UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 1
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BOSTON, MA 02109-3912

June 13, 2016

Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission
888 First Street, N.E., Room 1A
Washington, D.C. 20426

RE: EPA Comments in response to FERC Notice of Intent for the Access Northeast Project, Docket No. PF16-1-000

Dear Ms. Bose:

In accordance with our responsibilities under the National Environmental Policy Act (NEPA) and Section 309 of the Clean Air Act, we submit the following comments as part of the NEPA scoping process for the Federal Energy Regulatory Commission (FERC's) proposed Environmental Impact Statement for the Access Northeast Project (AN) proposed by Algonquin Gas Transmission LLC (Algonquin) in New Jersey, New York, Connecticut, Rhode Island, and Massachusetts.

Our comments are based on information provided in FERC's April 29, 2016 Notice of Intent (NOI) document for the AN Project, an interagency site visit and meeting with the applicant and information contained in pre-filing draft resource reports filed by the applicant. According to that information Algonquin intends to install, operate and maintain a project capable of delivering up to 925 million cubic feet per day of natural gas on the existing Algonquin pipeline system. The project includes replacement of portions of existing Algonquin pipeline with larger capacity pipe in New York and Connecticut, the addition/extension of pipeline loops in Connecticut and Massachusetts, and the installation of new pipeline segments in Massachusetts. Other work includes the establishment of pig launcher and receiver facilities, new mainline valves and compressor station work along the proposed project alignment. The compressor station work includes modifications to existing compressor stations and the addition of a new compressor station to add a total of 165,560 horsepower on the Algonquin system.

The project also includes the construction and operation of a proposed Liquefied Natural Gas (LNG) Storage Facility on 210 acres in Acushnet, Massachusetts. The project proposes two LNG storage tanks with a combined capacity of 6.8 billion standard cubic feet and other liquefaction and regasification infrastructure. A new 2.86 mile pipeline will connect the LNG facility to the existing Algonquin gas transmission system. According to the NOI project construction will disturb 1,866 acres of land with the majority of the land disturbance related to pipeline installation. Approximately 58 percent of the pipeline construction activity will take

place in areas previously disturbed by other pipelines/utilities. Based on information submitted by Algonquin, the LNG facility proposes to fill approximately 65 acres of wetland.

The construction and operation of the AN Project, especially the proposed Acushnet LNG storage facility and associated infrastructure, could result in a wide range of direct, indirect and cumulative impacts to resources that are within EPA's areas of jurisdiction and expertise. Based on our review of available information, the FERC NOI identifies many of the potential environmental impacts that need to be examined in the EIS. However, we have specific concerns about the consideration of alternatives and the potential for the project to impact wetlands, drinking water, groundwater, and air quality (during both construction and operation of the project). Our attached comments in response to the NOI and the applicant's resource reports provide detail and direction on how to address these issues in the EIS.

Please contact me at 617-918-1025 with any questions regarding our scoping comments.

Sincerely,

Timothy L. Timmermann
Associate Director, Office of Environmental Review

Enclosure

Scoping Comments for the Access Northeast Project

Alternatives

Our comments in the wetlands and aquatic resources section below explain why potentially significant impacts to those resources signals the need for a comprehensive look at alternative sites for the LNG storage facility. In addition we recommend that the EIS consider whether the demand being addressed by this project could be otherwise met by other currently proposed pipeline expansion projects in the region, existing infrastructure, or alternative sources of energy including renewable sources such as wind and solar. Moreover, we recommend that FERC's analysis consider whether the project purpose and need could largely be met without the LNG facility. This question is warranted due to the limited range of time the facility is projected to operate in any given year and the projection that almost half of the project gas will be provided through proposed pipeline expansion. The EIS would also benefit from an explanation of the relationship of the three Algonquin projects (SPECTRA AIM, Atlantic Bridge, Access Northeast) to each other and why they were not considered as one project given system linkages similar geography, ownership and timing across the three.

Drinking Water Supply

These comments address a number of areas of concern with respect to the planned pipeline construction and operation that could affect public and private drinking water supplies. Our comments are general in nature as the Algonquin Resource Reports related to drinking water issues were not available while we were preparing these scoping comments. We intend to review the draft resource reports and update them as appropriate in the future.

Alignment Alternatives

We recommend that the EIS provide specific information regarding the location of public drinking water supply source water protection areas. This information could then be used to help FERC and Algonquin develop pipeline alignment alternatives that avoid crossing state-defined source or municipality-defined water protection areas, including Wellhead Protection Areas.

Groundwater Impacts

Prevention of negative impacts to aquifers (e.g. creating a preferential flow path for water and/or contaminants, limiting recharge through the construction of large impervious surfaces or causing the discharge or pollutants) during project construction and other pipeline related activities should be a high priority. EPA recommends including prevention and mitigation plans to address potential long-term impacts to water resources in proximity to the constructed pipeline. Trenchless construction methods such as Conventional Bore and Horizontal Directional Drilling (HDD) can be used as effective means to minimize and avoid impacts to wetlands and surface waters during construction. The AN Supplemental Project Information Filing notes sixteen locations (spread through Connecticut and Massachusetts) that are under consideration for the use of HDD. Because Conventional Bore and HDD may be conducted at depths much greater than trenching, they have the potential to create groundwater flow pathways that did not exist prior to construction (i.e. preferential flow pathways). We recommend that the FERC analysis address whether any portion of the pipeline construction has the potential to convey groundwater and/or contaminants from one location to another, thereby spreading contamination or

dewatering an aquifer. Excavated and backfilled trenches with pipelines in place below the seasonal high groundwater table may disrupt groundwater flow in this manner as well. EPA recommends that the EIS address this potential impact, and that steps be identified and required by FERC to prevent water movement along the alignments wherever excavation or trenchless construction methods will be used below the seasonal high water table. We also recommend that areas where alignments will pass in close proximity to groundwater resources, as defined in the Resource Reports, and/or areas near drinking water sources (including private wells) be prioritized for these measures.

