

150 FERC ¶ 61,163
UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Cheryl A. LaFleur, Chairman;
Philip D. Moeller, Tony Clark,
Norman C. Bay, and Colette D. Honorable.

Algonquin Gas Transmission, LLC

Docket No. CP14-96-000

ORDER ISSUING CERTIFICATE AND APPROVING ABANDONMENT

(Issued March 3, 2015)

1. On February 28, 2014, Algonquin Gas Transmission, LLC (Algonquin) filed an application in Docket No. CP14-96-000 pursuant to section 7(c) of the Natural Gas Act (NGA)¹ and Part 157 of the Commission's regulations² for authorization to construct and operate its Algonquin Incremental Market Project (AIM Project) in New York, Connecticut, Rhode Island, and Massachusetts. Algonquin also requests NGA section 7(b) authorization to abandon a meter and regulating station in New London County, Connecticut, which will be replaced as part of the project, as well as to remove and replace certain aboveground facilities. Algonquin states that the AIM Project will enable it to provide 342,000 dekatherms (Dth) per day of firm transportation service from its existing recipient points in Ramapo, New York, to various city gate delivery points in Connecticut, Rhode Island, and Massachusetts.

2. For the reasons stated below, we will grant the requested authorizations, subject to certain conditions.

I. Background and Proposals

3. Algonquin is a limited liability company organized and existing under Delaware law and an indirect, wholly-owned subsidiary of Spectra Energy Partners, LP. Algonquin is a natural gas company as defined in the NGA, engaged in the transportation of natural

¹ 15 U.S.C. § 717f(c) (2012).

² 18 C.F.R. Pt. 157 (2014).

gas in interstate commerce subject to the Commission's jurisdiction. Algonquin's natural gas pipeline system extends from points near Lambertville and Hanover, New Jersey, through the states of New Jersey, New York, Connecticut, Rhode Island, and Massachusetts, to points near the Boston area.

A. AIM Project Proposal

4. Algonquin proposes to construct, install, operate, and maintain approximately 37.4 miles of pipeline and related facilities in New York, Connecticut, and Massachusetts. Specifically, Algonquin proposes the following activities:

- replace approximately 20.1 miles, in three segments, of 26-inch-diameter pipeline with 42-inch-diameter pipeline in Putnam, Rockland, and Westchester Counties, New York, and Fairfield County, Connecticut;
- install approximately 2.0 miles of 36-inch-diameter pipeline looping in Middlesex and Hartford Counties, Connecticut (Line 36A Loop Extension);
- replace approximately 9.1 miles of 6-inch-diameter pipeline with 16-inch-diameter pipeline on the E-1 System Lateral in New London County, Connecticut (E-1 System Lateral Take-up and Relay);
- install approximately 1.3 miles of 12-inch-diameter pipeline looping in New London County, Connecticut (E-1 System Lateral Loop); and
- install approximately 4.1 miles of 16-inch-diameter pipeline and approximately 0.8 miles of 24-inch-diameter pipeline off its existing I-4 System Lateral in Norfolk and Suffolk Counties, Massachusetts (West Roxbury Lateral).

5. In addition, Algonquin proposes to add 81,620 horsepower (hp) of compression at six compressor stations in New York, Connecticut, and Rhode Island with the following modifications:

- install two new 15,900 hp natural gas-fired compressor units, restage one existing compressor unit, install gas cooling for the new compressor units, and modify station piping at the Stony Point Compressor Station in Rockland County, New York;
- install one new 10,320 hp natural gas-fired compressor unit, restage one existing compressor unit, replace the compressor body of one existing compressor unit, install gas cooling for the new compressor unit, and modify station piping at the Southeast Compressor Station in Putnam County, New York;

- restage one existing compressor unit at the Oxford Compressor Station in New Haven County, Connecticut;
- install one new 15,900 hp natural gas-fired compressor unit, install gas cooling for the new compressor unit and two existing turbine-driven compressor units, and modify station piping at the Cromwell Compressor Station in Middlesex County, Connecticut;
- install one new 7,700 hp natural gas-fired compressor unit, restage two existing compressor units, install gas cooling for the new compressor unit and two existing compressor units, and modify station piping at the Chaplin Compressor Station in Windham County, Connecticut; and
- install one new 15,900 hp natural gas-fired compressor unit, restage one existing compressor unit, install gas cooling for the new compressor unit, and modify station piping at the Burrillville Compressor Station in Providence County, Rhode Island.³

6. Algonquin also proposes to abandon certain facilities, construct three new metering and regulating stations (meter stations), and modify 24 existing meter stations as follows:

- remove the Greenville Meter Station in New London County, Connecticut;
- construct a new meter station to replace the Greenville Meter Station and provide an interconnection with Norwich Public Utilities in New London County, Connecticut (Oakland Heights Meter Station);

³ Upon completion of the AIM Project, the Stony Point, Southeast, Cromwell, Chaplin, and Burrillville Compressor Stations will each have more than 15,000 horsepower. Algonquin states that it has considered installing and operating waste heat cogeneration facilities as discussed in the Interstate Natural Gas Association of America White Paper titled “*Waste Energy Recovery Opportunities for Interstate Natural Gas Pipelines*” (February 2008), but has determined that waste heat recovery currently is not viable for these compressor stations. We encourage Algonquin to monitor the Stony Point, Southeast, Cromwell, Chaplin, and Burrillville Compressor Stations, and provide information on its electronic bulletin board if it determines in the future that installing and operating waste heat recovery facilities would be technically feasible and commercially viable.

- construct a new meter station to provide an interconnection with NSTAR Gas Company in Bristol County, Massachusetts (Assonet Meter Station);
- construct a new meter station at milepost (MP) 4.2 of the proposed West Roxbury Lateral to deliver natural gas to Boston Gas Company in Suffolk County, Massachusetts (West Roxbury Meter Station);
- modify 24 existing meter stations in New York, Connecticut, and Massachusetts; and
- remove, replace, or install various pig launcher and receiver facilities, valves and related piping, and pressure regulating facilities in New York, Connecticut, and Massachusetts.

7. Algonquin held open seasons for the AIM Project from December 13, 2010, through February 11, 2011, and from September 20 through November 2, 2012. Algonquin held a supplemental open season and a reverse open season from June 11 through June 25, 2013, to solicit bids for additional service and for the release of existing firm transportation entitlements. As a result of the open seasons, Algonquin executed precedent agreements with eight local distribution companies and two municipal utilities (collectively, the Project Shippers)⁴ for 342,000 Dth per day of firm transportation service, or 100 percent of the firm transportation service to be made available by the project. Algonquin estimates the cost of the AIM Project will be \$971,551,683.⁵

8. Algonquin states that it will provide services to the Project Shippers at negotiated rates. However, Algonquin proposes incremental recourse rates for the AIM Project capacity on its mainline facilities and West Roxbury Lateral. Algonquin states that while it is not requesting that the Commission find in this proceeding that there should be a presumption of rolled-in rate treatment for the cost of the AIM Project in a future section 4 rate proceeding, Algonquin reserves the right to seek rolled-in rate treatment.

9. Algonquin also proposes to recover incremental fuel use and lost and unaccounted for fuel on the AIM Project mainline facilities through incremental fuel

⁴ The Project Shippers are Bay State Gas Company; Boston Gas Company; Colonial Gas Company; Connecticut Natural Gas Corporation; Middleborough Gas and Electric; The Narragansett Electric Company; Norwich Public Utilities; NSTAR Gas Company; The Southern Connecticut Gas Company; and Yankee Gas Services Company.

⁵ Algonquin estimates that the West Roxbury Lateral facilities will cost \$95,293,105 and the remaining AIM Project mainline facilities will cost \$876,258,578.

retention percentages and to track charges for the incremental services. Algonquin states that it will adjust its periodic tracker mechanisms to ensure that existing customers do not subsidize the costs of the new incremental services. Algonquin does not propose to assess a fuel reimbursement percentage for service on the West Roxbury Lateral.

B. Algonquin Gas Transmission Project (AGT Project)

10. In addition to the proposed AIM Project facilities, Algonquin's application identifies other replacement facilities that it states constitute a separate project that it plans to construct under the automatic authorization provided by section 2.55(b) of the Commission's regulations for qualifying replacement facilities.⁶ Algonquin refers to this project as the Algonquin Gas Transmission Project (AGT Project).⁷ Algonquin states that the AGT Project will include the removal of four obsolete 2,700 hp compressor units at the Stony Point Compressor Station that will be replaced by a new 15,900 hp compressor unit that is included in Algonquin's proposed AIM Project. However, Algonquin states that the AGT Project is a separate project for the purpose of meeting U. S. Environmental Protection Agency (EPA) emission standards and applicable state emission standards.

II. Procedural Issues

A. Notice, Interventions, Comments, Protests, and Answers

11. Notice of Algonquin's application was published in the *Federal Register* on March 24, 2014 (79 Fed. Reg. 15,987). Numerous timely and late motions to intervene were filed. Timely, unopposed motions to intervene are granted automatically pursuant to Rule 214 of the Commission's Rules of Practice and Procedure.⁸ We will grant the

⁶ 18 C.F.R. § 2.55(b) (2014). Section 2.55(b) of the Commission's regulations provides authorization for pipeline companies to replace obsolete facilities with new facilities if those new facilities will have substantially equivalent design capacity and all construction activities will be confined to the existing right-of-way and using only the temporary work space used to construct the original facilities.

⁷ See Algonquin's application at Resource Report 9, Appendix 9A.

⁸ 18 C.F.R. § 385.214(c) (2014). Several of the timely intervenors filed their motions to intervene on the basis of the draft environmental impact statement (draft EIS) within the comment period for the draft EIS. Although these motions to intervene were filed after the deadline established by the Commission's notice of Algonquin's application, motions to intervene based on environmental grounds are deemed timely pursuant to sections 157.10(a)(2) and 380.10(a)(1)(i) of the Commission's regulations if

(continued...)

late motions to intervene, as doing so at this stage of the proceeding will not cause undue delay or prejudice other parties.⁹ All parties are listed in Appendix A.

12. We received numerous comments and protests filed by individuals and entities. Hundreds of comments support the proposed project on the basis that, among other things, the project will bring jobs to the area. In comparison, hundreds of other comments and protests raise concerns over the AIM Project's potential environmental impact and the potential economic impact on property values. The environmental and property value concerns are addressed in the Final Environmental Impact Statement (final EIS) and in the environmental analysis below.

13. On March 26, April 23, June 10, July 18, and October 14, 2014, Algonquin filed answers to the comments and protests. Although the Commission's Rules of Practice and Procedure do not permit answers to protests,¹⁰ we will accept Algonquin's answers because they clarify the concerns raised and provide information that has assisted in our decision-making process.

B. Requests for Formal Hearing

14. Mr. William Huston filed a request for a formal hearing to address issues regarding the cumulative impacts of Algonquin's proposed AIM Project and other natural gas pipeline projects planned for the Northeast, the indirect impacts of unconventional natural gas development, and general pipeline safety. Mr. Huston also requests assurance that the project will not export natural gas. As discussed in the environmental analysis below, the final EIS for Algonquin's proposed project considered the cumulative impacts of other projects, indirect impacts of natural gas development, as appropriate, and general pipeline safety. We also address below the concerns raised regarding the potential use of the proposed facilities to export natural gas.

15. Mr. Huston has raised no issues of material fact that cannot be resolved on the basis of the written record in this proceeding and all interested parties have had a full

they are filed within the comment period on a draft EIS. 18 C.F.R. §§ 157.10(a)(2), 380.10(a)(1)(i) (2014).

⁹ 18 C.F.R. § 385.214(d) (2014).

¹⁰ 18 C.F.R. § 385.213(a)(2) (2014).

opportunity to present their views through multiple written submissions.¹¹ Therefore, we will deny the request for a trial-type evidentiary hearing.

III. Discussion

16. Since the proposed facilities will be used to transport natural gas in interstate commerce and the facilities to be abandoned have been used to transport natural gas in interstate commerce subject to the jurisdiction of the Commission, the proposed abandonment, construction, and operation of the facilities are subject to subsections (b), (c), and (e) of section 7 of the NGA.

A. Application of Certificate Policy Statement

17. The Certificate Policy Statement provides guidance for evaluating proposals to certificate new construction.¹² The Certificate Policy Statement establishes criteria for determining whether there is a need for a proposed project and whether the proposed project will serve the public interest. The Certificate Policy Statement explains that in deciding whether to authorize the construction of major new facilities, the Commission balances the public benefits against the potential adverse consequences. The Commission's goal is to give appropriate consideration to the enhancement of competitive transportation alternatives, the possibility of overbuilding, subsidization by existing customers, the applicant's responsibility for unsubscribed capacity, the avoidance of unnecessary disruptions of the environment, and the unneeded exercise of eminent domain in evaluating new pipeline construction.

18. Under this policy, the threshold requirement for pipelines proposing new projects is that the pipeline must be prepared to financially support the project without relying on subsidization from its existing customers. The next step is to determine whether the applicant has made efforts to eliminate or minimize any adverse effects the project might have on the applicant's existing customers, existing pipelines in the market and their captive customers, or landowners and communities affected by the route of the new pipeline. If residual adverse effects on these interest groups are identified after efforts have been made to minimize them, the Commission will evaluate the project by balancing the evidence of public benefits to be achieved against the residual adverse

¹¹ See, e.g., *Florida Gas Transmission Co., LLC*, 143 FERC ¶ 61,215, at P 27 & n.22 (2013).

¹² *Certification of New Interstate Natural Gas Pipeline Facilities*, 88 FERC ¶ 61,227 (1999), *order on clarification*, 90 FERC ¶ 61,128, *order on clarification*, 92 FERC ¶ 61,094 (2000) (Certificate Policy Statement).

effects. This is essentially an economic test. Only when the benefits outweigh the adverse effects on economic interests will the Commission proceed to complete the environmental analysis where other interests are considered.

