried and contained within the construction workspace for the proposed Project; no additional area would be disturbed. This tie-in piping would have no environmental impacts beyond what is included in the impacts of the jurisdictional facilities discussed in this EA.

B. ENVIRONMENTAL ANALYSIS

This analysis generally describes temporary, short-term, long-term, and permanent impacts and effects caused by the Project's construction and operation. A temporary effect generally occurs during construction with the resource returning to pre-construction condition immediately after restoration or within a few months. A short-term effect could continue for up to three years following construction. Long-term effects would last more than three years, but the affected resource would eventually recover to pre-construction conditions. A permanent effect would result from an activity that modifies a resource to the extent that it would not return to pre-construction conditions during the life of the Project. In the following sections, we address direct and indirect effects collectively, by resource. There would be no impact on the following resources:

- national or state wild or scenic rivers, fisheries, or essential fish habitat;
- recreation or scenic places;
- sole-source aquifers;
- state parks, national trails, nature preserves, wilderness areas, or registered landmarks; or
- coastal zone management areas.

These resources will not be discussed further in this EA. Section B.9 of this EA analyzes the Project's contribution to cumulative impacts.

1.0 Geology

The topographic setting of the Project is relatively flat terrain with an elevation of approximately 630 feet above mean sea level, gently sloping toward the northeast. Based on the results of geotechnical investigations completed in the Project area, bedrock was encountered between 10-16 feet below ground surface and groundwater was approximately 11 feet below the ground surface.

1.1. Mineral Resources

Based on a review of USGS topographic maps, recent aerial photography, and available USGS and state databases, current or historic surface or subsurface mines or oil and gas extraction were not identified within 0.25 mile of the Project area (USGS 2011; New York State 2019; NYSDEC 2015).

Given the scope and nature of Project activities, which would involve shallow disturbance within an existing permanent right-of-way and facility site, and the distance to the nearest areas of mineral extraction, we conclude that the Project would not significantly impact mineral resources or mineral resource extraction.

1.2. Geologic Hazards

Geologic hazards are natural, physical conditions that can result in damage to land and structures or injury to people. Such hazards typically are seismic-related, including earthquakes, surface faulting, and soil liquefaction; landslides, and karst terrain; or ground subsidence hazards.

1.2.1. Seismicity

The shaking during an earthquake can be expressed in terms of the acceleration as a percent of gravity (g), and seismic risk can be quantified by the motions experienced at the ground surface or by structures during a given earthquake expressed in terms of g. USGS National Seismic Hazard Probability Mapping shows that for the Project area, within a 50-year period, there is a 2 percent probability of an earthquake with an effective peak ground acceleration (PGA) of 16 to 18 percent g; and a 10 percent probability of an earthquake with an effective PGA of 4 to 5 percent g being exceeded (USGS 2014). For reference, a PGA of 10 percent g (0.1g) is generally considered the minimum threshold for damage to older structures or structures not constructed to resist earthquakes.

Modern pipeline systems have not sustained damage during seismic events except due to permanent ground deformation, or traveling ground-wave propagation greater than or equal to a Modified Mercalli Intensity of VIII (similar to a Richter scale magnitude around 6.8 to 7.0) (O'Rourke and Palmer 1996; USGS 2018a). According to the USGS Quaternary Fault and Fold Database, no Quaternary-age faults would be crossed by the Project (USGS 2018b).

Further, the USGS earthquake database was searched for seismic events (earthquakes with a magnitude 4.5 or greater) in the vicinity (within 25 miles) of the Project area since 1900. None were found (USGS 2019). Algonquin stated that all above and below ground facilities, equipment, and buildings associated with the Project have been designed in accordance with Chapter 16 of the 2015 Building Code of New York State, which provides specific parameters for wind and seismic loading used in all structural calculations.

As such, the risk of a significant earthquake in the Project area damaging Project facilities is low and the risk of seismic ground faulting to occur is also low. Similarly, because the Project area has a low potential for strong prolonged ground shaking associated with seismic events, the soil liquefaction potential is negligible.

1.2.2. Landslides and Slope Stability

USGS mapping of landslide incidence and susceptibility for the U.S. indicates landslide incidence and susceptibility are both considered low in the Project area (USGS

1982). Furthermore, based on review of topographic maps and aerial photography, the Project area is generally gently sloping and has been graded during previous construction activities. Therefore, the Project would not be significantly impacted by hazards posed from slope instability.

1.2.3. Ground Subsidence

Ground subsidence, involving the localized or regional lowering of the ground surface, may be caused by karst dissolution, sediment compaction due to oil and gas and/or groundwater extraction, and the occurrence of underground mines. The Project does not overlie carbonate rocks that form karst terrain features (Weary and Doctor, 2014). As discussed above, there are no current or former underground mining activities or oil and gas facilities in the vicinity of the Project (USGS 2011; New York State 2019; NYSDEC 2015). Further, extraction of significant quantities of groundwater is not known to occur in the Project vicinity. Therefore, the ground subsidence potential is negligible.

Based on the above assessment, the proposed Project would not significantly impact mineral resources and would not be significantly impacted by geologic hazards.

2.0 Soils

Descriptions of the soil series that would be encountered by the proposed Project were obtained from the Natural Resources Conservation Service (NRCS) Web Soil Survey (NRCS 2018). These soils are characterized as having a depth to bedrock of greater than 60 inches, high revegetation potential, and low potential for erosion by wind. Soils are classified as well-drained to moderately well-drained, non-hydric to partially hydric, and have low to moderate potential for erosion by water and low to moderate compaction potential. Approximately 2.0 acres of prime farmland and farmland of statewide importance would be disturbed by Project activities; however, these areas are not in current agricultural use.

Construction activities such as clearing, grading, trench excavation, backfilling, heavy equipment traffic, and restoration along the construction right-of-way have the potential to adversely affect natural soil characteristics, such as water infiltration, storage and routing, and soil nutrient levels, thus reducing soil productivity. Clearing removes protective vegetative cover and exposes soils to the effects of wind and water which increases the potential for soil erosion and the transport of sediment to sensitive resource areas. Soil characteristics could affect construction performance or increase the potential for adverse construction-related soil impacts.

2.1. Prime Farmland

The U.S. Department of Agriculture defines prime farmland as land that has the best combination of physical and chemical characteristics for growing food, feed, forage, fiber, and oilseed crops. Unique farmland is land that is used for production of specific high-value food and fiber crops. In addition, soils may be considered of statewide or local importance if those soils are capable of producing a high yield of crops when managed according to accepted farming methods.

The majority of the Project workspace (approximately 2.0 acres) is comprised of soils designated as prime farmland or farmland of statewide importance. These areas are currently mowed herbaceous uplands in a suburban residential development, are within an existing pipeline right-of-way, or are within the existing M&R station area and are not being used for agriculture. All temporary workspaces would be returned to pre-existing conditions following construction and new permanent impacts would be limited to the footprint of the station expansion, comprising approximately 0.2 acre. Therefore, we conclude Project impacts on prime farmland and farmland of statewide importance would not be significant.

2.2. Hydric and Compaction-Prone Soils

Hydric soils are soils formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part. Approximately 0.8 acre of soils classified as partially hydric and moderately compaction prone would be disturbed by Project activities.

Rutting and compaction of soils due to the travel of heavy equipment may occur. The degree of compaction would depend on the ground weight of the equipment or vehicle, soil texture, and soil moisture content. Compaction would be most severe where heavy weight-bearing equipment or vehicles operate on moist to wet soils containing high clay content. Compaction damages soil structure and reduces pore space, impeding the movement of air and water to plant roots. Compaction can result in reduced vegetative growth rates and crop yields.