For the portions of the alignments that will utilize trenchless construction methods, we recommend that the EIS provide engineering specifications for the planned construction activities. These specifications, including both map views and cross section views (e.g. distance-depth diagram) of trenchless construction areas, are vital to assess potential impacts to groundwater resources. Cross-sections of trenchless construction areas should include, among other things, aquifer materials and bedrock features (e.g. fractures) which may be intersected by the alignments. We recommend that these cross-sections and plan views be made readily available for review by stakeholders.

With respect to construction activities, we recommend that the FERC EIS contain specific measures to evaluate whether any project construction or operation leads to public or private well impacts. The discussion should be broad enough to cover pre and post-construction assessments (over an appropriate time period) to determine if project activities affect a water supply. A full hydrogeological assessment conducted by a qualified professional may be required.

We recommend that the EIS specifically discuss whether any of the proposed pipeline construction will require blasting and whether the blasting has the potential to impact public or private water supplies or groundwater flow. We recommend outlining specific steps in the EIS for contacting well owners (both private and public) in advance of blasting, and for establishing baseline conditions. Blasting near bedrock wells poses a significant risk to the water quality and capacity of those wells. EPA recommends that alternatives to blasting be fully explored, and that the EIS describe how blasting within close proximity to bedrock wells will be avoided.

<u>Crossing Impacts to Rivers, Streams, Reservoirs and Source Protection Areas</u>
According to the AN Supplemental Project Information Filing the proposed project will "affect approximately 220 waterbodies during construction." We recommend that the EIS provide a breakdown of drinking water supply streams, rivers, reservoirs and source water protection areas (including recharge to wellhead protection areas) that would be crossed or potentially impacted by construction activity.

Activities associated with construction and operation of the pipeline through these critical areas could impact drinking water resources. We recommend that FERC coordinate with public water suppliers to determine if they could be affected by the proposed pipeline and associated facilities. We recommend that the EIS address concerns expressed by public drinking water suppliers whose sources of supplies or protection areas may be impacted and that the EIS include descriptions of site-specific Best Management Practices (BMPs) that will be employed at each water supply area to mitigate any construction or storm water runoff related impacts.

Additionally, we recommend that the EIS identify and address concerns at pipeline crossings through areas with known or potentially contaminated sediments. We recommend that State hazardous waste programs be consulted to identify any actual or potential contaminated sites. We recommend that precautions (BMPs) to mitigate sediments that may be suspended during the horizontal directional drilling operations upstream of public drinking water supply intakes be identified in the EIS.

We recommend that the EIS examine the potential impacts of stormwater discharges from the project. During construction, it is likely that sediment and pollutant laden stormwater could be released into rivers, streams, reservoirs and the drawdown areas for water supply wells. Although one or more NPDES and state stormwater permits may be required, we recommend that the EIS examine whether the basic requirements of those permits could be enhanced to assure a greater degree of protection.

The discharge of nutrients into many water bodies is a growing concern and new control technologies are being continually developed, and we recommend they be examined and discharges to waters with Total Maximum Daily Loads be identified and BMPs adequate to attain applicable load reductions be applied.

Sole Source Aquifers

We recommend that the EIS identify all potential construction impacts and the mitigation techniques used to reduce impacts to Sole Source Aquifers, especially where construction is planned, on any state cleanup sites, Superfund sites other contaminated areas, such as junkyards, or leaking underground storage tank sites within the project area. Within the states of Connecticut, Massachusetts and Rhode Island, there are thirteen (13) designated Sole Source Aquifers. Please consult with our EPA Region 1 Drinking Water Program to confirm whether the planned project would be located within any of these Sole Source Aquifers recharge areas.

Ted Lavery
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Drinking Water Program-Source Protection
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(617) 918-1683

Additional information on the program can be found at:
https://www3.epa.gov/region1/eco/drinkwater/pc_solesource_aquifer.html

State Drinking Water Program Contacts for Consultation on Source Water Protection Areas

Additional contact information is provided below for the states' respective source water programs. We suggest consulting with state source water program contacts and addressing their comments and concerns in the EIS.

Connecticut Department of Public Health
Source Water Protection Unit
Contact: Eric McPhee, Supervising Environmental Analyst

410 Capitol Avenue, Hartford, CT 06134
Website: www.ct.gov/dph/publicdrinkingwater
Email: Eric.McPhee@ct.gov
Phone: (860) 509-7333
Fax Number: (860) 509-7359
Emergency Number: (860) 509-8000)

Massachusetts DEP Drinking Water Program
Source Water Assessment Program
Contact: Kathleen Romero, Coordinator
1 Winter St., Boston, MA 02108
Email: Kathleen.Romero@state.ma.us
Phone: (617) 292-5727
Website: http://www.mass.gov/eea/agencies/massdep/water/drinking/source-water-protection-for-drinking-water-supplies.html
Emergency Number: 888-304-1133

Rhode Island Department of Environmental Management
Contact: Ernie Panciera, State Wellhead Protection Coordinator
Water Resources
235 Promenade Street
Providence, RI 02908-5767
Phone: (401) 222-4700 Ext 7603
Email: ernie.panciera@dem.ri.gov

Rhode Island Department of Health
Contact: Clay Commons, Acting Source Water Protection Coordinator
Office of Drinking Water Quality
3 Capitol Hill - Cannon Bldg
Rm 209
Providence, RI 02908-5097
Phone: (401) 222-6867 ext. 2237
Email: clayc@doh.state.ri.us
Website: http://www.health.ri.gov/programs

Bureau of Water Supply Protection NYS Department of Health
Contact: Dr. Roger Sokol, Director
Empire State Plaza, Corning Tower
Room 1110
Albany, NY 12237
Phone: 518-402-7650

Land Conservation
We recommend that the EIS identify if the proposed alignment will cross any conservation land purchased for the protection of drinking water sources and other natural resource protection

areas. We recommend that the EIS identify alternatives to the current alignment to limit the impact to these areas.