19. Algonquin's proposal satisfies the threshold requirement that the pipeline must be prepared to financially support the project without relying on subsidization from its existing customers. The Commission has determined, in general, when a pipeline proposes an incremental rate for service utilizing proposed expansion capacity that is higher than the generally applicable system rate, the pipeline satisfies the threshold requirement that the project will not be subsidized by existing supplies.¹³ Algonquin proposes an incremental recourse rate for the expansion capacity on its mainline facilities and a separate incremental recourse rate for service on the West Roxbury Lateral. Thus, the AIM Project can proceed without adverse rate effects on, or subsidies from, Algonquin's existing customers.¹⁴

20. The AIM Project will enable Algonquin to provide 342,000 Dth per day of firm service to the Project Shippers' delivery points to accommodate increasing demand in the New England region. Nothing in the record suggests that Algonquin's existing customers will experience any degradation in service, nor have any of Algonquin's shippers raised any objections to its proposal. Nor is there evidence that the AIM Project will adversely affect other pipelines or their customers.

21. We are additionally satisfied that Algonquin has taken appropriate steps to minimize adverse impacts on landowners. Algonquin will construct approximately 93 percent of the proposed 37.4 miles of replacement pipeline and pipeline looping utilizing existing right-of-way and previously disturbed property. In addition,

¹³ See, e.g., *Transcontinental Gas Pipe Line Corp.*, 98 FERC ¶ 61,155, at 61,552 (2002).

¹⁴ Algonquin will be charging AIM Project Shippers negotiated rates rather than the proposed recourse rates. Under the Commission's general policies, if a pipeline experiences revenue shortfalls as the result of agreeing to negotiated rates with some shippers that are lower than the recourse rate or other generally applicable rate, the pipeline will not be allowed in a future NGA section 4 rate case to recover those revenue shortfalls from existing shippers, including its shippers paying the incremental recourse rate for expansion capacity or for service on the new lateral. See *Alternatives to Traditional Cost-of-Service Ratemaking for Natural Gas Pipelines and Regulation of Negotiated Transportation Services of Natural Gas Pipelines*, 74 FERC ¶ 61,076, at 61,242 (1996); *NorAm Gas Transmission Company*, 77 FERC ¶ 61,011, at 61,033-34 (1996), *order on reh'g*, 81 FERC ¶ 61,204 (1997).

modifications at 21 of the 24 existing meter stations will take place within the existing fenced facilities. Algonquin has made an effort to inform and consult with affected landowners, relevant resource agencies, and other interested stakeholders in the AIM Project. Accordingly, for purposes of our consideration under the Certificate Policy Statement, we find that Algonquin has taken steps to minimize any adverse impacts on landowners and surrounding communities.

22. Several parties and commenters question the need for the project. They contend that the proposed capacity exceeds the volume of natural gas committed for purchase by local gas distributors. One party states that natural gas prices in New England have declined, indicating reduced demand for natural gas. Several parties argue that increased gas production and declining domestic demand as the result of conservation efforts and increased reliance on renewable energy sources will result in the export of natural gas using excess project capacity. In support of their position, several commenters assert that the need for Algonquin's proposed expansion of pipeline capacity is overstated in light of a study commissioned by the New England States Committee on Electricity that showed if current levels of state energy efficiency programs continue, there is no need for additional natural gas infrastructure even with economic growth taken into account. Along with energy efficiency programs, commenters state that any increase in demand can and should be met by relying on renewable energy sources. Another commenter states that if the additional capacity will serve peak demand, that demand should be met by liquefied natural gas (LNG) storage facilities.

23. Algonquin has precedent agreements with the Project Shippers, including eight local distribution companies and two municipal utilities, for 15-year firm transportation service agreements subscribing the entire 342,000 Dth per day of service that will be created by the AIM Project. These service commitments constitute strong evidence that there is market demand for the project,¹⁵ and Ordering Paragraph E of this order conditions construction clearance on Algonquin executing final contracts for service at the levels provided for in its precedent agreements.

24. Further, all of the Project Shippers are local distributors of gas to residential and commercial end users in their service areas and will use the expansion capacity on Algonquin's pipeline system to receive system supplies. Moreover, the Commission does not have jurisdiction over the exportation and importation of natural gas. Such

¹⁵ Certificate Policy Statement, 88 FERC at 61,748.

jurisdiction resides with the U. S. Department of Energy (DOE), which must act on any applications for natural gas export and import authority.¹⁶

25. As for project alternatives, our environmental review considered the potential for energy conservation and renewable energy sources to serve as alternatives to Algonquin's AIM Project, and concluded as discussed below that they do not presently serve as practical alternatives to the project.¹⁷ Further, although state energy efficiency programs and conservation efforts have the potential to reduce the amount of additional pipeline capacity that will be needed in the future, the Project Shippers' commitment to long-term firm transportation agreements demonstrate the present need for Algonquin's AIM Project. Further, we cannot assume, as some commenters do, that the Project Shippers failed to consider the feasibility of additional gas storage, including LNG storage, before committing to additional pipeline capacity.

¹⁶ Section 3(a) of the NGA provides, in part, that "no person shall export any natural gas from the United States to a foreign country or import any natural gas from a foreign country without first having secured an order of the Commission authorizing it to do so." 15 U.S.C. § 717b(a) (2012). In 1977, the Department of Energy Organization Act transferred the regulatory functions of section 3 of the NGA to the Secretary of Energy. 42 U.S.C. § 7151(b) (2012). Subsequently, the Secretary of Energy delegated to the Commission authority to "[a]pprove or disapprove the construction and operation of particular facilities, the site at which such facilities shall be located, and with respect to natural gas that involves the construction of new domestic facilities, the place of entry for imports or exit for exports." DOE Delegation Order No. 00-004.00A (effective May 16, 2006). The proposed facilities are not located at a potential site of exit for natural gas exports. Moreover, the Secretary of Energy has not delegated to the Commission any authority to approve or disapprove the import or export of the commodity itself, or to consider whether the exportation or importation of natural gas is consistent with the public interest. Thus, the issue of whether the export of LNG will cause economic harm is beyond the Commission's purview. See *Corpus Christi Liquefaction, LLC and Cheniere Corpus Christi Pipeline, L.P.*, 149 FERC ¶ 61,283, at P 20 (2014). See also *National Steel Corp.*, 45 FERC ¶ 61,100, at 61,332-33 (1988) (observing that DOE, "pursuant to its exclusive jurisdiction, has approved the importation with respect to every aspect of it except the point of importation" and that the "Commission's authority in this matter is limited to consideration of the place of importation, which necessarily includes the technical and environmental aspects of any related facilities").

¹⁷ See final EIS, section 3-2, issued January 23, 2015.

26. In view of the considerations above, we find that Algonquin has demonstrated a need for the AIM Project and that the project's benefits to the market will outweigh any adverse effects on Algonquin's existing shippers, other pipelines and their captive customers, and on landowners and surrounding communities. Consistent with the criteria discussed in the Certificate Policy Statement and subject to the environmental discussion below, we find that the public convenience and necessity requires approval of Algonquin's proposal, as conditioned in this order.

B. AIM Project Abandonment

27. Algonquin proposes to abandon by removal the Greenville Meter Station in New London County, Connecticut. The present Greenville Meter Station will no longer be needed as it will be replaced by a new Oakland Heights Meter Station at the proposed new interconnection with Norwich Public Utilities in New London County, Connecticut. Therefore, we find that abandonment is permitted by the public convenience or necessity, and thus approve the abandonment by removal of the Greenville Meter Station.

C. Proposed Removal of Compressor Units as Part of the Contemporaneous AGT Project

28. As noted above, Algonquin's certificate application for the AIM Project identifies other construction activities that will be part of the contemporaneous AGT Project that Algonquin plans to undertake under section 2.55(b) of the Commission's regulations, which provides automatic authorization for qualifying replacement projects. The AGT Project includes the removal of four 2,700 hp engines at the Stony Point Compressor Station that need to be replaced to meet EPA and applicable state emissions standards. Algonquin asserts that it can rely on section 2.55(b) to remove the existing units because their compression will be replaced by one of the two new 15,900 hp compressor units proposed as part of the AIM Project.

29. Because the 15,900 hp compressor unit we are authorizing as part of the AIM Project exceeds the combined horsepower of the four existing compressors (4 x 2,700 hp = 10,800 hp), Algonquin cannot rely on section 2.55(b) of the Commission's regulations for authorization to remove the existing units.¹⁸ However, since greater horsepower is needed at the Stony Point Compressor Station for the AIM Project expansion and the existing compressor units at that station need to be replaced to meet emissions standards, this order granting section 7(c) certificate authorization for the

¹⁸ 18 C.F.R. § 2.55(b)(1)(ii) (2014) (requiring replacement facilities to have "*substantially equivalent design delivery capacity*").

replacement compressor unit will also grant section 7(b) authorization for Algonquin to remove the four existing compressor units.

D. Rates

1. Incremental Rate for AIM Project Mainline Capacity

30. As stated above, Algonquin and the Project Shippers have agreed to negotiated rates. However, Algonquin proposes an incremental recourse reservation charge of \$42.5748 per month per Dth under its existing Rate Schedule AFT-1 for firm mainline expansion capacity. Algonquin submitted an incremental cost of service and rate design study showing the derivation of the AIM Project recourse rate for the mainline service based on a total first year cost of service of \$174,726,962 and billing determinants of 342,000 Dth per day. The proposed cost of service is based on Algonquin's rate of return of 10.37 percent and a system depreciation rate of 1.81 percent as approved in Docket No. RP99-262-000.¹⁹ Algonquin proposes to charge its generally-applicable system interruptible transportation rate for interruptible service using mainline capacity created by the AIM Project.²⁰

31. We have reviewed the proposed cost of service and the proposed recourse rate for the AIM Project mainline capacity and find it reasonable, except as discussed below.

32. In Exhibit P, Schedule 3, lines 9 (Account 853, "Compressor Stations – M&O,") and 26 (Account 864, "Compressor Stations – M&O,") Algonquin proposes to include variable costs of \$386,828 and \$216,839, respectively, in its calculation of the firm reservation charge for AIM Project service under Rate Schedule AFT-1. In an August 28, 2014 data request Commission staff noted that section 284.7(e) of the Commission's regulations states, "[a] reservation fee may not recover any variable costs . . .,"²¹ and directed Algonquin to provide support for the fixed and variable cost classifications included in Exhibit P, Schedule 3, including citations to Commission policy supporting those classifications.

¹⁹ See *Algonquin Gas Transmission, LLC*, 87 FERC ¶ 61,008 (1999).

²⁰ See, e.g. *Texas Eastern Transmission, LP*, 139 FERC ¶ 61,138, at P 31 (2012); *Gulf South Pipeline Co., LP*, 130 FERC ¶ 61,015, at P 23 (2010); *Kern River Gas Transmission Co.*, 117 FERC ¶ 61,077, at PP 313-14, 326 (2006).

²¹ 18 C.F.R. § 284.7(e) (2014).

33. In its September 11, 2014 response, Algonquin stated “given that incremental O&M costs for incremental projects are *de minimis*, Algonquin’s practice in designing incremental project rates has been to include all incremental O&M costs [including those O&M costs that are classified as variable costs] in the firm reservation rate cost of service.”²² In addition, Algonquin noted that “[t]he Commission has approved Algonquin’s recourse rates for incremental projects which included 100% of the incremental O&M costs in the demand charge for all of its incremental projects, including those projects that added horsepower and compression costs.”²³

34. We acknowledge that in prior proceedings the Commission has approved Algonquin’s recourse rates for incremental projects, which have included variable costs in the calculation of the firm reservation charge. Those prior approvals, however, are contrary to sections 284.7(e) and 284.10(c)(2)²⁴ of the Commission’s regulations. Section 284.7(e) does not allow the recovery of variable costs in the reservation charge, and there is no “*de minimis*” cost exception to the rule. Section 284.10(c)(2) states that variable costs should be used to determine the volumetric rate. Therefore, going forward the Commission will require Algonquin to calculate its firm reservation charge consistent with sections 284.7(e) and 284.10(c)(2) of the Commission’s regulations.

35. When Algonquin submits its tariff records 30 to 60 days before placing the project facilities into service, we direct Algonquin to submit a revised incremental recourse reservation charge under Rate Schedule AFT-1 for firm service that does not include variable costs²⁵ associated with the AIM Project, consistent with the Commission’s

²² Algonquin’s September 11, 2014 Data Response, Response No. 1.

²³ Algonquin cites the Commission’s orders approving the CDS Project in Docket No. CP88-185, 52 FERC ¶ 61,001 (1990); the Niagara Import Point Project in Docket No. CP88-187, 52 FERC ¶ 61,257 (1990); the ANR Project in Docket No. CP89-661, 51 FERC ¶ 61,359 (1990); the Integrated Transportation Project in Docket No. CP92-185, 62 FERC ¶ 61,019 (1993); the Brockton Loop Cromwell Compressor Station Project in Docket No. CP93-261, 67 FERC ¶ 61,354 (1994); and the Ramapo Expansion Project in Docket No. CP06-76, 117 FERC ¶ 61,319 (2006).

²⁴ 18 C.F.R. § 284.10(c)(2) (2014).

²⁵ Variable costs include any costs that vary based on throughput, including, but not limited to, non-labor or materials and supplies portions of compression O&M costs included in: FERC Account 853 (Compression station labor and expenses), Account 864 (Maintenance of Compressor station equipment), Account 858 (Transportation and compression of gas by others), Account 859 (Other Expenses) and Account 867 (Maintenance of other equipment). *See, e.g., Ozark Gas Transmission System,*

(continued...)

regulations. At that time, Algonquin may also propose a usage charge under Rate Schedule AFT-1 to recover any variable costs of providing service on the AIM Project pursuant to section 284.10(c)(2) of the Commission's regulations.