Construction would be limited to upland areas; however, access to the station site would require equipment crossing one small emergent wetland (see section B.3.2). Algonquin's E&SCP requires that subsoil and topsoil are tested in residential areas to measure compaction and determine the need for corrective activities. Given the limited area of hydric and compaction-prone soils that would be affected by the proposed Project, and proposed mitigation measures, we conclude no significant impacts on hydric or compaction prone soils would occur as a result of the Project.

2.3. Erosion and Revegetation

Soil erosion is the wearing away of physical soil properties by wind and water, and could result in a loss of soil structure, organic matter, and nutrients, all of which, when present, contribute to healthy plant growth and ecosystem stability. Clearing, grading, and equipment movement can accelerate the erosion process and, without adequate protection, result in discharge of sediment to waterbodies and wetlands. Of the soils that would be disturbed by Project activities, approximately 1.3 acres would be moderately susceptible to water erosion.

To minimize or avoid potential impacts due to soil erosion, Algonquin would utilize controls that would be implemented in accordance with its E&SCP. Temporary erosion controls, including interceptor diversions and sediment filter devices (e.g., hay bales, silt fences, sand bags) would be installed as necessary immediately following initial ground disturbance. Algonquin would inspect these devices on a regular basis and after each rainfall event of 0.5 inch or greater to ensure proper function. Algonquin would additionally utilize dust-control measures, including routine wetting of unpaved areas subject to frequent vehicle traffic, as necessary. Temporary erosion control devices would be maintained until the Project area is successfully stabilized/revegetated.

Given Algonquin's proposed mitigation measures and because disturbed areas would be returned to pre-construction conditions or otherwise stabilized, we conclude no significant impacts as a result of soil erosion or poor revegetation would occur as a result of the Project.

2.4. Soil Contamination

Algonquin conducted a review of regulatory database information in 2015 and a review of U.S. Environmental Protection Agency (EPA) information (EPA, 2018a) to identify sites within 0.25 mile of the Project with existing soil or groundwater contamination. None were identified. As a result, no existing contamination is expected within the proposed Project workspace. If potentially contaminated soil or groundwater is identified during construction, Algonquin would stop work in the area, mark the area off to prevent unauthorized entry, determine response actions (including sampling efforts), and coordinate disposal of contaminated material, if necessary, based on analytical results.

Contamination from spills or leaks of fuels, lubricants, and coolant from construction equipment could adversely affect soils. Algonquin would implement the measures outlined in its SPCC Plan to reduce potential impacts on soils from spills of the hazardous materials used during construction. These measures include regularly inspecting equipment to ensure it is in good working order, properly training employees

regarding the handling of fuels and other hazardous materials, implementing appropriate clean-up protocols, and promptly reporting any spills to the appropriate agencies.

Given the minimization and mitigation measures described above, we conclude that soils would not be significantly impacted by the proposed Project.

3.0 Water Resources and Wetlands

3.1. Groundwater Resources

Based on Algonquin's review of locations of public and private water supply wells and springs within 150 feet of the proposed Project workspace and data from the NYSDEC Water Well Information Search Wizard, there are no known public or private wells or springs within 150 feet of the proposed construction workspace for the Project (NYSDEC 2018b). Should a water supply well or spring be identified within 150 feet of construction, Algonquin would monitor groundwater quality and yield, with the owner's permission, before and after construction to determine whether water supplies have been affected by construction activities. In the event of damage or adverse impacts resulting from construction, Algonquin would coordinate with the landowner to seek a remedy and would provide a temporary source of potable water until the water supply situation is resolved.

Potential spills or leaks of hazardous liquids resulting from refueling construction vehicles or storing fuel, oil, and other fluids during construction could contaminate groundwater. Algonquin would prohibit refueling and storage of hazardous materials within a 200-foot radius of private wells, and a 400-foot radius of community and municipal wells, should wells of either type be identified in the vicinity of the Project. Construction activities would be conducted in accordance with Algonquin's E&SCP and SPCC Plan which address preventative measures to be used to minimize the potential impacts of a hazardous material spill on groundwater resources.

We conclude that based on proposed mitigation measures, groundwater resources in the Project vicinity would be adequately protected, and impacts from Project construction and operation on groundwater resources would be negligible.

3.2. Surface Water and Wetlands

Surface water resources within the proposed Project area are within the Peekskill Hollow Creek Watershed. The nearest waterbody is 460 feet west of the Project site, and would not be impacted by Project activities. Therefore, we conclude the Project would not impact waterbodies.

One palustrine emergent wetland (A15-SPL-10W) was delineated within the proposed temporary workspace, and within Algonquin's existing pipeline right-of-way. Palustrine emergent wetland wetlands are characterized by erect, rooted herbaceous vegetation (Cowardin et al. 1979).

Access to the station site from access roads would require an equipment crossing of one small emergent wetland. These temporary construction activities would result in 0.03 acre of temporary impacts on wetland A15-SPL-10W, and no permanent wetland impacts. During construction, Algonquin would use timber matting for access across the wetland. The timber mats would reduce rutting and compaction of saturated soils from equipment and vehicles. The mats would then be removed following construction, and wetland areas would be allowed to return to a pre-construction condition. Temporary erosion controls would be installed and maintained in accordance with Algonquin's E&SCP and SPCC Plan.

Algonquin's SPCC Plan would limit potential impacts associated with the release of fuels, lubricants, or other potentially toxic materials used during routine construction. Refueling and storage of hazardous materials would be prohibited within 100 feet of wetlands during construction, unless otherwise reviewed and approved by the Environmental Inspector (EI). Based on these measures, we conclude that impacts on wetlands would be temporary, minimized to the extent practical, and would not be significant.

Hydrostatic Test Water and Dust Control Water

Algonquin would use approximately 9,000 gallons of water to hydrostatically test the newly installed facilities, and 300 gallons for fugitive dust control. Water would be drawn from municipal sources and discharged on-site in accordance with all federal, state, and local permit requirements regarding water discharges. This water use would not result in any significant impacts.

4.0 Vegetation, Wildlife, and Threatened and Endangered Species

4.1. Vegetation

Existing vegetation within the proposed Project area includes open upland, herbaceous wetlands, and industrial land. Construction of the Project would not require tree clearing. Project construction would temporarily disturb a total of 2.5 acres of vegetation, including approximately 1.8 acres of open upland consisting primarily of restored pipeline right-of-way and residential lawns, 0.7 acre of industrial land consisting of the existing M&R station, and 0.03 acre of herbaceous wetland within the existing

pipeline right-of-way (wetlands are discussed above). Vegetation impacts are provided in table 2.

Table 2
Vegetation Impacts from the Project (acres)

Facility	Open Upland		Herbaceous Wetland		Industrial Land		Total	
	Con.[1]	Op.[2]	Con.[1]	Op.[2]	Con.[1]	Op.[2]	Con.[1]	Op.[2]
Yorktown M&R Station Property	0.0	0.0	0.0	0.0	0.7	0.2	0.7	0.2
Temporary Construction Workspace	1.8	0.0	0.03	0.0	0.0	0.0	.8	0.0
TOTAL	**1.8**	**0.0**	**0.03**	**0.0**	**0.7**	**0.2**	**2.5**	**0.2**

[1] Total construction acreage includes the total acres of land impacted during construction.
[2] Total operation acreage includes all areas that would be fenced or consist of paved surfaces after construction of the Project. The existing Yorktown M&R fenced/paved surface footprint is 0.13 acre.
Con = Construction Op = Operation

Industrial lands consist of maintained lawn surrounding the Yorktown M&R Station, and provides a vegetative community of grasses and herbaceous plants habitat typical of a suburban residential area. The M&R station property includes the existing station building, a paved driveway, and mowed lawn.