Request for GIS Information

GIS mapping is an essential part of impact assessment. EPA, and we assume other stakeholders along the proposed project corridor, would benefit from access to GIS data for the proposed alignment that can be easily downloaded or served to a GIS for use and analysis. We recommend that FERC, or Algonquin, provide access to online mapping that allows users to interact with maps and map layers. The online mapping would allow stakeholders to view and interact with maps of the proposed alignment locations for the entire project, including choosing which map layers to view at various map scales. All of the layers used to create project maps for the EIS could be made accessible including those for: water (e.g. drinking water protection areas; aquifers, etc); fish, wildlife; vegetation; cultural resources; socioeconomics; geological resources; soils, land use (e.g. known contamination sites, etc.); recreation and aesthetics; air and noise quality. There are many, readily available, commercial mapping applications that can be used to establish this capability. As one example, EPA offers its NEPAssist tool which facilitates the environmental review process and project planning in relation to environmental considerations.

Wetlands and Other Aquatic Resources

We recommend that the EIS provide a detailed description of the wetlands/water bodies and vernal pools along the pipeline alignment and proposed facility installations that includes their location as well as an assessment of their ecological functions and services.[1] We recommend that the EIS also describe the portions of the pipeline construction work that will involve discharging dredged or fill material in wetlands or other waters of the United States that will be subject to the permit requirements of Section 404 of the Clean Water Act (CWA). The EIS should include an evaluation of ways in which each alternative alignment, or project related facility such as the proposed LNG Storage tanks, liquefaction facility, gasification facility, compressor stations and other associated infrastructure can be designed/sited to avoid, and where unavoidable, minimize impacts to wetlands and other waters of the U.S.

Discharge activities must comply with EPA's regulations issued under CWA Section 404(b)(1), referred to as EPA's Section 404(b)(1) Guidelines (the "Guidelines") (40 CFR Part 230), which include the following requirements: that there be no practicable, less environmentally damaging alternative to the proposed action; that the activity not cause or contribute to violations of state water quality standards or toxic effluent standards; that the activity not jeopardize endangered or threatened species or violate requirements to protect marine sanctuaries; that the activity not cause or contribute to significant degradation of waters of the United States; and that all practicable and appropriate steps be taken to minimize potential adverse impacts to the aquatic ecosystem (40 CFR 230.10). The Guidelines further establish a presumption, which the

[1] We recommend that the wetland assessment be prepared in a manner consistent with the Army Corps of Engineers New England District descriptive approach to wetland assessment as presented in *The Highway Methodology Workbook Supplement Wetland Functions and Values - A Descriptive Approach*, NEDEP-360-1-30a, November 1995.

applicant has an opportunity to rebut, that for projects that are not water-dependent, less damaging, practicable alternatives exist that do not involve activities in special aquatic sites such as wetlands. Ideally, the information presented in the EIS will support the evaluation of alternatives and associated impacts required under the Guidelines and a better informed permitting process.

Unavoidable impacts to wetlands, surface water resources (impacts to rivers/streams quality and flow), and wildlife should be fully disclosed in the EIS. These impacts include but are not limited to: direct filling of wetlands or other waters for pipeline construction and/or operation; temporary impacts to wetlands or other waters resulting from access for construction and/or operation purposes; indirect[2] impacts, such as clearing impacts resulting in a change (either permanent or temporary) of cover type within a wetland (e.g. converting a forested wetland to an emergent or scrub/shrub wetland); indirect impacts resulting from erosion or sedimentation into wetlands or water bodies; and induced growth which can result from construction of the project (i.e. additional development induced by the development of the pipeline).

In addition, we recommend that all construction practices that will be utilized to minimize impacts be documented. Specifically, we recommend standard conditions to protect wetlands be documented in addition to steps that may be taken to reduce impacts to particularly sensitive areas such as vernal pools. We recommend that the EIS also provide comprehensive information to explain how stream and river crossings will be constructed to avoid and minimize impacts and similarly how impacts to state and federally listed endangered species will be avoided/addressed. In addition, we recommend that the EIS:

- discuss the advantages and disadvantages associated with each of the alternatives considered (with respect to wetland and aquatic resource issues) and the rationale for selecting pipeline alignments and compressor station and other project facility designs and locations with respect to potential impacts to wetland, stream and vernal pool ecosystems. For all sections of the proposed pipeline that will be on new alignment, the alternatives analysis should show how the alignment was designed to minimize aquatic impacts. In addition to access to the GIS data layer showing streams and wetlands, photographs and/or aerial photos or the project corridor can be very helpful at the scoping stage. For the Massachusetts and Connecticut portions of the alignment, we recommend that Massachusetts (Bio Map) and Connecticut Wildlife Action Plan (WAP) information be correlated to project plans/aerial photos, in all locations that are on new alignment. We recommend that WAP information also appear on the USGS maps to clarify co-located utility corridors.

- identify wetlands along the pipeline route and at facility and construction staging locations (either within the right-of-way or in close proximity) that support rare and exemplary natural communities. We recommend that the EIS describe specific mitigative measures to ensure that these communities will be protected from potential direct,

[2] We note that under Section 404 of the Clean Water Act these types of impacts are referred to as "secondary impacts," but that for clarity and consistency we are using the term "indirect impacts" in this letter.

indirect and cumulative impacts associated with the pipeline, compressor stations, and other project facilities.