2. West Roxbury Lateral Rate

36. As described above, Algonquin's AIM Project includes a new West Roxbury Lateral in Norfolk and Suffolk Counties, Massachusetts, that will be approximately 5 miles long and capable of transporting 100,000 Dth per day on a firm basis. Algonquin proposes incremental firm and interruptible recourse rates under its existing Rate Schedules AFT-CL and AIT-2 for service utilizing West Roxbury Lateral expansion capacity. However, Algonquin and Boston Gas Company (Boston Gas), the Project Shipper which has subscribed all the capacity of the West Roxbury Lateral, have agreed to a negotiated rate for AIM Project expansion capacity on the lateral.

37. Algonquin's proposed incremental firm reservation charge for AIM Project expansion capacity on the West Roxbury Lateral is \$18.1976 per month per Dth. Algonquin's proposed interruptible charge for AIM Project expansion capacity on the West Roxbury Lateral is \$0.5983 per Dth, which is based on a 100 percent load factor of the proposed firm recourse reservation charge.²⁶ Algonquin calculated total projected incremental costs of service of \$22,337,066 for the West Roxbury expansion capacity. Of that amount, Algonquin allocated \$500,000 to interruptible services using the expansion capacity, thereby reducing the projected cost of service used to calculate the firm incremental recourse rate to \$21,837,066. Algonquin used billing determinants of 100,000 Dth per day to calculate the firm incremental recourse rate. While Algonquin used the same rate of return of 10.37 percent that underlies its current system rates and the proposed mainline firm incremental rate to calculate the West Roxbury Lateral incremental firm rate, as discussed above, Algonquin proposes a depreciation rate of 6.67 percent, derived from Boston Gas's 15-year contract term for service on the West Roxbury Lateral.

64 FERC ¶ 61,298, at n.5 (1993) ("The Commission has classified non-labor compression and processing O&M costs as variable for more than 40 years [citation omitted]."); *Alabama-Tennessee Natural Gas Co.*, 38 FERC ¶ 61,315, at 62,023 (1987) ("Account No. 858 costs should be classified on an as-billed basis.").

²⁶ See Exhibit P, Schedule 7 of Algonquin's application.

38. The Commission has reviewed the proposed cost of service and the proposed incremental recourse rates for the AIM Project expansion capacity on the West Roxbury Lateral and finds they are reasonable.

3. Fuel Retention

39. Algonquin proposes initial Fuel Reimbursement Percentages for service using the AIM Project mainline expansion capacity of 2.02 percent for Incremental AIM Service and 1.42 percent for Incremental AIM Service – Beverly Receipts/Non-Hubline Deliveries. Algonquin states that the incremental retention rates for mainline service will be subject to and adjusted in accordance with its incremental Fuel Reimbursement Percentage mechanism. Algonquin states that it will track changes in fuel costs for the new mainline incremental service on an incremental basis through its Fuel Reimbursement Quantity mechanism set forth in section 32 of its General Terms & Conditions (GT&C). Algonquin states that it will adjust its periodic tracker mechanisms to ensure that existing customers do not subsidize the costs resulting from this new incremental service.

40. Algonquin does not propose to assess a fuel reimbursement percentage for service on the West Roxbury Lateral because there is no separate compression on the lateral.²⁷

41. We will approve Algonquin's proposed Fuel Reimbursement Percentages.

4. Reporting Incremental Costs and Revenues

42. Section 154.309 of the Commission's regulations²⁸ includes bookkeeping and accounting requirements applicable to all expansions for which incremental rates are approved to ensure that costs are properly allocated between pipelines' existing shippers and incremental expansion shippers. Therefore, Algonquin must keep separate books and accounting of costs and revenues attributable to the incremental services and capacity created by the AIM Project on Algonquin's mainline and West Roxbury Lateral as required by section 154.309. The books should be maintained with applicable cross-reference as required by section 154.309. This information must be in sufficient detail so that the data can be identified in Statements G, I, and J in any future NGA section 4 or 5 rate case and is provided consistent with Order No. 710.²⁹ These measures protect

²⁷ Algonquin's September 11, 2014 Data Response, Response No. 2.

²⁸ 18 C.F.R. § 154.309 (2014).

²⁹ *Revisions to Forms, Statements, and Reporting Requirements for Natural Gas Pipelines*, Order No. 710, FERC Stats. & Regs. ¶ 31,267, at P 23 (2008).

existing customers from cost overruns and from subsidization that might result from under-collection of a project's incremental cost of service, as well as help the Commission and parties to the rate proceedings determine the costs of the project.

5. Pro Forma Tariff Records

43. Algonquin proposes *pro forma* tariff records incorporating changes to rates, rate schedules, and GT&C for the implementation of the initial incremental firm transportation rates under Rate Schedule AFT-1 for AIM Project mainline capacity and an incremental fuel percentage for service on the AIM Project mainline capacity. The *pro forma* tariff records also list the initial recourse rates under Rate Schedule AFT-CL and AIT-2 for firm and interruptible service on the West Roxbury Lateral. The Commission finds the changes as provided for by the *pro forma* tariff records acceptable and directs Algonquin to file actual tariff records not less than 30 days, or more than 60 days, before the in-service date of the AIM Project.

E. Engineering Analysis

44. The Town of Cortlandt, New York (Cortlandt), filed reports by Accufacts that analyze the 42-inch-diameter replacement pipeline between Stony Point and Southeast Compressor Stations, near Cortlandt. Accufacts reviewed non-public Critical Energy Infrastructure Information material provided by Algonquin in this proceeding, including the flow diagrams in Exhibit G to Algonquin's application. Accufacts contends that the proposed 42-inch-diameter pipeline segment is oversized, and challenges Algonquin's design gas velocities.

1. Overbuilding

45. Accufacts claims that Algonquin's 42-inch-diameter pipeline replacement is oversized for the purpose of increasing mainline capacity by 342,000 Dth per day, and the 42-inch-diameter replacement pipeline and new regulating facilities will reduce the pressure in the 42-inch-diameter pipeline that will result in wasting some of the horsepower to be added at the Stony Point Compressor Station as part of the AIM Project. Accufacts states that Algonquin can provide the additional 342,000 Dth per day of mainline service by installing a pipeline with a smaller diameter. Accufacts speculates that Algonquin is improperly segmenting construction activities by proposing pipeline of larger diameter than necessary to achieve the AIM Project's purpose of creating an additional 342,000 Dth per day of firm service in anticipation of future expansion activities.

46. We find these claims to be unfounded. Flow diagrams and engineering information provided by Algonquin show that currently there is no spare capacity on a firm basis that can be used to transport additional gas supplies further downstream of the Stony Point and Southeast Compressor Stations. During a winter peak day, the Stony

Point Compressor Station is currently operating at nearly 100 percent of the available horsepower of compression and the compressors are discharging the gas volumes at nearly the Maximum Allowable Operating Pressure (MAOP). Similarly, the Southeast Compressor Station is operating at peak horsepower at 100 percent utilization rate under transient conditions.³⁰

47. If Algonquin were required to use smaller diameter replacement pipeline, it would require additional compression beyond that proposed as part of the AIM Project. Algonquin conducted hydraulic studies to analyze the effects that a smaller diameter pipeline would have on gas velocities and compression needs. Modeling results showed that the Stony Point Compressor Station would need an additional 40,000 hp to ensure that it will be able to provide the 342,000 Dth per day of firm transportation service requested by the expansion shippers.

48. In view of the above considerations, the 42-inch-diameter replacement pipeline will not enable Algonquin to provide more than the requested 342,000 Dth per day of service on a firm basis unless it constructs additional pipeline looping or compressor facilities in the future, which is pure speculation at this point. Thus, we reject Accufacts' assertion that Algonquin's proposal to use the 42-inch-diameter replacement pipeline is evidence of improper segmentation of projects. As discussed below in our environmental analysis, improper segmentation occurs when multiple applications artificially divide interrelated projects into "smaller, less significant components in order to avoid the [National Environmental Policy Act's] requirement that an EIS be prepared for all major federal actions with significant environmental impacts."³¹ Accufacts has not identified any other specific projects by Algonquin.

2. Design Gas Velocity

49. Accufacts also alleges that Algonquin's use of 100 feet per second (ft/s) design gas velocity is "extremely" high. Accufacts does not reference any industry studies or standards set by the U.S. Department of Transportation, Pipeline and Hazardous Materials Safety Administration (PHMSA) to support its assertion.

50. Algonquin's design gas velocity of 100 ft/s will not cause a potential safety issue. According to a study co-sponsored by the American Petroleum Institute and Minerals

³⁰ The term "transient" refers to the type of modeling performed for Algonquin's system that shows how the system runs over a period of time.

³¹ *Arlington Storage Company, LLC*, 147 FERC ¶ 61,120, at P 75 (2014) (citing *Taxpayers Watchdog, Inc. v. Stanley*, 819 F.2d 294, 298 (D.C. Cir. 1987)).

Management Service (API Study), which evaluated the effects of high gas velocities on metal loss from liquid droplet erosion, design gas velocities would need to exceed 300 ft/s to cause erosion.³² Although the API Study does not provide specific guidelines, it does provide velocity limits based upon multiphase flow regimes in production pipelines in a clean service system.³³ The study also states that laboratory tests on erosion in noncorrosive two-phase flow showed no measurable wear for velocities up to 100 ft/s. The report also confirms that flow velocities up to 100 ft/s do not create erosive wear in clean service conditions. Algonquin will continue to transport dry, single phase flow³⁴ through its pipeline (i.e., the gas transported by Algonquin does not have free flowing liquids that could contribute to or cause pipeline erosion). As a result, the Commission can examine Algonquin's system as one operating under clean service conditions, free of fluids and particles. We can conclude that for a dry, single phase flow through pipelines a 100 ft/s gas velocity will not represent an erosional risk on Algonquin's existing or proposed pipeline facilities.

F. Environmental Analysis

1. Pre-filing Review

51. Commission staff began its initial environmental review of the AIM Project following staff's approval on June 28, 2013, for Algonquin to use the pre-filing process in Docket No. PF13-16-000. As part of the pre-filing review, staff issued a *Notice of Intent to Prepare an Environmental Impact Statement for the Planned Algonquin Incremental Market Project, Request for Comments on Environmental Issues, and Notice of Public Scoping Meetings* (NOI) on September 13, 2013. This notice was published in the *Federal Register* on September 19, 2013,³⁵ and sent to more than 1,800 interested entities on the staff's environmental mailing list, including representatives of federal, state, and local agencies; elected officials; environmental and public interest groups; Native American tribes; potentially affected landowners; other interested parties; and

³² Svedeman, S.J. and Arnold, K.E., *Criteria for sizing Multiphase Flowlines for Erosive/Corrosive Service*, 74-80, at 75 (1994).

³³ The term "clean service" is described as a pipeline transporting noncorrosive gas or liquid flow that is free of solids, which results from liquid-droplet erosion.

³⁴ The term "single phase flow" refers to a single gas phase or liquid phase flowing in a pipeline system. A "multiphase flow" refers to a situation where both gas and liquids are flowing simultaneously in a pipeline.

³⁵ 78 Fed. Reg. 57,626 (2013).

local libraries and newspapers. The notice briefly described the project and the EIS process, provided a preliminary list of issues identified by Commission staff, invited written comments on the environmental issues that should be addressed in the draft EIS, listed the date and location of four public scoping meetings³⁶ to be held in the area of the project, and established October 14, 2013, as the deadline for comments.

52. A total of 31 speakers provided oral comments on the project at the scoping meetings. In addition, more than 570 letters were filed by federal, state, and local agencies; elected officials; environmental and public interest groups; potentially affected landowners; and other interested stakeholders providing comments regarding the project.³⁷

2. Application Review

53. On February 28, 2014, Algonquin filed its application for authorization to construct the AIM Project. To satisfy the requirements of the National Environmental Policy Act (NEPA), Commission staff prepared an EIS for the project. The EPA, U.S. Army Corps of Engineers (Corps), and PHMSA participated in the preparation of the EIS as cooperating agencies. Commission staff issued the draft EIS for the AIM Project on August 6, 2014, which addressed the issues raised during the scoping period.

54. Notice of the draft EIS was published in the *Federal Register* on August 12, 2014, establishing a 45-day public comment period ending on September 29, 2014.³⁸ The draft EIS was mailed to the environmental mailing list including additional interested entities that were added since issuance of the NOI. Commission staff held five public meetings between September 8 and September 16, 2014, to receive comments on the draft EIS.³⁹ Approximately 143 speakers provided oral comments at these meetings, and we received 352 individual comments from federal, state, and local agencies; companies and

³⁶ Commission staff held the public scoping meetings between September 30 and October 3, 2013, in the Town of Cortlandt, New York; Danbury, Connecticut; Norwich, Connecticut; and the Town of Dedham, Massachusetts.

³⁷ Table 1.4-1 of the final EIS provides a detailed and comprehensive list of issues raised during scoping.

³⁸ 79 Fed. Reg. 47,100 (2014).

³⁹ Commission staff held draft EIS comment meetings in the Town of Dedham, Massachusetts; Norwich, Connecticut; Danbury, Connecticut; the Town of Cortlandt, New York; and the Town of Mapleville, Rhode Island.

organizations; and individuals in response to the draft EIS before the comment period closed on September 29, 2014. Commission staff continued to accept comments past the comment period. Those letters received through October 10, 2014, include an additional 132 comments from federal, state, and local agencies; companies and organizations; and individuals.