Revegetation would be completed in accordance with our Plan, permit requirements and Algonquin's E&SCP and any permit requirements. Given the limited disturbed area (0.2 acre of permanent disturbance), lack of sensitive vegetation types, and Algonquin's commitment to restoring areas affected by construction (herbaceous vegetation would typically revegetate within 1-2 growing seasons), we conclude that the Project's impacts on vegetation would be temporary and negligible.

4.2. Wildlife

The primary vegetation communities in the Project area are restored right-of-way and residential lawns, which support common bird and mammal species, such as dove, blue jay, mockingbird, robin, pigeon, starling, skunk, squirrel, fox, opossum, and rabbit..

During construction, noise and increased activity in work areas could result in temporary, indirect wildlife impacts such as displacement and abandoning reproductive efforts. Direct mortality to smaller mammals, reptiles, and amphibians that are less mobile, or which take refuge underground in the work area could also occur during Project construction and maintenance activities. Though temporary impacts on wildlife species may occur during construction, these wildlife habitats would exist similarly to present conditions after construction. Given the limited scope of the Project and the minimal temporary and permanent impacts on wildlife habitat, we conclude that

construction and operation of the Project would not significantly affect the distribution or regional abundance of wildlife species in the Project area.

Migratory Birds

Migratory birds are protected under the Migratory Bird Treaty Act (16 United States Code [USC] sections 703-711), which prohibits the taking of any migratory bird, or a part, nest, or eggs of any such bird, except under the terms of a valid permit issued pursuant to federal regulations. Bald and Golden Eagles are additionally protected under the Bald and Golden Eagle Protection Act (16 USC sections 668-668d). Executive Order No. 13186 (66 Federal Register 3853), directs federal agencies to identify where unintentional take is likely to have a measurable negative effect on migratory bird populations and to avoid or minimize adverse effects on migratory birds through enhanced collaboration with the U.S. Fish and Wildlife Service (USFWS). Executive Order No. 13186 states that emphasis should be placed on species of concern, priority habitats, and key risk factors and that particular focus should be given to addressing population-level impacts. On March 30, 2011, the USFWS and the Commission entered into a Memorandum of Understanding that focuses on avoiding or minimizing adverse effects on migratory birds and strengthening migratory bird conservation through enhanced collaboration between the two agencies.

The Project has been designed to minimize potential impacts on migratory. These minimization measures include:

- using the existing, developed M&R station property for the upgraded Yorktown M&R Station;
- maximizing the use of the existing, non-forested Algonquin pipeline right-of-way as construction workspace;
- adherence to the measures outlined in the Project E&SCP and NYSDEC-compliant Stormwater Pollution Prevention Plan during construction of the Project facilities; and
- conducting routine vegetation maintenance mowing outside the migratory bird nesting season (April 15 to August 1).

Given the limited amount of disturbance for this Project, the use of existing, non-forested pipeline right-of-way as construction workspace, and the implementation of its E&SCP during construction and operation, we conclude that impacts on migratory birds would be temporary and not significant.

4.3. Threatened, Endangered, and Special Status Species

4.3.1. Federally Listed 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 ESA, as amended, and those species that are state-listed as endangered or threatened. Section 7 of the ESA requires that the lead federal agency ensures 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. FERC, as the lead federal agency for NEPA review of the Project, is required to consult with the USFWS to determine the proposed action's potential effects on any federally listed endangered or threatened species or any of their designated critical habitat. If FERC determines that the Project would have no effect on a listed species, further consultation with the USFWS is not required.

Algonquin conducted an Information for Planning and Consultation review of the Project area in September 2018. Two federally listed threatened and endangered species were identified through the review, including the northern long-eared bat and the Indiana bat.

Indiana and Northern long-eared bat

The Indiana bat has been federally listed as an endangered species since 1973. It is also a state-listed endangered species in New York, Connecticut, and Massachusetts. The species' range includes parts of New England, New York, and the Southeastern and Midwestern U.S. The northern long-eared bat was federally listed as threatened in 2015, and is also a state-listed endangered species in Massachusetts. The northern long-eared bat range includes portions of the eastern U.S. and Canada, west to British Columbia, Wyoming, and Montana.

The Indiana and northern long-eared bats share similar life histories and habitat. During the winter months, from late October to April, these bat species live in hibernacula, in caves and cave-like structures including abandoned mine shafts or railroad tunnels. The bats emerge in the spring and travel to summer roost sites and/or maternity colonies in wooded or semi-wooded habitats and typically occupy their summer habitat from early April through mid-September each year. Spring staging and fall swarming habitats near hibernacula entranceways are occupied from mid-March to mid-May and mid-August to mid-November, respectively.

The proposed Project would not require tree clearing; however, during construction, noise and increased activity in work areas could result in temporary,

indirect wildlife impacts such as displacement. Therefore, we have determined that the proposed Project is *not likely to adversely affect* the northern long-eared bat and the Indiana bat. In February 7, 2019 correspondence, the USFWS also concluded that the Project is not likely to adversely affect this listed species. No further consultation is required for both species under section 7 of the ESA.

4.3.2. State-Listed Species

Algonquin conducted a review of the proposed Project area using the NYNHP Environmental Resource Mapper in October 2018 to obtain an official list of threatened and endangered species that may be affected by the proposed Project. The NYNHP review did not result in the identification of any protected wildlife or plant species near the Project area. Due to the lack of suitable habitat within the Project area, we conclude the Project would not affect state-listed species.

5.0 Land Use and Visual Resources

5.1. Land Use

As previously described in section A.6.0, the Project area includes the existing Yorktown M&R Station property, which is classified as industrial land use as well as the existing Algonquin pipeline right-of-way that passes through a residential area. Construction of the Project would disturb 2.5 acres of land, including 0.7 acre of industrial land (current M&R station property owned by Con Edison) and 1.8 acres within and adjacent to Algonquin's existing pipeline right-of-way. A summary of the land use categories that would be affected by construction and operation of proposed Project facilities is provided in table 2.

Following construction, the M&R station footprint (i.e., building, fence yard, and driveway) would occupy approximately 0.2 acre of land within the 0.7-acre Con Edison property. The installation of the temporary bypass facilities would impact approximately 0.01 acre within the existing Algonquin right-of-way during construction. Algonquin would remove the temporary bypass equipment and restore the land to pre-construction conditions once construction is complete.

In summary, all construction and operational activities for the proposed Project would occur on Con Edison's property and within and directly adjacent to Algonquin's pipeline right-of-way. Algonquin would implement the procedures outlined in its E&SCP to control erosion and minimize impacts during construction and to restore the area following construction. The proposed Project is consistent with current land uses in the Project area and would not result in any permanent changes. All temporary workspaces would be restored to pre-construction conditions. Therefore, we conclude that the Project would not have a significant impact on land use.

5.2. Residential Areas

No residences are within 50 feet of the proposed Project workspace. However, there are three existing residential structures (small sheds) within 50 feet of the proposed Project workspace areas. Algonquin would avoid these structures during construction.

Algonquin plans to use special construction and restoration methods to reduce disruptions to the surrounding residences during construction including, but not limited to:

- Install safety fence at the edge of the construction right-of-way for a distance of 100 feet on either side of a residence.
- For a distance of 100 feet on either side any residence or business establishment, maintain a minimum distance of 25 feet between any structure and the edge of the construction work area..
- If crushed stone/rock access pads are used in residential areas, rock shall be placed on nonwoven synthetic geotextile fabric to facilitate rock removal after construction.
- Attempt to leave mature trees and landscaping intact within the construction work area unless the trees and landscaping interfere with the installation or creat unsafe working conditions, or as specified in landowner agreements.
- Reseed all disturbed lawns with a seed mixture acceptable to the landowner or comparable to the adjoining lawn.