- clearly identify the locations of temporary and permanent access roads and construction staging areas and discuss how wetland and other aquatic ecosystems will be protected from direct and indirect impacts associated with these activities.

- describe the long-term right-of-way maintenance techniques planned for the project. We recommend that the discussion include: an analysis of the effects of maintenance techniques on plant life and wildlife habitat; an explanation whether herbicides will be used; and whether specific buffer zones will be established around wetlands and other waters where herbicide application would be prohibited. We recommend that the analysis be expanded to discuss the potential for the introduction of invasive species and methods to control their spread over the life of the project.

- discuss and describe appropriate buffer zones to avoid or reduce indirect effects of construction to streams and wetlands (which may vary depending on the wetland community type described). The EIS should include enough information to show the type and location of wetlands in the project area. This information will help us to assess the potential impacts of the proposed action and to determine the effectiveness of the mitigative measures proposed.

- include a comprehensive discussion of measures to further reduce impacts to water bodies and aquatic organisms along the pipeline routes including the use of directional drilling and time of year restrictions to control instream construction work periods. We recommend that the EIS also provide detailed contingency plans that fully describe the process that will be followed should the chosen construction technique prove unsuitable (for example, failure of the directional drilling). EPA suggests that this process description identify other potential construction techniques and the approvals necessary before a major modification can be made to agreed-upon (and permitted) construction protocols.

In addition, we recommend that the EIS describe a strategy for determining adequate mitigation to compensate for all unavoidable direct, indirect and cumulative impacts to wetlands and aquatic resources from construction and operation of the project. We recommend that the EIS describe how the project will be consistent with the 2008 Compensatory Mitigation Rule (33 CFR Part 332, and 40 CFR Part 230, Subpart J, also discussed in detail at the Corps website referenced in the footnote below). Compensatory mitigation will also need to comply with the US Army Corps of Engineers (Corps) New England District Compensatory Mitigation Guidance.[3]

[3] The US Army Corps of Engineers (Corps) New England District Compensatory Mitigation Guidance can be found at : http://www.nae.usace.army.mil/Missions/Regulatory/Mitigation/CompensatoryMitigationGuidance.aspx.

We recommend that this strategy specifically describe the methodology that will be used to determine the amount and type of mitigation that will be necessary to address direct, indirect and cumulative impacts to wetlands and other aquatic resources, and the approach that will be used to develop an appropriate mitigation package. This description and analysis should include but not be limited to a clear presentation of the following impacts and the compensatory mitigation strategy proposed to offset those impacts:

- Direct Impacts (the placement of fill) to wetlands, streams and vernal pools.[4]

- Temporary Impacts (alteration to wetlands that will be restored to previous condition; for example, cutting trees, or the placement and use of swamp mats or temporary access roads or staging areas for the construction process) to forested, shrub and emergent plant communities.

- Indirect Impacts, including but not limited to: the permanent conversion of forested wetlands to scrub-shrub wetlands; permanent conversion of forested wetlands to emergent wetlands; removal of forested cover (upland or wetland) within 100' of any vernal pool; and removal of forested cover (upland or wetland) within 100' of any stream.

Lastly, we recommend that the EIS discuss wetland impacts associated with operation and maintenance of project pipelines and other facilities and whether compensatory mitigation is necessary to address these impacts.

LNG Facility

As discussed above, EPA's Guidelines include several requirements that must be met for a discharge of dredge or fill material into wetlands or other waters of the U.S. to be permitted. Two of the Guidelines' requirements are of particular importance when evaluating the proposed project: (1) that no discharge of dredged or fill material shall be permitted which will cause or contribute to significant degradation of the waters of the United States (40 CFR 230.10(c)); and, (2) that no discharge of dredged or fill material shall be permitted if there is a practicable alternative to the proposed discharge which would have less adverse impact on the aquatic ecosystem (40 CFR 230.10(a)).

Significant Degradation – 40 CFR 230.10(c)

It is important to note that the Guidelines require that no alternative be permitted that causes or contributes to significant degradation of waters of the U.S. According to preliminary information provided by Algonquin, development of the Acushnet LNG facility has the potential to impact at least 65 acres of forested wetland on the Acushnet site. Because current wetland delineation and assessment of the ecological functions and services of aquatic resources on the proposed site is incomplete, there is not enough information available at this time to conclusively determine the total impacts of the proposed Acushnet LNG facility, or whether those impacts

[4] We recommend that the EIS identify the number of pools what would be impacted directly by the project (with the number impacted being more important than the total acres of vernal pool impacted). However, secondary impacts to vegetation within 100' of the vernal pools can remain as a simple total of square feet.

would result in significant degradation. However, it should be noted that the estimated direct impact to 65 acres or more of wetlands for the proposed Acushnet LNG facility (not including the additional project impacts associated with pipeline work) if permitted, would represent one of the largest direct impacts allowed in New England to date. It is therefore critical that all practicable alternatives for design and location of the LNG facilities, as discussed below, be fully considered to reduce project impacts.

Alternatives - 40 CFR 230.10(a)

As part of the alternatives analysis discussed above, it is important that the EIS provide a complete, detailed evaluation of alternatives for the proposed LNG facility. A discussion of alternatives for the LNG facility was presented in Algonquin's April, 2016 Supplemental Project Information Filing ("Supplemental Report"), which expanded upon the earlier alternatives analysis presented in Resource Report 10. While these reports provide useful information, commensurate with the severity of impact, we recommend that the EIS consider a greater range of alternatives than presented in the Supplemental Report, as well as provide more detail on each alternative considered and its associated environmental impacts.