55. In addition to the specific environmental issues raised, a number of commenters and parties contend that, in accordance with the Council on Environmental Quality's (CEQ) NEPA regulations, the draft EIS must be revised and reissued because it was not adequate as to allow meaningful analysis. In particular, they argue that the draft EIS needed to be reissued or supplemented to take into account subsequently filed information provided by Algonquin at Commission staff's request.

56. We disagree. The Commission has a longstanding practice to issue environmental documents along with recommended mitigation measures that request specific documentation of agency consultation, construction plans, and detailed information to supplement baseline data as the Commission did here. Commission staff's *draft* EIS does not parallel the *final* EIS at issue in the case *Northern Plains Resource Council, Inc. v. Surface Transportation Board (Northern Plains)*,⁴⁰ as Riverkeeper contends. In that case, the Surface Transportation Board issued a final EIS that gathered baseline data as part of mitigation measures to be completed after the NEPA process. Here, Commission staff published a draft EIS that evaluated baseline data. The public had the opportunity to comment on the supplemental information and plans requested by Commission staff and filed by Algonquin after the draft EIS was issued, and Commission staff continued to review other comments filed after the publication of the draft EIS. Algonquin's filings did not present new environmentally-significant information or pose substantial changes to the proposed action, and therefore, Commission staff did not reissue a draft EIS or a supplemental EIS.⁴¹

57. Further, the final EIS for the AIM Project issued by Commission staff on January 23, 2015, and noticed in the *Federal Register*,⁴² addresses comments received on

⁴⁰ *N. Plains Res. Council, Inc. v. Surface Transp. Bd.*, 668 F.3d 1067, 1084-85 (9th Cir. 2011).

⁴¹ 40 C.F.R. § 1502.9(c)(1) (2014). Under section 1502.9(c)(1) of the CEQ's regulations, an agency is only required to prepare a supplemental EIS if (1) "the agency makes substantial changes in the proposed action that are relevant to environmental concerns" or (2) "there are significant new circumstances or information relevant to environmental concerns." *Id.*

⁴² 80 Fed. Reg. 5,104 (2015).

the draft EIS through October 10, 2014.⁴³ The final EIS was mailed to the same parties as the draft EIS, as well as to additional parties that commented on the draft EIS.⁴⁴ The final EIS addresses geology; soils; water resources; wetlands; vegetation; wildlife and fisheries; special status species; land use, recreation, and visual resources; socioeconomics; cultural resources; air quality and noise; reliability and safety; cumulative impacts; and alternatives.

58. The final EIS concludes that if the project is constructed and operated in accordance with applicable laws and regulations, the project will result in some adverse environmental impacts. Most of these impacts described in the final EIS, however, will be reduced to less-than-significant levels with the implementation of Algonquin's proposed mitigation and staff's recommendations (now adopted as conditions in Appendix B of this order). Major issues of concern addressed in the final EIS are summarized below and include: the Ramapo Fault; West Roxbury Crushed Stone Quarry; waterbodies, wetlands, and vernal pools; the Croton Watershed and Catskill Aqueduct; residences; special interest areas; West Point Transmission Project; traffic; property values and homeowners' insurance; air quality; safety in general and at Indian Point Energy Center (Indian Point); Algonquin's planned Atlantic Bridge Project and segmentation of projects; cumulative impacts; indirect effects; and the need for alternatives.

3. Major Environmental Issues Addressed in the EIS

a. Ramapo Fault

59. Commenters expressed concerns regarding the Ramapo Fault in the project area and the potential for earthquake activity to affect project facilities. The U.S. Geological Survey (USGS) has extensively studied the Ramapo Fault system, and the level of seismicity in the region. The USGS's review of data for evidence of Quaternary (Holocene) fault activity (i.e., within the last 1.6 million years) encompassing the eastern United States indicates that there is no clear association between the fault and small earthquakes that occur in the region. Further, there is insufficient geologic evidence to

⁴³ Volume II of the final EIS includes responses to comments on the draft EIS through October 10, 2014. Most comments received after October 10, 2014, did not raise any new substantive issues that were not already addressed in previously filed comments. However, those comments received after October 10, 2014, that do raise new issues not previously identified are addressed in this order.

⁴⁴ The distribution list is provided in Appendix A of the final EIS.

indicate the existence of a tectonic fault or a Holocene-age slip or deformation associated with the fault.

60. As stated in the final EIS, specific site conditions, including earthquakes, are considered in the pipeline design.⁴⁵ The recorded magnitude of earthquakes in the project area is low and the ground vibration will not pose a problem for a modern welded-steel pipeline. Based on the low seismic risk and occurrence assigned to the project area, we agree with the conclusions in the final EIS and find the risk of damage to pipeline facilities by earthquakes to be low.

b. West Roxbury Crushed Stone Quarry

61. The West Roxbury Crushed Stone Quarry is located adjacent to the West Roxbury Lateral and West Roxbury Meter Station, along Grove Street from MPs 4.2 to 4.4 in West Roxbury, Massachusetts. Commission staff received many comments regarding the potential effect that the blasting operations at the West Roxbury Crushed Stone Quarry will have on the pipeline or meter station. As stated in the final EIS, Algonquin consulted with the owners of the quarry regarding the anticipated schedule and logistics for constructing the West Roxbury Lateral and Meter Station, as well as the long-term operations of these facilities. No direct conflicts were identified that will inhibit the construction of the project or the continued day-to-day operation of the quarry.

62. Algonquin also retained the services of a local, third-party geotechnical consultant, GeoEnvironmental, Inc. (GZA), to analyze the potential effects from the blasting operations at the quarry on the pipeline and meter station facilities. The GZA report concludes that the proposed West Roxbury Lateral pipeline will be subject to vibrations well within pipeline design parameters. In addition, Algonquin proposes several mitigation measures from the report to protect the pipeline from blasting impacts, including measures to envelope the pipeline in an engineered backfill consisting of either compacted sand or flowable fill (a low density concrete sand mixture).⁴⁶ Therefore, the final EIS finds that blasting at the quarry will not damage the proposed pipeline. The final EIS's conclusion is corroborated by its finding that there is no evidence the two water pipelines and one natural gas distribution pipeline that operate along Grove Street between the quarry and the proposed project have been impacted by blasting at the quarry.

⁴⁵ See final EIS at 4-7 to 4-8.

⁴⁶ See final EIS at 4-5 to 4-6.

63. The GZA report also concludes that vibrations from blasting at the quarry will not be disruptive or damaging to the meter station. Many commenters note that one to two homes that were previously located at the site of the meter station experienced damage from blasting-related vibration. The meter station buildings, however, will be engineered pre-fabricated, pre-cast concrete structures designed for industrial use. Also, the in-line tool receivers and launchers, and the heaters will be above-grade, steel construction, and are not considered especially sensitive to vibrations.

64. Further, in 2009, the quarry changed its blasting operations to reduce the potential for fly rock. GZA's report states that based on the location of the proposed meter station relative to the quarry, the probability of a projectile from a blast operation at the quarry landing on the meter station site is highly unlikely. The probability of such a rock inflicting a direct strike on a segment of the limited amount of exposed pipe is less than 10,000,000 to 1. Based on this analysis, the final EIS concludes⁴⁷ that fly rock does not pose a concern for interruption of service or the release of natural gas at the meter station.

65. Commission staff also received comments on the potential closing of the quarry and consequent reclamation of the site. The final EIS states that although preliminary information on the filling of the quarry was provided to the Massachusetts Department of Environmental Protection in January 2014, no specific plan has been proposed or authorizations requested for closing the quarry. The type of soil to be used in the reclamation appears to be under debate. Therefore, any future plans are speculative at this point. In addition, site reclamation will likely take decades. In any event, the closing and filling of the quarry will negate many of the same commenters' concerns regarding quarry blasting impacts on the AIM Project facilities.

66. Finally, commenters also expressed concerns regarding the impact that new Massachusetts legislation will have on the quarry and AIM Project facilities.⁴⁸ The new legislation states that any blasting activity associated with a mined product should not be conducted within 500 feet of a natural gas pipeline or meter station without written approval by the Massachusetts Department of Public Utilities. As indicated above, there is already an existing natural gas distribution pipeline closer to the quarry than the proposed AIM Project facilities. Thus, notwithstanding construction of the AIM project facilities, the quarry will be faced with determining how the new legislation might affect its operations. The final EIS concludes correctly that any conflict with quarry operations

⁴⁷ See final EIS at 4-6.

⁴⁸ 2014 Mass. Acts ch. 149, § 7.

associated with this new legislation already exists and that the AIM Project will not create any new conflict that the quarry does not already have to address.⁴⁹

c. Waterbodies, Wetlands, and Vernal Pools

67. Several commenters note the potential for the AIM Project to impact waterbodies, wetlands, and vernal pools. The pipeline will cross a total of 102 surface waterbodies, one of which is the Hudson River that is considered a major waterbody.⁵⁰ Algonquin has proposed the horizontal directional drill (HDD) crossing method for the Hudson and Still River crossings, and dry crossing methods that avoid in-stream construction impacts for the remaining 100 waterbodies. None of the aboveground facilities will impact waterbodies. The final EIS finds that use of the HDD crossing method to cross waterbodies and implementation of the mitigation measures outlined in Algonquin's Erosion and Sediment Control Plan (E&SCP) and other project-specific plans will avoid or adequately minimize impacts on surface water resources.

68. Algonquin performed geotechnical feasibility studies at the proposed Hudson and Still Rivers sites and developed site-specific plans for the HDD crossings. Algonquin also developed a Best Drilling Practices, Monitoring, and Clean-up of Horizontal Directional Drilling Inadvertent Returns Plan (BDP Plan) that describes the measures that it will take to minimize the potential for inadvertent returns and releases at these locations. The final EIS concludes that Algonquin's implementation of the HDD method at the Hudson and Still Rivers will avoid in-stream disturbance of these waterbodies and is an appropriate technique for installing the pipeline at the Hudson and Still Rivers.⁵¹ The final EIS also finds that Algonquin's BDP Plan and additional measures proposed by Algonquin will minimize the possibility of an inadvertent release to the extent feasible, and in the event an inadvertent release occurs, minimize any resulting impacts.

69. As stated in the final EIS, Algonquin has not provided a contingency plan that incorporates another location or another construction methodology for each of these HDD crossings. Therefore, Environmental Condition 16 in this order requires that in the event of an unsuccessful HDD at the Hudson or Still Rivers, Algonquin shall file a site-specific alternate plan for the crossing of the waterbody.

⁴⁹ See final EIS at 4-6.

⁵⁰ Major waterbodies are those that are greater than 100 feet wide.

⁵¹ See final EIS at 4-46 to 4-51.

70. Several commenters on the draft EIS also expressed concern regarding the possibility of encountering and releasing existing contaminated material during the crossing of the Hudson River. As stated in the final EIS, Algonquin conducted a review of each of the proposed HDD entry and exit locations and found no documented soil contamination. Moreover, utilizing the HDD method avoids disturbance to river-bottom sediments because all subsurface materials removed along the drill path during the drilling process are removed from the bore hole and contained within temporary lined mud pits. Thus, contamination is not expected to be encountered during HDD activities. In any event, Environmental Condition 13 requires that all subsurface materials recovered from the Hudson River HDD process be appropriately sampled for polychlorinated biphenyls before disposing the material. If contaminated materials are found, they will be handled as outlined in Algonquin's Unanticipated Contamination Encounter Procedures.

71. Construction of the AIM Project will impact a total of 52.5 acres of wetlands, including 17.0 acres of forested wetlands and 35.5 acres of herbaceous and shrub-scrub wetlands. No wetlands will be impacted by construction of Algonquin's aboveground facilities. The majority of the project's wetland impacts will be for temporary workspaces (48.4 acres) and these areas will eventually return to preconstruction conditions following construction, although as indicated in the final EIS, this may take years. For the operation of the pipeline, about 2.4 acres of forested wetland will be permanently converted to non-forested conditions. Algonquin's Final Wetland Mitigation Plan includes commitments for compensatory mitigation for both temporary impacts and permanent conversion of forested wetlands to another cover type.

72. As stated in the final EIS, eleven vernal pools were identified within the AIM Project study corridor. Two of the vernal pools are located within the temporary construction area and about 1,948 square feet of that vernal pool habitat will be affected by AIM Project construction. The primary effects of construction-related activity on vernal pools located in the temporary workspace will be similar to those for emergent wetlands. Vernal pools, however, may also be affected by the conversion of adjacent forested habitat to early successional stage habitats. Impacts from pipeline maintenance activities will include the periodic removal of emergent and woody vegetation. To minimize impacts during construction, all vernal pools will be treated as wetlands and protected by adherence to the measures outlined in Algonquin's E&SCP.

73. Construction and operation-related impacts on waterbodies, wetlands, and vernal pools will be further mitigated by Algonquin's compliance with the conditions of the Corps' section 404 and the applicable state section 401 permits required under the Clean Water Act (including compensatory mitigation) and by implementing the wetland protection and restoration measures contained in Algonquin's E&SCP. Additionally, Environmental Conditions 16 through 19 apply to the HDD crossings, vernal pools, and wetlands. Based on the avoidance and minimization measures developed by Algonquin,

as well as the final EIS recommended conditions that are now Environmental Conditions of this order, the EIS concludes that impacts on waterbody and wetland resources will be effectively minimized or mitigated to the extent practicable.⁵²

d. The Croton Watershed and Catskill Aqueduct

74. Several comments contend that the project will impact the watersheds that supply water to the New York City metropolitan area. Three primary watersheds supply water to the New York City metropolitan area: the Croton, the Catskill, and the Delaware Water Supply Systems. While the Catskill and Delaware Water Supply Systems are about 50 miles north and northwest of the AIM Project facilities, portions of the AIM Project facilities will be located within the Croton Water Supply System.