Algonquin representatives would frequently update residents in close proximity to the proposed Project on construction progress. Moreover, Algonquin would develop an environmental complaint resolution procedure plan to address landowner calls and letters during construction. Therefore, we conclude that the Project would not have a significant impact on residences.

5.3. Visual Resources

The existing Yorktown M&R Station footprint is 0.13 acre and would be expanded by approximately 0.2 acre within the Con Edison property. Similar to the existing M&R station, Algonquin has designed the new station building to resemble the residential homes in the neighborhood.

Residences may experience visual impacts related to vehicle and equipment transportation, vegetation removal in some locations, and temporary disturbance associated with Project construction. However, visibility of the Project from the residences would be limited due to the surrounding topography, existing aboveground structures, and vegetation barriers. We conclude that because the visual impacts from

Project construction would be temporary and the permanent visual impacts on nearby residences would be minimal and consistent with the existing structures, visual impacts from the proposed Project would not be significant.

6.0 Cultural Resources

In addition to accounting for impacts to cultural resources under NEPA, Section 106 of the National Historic Preservation Act, as amended, requires FERC to take into account the effects of its undertakings on historic properties listed, or eligible for listing on the National Register of Historic Places (NRHP),[2] and to afford the Advisory Council on Historic Preservation an opportunity to comment. Algonquin, as a non-federal party, is assisting FERC in meeting our obligations under Section 106 and its implementing regulations at 36 CFR 800.

6.1. Area of Potential Effects

Algonquin defined the Project area of potential effects (APE) as approximately 6.4 acres which includes all areas of potential direct effects from construction, operations, and maintenance for the proposed Project and incorporates properties adjacent to the existing Yorktown M&R Station to account for indirect effects on historic properties posed by the Project. Due to the area's topography, vegetation, and development, which combine to limit views to and from the Yorktown M&R Station property, the APE is sufficient to account for all the potential direct and indirect effects to historic properties by the proposed Project.

6.2. Cultural Resources Investigations

Algonquin conducted cultural resources background research and a physical inspection of the APE. The proposed Project APE had been previously surveyed as part of the cultural resources investigations for the Atlantic Bridge Project (Jeremiah and Waller 2015). The area has been disturbed and archaeological sensitivity is low. No archaeological sites were identified within the APE. On October 26, 2018, Algonquin submitted the results of the cultural resources assessment to the New York State Historic Preservation Officer (SHPO) for review and concurrence. In a letter dated January 10, 2019, the New York SHPO concurred with Algonquin's recommendation and found that the proposed Project would not affect any historic properties.

[2] In accordance with 36 CFR 800.16(l)(1), a historic property is any prehistoric or historic district, site, building, structure, object, or property of traditional religious and cultural importance to an Indian tribe or Native Hawaiian organization, included in, or eligible for inclusion in, the NRHP. This term includes artifacts, records, and remains that are related to and located within such properties. Cultural resources are those properties that have not been evaluated for NRHP eligibility.

Subsequent to the cultural resources assessment, FERC requested that Algonquin provide additional information on historic architectural resources that may be affected by the proposed Project. Algonquin conducted a historic architectural survey and identified eight historic residential structures that date to the 1950s, along with the Yorktown M&R Station building, a converted one-and-one-half-story, split-level house that was built in 1955. The house was purchased that year by Con Edison and was modified for use as a gas metering station associated with the gas pipeline adjacent to the property.

None of the historic residential structures identified in the APE (including the Yorktown M&R Station building) are individually eligible or contributing elements of a potential historic district (Terra-Nova Estates) for listing in the NRHP because they do not possess important historical associations or design elements.

On January 24, 2019, Algonquin sent the results and recommendations from the historic architectural survey to the New York SHPO. The New York SHPO replied in a letter dated January 30, 2019 that based on their review of the additional information, it was their continued opinion that no historic properties would be affected by the proposed Project. We agree.

6.3. Tribal Consultations

Algonquin contacted the following Native American tribes regarding the proposed Project: Delaware Nation of Oklahoma, Delaware Tribe of Indians, Mashantucket Pequot Tribal Nation, Mohegan Tribe, Narragansett Indian Tribe, Stockbridge-Munsee Community Band of Mohican Indians, St. Regis Mohawk Tribe, and Wampanoag Tribe of Gay Head (Aquinnah). On October 26, 2018, Algonquin provided to the tribes a Project information package, a cultural resources assessment, and a draft unanticipated discoveries plan. Algonquin also copied the eight tribes on the transmittal letter to the New York SHPO sending the above-referenced documentation. FERC sent the Project NOI to these same tribes. FERC also contacted the tribes by letter on January 8, 2019 regarding the Project. Algonquin followed up with the tribes via email on January 17, 2019, providing the revised unanticipated discoveries plan. To date, Algonquin and FERC have not received any responses from the tribes.

6.4. Unanticiapated Discoveries Plan

Algonquin developed a Project-specific plan titled: *Procedures Guiding the Discovery of Unanticipated Historic Properties and Human Remains: Post-Review Discoveries (36 CFR 800.13)*, which outlines the procedure to follow, in accordance with state and federal laws, in the event that unanticipated cultural resources or human remains are discovered during construction of the Project. The plan was submitted to FERC and the New York SHPO; both requested minor changes to the plan. Algonquin has provided

copies of the revised plan with the requested revisions to FERC, the New York SHPO, and tribes. We find the plan to be acceptable.

6.5. Compliance with the National Historic Preservation Act

FERC has completed its compliance requirements with Section 106 of the National Historic Preservation Act for the proposed Project. If there are any changes to the Project that have the potential to affect historic properties, further consultation under Section 106 may be required.

7.0 Air Quality and Noise

7.1. Air Quality

Air quality would be affected by construction and operation of the Project. During construction, short-term emissions would be generated by operation of equipment, land disturbance, and increased traffic from worker and delivery vehicles. Operational emissions associated with the proposed Project would be minimal and due to fugitive emissions from leaks and other pipeline blowdowns.

Ambient air quality is protected by federal and state regulations. Under the Clean Air Act (CAA) and its amendments, the EPA has established National Ambient Air Quality Standards (NAAQS) for carbon monoxide (CO), lead (Pb), nitrogen dioxide (NO,) ozone, particulate matter less than 10 microns (PM_{10}), particulate matter less than 2.5 microns ($PM_{2.5}$), and sulfur dioxide (SO_2).[3] The NYSDEC has the authority to implement permit programs under the CAA for the proposed Project facilities. These standards incorporate short-term (hourly or daily) levels and long-term (annual) levels to address acute and chronic exposures to the pollutants, as appropriate. The NAAQS include primary standards, which are designed to protect human health, including the health of sensitive subpopulations, such as children and those with chronic respiratory problems. The NAAQS also include secondary standards designed to protect public welfare, including economic interests, visibility, vegetation, animal species, and other concerns not related to human health.