The LNG facility is a unique project feature in that it is a standalone facility that can be situated in a wide range of locations along the pipeline route. Because of the severity and potential significance of the estimated impacts to aquatic resources at the Acushnet site, we strongly recommend that FERC consider a much broader range of LNG facility siting alternatives to meet the project purpose than presented to date. For example, the Supplemental Report limited the study area for siting the LNG facility to a radius of five miles from the G system line. The Supplemental Report notes that locating the LNG facility in close proximity to the G system would be optimal, so the range of alternatives considered was within a five mile radius of the G system. However, other LNG site locations, while perhaps not optimal, might nonetheless be practicable and less environmentally damaging alternatives that meet the project purpose and therefore warrant full consideration.

It is our understanding that Algonquin has expanded the study area of potential LNG facility sites to a radius of ten miles. While this expansion of the study area for possible LNG facility sites is appropriate, as EPA noted in recent meetings with FERC, Algonquin and the Corps of Engineers, the critical criterion for determination of appropriate locations for the LNG facility (or other project features) is practicability. Site locations at distances greater than ten miles from the G system, or which tie into the main gas pipeline system at some other location, must be evaluated and demonstrated to be impracticable before being eliminated from consideration. Further, we note that under the Guidelines, "available" sites are not limited to those currently owned or controlled by the applicant, but also include those that can reasonably be obtained, utilized, expanded, or managed to fulfill the basic project purpose.

Similarly, as EPA suggested during a recent meeting with FERC and Algonquin, that alternative LNG facility designs be considered to determine if environmental impacts can be reduced while still meeting the project purpose and need. For example, a design using several smaller, separate LNG storage facilities, each near different subsets of regional power generating facilities, could eliminate limitations presented by the search for a relatively large (150 acre) site to accommodate two large LNG storage tanks at a single site. By reducing the required area for

each LNG facility site, the number of potential practicable locations would likely increase, thus increasing the likelihood of finding sites that would result in less environmental harm. Whether considering single or multiple LNG facilities, alternate locations or designs should be fully considered, such as sites near water bodies, or the incorporation of other engineering or design features, that could reduce required site area and thus potentially increase the number of less damaging site alternatives.

Again, in assessing alternative sites, the key criterion for facility location and design (size and number of LNG facilities, engineered features to reduce required site area, etc.) is practicability. While cost, desirability of location, etc., is taken into consideration, the fact that an alternative may have reasonably greater costs, or be sited in a less than optimal location, does not necessarily render that alternative impracticable.

As we discussed in interagency meetings, we recommend that the EIS be prepared to meet the requirements of both NEPA and address the requirements of Section 404 of the Clean Water Act. We support this coordinated environmental review and believe that it will save time, avoid redundancy and make it easier for the public to participate in the process. EPA intends to continue to work closely with FERC, the Corps and Algonquin during the NEPA pre-filing process to support a comprehensive analysis of alternatives and to strengthen the NEPA and Section 404 processes going forward.

Air Quality Analysis

General Conformity

The Access Northeast Project will be located in portions of New Jersey, New York, Connecticut, Rhode Island, and Massachusetts. The broad scale project map for New England indicates that the project may be located within a number of carbon monoxide and fine particle attainment areas with current maintenance plans in place, as well as two ozone nonattainment areas. Project components located within these areas need to be evaluated for applicability to the Federal General Conformity regulations. (The General Conformity regulations can be found at 40 CFR 93.150 – 165.) Specifically, if the total of direct and indirect emissions of a criteria pollutant or precursor in a nonattainment or maintenance area caused by a Federal action would equal or exceed the applicability thresholds established in 40 CFR 92.153, the requirements of general conformity must be satisfied.

The attainment and nonattainment areas with a current maintenance plan in place within the project areas in Connecticut and Massachusetts appear in the following chart. General conformity is applicable in these areas. In addition, the chart identifies the general conformity applicability thresholds from 40 CFR 93.153, in tons per year (tpy), for each of these areas:

National Ambient Air Quality Standard (NAAQS)	Name of Area	Air Quality Designation	General Conformity Thresholds (tpy)
Connecticut see 40 CFR 81.307			
2008 ozone NAAQS	Greater Connecticut	Marginal Nonattainment*	VOC: 50 NOx: 100
2008 ozone NAAQS	Connecticut Portion of New York-Northern New Jersey-Long Island, NY-NJ-CT	Marginal Nonattainment*	VOC: 50 NOx: 100
1997 Annual Fine Particulate Matter ($PM_{2.5}$) NAAQS	Connecticut Portion of New York-Northern New Jersey-Long Island, NY-NJ-CT	Attainment with a maintenance plan in place (Effective 10/24/2013)	Direct $PM_{2.5}$, SO_2, and NO_X (unless determined not to be a significant precursor): 100 VOC or ammonia (if determined to be significant precursors): 100
2006 24-Hour $PM_{2.5}$ NAAQS	Connecticut Portion of New York-Northern New Jersey-Long Island, NY-NJ-CT	Attainment with a maintenance plan in place (Effective 10/24/2013)	Direct $PM_{2.5}$, SO_2, and NO_X (unless determined not to be a significant precursor): 100 VOC or ammonia (if determined to be significant precursors): 100
Carbon Monoxide (CO)	New Haven-Meriden-Waterbury	Attainment with a limited maintenance plan in place (Effective 12/04/1998)	CO: 100
CO	Connecticut Portion of New York-Northern New Jersey-Long Island	Attainment with a limited maintenance plan in place (Effective 05/10/1999)	CO: 100
Massachusetts see 40 CFR 81.322			
CO	Waltham area	Attainment with a limited maintenance plan in place (Effective 04/22/2002)	CO: 100
CO	Worcester area	Attainment with a limited maintenance plan in place (Effective 04/22/2002)	CO: 100

*Effective June 3, this area is elevated up to moderate nonattainment status. See 81 FR 26715; May 4, 2016. However, the general conformity thresholds do not change.