75. The Croton Watershed is protected under a long-term management plan by the New York City Department of Environmental Protection (NYCDEP). The 2008 New York State section 303(d) list of impaired waterbodies identifies phosphorus as a pollutant of concern for eight impaired reservoirs within the Croton Watershed. Typical pollutant sources include stormwater runoff from impervious surfaces, agricultural land and construction sites, excessive fertilizer use, leachate from septic systems, and effluent from wastewater treatment plants.

76. As stated in the final EIS, the Croton Watershed will be crossed by the Stony Point to Yorktown Take-up and Relay segment between MPs 10.0 and 12.3 in the Town of Cortlandt, New York, and by the Southeast to mainline valve-19 Take-up and Relay segment between MPs 0.0 and 0.1 in the Town of Southeast, New York. Algonquin will sequence construction activities to minimize the amount and duration of an open right-of-way within the watershed. Algonquin will use a separate construction crew to work in the approximately 2.3-mile-long stretch within the watershed and has also committed to an environmental inspection and compliance monitoring program to monitor and enforce compliance with all permit conditions to protect the environment during construction. In addition, Algonquin is working with the NYCDEP to develop a Stormwater Pollution Prevention Plan (SWPPP) that addresses NYCDEP's requirements for constructing within a New York City watershed.

77. Commenters also expressed concerns about the project's potential impact on the Catskill Aqueduct within the Croton Watershed. Algonquin's existing pipelines currently cross over the aqueduct. Algonquin will remove its existing 26-inch-diameter pipeline and casing, but will not disturb the existing protective concrete slab, pending concurrence from the NYCDEP. Algonquin will build the proposed 42-inch-diameter pipeline above

⁵² See final EIS at 4-58 to 4-59, 4-74.

the aqueduct at a 50-foot offset from the existing line. The final EIS concludes that Algonquin's proposed mitigation will adequately protect the Croton Watershed and Catskill Aqueduct.

78. In addition, NYCDEP will require a Land Use Permit with detailed descriptions of work and additional information regarding impacts on the aqueduct resulting from the construction and operation of the project facilities. Algonquin will prepare final engineering designs to support NYCDEP's load requirements for vehicles on their right-of-way, and will submit them for review and approval as part of the Land Use Permit application process. As recommended in the final EIS, and as included as Environmental Condition 15 in this order, we will require Algonquin to file its final site-specific crossing plan for the Catskill Aqueduct developed in consultation with the NYCDEP.

e. Residential Construction

79. Construction of the AIM Project will occur within 50 feet of 332 residential structures and 94 non-residential structures. The majority of the residences identified are located along the West Roxbury Lateral, including many within 10 feet. Several commenters expressed concern about the proximity of construction activities relative to their residences. The final EIS recognizes that all activities within 50 feet of residences along the West Roxbury Lateral will be associated with in-street construction; therefore, no residential land will be affected.

80. Even so, as described in the final EIS, Algonquin will implement general measures to minimize construction-related impacts on residential areas, including installing safety fence at the edge of the construction right-of-way; attempting to preserve mature trees and other vegetation; backfilling the trench as soon as the pipe is laid, or placing temporary steel plates or timber mats over the trench; and completing final cleanup within 10 days after the trench is backfilled. Algonquin also developed and distributed acceptable site-specific Residential Construction Plans to affected landowners with residences within 50 feet of the construction workspace to inform them on these proposed measures that will minimize disruption and maintain access to the residences.

81. The final EIS concludes that the Residential Construction Plans are acceptable; however, the final EIS's recommended Environmental Condition 22 is included in this order to require Algonquin to file revised plans that incorporate and address any comments Algonquin receives from affected landowners.⁵³

⁵³ See final EIS at 4-145.

f. Special Interest Areas

82. The final EIS discusses 32 special interest areas (i.e., public lands, recreation sites, or other designated areas) that may be affected by construction or operation of the project. In general, project impacts on special interest areas will be temporary and limited to the period of active construction, which typically only lasts several days to several weeks in any one area. These impacts will be further minimized by implementing the measures in Algonquin's E&SCP, traffic management plans, and Fugitive Dust Control Plan, as well as its proposed measures for noise mitigation.

83. Commenters identified several specific special interest areas that are of particular concern including: St. Patrick's Church in the Hamlet of Verplanck, New York; Buchanan-Verplanck Elementary School in Buchanan, New York; Blue Mountain Reservation in the Town of Cortlandt, New York; Sylvan Glen Park Preserve and Granite Knolls Park West in the Town of Yorktown, New York; and Gonzalez Field in the Town of Dedham, Massachusetts. These sites are discussed below.

84. Several commenters expressed concerns about impacts on St. Patrick's Church during construction of the Stony Point to Yorktown Take-up and Relay. The project will cross the church property at about MP 4.1, and a new easement will be required for this crossing. In addition, the temporary workspace associated with the pullback area of the Hudson River HDD will be located on church property. Algonquin has agreed to avoid construction activities during weekend services at the church; however, church weekday functions will experience temporary impacts from construction noise, dust, and traffic, similar to those impacts experienced by other landowners and businesses in the project area. As recommended in the final EIS, and to ensure that impacts on St. Patrick's Church are further minimized, Environmental Condition 23 in this order requires Algonquin to file a revised site-specific construction plan for St. Patrick's Church including a detailed schedule for construction activities within the HDD pullback area, measures to avoid construction activities during weekday morning masses and weekend services, provisions for alternate parking or shuttle service for use by parishioners when the church's parking areas are disrupted, and measures to restore the parking areas to their preconstruction condition immediately following completion of construction activities. The final EIS concludes that these measures are sufficient to minimize impacts on St. Patrick's Church to less than significant levels.⁵⁴

85. We also received several comments expressing safety concerns regarding the Buchanan-Verplanck Elementary School, which is located adjacent to the Stony Point to Yorktown Take-up and Relay between MPs 4.9 and 5.0 in New York. The project right-

⁵⁴ See final EIS at 4-158 to 4-159.

of-way and construction workspace will be about 450 feet from the school facility at the closest point. The final EIS states that the pipeline will lie in a low area separated from the school by a natural berm and a wooded area, which will provide a buffer to visual, noise, and dust impacts from construction activities. Algonquin will utilize standard open-cut construction in this area, and will not employ blasting near the school. The enhanced mitigation measures that Algonquin has committed to for construction near the Indian Point facility, as discussed below, will include the pipeline near the school property, further increasing the margin of safety for the school. Therefore, the final EIS concludes that impacts on the Buchanan-Verplanck Elementary School during both construction and operation will be sufficiently minimized.⁵⁵

86. Several commenters also expressed concerns regarding impacts on the Blue Mountain Reservation in the Town of Cortlandt, New York. As stated in the final EIS, the Stony Point to Yorktown Take-up and Relay will cross the Blue Mountain Reservation between about MPs 6.7 and 8.1, and again between MPs 8.4 and 8.5. The new 42-inch-diameter pipeline will replace the existing 26-inch-diameter pipeline within an existing 6-foot-wide permanent easement. Although no new permanent right-of-way will be added within the reservation, about 18.8 acres of temporary workspace will be required for construction activities. Construction noise, dust, tree clearing, and traffic will temporarily impact recreational use of the Blue Mountain Reservation during project construction. Algonquin will implement the measures in its E&SCP to minimize impacts on the area, and surrounding woodland will largely screen visual impacts on the recreational and aesthetic use of the reservation during construction. After construction, all impacted areas within the reservation will be returned to their preexisting use, and no permanent impacts will occur. The final EIS concludes that although long-term impacts associated with tree clearing will occur, overall impacts on the Blue Mountain Reservation will be sufficiently minimized by installing the pipeline within Algonquin's existing permanent easement.⁵⁶

87. We received multiple comments expressing concerns about impacts on Sylvan Glen Park Preserve and Granite Knolls Park West in the Town of Yorktown, New York. The Stony Point to Yorktown Take-up and Relay will cross parcels within these parks within existing right-of-way for a total distance of about 1.2 miles. Additionally, a new launcher/receiver and pressure regulating facility will be constructed and operated within the existing right-of-way at about MP 12.3, on a parcel within Granite Knolls West. Algonquin stated in its comments on the draft EIS that it removed from its proposed project application a contractor ware yard within the park. Although the project facilities

⁵⁵ See final EIS at 4-159 to 4-160.

⁵⁶ See final EIS at 4-160 to 4-161.

will be installed within existing permanent easements, construction of the project will require the clearing of a strip of mostly upland forest between 30 to 40 feet wide on the north side of the existing right-of-way. Some additional tree clearing will also be required for additional temporary workspaces throughout the two parks. The final EIS states that construction activities, noise, and dust will temporarily impact recreational use at Sylvan Glen and Granite Knolls West.⁵⁷ Algonquin will, however, mitigate construction impacts by installing safety fencing, installing signage, and watering regularly to control fugitive dust. Algonquin will also place timber mats over two trails identified by the Town of Yorktown, to keep the trails open during project construction. After the construction period, Algonquin will return the construction area to its preexisting use. No other permanent impacts on the parks will occur, although the impacts associated with tree clearing will be long-term.

88. Commenters also expressed concerns regarding impacts to Gonzalez Field in the Town of Dedham, Massachusetts. Gonzalez Field is a public athletic field located at the intersection of High Street and East Street. The West Roxbury Lateral will traverse the edge of the field from about MP 2.4 to 2.5. As described in the final EIS, Algonquin incorporated a route variation to minimize impacts on Gonzalez Field, reducing the number of soccer fields disrupted from two to one, at the edge of the property nearest to Providence Highway. Also, additional temporary workspace will be located within the field's parking lot. As identified in the final EIS, construction of the project will temporarily disrupt recreational use as well as access to and parking at Gonzalez Field.⁵⁸ After construction, the field will be restored to its preexisting use and no permanent impacts will occur from operation of the pipeline. Algonquin also agreed to schedule construction across Gonzalez Field after the conclusion of the Town of Dedham's soccer program in the fall, thereby minimizing recreational impacts. The final EIS concludes that these measures will sufficiently minimize impacts on recreational use of Gonzalez Field.

g. West Point Transmission Project

89. Commenters expressed safety concerns about potential interactions between Algonquin's pipeline facilities and the proposed West Point Transmission Project. The West Point Transmission Project is a 1,000-megawatt underwater power cable proposed by West Point Partners (WPP) to bring untapped power from northern and western New York State to the New York City area. The cable will interconnect with existing transmission facilities at the Buchanan North Substation in the Village of Buchanan,

⁵⁷ See final EIS at 4-162.

⁵⁸ See final EIS at 4-168.

New York. WPP also proposes to construct a converter station that will occupy about 3.8 acres on a 105-acre parcel owned by Con Edison in the Hamlet of Verplanck, New York.

90. The Stony Point to Yorktown Take-up and Relay segment of the AIM Project will also cross the Hudson River onto the same Con Edison parcel in Verplanck. The proposed pipeline will cross the West Point Transmission Project's high-voltage direct-current cable route at about MP 3.9 (9th Street), and then run parallel to the transmission line route at an offset of 50 feet, as both projects proceed easterly toward the Con Edison parcel. At the Con Edison parcel, the proposed pipeline will be located about 50 feet west of WPP's proposed converter station. North of the converter station, the proposed pipeline and the transmission line will again run parallel to one another for a distance of about 1,000 feet. WPP modified its proposed transmission line alignment to closely parallel Algonquin's workspace in this manner to reduce impacts on residential areas in the Hamlet of Verplanck. This will allow a reduction in WPP's construction time and construction impacts, as WPP will be able to rely on construction workspace already cleared by Algonquin. Algonquin and WPP will coordinate construction schedules to avoid overlap in construction activities on the Con Edison parcel.

91. In addition, Algonquin has committed to conducting an alternating current/direct current (AC/DC) interference study and incorporating field surveys and comprehensive modeling to identify potential adverse effects on the pipeline from stray currents and from inductive, conductive, and coupling AC/DC effects from nearby AC/DC utilities. The study's purpose is to indicate specific design measures necessary to mitigate electrical interaction between the pipeline and electric transmission systems, which may include a maximum separation distance, parallel/point mitigation utilizing anodes, potentially controlled impressed current cathodic protection systems, or other measures based on engineering judgment. The final EIS concludes that a properly designed natural gas pipeline and electric transmission line running parallel to each other, even at close distances, will not result in any cumulative operational or public safety hazards.⁵⁹ We agree with this conclusion. However, to ensure that safety concerns about potential interactions are adequately addressed, Environmental Condition 32 in this order adopts the final EIS's recommendation to require that, before constructing the Stony Point to Yorktown Take-up and Relay segment, Algonquin file its final AC/DC interference study, documentation of all consultations with WPP, and any additional mitigation measures to address safety-related issues.

⁵⁹ See final EIS at 4-276.

h. Traffic

92. Construction of the AIM Project will result in temporary to short-term increases in traffic levels due to the construction workforce commuting to the project area, as well as the movement of construction vehicles and delivery of equipment and materials to the construction work area. In-street construction will also occur along the West Roxbury Lateral. To address traffic impacts related to road crossings and in-street construction in densely populated areas, Algonquin prepared Traffic Management Plans for both the West Roxbury Lateral and for pipeline segments in New York. The plans include measures to address motor vehicles, including parking, and considerations for pedestrians, bicycles, and construction workers during construction. The final EIS identifies several road crossings in New York as needing additional site-specific details.⁶⁰ Therefore, Environmental Condition 25 of this order requires that, before construction in New York, Algonquin file a revised Traffic Management Plan for the New York pipeline segments.