Air quality control regions (AQCRs) are areas established by the EPA and local agencies for air quality planning purposes, in which State Implementation Plans describe how the NAAQS would be achieved and maintained. The 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 smaller portion within an AQCR (such as a county), is designated, based on

[3] The current NAAQS are listed on EPA's website at https://www.epa.gov/criteria-air-pollutants/naaqs-table.

compliance with the NAAQS, as attainment, unclassifiable, maintenance, or nonattainment, on a pollutant by-pollutant basis. Areas in compliance or below the NAAQS are designated as attainment, while areas not in compliance or above the NAAQS are designated as nonattainment. Areas previously designated as nonattainment that have since demonstrated compliance with the NAAQS are designated as maintenance for that pollutant. Maintenance areas may be subject to more stringent regulatory requirements to ensure continued attainment of the NAAQS. Areas that lack sufficient data to determine attainment status are designated unclassifiable and treated as attainment areas. New York has adopted ambient air quality standards that differ in some respects from the current NAAQS, as seen in table 3 below. The Project would be in Westchester County, New York, which is designated as nonattainment for ozone, and is in a designated maintenance area for CO. In addition, all of New York is within the Ozone Transport Region. The Project facilities are within the New Jersey-New York-Connecticut Interstate Air Quality Control Region for $PM_{2.5}$, to which Westchester County was re-designated as a maintenance area upon demonstrating via the State Implementation Plan that the area is currently in attainment and would remain in attainment with the NAAQS for $PM_{2.5}$.

Greenhouse Gases

Greenhouse gases occur in the atmosphere both naturally and as a result of human activities, such as the burning of fossil fuels. GHGs are gases that absorb infrared radiation in the atmosphere, and an increase in emissions of these gasses has been determined by the EPA to endanger public health and welfare by contributing to human-induced global climate change. The most common GHGs emitted during fossil fuel combustion and natural gas transportation are carbon dioxide (CO_2), methane (CH_4), and nitrous oxide (N_2O). Emissions of GHGs are typically expressed in terms of CO_2 equivalents (CO_2e), where the potential of each gas to increase heating in the atmosphere is expressed as a multiple of the heating potential of CO_2 over a specific timeframe, or its global warming potential (GWP). The 100-year GWP of CO_2 is 1, CH_4 is 25, and N_2O is 298.[4] During construction and operation of the Project, these GHGs would be emitted from non-electrical construction and operational equipment, as well as from fugitive CH_4 leaks from the pipeline and aboveground facilities.

[4] These GWPs are based on a 100-year time period. We have selected their use over other published GWPs for other timeframes because these are the GWPs the EPA has established for reporting of GHG emissions and air permitting requirements. This allows for a consistent comparison with these regulatory requirements.

Table 3
New York Air Quality Standards (NYAQS)

Pollutant	Averaging Period	NYAQS
SO_2	Annual[a, d]	0.03 ppm (80 µg/m^3)
	24-hour[b]	0.14 ppm (365 µg/m^3)
	24-hour[c]	0.10 ppm
	3-hour[b]	0.50 ppm (1,300 µg/m^3)
	3-hour[c]	0.25 ppm
Suspended Particulates	Annual[a]	45 µg/m^3 (Level 1 areas) 55 µg/m^3 (Level 2 areas 65 µg/m^3 (Level 3 areas) 75 µg/m^3 (Level 4 areas
	24-hour[b]	250 µg/m^3
Nitrogen Dioxide	Annual[a]	0.05 ppm (100 µg/m^3)
CO	8-hour[b]	9 ppm (10 mg/m^3)
	1-hour[b]	35 ppm (40 µg/m^3)
Photochemical Oxidants	1-hour [b]	0.08 ppm (160 µg/m^3)
Non-methane hydrocarbons	3-hour [b,e]	0.24 ppm (160 µg/m^3)
Total Fluorides	Growing Season [f, g]	40 ppm
	60 days[f]	60 ppm
	30 days[f]	80 ppm
Gaseous Fluorides	1 month[f]	1.0 ppb (0.8 µg/m^3)
	1 week[f]	2.0 ppb (1.65 µg/m^3)
	24-hour[f]	3.5 ppb (2.85 µg/m^3)
	12-hour[f]	4.5 ppb (3.7 µg/m^3)
Beryllium	1 month[a]	0.01 µg/m^3
Hydrogen sulfide	1-hour[a]	0.01 ppm (14 µg/m^3)

a- Not to be exceeded.
b- Not to be exceeded more than once per year.
c- Compliance based on 99th percentile value.
d- Calculated as annual average of 24-hour concentrations.
e- Applies during 6am to 9am
f- Not to equal or exceed
g- Growing season not to exceed 6 continuous months.

ppm- parts per million by volume.
ppb- parts per billion by volume.
µg/m^3- micrograms per cubic meter.
mg/m^3- milligrams per cubic meter.

On November 8, 2010, the EPA signed a rule that finalizes reporting requirements for the petroleum and natural gas industry under 40 CFR 98. Subpart W of 40 CFR 98 requires petroleum and natural gas facilities that emit 25,000 metric tons or more of CO_2e per year to report annual emissions of specified GHGs from various processes within the facility. Construction emissions are not covered under the GHG Reporting Rule, but

those related to the proposed Project are expected to be well below the 25,000 metric tons reporting threshold. Operational emissions from the proposed facilities are likewise not expected to exceed this threshold and be reported to the EPA. The EPA has expanded its regulations to include the emission of GHGs from major stationary sources under the Prevention of Significant Deterioration (PSD) program. The EPA's current rules require that a stationary source that is major for a non-GHG-regulated New Source Review pollutant must also obtain a PSD permit prior to beginning construction of a new or modified major source with mass-based GHG emissions equal to or greater than 100,000 tons per year and significant net emission increases in units of CO_2e equal to or greater than 75,000 tons per year. There are no NAAQS or other significance thresholds for GHGs.

7.1.1. Permitting/Regulatory Requirements

New Source Performance Standards

The EPA promulgates New Source Performance Standards to establish emission limits and fuel, monitoring, notification, reporting, and recordkeeping requirements for stationary source types or categories that cause or contribute significantly to air pollution. There are no new stationary sources being constructed as part of the proposed Project that would fall under these categories.

General Conformity

The EPA promulgated the General Conformity Rule to implement the conformity provision of Title I, Section 176(c)(1) of CAA. Section 176(c)(1) requires that the federal government not engage, support, or provide financial assistance for licensing or permitting, or approve any activity not conforming to, an approved CAA implementation plan.

The General Conformity Rule is codified in 40 CFR 51, Subpart W and Part 93, Subpart B, *Determining Conformity of General Federal Actions to State or Federal Implementation Plans*. A conformity determination must be conducted by the lead federal agency if a federal action's construction and operational activities is likely to result in generating direct and indirect emissions that would exceed the conformity threshold (*de minimis*) levels of the pollutant(s) for which an air basin is in nonattainment or maintenance. According to the conformity regulations, emissions from sources that are subject to any Nonattainment New Source Review (NNSR) or PSD permitting/licensing (major or minor) are exempt and are deemed to have conformed.

The General Conformity Rule was developed to ensure that federal actions in nonattainment and maintenance areas do not impede states' attainment of the NAAQS. The lead federal agency must conduct a conformity determination if a federal action's

construction and operational activities is likely to result in generating direct and indirect emissions that would exceed the General Conformity Applicability threshold levels of the pollutant(s) for which an air basin is designated nonattainment or maintenance. Section 176(c)(1) states that a federal agency cannot approve or support any activity that does not conform to an approved State Implementation Plan. Conforming activities or actions should not, through additional air pollutant emissions:

- cause or contribute to new violations of the NAAQS in any area;
- increase the frequency or severity of any existing violation of any NAAQS; or
- delay timely attainment of any NAAQS or interim emission reductions.

The General Conformity Rule entails both an applicability analysis and a subsequent conformity determination, if deemed necessary. A General Conformity Determination must be completed when the total direct and indirect emissions of a project would equal or exceed the specified pollutant thresholds on a calendar year basis for each nonattainment or maintenance area.