On March 6, 2015 (80 FR 12264), EPA published the Final Rule for "Implementation of the 2008 National Ambient Air Quality Standards for Ozone: State Implementation Plan Requirements." This final rule revoked the 1997 ozone National Ambient Air Quality Standard effective April 6, 2015; hence, conformity is no longer applicable to the 1997 ozone NAAQS, and accordingly, is not addressed in the above chart.

In addition, in October 2015, EPA adopted a more stringent ozone NAAQS of 0.070 parts per million (ppm). (See 80 FR 65292; October 26, 2015.) However, EPA has not yet designated areas pursuant to the 2015 ozone NAAQS. Therefore, that standard is also not addressed in the above chart. (The designations timeline is for states to submit recommendations to EPA by October 2016 and for EPA to issue designations by October 2017.)

There are currently no nonattainment or maintenance areas for the current NAAQS in Rhode Island. (See 40 CFR 81.340.) Therefore, general conformity does not currently apply in that State. Conformity does apply in areas in New Jersey and New York (see 40 CFR 81.331, and 81.333, respectively).

EPA is available to work with FERC during the development of the EIS to help address general conformity and insure general conformity is satisfied prior to any trigger of the "take or start Federal action" requirement.

Reducing Diesel Emissions

Given the public health concerns about diesel exhaust from heavy duty diesel trucks and other heavy duty construction equipment, EPA encourages the project proponent to commit to the use later model diesel engines where possible. Alternatively, we encourage the project proponent to require diesel retrofits where practicable, require the use of cleaner fuels, and institute idle reduction measures to minimize emissions from diesel construction equipment. Retrofit technologies may include EPA verified emission control technologies and fuels and CARB-verified emission control technologies. A list of these diesel exhaust control technologies can be accessed at https://www.epa.gov/verified-diesel-tech/manufacturer-contact-list-clean-diesel. A list of approved idle reduction technologies can be found on the Agency's SmartWay site here: https://www.epa.gov/verified-diesel-tech/smartway-verified-list-idling-reduction-technologies-irts-trucks-and-school. Additionally, operator training to reduce unnecessary idling of equipment to supplement the adoption of these technologies is encouraged.

The Northeast Diesel Collaborative has prepared model construction specifications to assist in developing contract specifications that would require construction equipment to be retrofitted with control devices and use clean fuels in order to reduce diesel emissions. The model construction specifications can be found on the Northeast Diesel Collaborative web site http://northeastdiesel.org/pdf/NEDC-Construction-Contract-Spec.pdf.

We recommend that FERC identify specific exhaust emission mitigation measures in the EIS and require a binding commitment from the applicant to implement these measures to help reduce and minimize the air quality impacts from construction of the proposed project.

Regional Impacts of the Project

In addition to the typical analysis of air pollution from construction impacts and operation of the project, we suggest that the EIS also include an assessment of how the project is likely to provide regional environmental benefits due to reductions in emissions for the electric generation sector.

State Air Permits and Licensing

New or modified compressor stations may be subject to state air quality permitting or other state air quality emission regulations. We encourage the applicant to coordinate early on with the appropriate State Air Quality Agencies to identify applicable requirements. The EIS should describe these requirements in detail, especially the opportunities for public involvement regarding siting, and mitigation for impacts associated with operations of the compressor station facilities. The EIS would be improved by including in the siting discussion an explanation of how much flexibility in compressor station siting exists along the pipeline route and whether/how the compressor station locations suggested for the project avoid/minimize community impacts. We encourage a transparent permitting process that encourages early public input in the state permitting process.

Greenhouse Gas Emissions

EPA recommends that FERC include an estimate of the direct and indirect greenhouse gas (GHG) emissions caused by the proposal, a discussion of the impacts of climate change, and an analysis of reasonable alternatives and/or practicable mitigation measures to avoid, reduce, or compensate for GHG emissions caused by the proposal in the EIS. Incremental emissions mix rapidly in the atmosphere and have global-scale incremental impacts. In addition, CO_2 emissions have centuries-long impacts, including global scale changes in ocean acidity, sea level, and mean temperature, as well as changes to local drought and precipitation levels. For purposes of informing decisionmakers and the public, EPA recommends this context be provided, and that estimated GHG emissions levels be used as a general proxy to compare emissions levels from the proposal, alternatives, and potential mitigation. In other words, alternatives with higher levels of emissions make greater contributions to the impacts and risks of global climate change.

In addition, we recommend that the design of the proposed action consider GHG reduction measures and improvements to the proposal's resilience to projected climate change scenarios. We recommend that the EIS make clear whether commitments have been made to implement measures to avoid, reduce, or compensate for GHG emissions and/or to adapt to climate change.

Emissions

The EPA recommends that the EIS estimate the direct and indirect GHG emissions caused by the proposal and its alternatives, including emissions caused by the production, and use of the natural gas to be transported. Examples of tools for estimating and quantifying GHG emissions can be found on CEQ's website.[5] These emissions levels can serve as a reasonable proxy for climate change impacts when comparing the alternatives and considering appropriate mitigation measures.

[5] https://ceq.doe.gov/current_developments/GHG_accounting_methods_7Jan2015.html

The EPA recommends that the EIS describe measures to reduce GHG emissions associated with the project, including reasonable alternatives and other practicable mitigation opportunities, and disclose the estimated GHG reductions. The EPA further recommends that the EIS commit to implementation of reasonable mitigation measures that would reduce project-related GHG emissions.

Climate Change Adaptation

We recommend that FERC provide a summary discussion of climate change and ongoing and reasonably foreseeable effects of climate change relevant to the project and the project study area relevant to the proposal, based on U.S. Global Change Research Program assessments.[6] These future climate scenarios included in the assessments can be useful when considering measures to improve the resiliency of the proposed project to the impacts of climate change as well as mitigation for potential impacts of the proposal that will be exacerbated by climate change.