93. In-street construction will affect traffic in the project area along the West Roxbury Lateral in Massachusetts, and may affect on-street parking and use of sidewalks adjacent to the affected roadways. As stated in the final EIS, Algonquin will consult with each municipality along the project corridor to address potential traffic-related impacts, and will obtain road crossing permits from the applicable federal, state, and local agencies, including the City of Boston and the Town of Dedham, before conducting in-street construction. Environmental Condition 26 of this order requires that, before construction of the West Roxbury Lateral, Algonquin develop and file a detailed construction schedule for each segment of the lateral that includes the proposed construction timeframes (i.e., month, week, and days), working hours, and any restricted work hours. The schedule will be shared with each affected municipality, and during construction of the West Roxbury Lateral the schedule will be updated and provided to the municipalities on a biweekly basis and included in Algonquin's construction status reports required by Environmental Condition 8.

94. The final EIS concludes that two specific intersections could experience significant adverse traffic impacts as a result of construction of the West Roxbury Lateral: (1) the intersection of High Street, East Street, and Harris Street in a residential area in the Town of Dedham; and (2) the intersection of Spring Street and Centre Street in a residential area in West Roxbury.

95. The intersection of High Street, East Street, and Harris Street currently operates acceptably under peak-hour conditions and during a typical weekday midday period. The

⁶⁰ See final EIS at 4-187.

required lane closures at this intersection, however, will result in adverse impacts on traffic operations during the course of construction, especially during the weekday midday period. To reduce impacts at this intersection, and at the request of the Town of Dedham, Algonquin will construct during nighttime hours (i.e., 7:00 p.m. to 5:00 a.m.). The final EIS concludes that this will not eliminate all traffic-related impacts at this intersection, but will reduce the impacts to less than significant levels.⁶¹

96. Similarly, the intersection of Spring Street and Centre Street generally operates acceptably throughout the day under existing conditions. During construction of the West Roxbury Lateral, however, the northbound Centre Street right-turn lane will be blocked off temporarily. This will be limited to only one phase of four traffic management phases planned for this location. Nonetheless, lengthy delays will occur on the northbound Centre Street approach to the intersection. Algonquin will have police details in place to monitor traffic conditions and make adjustments as required, will schedule work in the vicinity of this intersection before late afternoon commuter peak periods, and will consider performing the work during the nighttime hours if requested by the City of Boston. Although nighttime construction will minimize traffic impacts, it will increase noise-related impacts on residential properties located in close proximity to this intersection. The final EIS concludes that there will be temporary, but significant, unavoidable impacts at this intersection during construction.⁶²

i. Property Values and Homeowners' Insurance

97. Commenters expressed concerns about the project's potential impacts on property values. Their concerns included devaluation of property if encumbered by a pipeline easement, being the responsible party for property taxes within a pipeline easement, changes to mortgage rates based on proximity to a pipeline, and negative economic effects resulting from changes in land use. Although Algonquin will acquire new temporary (i.e., construction) and permanent easements for the project where applicable, the final EIS clarifies that most of the pipeline segments will be installed within Algonquin's existing right-of-way, with the exception of the West Roxbury Lateral. Further, the majority of the pipeline segments will replace existing pipeline in the same location, and will not require a new pipeline easement. While the West Roxbury Lateral will require new permanent pipeline easements, the majority of the new pipeline will be located within streets or public property, and therefore will not require new pipeline easement on individual private properties. Most of the aboveground facilities associated with the project will modify existing facilities on properties owned by Algonquin. Where

⁶¹ See final EIS at 4-190.

⁶² See final EIS at 4-190 to 4-191.

new easements on private property are required, the final EIS states that Algonquin will compensate landowners for the easements, the temporary loss of land use, and any damages.

98. In addition, affected landowners who believe that their property values have been negatively impacted can appeal to local tax agencies for reappraisal and potential reduction of taxes. The final EIS states that our staff is not aware of any practice by mortgage companies to re-categorize properties based on proximity to pipelines, nor of federally insured mortgages being revoked based on proximity to pipelines. The final EIS concludes that the project is not likely to negatively impact property values or influence mortgage rates outside the pipeline rights-of-way or aboveground facility boundaries.⁶³

99. Commenters also expressed concerns about the project's potential to have negative impacts on their homeowners' insurance, such as increases in premiums, reductions in coverage, or inability to obtain insurance due to proximity to a pipeline. Insurance advisors consulted on other natural gas pipeline projects reviewed by the Commission indicated that pipeline infrastructure does not affect homeowner insurance rates. The final EIS concludes that homeowners' insurance rates are unlikely to change due to construction and operation of the project.⁶⁴

j. Air Quality

100. Commenters expressed concerns about air quality impacts and the associated health effects resulting from the project facilities, including the Stony Point and Southeast Compressor Stations in New York. The final EIS concludes that due to modifications on existing equipment and removal of existing compressors, the potential emissions of most pollutants at the Stony Point and Southeast Compressor Stations will be reduced from their current potential levels. Further, based on the identified estimated emissions from operation of the proposed project facilities and review of the modeling analysis for all compressor stations, the final EIS concludes that the project compressor station modifications will result in continued compliance with the National Ambient Air Quality Standards, which are protective of human health, including children, the elderly, and sensitive populations. Therefore, with the mitigation measures proposed by Algonquin, the final EIS concludes that construction and operation of the proposed

⁶³ See final EIS at 4-193 to 4-194.

⁶⁴ *Id.*

project facilities will not have a significant impact on air quality in the project area or region.⁶⁵

101. Commenters also expressed specific concern about methane emissions released from the project. As described in the final EIS, Algonquin provided a summary of practices to minimize methane emissions that will be implemented at modified compressor stations associated with the project, and that are currently implemented at its other facilities. Specifically, Algonquin will use highly efficient turbine technology at the modified compressor stations, which will minimize emissions because the technology will be appropriately sized and efficient, and will include dry seals. Algonquin also has a program in place for minimizing methane emissions at all of their facilities. Measures include replacing wet seals with dry seals at compressors, replacing older infrastructure to reduce blowdowns, installing leak detection monitoring systems, and participating in the EPA's National Gas Star Program to share best practices for reducing methane emissions. We believe these measures will be sufficient to adequately address any potential issues related to methane emissions from the project.

102. We also received several comments concerning the risk of radon exposure associated with in-home burning of natural gas originating from the Marcellus shale. While the Commission has no regulatory authority to set, monitor, or respond to indoor radon levels, many local, state, and federal entities (e.g., the EPA) establish and enforce radon exposure standards for indoor air. Studies have demonstrated that levels of radon in interstate pipelines carrying gas from the Marcellus shale will be below average indoor and outdoor radon levels.

103. We also received comments concerning the potential buildup of decay products within the pipeline and the risk of releasing these products to the environment either during pipeline maintenance or the removal of existing pipe. The final EIS states that the half-lives of the radioactive decay products are relatively short and that, over time, these products will decay to non-radioactive lead. As a result, only a limited amount of radioactive decay material will be in the pipeline at any given time because any material that is within the pipeline for a prolonged period will become non-radioactive. Algonquin will clean the pipeline to be removed before the pipeline is reused for another purpose. Algonquin also conducts annual inspections and regular cleaning of its operational pipelines. Any liquids or solids removed during these cleanings will be collected and treated as hazardous material that will be disposed of at a licensed facility in accordance with federal, state, and local regulations. The final EIS finds that these measures will minimize the risk that any radioactive solids will be released to the environment.

⁶⁵ See final EIS at 4-235 to 4-236.

104. With the mitigation measures proposed by Algonquin, the final EIS concludes that air quality impacts from construction and operation of the proposed AIM Project will not result in significant air impacts on residents and the surrounding communities.⁶⁶

k. Safety

1. General

105. Numerous commenters questioned the general safety of the proposed project. As described in the final EIS, the project's facilities will be designed, constructed, operated, and maintained to meet or exceed the U.S. Department of Transportation's (DOT) Minimum Federal Safety Standards set forth in Part 192 of Title 49 of the Code of Federal Regulations and in other applicable federal and state regulations.⁶⁷ The majority of the project will replace existing, aged pipeline with new pipeline in the same location and will not increase the risk to the nearby public. For the small portion of the AIM Project where looping or a new pipeline is proposed, the final EIS concludes that the project will represent a slight increase in risk to the nearby public.⁶⁸ Based on available data, the final EIS concludes that natural gas transmission pipelines continue to be a safe, reliable means of energy transportation.

2. Indian Point Energy Center

106. We received comments concerning the safety of the project and its proximity to Indian Point, a nuclear facility operated by Entergy Nuclear Operations, Inc. (Entergy) on the east bank of the Hudson River in Westchester County, New York. As identified in the final EIS, Algonquin coordinated with Entergy to provide information about the proposed pipeline and Entergy performed a safety evaluation of the pipeline information.⁶⁹ Entergy's Safety Evaluation incorporates additional design and installation enhancements along approximately 3,935 feet of the AIM Project pipeline where it will lie closest to the Indian Point facility, i.e., 0.5 mile from Indian Point's security barrier. Algonquin will extend the mitigation measures outlined in the Safety Evaluation to the entire area between MPs 4.6 and 5.3 along the Stony Point to Yorktown

⁶⁶ See final EIS at 4-235 to 4-245.

⁶⁷ See final EIS at 4-264 to 4-272.

⁶⁸ See final EIS at 4-281.

⁶⁹ See final EIS at 4-276 to 4-278.

Take-up and Relay segment. The Safety Evaluation concluded that the AIM Project poses no increased risks to the Indian Point facility.

107. On August 21, 2014, Entergy filed its Safety Evaluation for the AIM Project with the Nuclear Regulatory Commission (NRC). The NRC reviewed the site hazards analysis performed by Entergy and performed an independent confirmatory analysis of the blast analysis as well. The NRC's analysis did not account for the additional pipeline design measures identified by Entergy and committed to by Algonquin, and assumed a pipeline catastrophic failure. The review covered everything within the Security Owner Controlled Area, which encompasses everything inside the outermost fenced area of the facility including the area with the spent fuel rods. The NRC concluded that a breach and explosion of the proposed 42-inch-diameter natural gas pipeline would not adversely impact the safe operation of the Indian Point facility. Therefore, the final EIS concludes that the project will not result in increased safety impacts at the Indian Point facility.

I. Atlantic Bridge Project and Segmentation

108. Several commenters claim that the AIM Project is improperly segmented from other expansions of Algonquin and Spectra's interstate system known as the Atlantic Bridge and Access Northeast Projects.

109. Improper segmentation of a project occurs when interrelated projects are artificially divided into smaller, less significant components to avoid comprehensive environmental review under NEPA. Improper segmentation, however, is concerned with projects that have reached the proposal stage,⁷⁰ which is not the case here. Section 102(C) of NEPA requires agencies to prepare an environmental document for "proposals" for major federal actions affecting the human environment.⁷¹ The CEQ's regulations state that "proposals" exist when the action is at the stage when "an agency subject to the Act has a goal and is actively preparing to make a decision . . . and the effects [of that action] can be meaningfully evaluated."⁷²

110. The Atlantic Bridge and Access Northeast Projects are still in the development phase and precedent agreements are under consideration. Algonquin just filed a request

⁷⁰ See, e.g., *Transcontinental Gas Pipe Line Company, LLC*, 149 FERC ¶ 61,258, at P 66 (2014).

⁷¹ 42 U.S.C. § 4332(2)(C) (2012).

⁷² 40 C.F.R. § 1508.23 (2014).

for approval of pre-filing review process for the Atlantic Bridge Project on January 30, 2015, which Commission staff approved on February 20, 2015. As for the Access Northeast Project, Algonquin is still evaluating the project's potential development based on interest for additional natural gas supplies in New England and the Canadian Maritime provinces. Algonquin has not filed an application with the Commission for either project. Without an application, the Commission cannot actively prepare to make a decision on the projects and the effects of the projects cannot be meaningfully evaluated. Therefore, the Atlantic Bridge and Access Northeast Projects are not fully defined "proposals" and cannot be segmented by the Commission from its environmental review of the AIM Project under NEPA.

111. This situation is factually and legally distinct from the case *Delaware Riverkeeper Network v. FERC*,⁷³ which commenters cite in support of their segmentation arguments. That case considered four pipeline upgrades on a single mainline, all of which were either proposed and before the Commission or under construction at the same time. As the Atlantic Bridge and Access Northeast Projects are not proposals before the Commission, the scope of the EIS was appropriately limited to evaluation of impacts of the AIM Project. In any event, potential cumulative impacts of the Atlantic Bridge and Access Northeast Projects are discussed in the cumulative impacts section in the final EIS and below.

m. Cumulative Impacts

112. We received numerous comments pertaining to additional actions to be considered in the cumulative impacts section, specifically the Atlantic Bridge and Access Northeast Projects, and natural gas extraction in the Marcellus shale.

113. The CEQ 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."⁷⁴ A cumulative impacts analysis may require an analysis of actions unrelated to the proposed project if they occur in the project area or region of influence of the project being analyzed.⁷⁵ CEQ states that "it is not practical to analyze the cumulative effects of an action on the universe; the list

⁷³ *Del. Riverkeeper Network v. FERC*, 753 F.3d 1304 (D.C. Cir. 2014).

⁷⁴ 40 C.F.R. § 1508.7 (2014).

⁷⁵ CEQ Guidance, *Considering Cumulative Effects under the National Environmental Policy Act* (January 1997).

of environmental effects must focus on those that are truly meaningful.”⁷⁶ An agency is only required to include “such information as appears to be reasonably necessary under the circumstances for evaluation of the project rather than to be so all-encompassing in scope that the task of preparing it would become either fruitless or well nigh impossible.”⁷⁷

114. An impact is “reasonably foreseeable” if it is “sufficiently likely to occur that a person of ordinary prudence would take it into account in reaching a decision.”⁷⁸ Courts have noted that the starting point of any NEPA analysis is a “rule of reason,” under which NEPA documents “need not address ‘remote and highly speculative consequences.’”⁷⁹

115. Consistent with CEQ guidance, to determine the scope of the cumulative impact analysis in an EIS, Commission staff establishes a “region of influence” to define the area affected by the proposed action in which existing and reasonably foreseeable future projects may also result in cumulative impacts. A project's region of influence varies depending on the resource being discussed.