The proposed Project activities would occur in an area federally designated nonattainment for ozone. Consequently, a general conformity applicability analysis is required to determine if the conformity would apply and if a subsequent conformity determination is required. Emissions from stationary sources that are covered by any New Source Review (NSR) permit are exempt from general conformity. Non-exempt emissions for the Project include:

- construction vehicle and equipment emissions;
- fugitive dust emissions; and
- gas releases due to blowdowns at existing M&R station prior to tieing in new equipment and purging the relocated station with gas.

As shown in table 4 below, the construction emissions would be below the general conformity applicability thresholds in non-attainment or maintenance areas for the proposed Project. Therefore, a General Conformity Determination is not required.

7.1.2. Construction Impacts and Mitigation

Construction of the proposed Project would result in short-term increases in emissions of some pollutants from the use of fossil fuel-fired equipment and the generation of fugitive dust due to earthmoving activities. Some temporary indirect emissions, attributable to construction workers commuting to and from work sites during construction and from on-road and off-road construction vehicle traffic, could also occur. Large earth-moving equipment and other mobile equipment are sources of combustion-related

emissions, including criteria pollutants (i.e., NO_x, CO, volatile organic compound [VOC], SO_2, and PM_{10}).

Table 4
Estimated Construction Emissions
(tons per year)

	NO_x	CO	VOC	SO_2	$PM_{10}/PM_{2.5}$	Total HAPs[1]	GHG (CO_{2e})
2019							
Non-Road and On-Road	0.4	2.4	0.1	0.001	0.02	0.01	94
Worker Commute	0.01	0.1	0.002	0.001	0.002	0.002	13
Fugitive Dust	-	-	-	-	0.35	-	-
Blowdown and Purge	-	-	0.001	-	-	-	0.9
Totals	0.41	2.5	0.1	0.002	0.37	0.01	108
2020							
Non-Road and On-Road	1.8	12.1	0.4	0.005	0.2	0.09	774
Worker Commute	0.06	0.7	0.02	0.0006	0.02	0.02	93
Fugitive Dust	-	-	-	-	1.43	-	-
Blowdown and Purge	-	-	0.001	-	-	-	0.9
Totals	1.86	12.8	0.42	0.006	1.45	0.11	868
General Conformity Threshold	**100**	**100**	**50**	**100**	**100**	**-**	**-**

[1] hazardous air pollutants

Algonquin would mitigate exhaust emissions from construction equipment by requiring contractors to meet all air quality regulations and emission standards associated with each piece of equipment, maintaining the equipment in accordance with the manufacturer's recommendations, minimizing idling time of engines to a maximum of three minutes when the construction equipment is not in use, as well as using ultra-low sulfur diesel. The emissions in table 4 represent the construction equipment combustion, on-road vehicle travel, off-road vehicle travel, and earthmoving fugitives.

Construction related emission estimates were based on a typical construction equipment list, hours of operation, and vehicle miles traveled by the construction equipment and supporting vehicles for each area of the Project. These emission-generating activities would include earthmoving, construction equipment exhaust, on-road vehicle traffic, and off-road vehicle traffic. Algonquin conservatively utilized emission factors from EPA's AP-42, along with EPA's NONROAD2008a and MOVES2014 emission modeling software.

Construction would begin in the third quarter 2019, with a return to service date of November 2020. Algonquin filed a Fugitive Dust Control Plan, which we reviewed and find acceptable. The air quality impacts of Project construction would be short-term and minimized by the implementation of the control measures, such as watering exposed soil surfaces, modifying the speed of truck and equipment traffic in disturbed areas, and/or removing dirt from roadways. Following construction, air quality would revert to previous conditions.

Given the temporary, intermittent nature of construction, and Algonquin's proposed mitigation measurs, we find that emissions from construction-related activities for the proposed Project would not cause or significantly contribute to a violation of any applicable ambient air quality standard, or significantly affect local or regional air quality.

7.1.3. Operational Impacts and Mitigation

The Project would not require the installation of any new sources of emissions and would not result in a significant increase to the operational emissions.

Minor operational emissions would occur from the replacement equipment, fugitive component leaks, gas heaters, and emergency generators. Operational emission estimates are presented in table 5 below. Considering the minimal operational emissions associated with the proposed Project, we conclude that no significant impact on air quality would be anticipated.

Table 5
Estimated Operational Emissions (tons per year)

Facilities	NO_x	CO	VOC	SO_2	$PM_{10}/PM_{2.5}$	Total HAPs	GHG (CO_{2e})
Existing Station	0.64	0.39	0.45	0.07	0.05	0.06	773.8
Temporary Gas Heater	0.64	0.39	0.15	0.07	0.05	0.04	627.1
Gas Heaters	0.15	34.6	0.73	0.18	0.09	0.17	1,502
Emergency Generator	3.7	0.45	0.14	0.01	0.06	0.09	172.7
Filter/Separator	0.0	0.0	0.1	0.0	0.0	0.01	2.5
Piping Components and Gas Releases	0.0	0.0	2.2	0.0	0.0	0.26	548.4
Post Project Emissions	**3.9**	**35.0**	**3.5**	**0.19**	**1.15**	**0.55**	**2,372.3**
NNSR/PSD Permitting Threshold	**25**	**100**	**25**	**100**	**100**	**N/A**	**100,000**
Subject to NNSR/PSD	**No**	**No**	**No**	**No**	**No**	**N/A**	**No**
Title V Permitting Threshold	**25**	**100**	**25**	**100**	**100**	**25**	**100,000**
Subject to Title V	**No**	**No**	**No**	**No**	**No**	**No**	**No**

7.2. Noise

Construction and operation of the proposed Project would affect the local noise environment in the Project area. The ambient sound level of a region, which is defined by the total noise generated within the specific environment, is usually comprised of sounds emanating from both natural and artificial sources. At any location, both the magnitude and frequency of environmental noise may vary considerably over the course of the day and throughout the week, in part due to changing weather conditions and the impacts of seasonal vegetative cover.

Two measurements to relate the time-varying quality of environmental noise to its known effects on people are the equivalent sound level (L_{eq}) and the day-night sound level (L_{dn}). The L_{eq} is an A-weighted sound level containing the same sound energy as the instantaneous sound levels measured over a specific time period. The A-weighted scale decibel (dBA) is used because human hearing is less sensitive to low and high frequencies than mid-range frequencies. For an essentially steady sound source that operates continuously over a 24-hour period and controls the environmental sound level, the L_{dn} is approximately 6.4 decibel above the measured L_{eq}.

In 1974, the EPA published its Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety. Noise levels are expressed as decibels on the A-weighted scale (dBA) to put more emphasis on frequencies in the range that humans hear best. Because noise levels are perceived differently, depending on length of exposure and time of day, the day-night sound level (L_{dn}) takes into account the duration and time the noise is encountered. Specifically, the L_{dn} adds 10 dBA to nighttime sound levels between the hours of 10 p.m. and 7 a.m. to account for a people's greater sensitivity to sound during the night. 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 impacts from the proposed Project at noise sensitive areas, such as residences, schools, or hospitals. Also, in general, a person's threshold of perception for a perceivable change in loudness on the A-weighted sound level is about 3 dBA, whereas a 5 dBA change is clearly noticeable, and a 10 dBA change is perceived as either twice or half as loud.

There are no state, county, or city noise regulations associated with this Project.

7.2.1. Construction Impacts and Mitigation

Construction of the facilities would involve general construction equipment and noise would be generated during the installation of the Project components and from temporary bypass facilities. The temporary facilities would perform with noise levels below 55dBA. Algonquin would mitigate construction noise by complying with federal regulations limiting noise from trucks, proper maintenance of equipment, and ensuring that sound muffling devices provided by the manufacturer are kept in good working condition.