The EPA recommends that, consistent with federal policy, the proposal's design incorporate measures to improve resiliency to climate change where appropriate. These changes could be informed by the future climate scenarios addressed in the "Affected Environment" section. The alternatives analysis should, as appropriate, consider practicable changes to the proposal to make it more resilient to anticipated climate change. Changing climate conditions can affect a proposed project, as well as the project's ability to meet the purpose and need presented in the EIS. One such example would be infrastructure located in coastal regions that may be affected by sea level rise.

Effects of Climate Change on Project Impacts:

When considering the potential impacts of the proposal, we recommend FERC consider the future climate scenarios in the "Affected Environment" section to determine whether the environmental impacts of the alternatives would be exacerbated by climate change. If impacts may be exacerbated by climate change, additional mitigation measures may be warranted.

Methane Leakage

We recommend FERC include estimates of expected methane leakage from the proposal and consider potential best management practices to reduce leakage of methane associated with operation of the expansion facilities. EPA has compiled useful information on technologies and practices that can help reduce methane emissions from natural gas systems, including specific information regarding emission reduction options for natural gas transmission operations. This information may be found at http://www3.epa.gov/gasstar/methaneemissions/index.html.

Environmental Justice

Pursuant to Executive Order 12898 - Federal Actions to Address Environmental Justice in Minority and Low-Income Populations, "Each Federal Agency shall analyze the environmental effects, including human health, economic and social effects, of Federal actions, including effects on minority communities and low-income communities, when such analysis is required by NEPA. Mitigation measures outlined or analyzed in an environmental assessment, environmental impact statement, or record of decision, whenever feasible, should address

[6] http://www.globalchange.gov/

significant and adverse environmental impacts of proposed Federal actions on minority communities and low-income communities." We encourage FERC to fully consider environmental justice issues as it prepares the EIS for the project.

Guidance[7] by CEQ clarifies the terms low-income and minority population (which includes Native Americans) and describes the factors to consider when evaluating disproportionately high and adverse human health effects. The EIS should include an evaluation of environmental justice populations within the geographic scope of the project. Assessment of the project's impact on minority and low income populations should reflect coordination with those affected populations.

We suggest that community level data be used to determine the presence of low-income and minority populations in the project area that may be potentially impacted. We recommend comparing this data to municipal or state level data to ensure that minority and low-income populations are properly identified. Community level data is the most useful in that it captures EJ populations that may be present at the municipal level but not identifiable when the analysis occurs at a broader level such as at the census tract level. This approach will ensure that the presence of minority and low-income populations are not artificially diluted or inflated and that the characteristics of the potentially affected communities are identified in order to evaluate potential impacts from the proposed action. Where community level data is impractical to develop, census tract data may be an appropriate source of demographic information.

EPA's EJSCREEN is an environmental justice screening and mapping tool that utilizes standard and nationally consistent data to highlight places that may have higher environmental burdens and vulnerable populations. EJSCREEN can be accessed at http://www2.epa.gov/ejscreen. Moreover, the NEPA Committee of the Interagency Working Group (IWG) on Environmental Justice recently released the Promising Practices for EJ Methodologies in NEPA Reviews. The report contains a compilation of methodologies used across the federal government for EJ analyses in the NEPA process.

An important component of project success is related to effective community engagement that fosters public understanding of the project and its impacts, and the range of solutions and steps to mitigate impacts. Communication with potentially affected EJ populations along the project route and near the LNG facility site(s) for the balance of the NEPA process, during project permitting, and as the project moves into the construction and operation phase will be critical. In particular, we recommend a robust public involvement strategy to inform and engage a broader spectrum of the EJ populations about the types of work and impacts they can expect during project construction and operation. The strategy should provide high quality, consistent, timely and appropriately targeted information such that it is clear and easily understood by a diverse audience. Please refer to EPA's EJ website[8] for additional information.

We acknowledge that FERC is, for legal status purposes, a commission and not an agency; however, given the importance of environmental impacts to disadvantaged communities,

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[7] Environmental Justice Guidance under the National Environmental Policy Act, Appendix A (Guidance for Federal Agencies on Key Terms in Executive Order 12898), CEQ, December 10, 1997.

[8] http://www.epa.gov/environmentaljustice/

particularly with a project of this magnitude, we encourage FERC to respect the spirit of the Executive Order. We believe proactive engagement of the environmental justice community will add value and minimize objections to the project.

EPA is willing to assist Algonquin and FERC to help improve the outreach to affected EJ populations along the project alignment. Please contact Deborah Brown of EPA's Environmental Justice program at 617-918-1706 for additional assistance with this outreach.

Impacts to Health & Monitoring of Project Impacts

EPA recommends that the EIS include an analysis of the potential for health impacts to host communities from the Weymouth compressor station that will be enlarged as a component of the AN project and for the Acushnet LNG storage, liquefaction and gasification facility. We recommend that the assessment address emissions during normal operations and during limited duration and/or infrequent events, including start-up, shutdown, blowdown, and flaring. EPA also recommends that FERC consider requiring the applicant to develop a monitoring plan for the Weymouth and Acushnet facilities. We recommend that facility monitoring assess pre- and post-construction emission exposure so as to address citizen concerns regarding facility emissions, particularly emissions of particulate matter (PM) and hazardous air pollutants (HAPs). The monitoring plan should include timing that will evaluate peaks of no more than 20 minutes, since it is the short term peaks that can trigger asthma and cardiovascular incidents. EPA suggests that the EIS also discuss the complete range of mitigation measures/design technologies that will be implemented to reduce emissions from the Weymouth and Acushnet facilities during all phases of project operation. We recommend that the EIS include an evaluation of the potential air quality gains from the implementation of electrified compressor station units to reduce emissions to host communities. Additionally, we recommend that FERC conduct a project-specific quantitative human health risk assessment that addresses chronic and acute risk categories for both normal and infrequent project-related emissions at each affected community, and that includes an assessment of maximum project-related impacts and cumulative impacts, particularly in environmental justice areas affected by the project.