116. Impacts on geology and soils, land use, residential areas, visual resources, cultural resources, and traffic by the AIM Project will be highly localized. Therefore, the final EIS evaluated other projects (e.g., residential development, small commercial development, small transportation projects) within 0.25 mile of the construction work areas. Waterbody and wetland crossings, as well as impacts on groundwater, vegetation, and wildlife by the AIM Project will be localized and minimized. Therefore, the final EIS evaluated other projects within the sub-watersheds crossed by the AIM Project. The AIM Project compressor stations will result in long-term impacts on air quality in various Air Quality Control Regions. Therefore, other projects with the potential to result in long-term impacts on air quality (e.g. natural gas compressor stations or industrial facilities) within the Air Quality Control Regions that will also be impacted by an AIM Project compressor station were considered in the final EIS. Long-term noise impacts from the AIM Project compressor stations will be localized to within one mile of each station. Therefore, the final EIS evaluated other projects that will result in long-term

⁷⁶ *Id.* p. 8.

⁷⁷ *New York Natural Res. Def. Council, Inc. v. Kleppe*, 429 U.S. 1307, 1311 (1976) (citing *Natural Res. Def. Council v. Calloway*, 524 F.2d 79, 88 (2d. Cir. 1975)).

⁷⁸ *Sierra Club v. Marsh*, 976 F.2d 763, 767 (1st Cir. 1992).

⁷⁹ *Hammond v. Norton*, 370 F. Supp. 2d 226, 245-46 (D.D.C. 2005).

impacts on noise affecting the same noise-sensitive areas as the AIM Project compressor stations.

117. The final EIS discussion of the potential for cumulative impacts with both the Atlantic Bridge Project⁸⁰ and the Access Northeast Project⁸¹ is set forth in section 4.13 and is based on publicly available information and assumptions regarding pipeline distance, collocation, right-of-way width, and pipeline diameter. The contemplated Atlantic Bridge Project will generally consist of replacing sections of existing pipeline with new larger diameter pipeline, installing pipeline adjacent to sections of existing pipeline, increasing compression at existing compressor stations, and modifying a number of existing meter stations to provide for increased deliveries. The specific details about the Atlantic Bridge Project are currently not fully developed and no application for the project has been filed. The information that was publically available at the time Commission staff published the final EIS indicated that the project may include 52.5 miles of new loop and replacement of existing pipeline and additional compression at six existing Algonquin compressor stations and one new compressor station. As contemplated at the time, all 52.5 miles would be within or adjacent to existing rights-of-way, consisting primarily of Algonquin's pipeline right-of-way, and including small areas of public roadways, railways, and other utility rights-of-way.

118. If the Atlantic Bridge Project were to move forward, it does appear that there would be Atlantic Bridge Project facilities within the same region of influence as the AIM Project. As discussed in the final EIS, impacts associated with the Atlantic Bridge Project would be similar to those of the AIM Project (i.e., short term and localized during construction). Although the same region of influence would be affected, the temporal scales for the construction of the projects are different. AIM Project construction is planned for 2015 and 2016. Construction of the Atlantic Bridge Project would likely take place after that time, as the earliest projected in-service date for the Atlantic Bridge Project is November 2017. If the Atlantic Bridge Project gets constructed, the operation of compressor stations will overlap, as will the operational air emissions of the projects. Even so, minimal cumulative impacts are anticipated when the impacts of the AIM Project are added to identified ongoing projects in the immediate area, including the Atlantic Bridge Project.⁸² The final EIS finds that cumulative impacts will be minimal

⁸⁰ See final EIS at 4-288 to 4-290.

⁸¹ See final EIS at 4-290.

⁸² Based on Algonquin's January 23 pre-filing request letter, however, cumulative impacts will be less than Commission staff concluded in the final EIS. The January 23 pre-filing request letter states that the scope of the Atlantic Bridge Project has fewer miles of pipe and less compression than what Commission staff considered.

because of the implementation of specialized construction techniques, the relatively short construction timeframe in any one location, and carefully developed resource protection and mitigation plans designed to minimize and control environmental impacts for the AIM Project as a whole.

119. Regarding the Access Northeast Project, Algonquin's website indicates that it hoped to secure expression of interest from potential customers by the end of 2014, but it does not provide any information about the size or location of the proposed facilities. Algonquin indicates that, if they receive adequate market support, it will begin seeking regulatory approvals in 2015 with a goal of constructing and placing the facilities in service by the end of 2018. Because the Access Northeast Project will not occur at the same time as the AIM Project, and because details are unknown, Commission staff did not consider it further in the cumulative impact assessment in the final EIS.

120. In addition, commenters, including the Allegheny Defense Project (Allegheny), allege that the EIS does not adequately consider the cumulative impacts of natural gas extraction. Allegheny argues that environmental impacts associated with continued development of the Marcellus shale are reasonably foreseeable consequences of the AIM Project because it asserts shale is the reason the project is being proposed and, therefore, should be quantified to the same extent as the impacts of the proposed project.

121. Allegheny disagrees with the draft EIS's statement that it is highly difficult and speculative to identify and quantify cumulative impacts of natural gas production. In support, Allegheny cites to U.S. Forest Service's EIS for the Allegheny National Forest Land and Resource Management Plan, which recorded existing wells and projected additional wells by 2020. Allegheny also references a report published by the Nature Conservancy in cooperation with Western Pennsylvania Conservancy and Audubon Pennsylvania, which projected Marcellus shale gas extraction and pipeline construction that will occur by 2030.

122. The CEQ guidance on cumulative impacts assessments advises that agencies have substantial discretion in determining the appropriate level of the cumulative impacts assessments.⁸³ CEQ states that an agency should relate the scope of its analysis to the magnitude of the environmental impacts of the proposed action. Given the geographic scope of the Marcellus shale, development of those resources will extend well beyond the region of influence considered for inclusion in the cumulative impact analysis for the

⁸³ The Supreme Court has similarly held that "determination of the extent and effect of [cumulative impacts], and particularly identification of the geographic area within which they may occur, is a task assigned to the special competency of the appropriate agencies." *Kleppe v. Sierra Club*, 427 U.S. 390, 414 (1976).

AIM Project. Given the limited scope of the AIM Project, the broader cumulative effects analysis sought by Allegheny and other commenters is not required under NEPA.

123. Moreover, any impacts from potential upstream production activities are not reasonably foreseeable as contemplated by CEQ's regulations. As the final EIS explains, we can only speculate regarding the exact location, scale, scope and timing of future production-related facilities, which would not provide meaningful information to inform our decision here.⁸⁴

124. As noted above, CEQ guidance recognizes that agencies have substantial discretion in determining the appropriate scope of their cumulative impacts analyses. Therefore, the fact that the Forest Service found cumulative effects of natural gas development sufficiently reasonably foreseeable for purposes of informing its actions in developing the Land and Forest Management Plan of the Allegheny National Forest (Forest Plan) is not controlling here. The Forest Service was developing a plan to guide the management of the Allegheny National Forest. Among other things, it is a goal of the Forest Service to protect publicly-owned surface resources from disturbance by oil and gas development.⁸⁵ The Forest Service's action covered a geographically distinct area, i.e., the Allegheny National Forest, and the EIS focused on the existing activity within that area, estimating that there were 8,000 wells in production and 1,250 miles of oil and gas roads.⁸⁶ Those circumstances are quite different from the situation here.

125. Allegheny also fails to show that the explanatory information in the cited Nature Conservancy's report, or elsewhere, identifies information that would assist the Commission in identifying the timing and location of wells and related infrastructure, much less the associated potential impacts of natural gas drilling, in the project area. As we have found, the full range of Marcellus shale development is both widespread and

⁸⁴ See final EIS at 1-5.

⁸⁵ See U.S. Forest Service, Allegheny National Forest Record of Decision for Final Environmental Impact Statement and Land and Resource Management Plan (March 2007), available at http://www.fs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb5044088.pdf.

⁸⁶ See *id.* at 3-163.

uncertain in nature and timing, making it highly difficult and speculative to identify and quantify cumulative impacts of possible future drilling relating to pipeline projects.⁸⁷

126. Allegheny cites *Northern Plains Resource Council et al. v. Surface Transportation Board et al. (Northern Plains)*⁸⁸ in support of its contention that future production is reasonably foreseeable. *Northern Plains* addressed the issue of whether the Surface Transportation Board should have considered the cumulative impacts of coal bed methane (CBM) well development as part of its NEPA analysis of a proposed 89-mile-long rail line intended to serve specific new coal mines in three Montana counties. *Northern Plains* is distinguishable because, as part of an earlier, programmatic EIS, the Bureau of Land Management had already analyzed reasonably foreseeable CBM well development, which provided the Surface Transportation Board with information about the timing, scope, and location of future CBM well development. Here, the Commission has no similar information in the present case about the timing, location, and scope of future shale (or conventional) well development in the project area. Moreover, as the Commission has previously found, *Northern Plains* establishes that while agencies must engage in reasonable forecasting in considering cumulative impacts, NEPA does not require an agency to “engage in speculative analysis” or “to do the impractical, if not enough information is available to permit meaningful consideration.”⁸⁹

n. Indirect Impacts

127. We received numerous comments about indirect impacts of induced natural gas production in the Marcellus shale region in response to demand from Algonquin's customers. CEQ's regulations require agencies to consider the indirect impacts of proposed actions. Indirect impacts are “caused by the [proposed] action” and occur later in time or farther removed in distance than direct project impacts, but are still “reasonably foreseeable.”⁹⁰ Indirect impacts may include growth inducing effects and other effects related to induced changes in the pattern of land use, population density or

⁸⁷ See *Central New York Oil & Gas Co. LLC*, 138 FERC ¶ 61,104, at P 7 (2012) upheld by *Coalition for Responsible Growth and Resource Conservation v. FERC*, 485 Fed. Appx. 472 (2d Cir. 2012).

⁸⁸ 668 F.3d 1067 (9th Cir. 2011).

⁸⁹ *Sabine Pass Liquefaction LLC*, 140 FERC ¶ 61,076, at P 17 (2012) (citing *Northern Plains*, 668 F.3d 1067 (9th Cir. 2011)).

⁹⁰ 40 C.F.R. § 1508.8(b) (2014).

growth rate, and related effects on air and water.⁹¹ For an agency to include consideration of an impact in its NEPA analysis as an indirect effect, approval of the proposed project and the related secondary effect must be causally related, i.e., the agency action and the effect must be “two links of a single chain.”⁹²

128. The potential environmental effects associated with shale gas development are neither sufficiently causally related to the AIM Project to warrant a detailed analysis nor are the potential environmental impacts reasonably foreseeable, as contemplated by the CEQ regulations.⁹³ Additional natural gas production in any particular region is not an essential predicate for the AIM Project, which can receive natural gas through its interconnects with other natural gas pipelines. These interconnecting pipeline systems span multiple states with shale formations in the northeast, as well as conventional gas formations. Further, unconventional production development will likely continue regardless of whether the AIM Project is approved.

129. The Clean Air Council cites *Natural Resource Defense Council, Inc. v. Federal Aviation Administration*⁹⁴ to support its position that the AIM Project will cause indirect impact by encouraging increased Marcellus shale production. The facts and outcome of that case, however, undercut the Clean Air Council’s argument. In that case, petitioners argued that the Federal Aviation Administration’s (FAA) FEIS for its approval of a proposal to construct a new airport violated NEPA because the FAA failed to consider the environmental impacts of induced growth caused by the proposed airport. The court dismissed petitioners’ arguments stating “[i]n fact, the agency did consider the effects of induced growth as part of its analysis . . .”⁹⁵ Similarly, here Commission staff’s final EIS considered growth inducing impacts of the AIM Project. The final EIS for the AIM

⁹¹ *Id.*

⁹² *Sylvester v. U.S. Army Corps of Engineers*, 884 F.2d 394, 400 (9th Cir. 1989).

⁹³ *See, e.g., Central New York Oil and Gas Co., LLC*, 137 FERC ¶ 61,121, at PP 81-101 (2011), *order on reh'g*, 138 FERC ¶ 61,104, at PP 33-49 (2012), *petition for review denied, sub nom, Coalition for Responsible Growth v. FERC*, 485 Fed. Appx. at 474-75 (upholding the Commission’s analysis of the development of Marcellus shale natural gas reserves where the Commission reasonably concluded that the impacts of that development were not sufficiently causally-related to the projects to warrant a more in-depth analysis).

⁹⁴ 564 F.3d 549 (2d Cir. 2009).

⁹⁵ *Id.* at 560.

Project forecasts that the new West Roxbury Lateral may support long-term growth in the Boston area, as well as enhance and reinforce the existing Boston gas delivery system and reliability during outage situations. The final EIS also states that local distribution companies benefiting from the AIM Project expansion may build additional lines to serve their new customers, but that it is speculative to assume where the new lines would go and the resulting impacts.⁹⁶

130. Natural gas development, including development of the Marcellus shale region, will continue and indeed is continuing, with or without the AIM Project, because multiple existing and proposed transportation alternatives for production from the region are available. Thus, there is an insufficient causal link between the proposed project and additional development of the Marcellus shale region for such development to be considered an indirect impact under NEPA and CEQ's regulations. And even if such a causal relationship were shown, as we discussed above, the scope of the impacts from any such induced production is not reasonably foreseeable as contemplated by CEQ's regulations and case law.

o. Alternatives

131. Numerous commenters expressed concern with the pipeline project's route and stressed the need for additional analysis of alternatives. Section 3.0 of the final EIS evaluates a range of alternatives to the AIM Project, including the no-action alternative, energy conservation, renewable energy alternatives, system alternatives, route alternatives, and minor route variations, to determine whether they are technically and economically feasible and environmentally preferable.⁹⁷

132. The final EIS evaluates a route alternative at the Hudson River crossing of the Stony Point to Yorktown Take-up and Relay segment and addresses the geological and constructability issues along Algonquin's existing mainline. The final EIS also evaluates two route alternatives along the proposed West Roxbury Lateral to address impacts on existing land uses, primarily residential and commercial areas. For various reasons discussed in detail in section 3.5 of the final EIS, these alternatives were not selected over the proposed route.⁹⁸

⁹⁶ Final EIS at 4-290 to 4-291.