Construction noise would be highly variable because the types of equipment in use at a construction site changes with the construction phase and the types of activities. Noise from construction activities may be noticeable at nearby noise sensitive areas. However, construction equipment would be operated on an as-needed basis during the short-term construction period. Further, Algonquin would limit construction activities to occur during daytime hours of 7:00 am to 7:00 pm.

Because of the varied locations of activities, and that construction of the proposed Project would be limited to daytime hours and intermittent, we conclude construction noise would not have a significant impact on the environment.

7.2.2. Operational Impacts and Mitigation

The proposed Project would not include new permanent noise sources such as a new compressor station or meter station. Noise levels for the Project are presented in table 6, below.

Table 6
Noise Quality Analysis

NSA	Distance/Direction	Existimg Ambient Ldn dBA	Estimated ambient+new M&R dBA	Increase above Existing
1	70 feet/ south	48.7	51.9	3.2
2	170 feet/ northwest	48.7	49.4	0.7
3	240 feet/ east	48.7	49.1	0.4

Replacement facilities would not increase perceptible operational noise levels above what is exiting. Based on the types of aboveground facilities proposed, the noise generated from Project modifications would be neglibible. We conclude that the Project would not result in significant noise impacts on residents and the surrounding communities.

8.0 Reliability and Safety

A natural gas compressor station or aboveground interconnect site involves some risk to the public in the event of an accident and subsequent release of gas. The greatest hazard is a fire or explosion following a leak, or rupture at the facility. 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.

The modifications to the Project facilities must be designed, constructed, operated, and maintained in accordance with the DOT Minimum Federal Safety Standards in 49 CFR 192. The regulations are intended to ensure adequate protection for the public, including emergency shutdowns and safety equipment, and to prevent facility accidents and failures. The DOT's Pipeline and Hazardous Materials Safety Administration 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.

The DOT provides for a state agency to assume all aspects of the safety program for intrastate facilities by adopting and enforcing the federal standards. DOT federal

inspectors perform inspections and enforce the pipeline safety regulations for interstate gas pipeline facilities in New York.

Part 192 also requires a pipeline operator to establish a written emergency plan that includes procedures to minimize the hazards in an emergency. Additionally, the operator must establish a continuing education program to enable the public, government officials, and others to recognize an emergency at the facility and report it to appropriate public officials. Algonquin would provide the appropriate training to local emergency service personnel before the facilities are placed in service.

The construction and operation of the modified facilities would represent a minimum increase in risk to the nearby public and we are confident that with implementation of the required design criteria for the design of these facilities, that they would be constructed and operated safely.

9.0 Cumulative Impacts

In accordance with NEPA and with FERC policy, we evaluated the potential for cumulative effects of the proposed Project. Cumulative impacts represent the incremental effects of a proposed action when added to other past, present, or reasonably foreseeable future actions, regardless of the agency or party undertaking such other actions. Cumulative impacts can result from individually minor, but collectively significant actions, taking place over time.

This cumulative effects analysis generally follows a method set forth in relevant Council on Environmental Quality and EPA guidance and focuses on potential impacts from the proposed Project on resource areas or issues where the incremental contribution would be potentially significant when added to the potential impacts of other actions. To avoid unnecessary discussions of insignificant impacts and projects and to adequately address and accomplish the purposes of this analysis, an action must first meet the following three criteria to be included in the cumulative analysis:

- affect a resource potentially affected by the Project;
- cause this impact within all, or part of, the geographic scope of the Project; and
- cause this impact within all, or part of, the time span for the potential impact from the Project.

When evaluating cumulative impacts, we establish a geographic scope for each resource affected by the proposed Project and then consider past, present, and reasonably-foreseeable future projects within the geographic scope. Given the limited extent and duration of the Project as it is only modifications to an existing facility, we established the construction workspace as the geographic scope for the evaluation of cumulative

impacts on soils. As the Project would not result in any perceptible change in operational air or noise emissions; our geographic scope was limited to consider effects on these resources during construction activity only. Therefore, the geographic scope for cumulative impacts on air quality is 0.25 mile from construction activities and 0.5 mile for noise impacts during construction. As the proposed Project occurs in a developed residential area, and impacts to vegetation and wildlife would be localized and limited primarily to Project construction, the geographic scope for cumulative impacts was defined as 0.25 mile from construction activities. Given the lack of Project impacts on geology, water resources, land use, and cultural resources, cumulative impacts were not evaluated further for these resources.

9.1. Projects Identified within the Geographic Scope

One project was identified that may result in cumulative impacts when combined with the effects of the proposed Project within the established geographic scope. The Atlantic Bridge Project is a natural gas pipeline project that was authorized by FERC (Docket CP16-9-000) on January 25, 2017. The Atlantic Bridge Project is currently under construction and intersects the proposed Project's workspace. Construction of the Atlantic Bridge Project is anticipated to be complete by fall 2019 and construction of the proposed Project would begin in third quarter 2019. Because construction of both projects may occur simultaneously, there would be a potential for cumulative impacts.

9.2. Potential Cumulative Impact on Specific Resources within the Project Area

This section analyzes the cumulative impacts on the following resources in the Project area: soils; water resources; vegetation and wildlife; and air quality and noise.

9.2.1. Soils

Construction of the proposed Project would result in localized impacts on soils as a result of clearing and grading activities; however, Algonquin would employ Best management practices to avoid discharges of soils off-site during construction activities. Because the geographic scope is defined as the area of Project disturbance for soils, the cumulative impact would be 2.5 acres during construction and 0.2 acre during operation. The majority of the proposed Project construction workspace was disturbed in 2018 during construction of the Atlantic Bridge Project. Both the Atlantic Bridge Project and the proposed Project are required to adhere to their permit conditions, E&SCPs, and FERC's 2013 *Upland Erosion Control, Revegetation, and Maintenance Plan* and FERC's 2013 *Wetland and Waterbody Construction and Mitigation Procedures* to minimize impacts on soils and ensure successful restoration/revegetation. As a result, cumulative effects on soils are expected to be temporary and minor.

9.2.2. Vegetation and Wildlife

If both the Atlantic Bridge Project and the proposed Project are constructed at or near the same time, the combination of construction activities could have a cumulative impact on vegetation and wildlife in the Project area. Clearing, grading, and other construction activities associated with the projects would result in the vegetation removal, wildlife habitat alterations, wildlife displacement, and other potential secondary effects such as abandoning reproduction efforts and disrupting daily routines. Construction of the proposed Project would affect a total of 1.8 acres of vegetation, including approximately 1.8 acres of open upland consisting primarily of recently restored pipeline right-of-way and residential lawns, along with 0.03 acre of herbaceous wetland within the existing pipeline right-of-way. Construction from the Atlantic Bridge Project would disturb a total of 0.9 acre of vegetation at the Yorktown M&R Station, The direct effects of the Project would be local and limited primarily to construction, as vegetated areas disturbed for temporary workspace would be revegetated and restored. Furthermore, Algonquin would adhere to all requirements outlined in the E&SCP to minimize potential cumulative impacts on vegetation.

Given the minimal temporary impacts on vegetation and wildlife from the proposed Project, we conclude that the Project would not contribute significant cumulative impacts on vegetation or wildlife.

9.2.3. Air and Noise

Construction activities for the proposed Project would result in temporary increases in noise from construction equipment, as well as temporary increases in air emissions of some pollutants due to the use of equipment powered by diesel or gasoline engines and fugitive dust generated by excavation activities, vegetation clearing, and grading operations. Construction of both projects simultaneously may result in cumulative impacts on air quality and noise during construction. Construction activities would result in short-term noise impacts and emissions that would be localized, temporary, and intermittent. Direct effects of Project construction activities would be localized and limited to the period of construction. Based on the limited scope of the proposed Project and planned construction mitigation measures discussed previously, we conclude the proposed Project would not result in significant cumulative impacts on air quality and noise during construction.