We also recommend that FERC require submission of data from the monitoring effort to appropriate state and local authorities for review on a quarterly basis and that additional mitigation be required for emissions should monitoring data show that potential health impacts are significant. We recommend as a benchmark for significance an increased lifetime cancer risk of one in one million and a hazard index in excess of 1. These benchmarks were considered in the assessment FERC prepared for the New Market project. That analysis may serve as an appropriate template for an AN health impact assessment.

Children's Health Issues

Pursuant to Executive Order 13045 on Children's Health and Safety, we recommend the EIS identify and assess environmental health and safety risks that may disproportionately affect children. Analysis and disclosure of these potential effects under NEPA is important because some physiological and behavioral traits of children render them more susceptible and vulnerable than adults to health and safety risks. Children may be more highly exposed to contaminants

because they generally eat more food, drink more water, and have higher inhalation rates relative to their size. Also, children's normal activities, such as putting their hands in their mouths or playing on the ground, can result in higher exposures to contaminants as compared with adults. Children may be more vulnerable to the toxic effects of contaminants because their bodies and systems are not fully developed and their growing organs are more easily harmed.

We recommend that an analysis of impacts to children from construction and operation of the pipeline, as well as the Weymouth and Acushnet facilities, be included in a NEPA analysis if there is a possibility of disproportionate impact on children related to the proposed action. EPA views childhood as a sequence of lifestages. Therefore, exposures to children at each lifestage, as well as pregnant and nursing women, are relevant and should be considered when addressing health and safety risks for children.

Because children may be more susceptible to noise levels, mobile source air pollution, construction dust, and the chemicals associated with building and construction materials, we recommend that the NEPA analysis specifically address the potential direct, indirect, and cumulative impacts of the proposed project on children's health, including consideration of prenatal exposures (exposures that may be experienced by pregnant women).

For more information on how to characterize and address children's exposures and susceptibilities to pollutants of concern, please see our August 14, 2012 memo "Addressing Children's Health through Reviews Conducted Pursuant to the National Environmental Policy Act and Section 309 of the Clean Air Act.[9]

Please contact Kathleen Nagle, EPA New England's Children's Environmental Health Coordinator at 617-918-1985 with any questions regarding the consideration of Children's Health issues.

Tribal Coordination

The NOI explains that FERC is using the scoping process to solicit the views of interested Indian tribes and the public on the project's potential effects.

Since several federally recognized tribes claim cultural affiliation with at least some of the impacted areas of the proposed area of potential effect, it is recommended that all tribes in the impacted states be invited as a consulting party.

- In New England, this includes the Mashantucket Pequot Tribal Nation, the Mohegan Tribe, the Narragansett Indian Tribe, the Wampanoag Tribe of Gay Head (Aquinnah), and the Mashpee Wampanoag Tribe. Additionally, the Stockbridge-Muncee Band of Mohican Indians, headquartered in Bowler, Wisconsin with a Tribal Historic Preservation Office in Troy, NY, likely claims cultural affiliation with a portion of the area of potential effect (APE) that traverses western Massachusetts, and may be interested as a consulting party.

[9] http://www2.epa.gov/sites/production/files/2014-08/documents/nepa-childrens-health-memo-august-2012.pdf

- In New York, this includes the Oneida Nation, Onondaga Nation, Seneca Nation, Cayuga Nation, Tuscarora Nation, the Saint Regis Mohawk Tribe, and the Shinnecock Nation.

- For the portion of the APE located in New Jersey, there are two federally recognized tribes currently residing in Oklahoma that may claim cultural affiliation, as their ancestral homelands include sections of New Jersey. These tribes include the Delaware Tribe of Indians (http://delawaretribe.org/services-and-programs/historic-preservation/states-and-counties-covered-by-dthpo/) and the Delaware Nation (http://delawarenation.com/).

Pipeline Construction

We recommend the EIS for the AN project specifically address the following issues:

- Pipeline materials and corrosion protection proposed for the pipeline;
- How pipe sections will be joined and how leaks will be detected and addressed;
- Measures to protect the pipeline should it pass under a heavily trafficked road to prevent damage from heavy loads;
- Proposed trench backfill material and a description of precautions to avoid damage to the pipe or its coating.

Analysis of Indirect and Cumulative Impacts

The Council on Environmental Quality's (CEQ) NEPA regulations require EISs to evaluate growth-inducing changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems that result from the proposed action and alternatives. The regulations define indirect (sometimes called 'secondary') effects as those "which are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable." The regulations state that impacts include ecological, aesthetic, historical, cultural, economic, social, or health impacts, whether direct, indirect, or cumulative. The CEQ NEPA regulations define cumulative impacts as "…the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time."

The AN project is one of several Algonquin projects proposed in the NY/New England Region in addition to the SPECTRA AIM and Atlantic Bridge proposals. All three projects include work to replace/expand portions of the Algonquin mainline and some portions of the projects, in New York for example, are located next to each other. The AN project intends to utilize the compressor station to be built for the Atlantic Bridge project (with the addition of more horsepower). We recommend that the EIS contain a detailed account of cumulative impacts to forest land, wetlands, and emissions from the project and proposed compressor station upgrades. We recommend a cumulative impacts analysis for the EIS broad enough to encompass all of the construction and operation air emissions at a regional level.