9.3. Cumulative Impact Conclusion

In conclusion, when the impacts of the Project are added to the impacts from the Atlantic Bridge Project, the cumulative impacts would be minimal. We conclude that impacts would be temporary in nature and no significant cumulative impacts would be incurred from the proposed Project.

C. ALTERNATIVES

In accordance with NEPA and FERC policy, we evaluated alternatives to the Project to determine whether they would be reasonable and environmentally preferable to the proposed action. These alternatives included the no-action alternative, system alternatives, and site alternatives. The evaluation criteria used for developing and reviewing alternatives were:

- ability to meet the Project's stated objective;
- technical feasibility and practicality; and
- significant environmental advantage over the proposed action.

1.0. No Action Alternative

Under the no-action alternative, Algonquin would not construct the Project; therefore, no environmental impacts would occur. However, Con Edison would be unable to meet the natural gas needs of its customers by enhancing the reliability of its distribution system in the New York area. It is reasonable to assume that the customers would identify alternative measures to meet their natural gas needs that would also result in some level of environmental impact. Based on the minor impacts identified for the Project, the alternative of the customers seeking another mechanism is likely to result in additional environmental impact and not likely to provide a significant environmental advantage. Further, the no-action alternative would not meet the objective of the Project. Therefore, we did not consider it further.

2.0. System and Site Alternatives

There are no other alternatives that can be implemented on Algonquin's system, or other nearby pipeline systems, to meet the objectives of the proposed Project. The current Yorktown M&R station is the only site that meets the hydraulic requirements of both the Algonquin and Con Edison systems; is available for use or purchase; maximizes system reliability; and minimizes upgrades to existing systems. The current site would not result in any significant environmental impacts. Other project sites would likely have similar or greater impacts. Additionally, we did not receive any comments during scoping requesting us to evaluate site alternatives to the proposed location. Therefore, system and site alternatives were not considered further.

3.0. Conclusion

We reviewed alternatives to Algonquin's proposal based on our independent analysis. No system or site facility alternatives provide a significant environmental advantage of the Project design. Therefore, we conclude that the proposed action is the preferred alternative that can meet the Project's objectives.

D. CONCLUSIONS AND RECOMMENDATIONS

Based upon the analysis in this EA, we have determined that if Algonquin constructs and operates the proposed facilities in accordance with its application, supplements, Project-specific plans, and the staff's recommended mitigation measures below, approval of the Project would not constitute a major federal action significantly affecting the quality of the human environment. We recommend that the Commission Order contain a finding of no significant impact and the following mitigation measures be included as conditions of any Certificate the Commission may issue to Algonquin.

1. Algonquin shall follow the construction procedures and mitigation measures described in its application and supplements, including responses to staff data requests and as identified in the EA, unless modified by the Order. Algonquin must:

    a. request any modification to these procedures, measures, or conditions in a filing with the Secretary of the Commission (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 OEP **before using that modification**.

2. The Director of OEP, or the Director's designee, has delegated authority to address any requests for approvals or authorizations necessary to carry out the conditions of this Order, and take whatever steps are necessary to ensure the protection of environmental resources during construction and operation of the Project. This authority shall allow:

    a. the modification of conditions of the Order;
    b. stop-work authority; and
    c. the imposition of any additional measures deemed necessary to ensure continued compliance with the intent of the conditions of the Order as well as the avoidance or mitigation of unforeseen adverse environmental impact resulting from Project construction and operation.

3. **Prior to any construction**, Algonquin shall file an affirmative statement with the Secretary, certified by a senior company official, that all company personnel, EIs, and contractor personnel will be informed of the EI'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.

4. The authorized facility locations shall be as shown in the EA, as supplemented by filed alignment sheets. **As soon as they are available, and before the start of construction**, Algonquin shall 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. 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.

   Algonquin's exercise of eminent domain authority granted under NGA section 7(h) in any condemnation proceedings related to the Order must be consistent with these authorized facilities and locations. Algonquin's right of eminent domain granted under NGA section 7(h) does not authorize it to increase the size of its natural gas facilities to accommodate future needs or to acquire a right-of-way for a pipeline to transport a commodity other than natural gas.

5. Algonquin shall file with the Secretary detailed alignment maps/sheets and aerial photographs at a scale not smaller than 1:6,000 identifying all 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. 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, 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 extra workspace allowed by the Commission's Plan and/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 the authorization and before construction begins**, Algonquin shall file an Implementation Plan with the Secretary for review and written approval by the Director of OEP. Algonquin must file revisions to the plan as schedules change. The plan shall identify:

    a. how Algonquin will implement the construction procedures and mitigation measures described in its application and supplements (including responses to staff data requests), identified in the EA, and required by the Order;
    b. how Algonquin 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 onsite construction and inspection personnel;
    c. the number of EIs assigned, and how the company will ensure that sufficient personnel are available to implement the environmental mitigation;
    d. company personnel, including EIs and contractors, who will receive copies of the appropriate material;
    e. the location and dates of the environmental compliance training and instructions Algonquin will give to all personnel involved with construction and restoration (initial and refresher training as the Project progresses and personnel change),
    f. the company personnel (if known) and specific portion of Algonquin's organization having responsibility for compliance;
    g. the procedures (including use of contract penalties) Algonquin will follow if noncompliance occurs; and
    h. a Gantt or PERT chart (or similar Project scheduling diagram), and dates for:

        (1) the completion of all required surveys and reports;
        (2) the environmental compliance training of onsite personnel;
        (3) the start of construction; and
        (4) the start and completion of restoration.

7. Algonquin shall employ at least one EI. The EI(s) shall be:

    a. responsible for monitoring and ensuring compliance with all mitigation 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. 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
e. responsible for maintaining status reports.

8. Beginning with the filing of its Implementation Plan, Algonquin shall file updated status reports with the Secretary on a **monthly** basis until all construction and restoration activities are complete. On request, these status reports will also be provided to other federal and state agencies with permitting responsibilities. Status reports shall include:

a. an update on Algonquin's efforts to obtain the necessary federal authorizations;
b. the construction status of the Project, work planned for the following reporting period, and any schedule changes for stream crossings or work in other environmentally-sensitive areas;
c. a listing of all problems encountered and each instance of noncompliance observed by the EI(s) 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);
d. a description of the corrective actions implemented in response to all instances of noncompliance;
e. the effectiveness of all corrective actions implemented;
f. a description of any landowner/resident complaints which may relate to compliance with the requirements of the Order, and the measures taken to satisfy their concerns; and
g. copies of any correspondence received by Algonquin from other federal, state, or local permitting agencies concerning instances of noncompliance, and Algonquin's response.

9. Algonquin must receive written authorization from the Director of OEP **before commencing construction of any Project facilities.** To obtain such authorization, Algonquin must file with the Secretary documentation that it has received all applicable authorizations required under federal law (or evidence of waiver thereof).

10. Algonquin must receive written authorization from the Director of OEP **before placing the Project into service**. Such authorization will only be granted following a determination that rehabilitation and restoration of the right-of-way and other areas affected by the Project are proceeding satisfactorily.

11. **Within 30 days of placing the authorized facilities in service**, Algonquin shall file an affirmative statement with the Secretary, certified by a senior company official:

    a. that the facilities have been constructed in compliance with all applicable conditions, and that continuing activities will be consistent with all applicable conditions; or
    b. identifying which of the conditions in the Order Algonquin has complied with or will comply with. This statement shall also identify any areas affected by the Project where compliance measures were not properly implemented, if not previously identified in filed status reports, and the reason for noncompliance.

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