⁹⁷ See final EIS at 3-1 to 3-55.

⁹⁸ See final EIS at 3-20 to 3-52.

133. Following issuance of the draft EIS, Algonquin evaluated the following nine route variations: Hudson River HDD Variation, Blue Mountain Reservation Variation, Catskill Aqueduct Variation, Neponset River State Park and Stony Brook State Reservation Alternative, Norfolk Golf Club Variation, Massachusetts Bay Transit Authority Variation, Gonzalez Field Variation, Mother Brook Variation, and St. Theresa Parish and School Variation. Thereafter, we received comments requesting that we evaluate additional alternatives and variations to the proposed route. The final EIS includes an analysis of these nine route variations.⁹⁹ With the exception of the Blue Mountain Reservation and Neponset River State Park and Stony Brook State Reservation alternatives, Algonquin concluded that the remaining seven variations were determined to be advantageous to the original route and incorporated them into the project.

134. Algonquin also evaluated 23 minor pipeline shifts, workspace adjustments, and design modifications following issuance of the draft EIS. The final EIS includes a more detailed review of these proposed changes.¹⁰⁰ Nineteen of these proposed changes were determined to be advantageous and Algonquin incorporated these into the project. The final EIS also evaluated alternative construction methods for several waterbody and wetland crossings, but found none that would be feasible or preferable to the proposed construction methods.

4. Late Comments Not Addressed in the Final EIS

135. All written comments received from August 6, 2014, to October 10, 2014, were included and addressed in Volume II of the final EIS. Two-hundred sixty-two letters were filed too late to be considered in the final EIS, and 23 comments were filed after issuance of the final EIS. Letters received after October 10, 2014, continued to be posted to the eLibrary site and were reviewed by staff for additional new substantive concerns. The majority of the letters contained issues that had already been raised in previous comment letters and were therefore already addressed in the final EIS. Five comment letters were received after October 10, 2014, that identified new issues and these are addressed below.

a. Cortlandt Farm Market, LLC

136. On December 17, 2014, the owners of the Cortlandt Farm Market, LLC (Farm Market) submitted a comment regarding a workspace addition that Algonquin incorporated into the project design after the issuance of the draft EIS. The additional

⁹⁹ See final EIS at 3-31 to 3-44.

¹⁰⁰ See final EIS at 3-45 to 3-51.

workspace adds about 0.15 acre to the previously-depicted workspace at about MP 10.4 of the Stony Point to Yorktown Take-up and Relay segment. Algonquin modified the workspace to provide sufficient space to dismantle an existing deck structure owned by the Farm Market, which Algonquin indicated will pose a potential safety hazard during construction. The owners assert that removing the deck and adding workspace within the Farm Market's parking lot will significantly affect the income of the business.

137. As the final EIS indicates, Algonquin will compensate all landowners for any new easements, temporary loss of land use, or damages resulting from project construction,¹⁰¹ including the owners of Farm Market. Algonquin will also restore the property to preconstruction conditions following the completion of construction, and has specifically committed to replacing the dismantled deck on the Farm Market's property.

b. Westchester County Legislator Peter B. Harckham

138. On January 14, 2015, Westchester County Legislator Peter B. Harckham filed a comment that attached a report prepared by Erik Kiviat, Ph.D.¹⁰² The report describes the existing habitat and the potential occurrence of plants and animals of conservation concern within the Blue Mountain Reservation and the Reynolds Hills residential area. Legislator Harckham asserts that the draft EIS did not discuss biodiversity impacts within the Blue Mountain Reservation with adequate specificity, and that flora, fauna, and habitat within the reservation should be re-evaluated using the Kiviat Report as a starting point before the Commission issues a certificate for the project.

139. The Kiviat Report asserts that the Blue Mountain Reservation contains potential habitat for several special status species. The report's characterization of potential habitat in the project area is based on previous observations of habitat within different pipeline rights-of-way in other locations, as well as Dr. Kiviat's observations of conditions within the Blue Mountain Reservation. We do not agree that these observations necessitate additional surveys within the Blue Mountain Reservation.

140. As documented in the final EIS, Algonquin consulted with the appropriate jurisdictional agencies to identify special status species that may occur within the project area. Algonquin consulted with the New York State Department of Environmental Conservation (New York DEC) New York Natural Heritage Program regarding the

¹⁰¹ See final EIS at 4-193.

¹⁰² The report is titled "Preliminary Biodiversity Assessment of the Algonquin Gas Pipeline at Reynolds Hill and Blue Mountain Reservation, City of Peekskill and the Town of Cortlandt, Westchester County, New York."

documented occurrences of state protected species in New York, conducted surveys as requested by the New York DEC and in accordance with approved protocols, and continues to coordinate with the New York DEC regarding the facilities' impacts on protected species. Any additional avoidance or minimization measures required by the New York DEC will be addressed through consultation with the New York DEC and during the New York DEC permitting process for the project. Algonquin also consulted with the U.S. Fish and Wildlife Service (FWS) on federally protected species and migratory birds, and conducted surveys as recommended by the FWS in accordance with approved protocols.

141. Algonquin will implement species-specific measures when applicable and its E&SCP during project construction and restoration, as well as any permit conditions developed through consultation with New York DEC to minimize project effects on wildlife and their habitats. The final EIS concludes that these measures will minimize project effects on vegetation and wildlife populations.¹⁰³ Therefore, we do not find that any additional surveys are necessary to minimize effects on species specifically within the Blue Mountain Reservation. Westchester County and Algonquin may agree upon further measures as a condition of the county's authorization of workspace outside Algonquin's existing maintenance easement, but any such conditions are outside the scope of our NEPA review.

142. The Kiviat Report also states that the project right-of-way within the Blue Mountain Reservation should be checked by an independent wetland delineator for undelineated or under-delineated wetlands. Qualified wetland scientists, however, have already conducted full wetland delineations for the project area in 2013 in accordance with the methodologies described in the 1987 USACE Wetlands Delineation Manual and the 2011 Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region (Version 2). The final EIS accurately summarizes the project's impacts on wetlands in New York based on these delineations.¹⁰⁴ Construction and operation-related impacts on wetlands will be mitigated by implementing the wetland protection and restoration measures contained in Algonquin's E&SCP, Invasive Plant Species Control Plan, and any additional conditions of the wetland permits that could be issued by the Corps or New York DEC. Algonquin will also provide compensatory mitigation for the permanent conversion of forested wetlands to a non-forested wetland type. Implementation of a final, agency-approved Wetland Mitigation Plan will further offset any adverse impacts on wetland functions that result from the permanent

¹⁰³ See final EIS at 4-84 and 4-92.

¹⁰⁴ See final EIS at 4-62.

conversion of these wetlands. Therefore, we do not agree that it is necessary to repeat wetland delineations within the Blue Mountain Reservation.

143. Finally, the Kiviat Report states that AIM Project funds should be put into escrow for a full-time independent environmental monitor administered by a town conservation advisory council, a county agency, or the New York DEC. As indicated in section 2.5 of the EIS, the Commission will implement a third-party Environmental Compliance Monitoring Program for sensitive environmental areas in the project area, including those in New York.¹⁰⁵ Under this program, Algonquin will fund a contractor, to be selected and managed by Commission staff, to provide environmental compliance monitoring services. We conclude that our Environmental Compliance Monitoring Program will provide sufficient oversight of the project in New York without the need for an additional or separate monitor.

c. John Louis Parker

144. On January 23, 2015, John Louis Parker, an attorney for Reynolds Hills, filed a comment stating that under the Clean Water Act the Commission cannot authorize a project until a state water quality certificate has been issued. As demonstrated in the EIS, it is impractical, and sometimes impossible, to complete studies and develop plans to mitigate potential adverse aspects of a project in advance of issuing a final order. This can be because many post-authorization conditions require site-specific plans and surveys that cannot be completed until the applicant is able to employ eminent domain to gain access to previously inaccessible land parcels.

145. We stress that this order's authorization is subject to Algonquin's compliance with numerous specific conditions, including the requirement to obtain favorable determinations from other agencies that have jurisdiction over various aspects of the project. Consequently, we find no need to delay issuing our decision, given that our authorizations are conditioned to preclude the applicants from commencing construction until all other necessary permits and approvals under federal law are granted, including water quality certificates under the Clean Water Act.¹⁰⁶

d. Bernard Vaughey

146. On January 29, 2015, Bernard Vaughey filed a comment regarding potential conflicts between the project construction and the emergency evacuation plans for the

¹⁰⁵ See final EIS at 2-40 to 2-41.

¹⁰⁶ See Environmental Condition 9 in Appendix B to this order.

Indian Point facility. Mr. Vaughey believes that project construction will impact multiple roads within the Indian Point Emergency Planning Zone. He expresses concern that the traffic disruptions associated with open-cut road crossings could impede emergency response or evacuation efforts at Indian Point. Thus, he calls for site-specific traffic control plans for road crossings within the Emergency Planning Zone.

147. The final EIS includes Algonquin's Traffic Management Plan for the New York Pipeline Segments. The Traffic Management Plan identifies several road crossings in New York that require additional site-specific detail. The final EIS recommends, and Environmental Condition 25 of this order requires, that Algonquin file these site-specific details with the Commission before commencing construction in New York. Additionally, the final EIS provides detail on construction procedures for open-cut road crossings.¹⁰⁷ Any open trench across a roadway will either be backfilled or covered with a steel plate during all non-working hours. Steel plates will be kept on site during construction at all open-cut road crossings so that access can be maintained for emergency vehicles. Because access will be maintained, we find that project construction will not impact the emergency response and evacuation plans associated with the Indian Point Emergency Planning Zone.

e. Tribal Consultation

148. On January 30, 2015, the Tribal Historic Preservation Officers (THPO) representing the Mashantucket Pequot Tribal Nation, Mohegan Tribe, Narragansett Tribe of Indians, and Wampanoag Tribe of Gay Head (Aquinnah) filed comments stating that the Commission has delegated consultation responsibilities to Spectra's environmental consultant, Public Archaeology Lab, Inc. (PAL). The THPOs request that the Commission make a "reasonable and good faith effort" to identify historic properties, including consulting with the tribes to identify and assess adverse effects to historic properties, and submit written notification stating how the Commission intends to meet the remaining National Historic Preservation Act (NHPA) section 106 requirements. If adverse effects to historic properties occur, the THPOs state that the Commission shall develop a Memorandum of Agreement (MOA). In addition, the THPOs formally request to consult with the Commission and enter into an agreement on how the section 106 responsibilities will be carried out in this proceeding.

149. As stated in the January 26, 2015 letter from the Chairman to Kitcki Carroll, United South and Eastern Tribes, Inc., the Commission does not delegate government-to-government tribal consultation to regulated companies or their representatives. Companies can assist the Commission in complying with NHPA section 106 by gathering

¹⁰⁷ See final EIS at 2-26.

information, but the responsibility for tribal consultation remains with the Commission. We have consulted with the Mashantucket Pequot Tribal Nation, Mohegan Tribe, Narragansett Tribe of Indians, and Wampanoag Tribe of Gay Head (Aquinnah) for the project and made a good faith effort to identify historic properties.¹⁰⁸ Further, Environmental Condition 27 requires Algonquin to file the remaining survey reports and any necessary treatment plan with the appropriate State Historic Preservation Officers and Commission staff. The treatment plan will be sent to the Mashantucket Pequot Tribal Nation, Mohegan Tribe, Narragansett Tribe of Indians, and Wampanoag Tribe of Gay Head (Aquinnah) for comments. Any comments will be taken into consideration. The Commission will execute a MOA for data recovery if necessary.

5. Environmental Analysis Conclusion

150. We have reviewed the information and analysis contained in the final EIS regarding potential environmental effects of the AIM Project. Based on our consideration of this information and the discussion above, we agree with the conclusions presented in the final EIS and find that the project, if constructed and operated as described in the final EIS, is an environmentally acceptable action. We are accepting the environmental recommendations in the final EIS and are including them as conditions in Appendix B to this order.

151. Any state or local permits issued with respect to the jurisdictional facilities authorized herein must be consistent with the conditions of this certificate. The Commission encourages cooperation between interstate pipelines and local authorities. However, this does not mean that state and local agencies, through application of state or local laws, may prohibit or unreasonably delay the construction or operation of facilities approved by this Commission.¹⁰⁹

IV. Conclusion

152. The Commission on its own motion received and made a part of the record in this proceeding all evidence, including the application, as supplemented, and exhibits thereto, submitted in support of the authorizations sought herein, and upon consideration of the record,

¹⁰⁸ See final EIS at 4-201 to 4-217.

¹⁰⁹ See, e.g., *Schneidewind v. ANR Pipeline Co.*, 485 U.S. 293 (1988); *National Fuel Gas Supply v. Public Service Comm'n*, 894 F.2d 571 (2d Cir. 1990); *Iroquois Gas Transmission System, L.P.*, 52 FERC ¶ 61,091 (1990) and 59 FERC ¶ 61,094 (1992).

The Commission orders:

(A) A certificate of public convenience and necessity is issued authorizing Algonquin to construct and operate the AIM Project, as described in this order and in its application.

(B) The certificate authority issued in Ordering Paragraph (A) shall be conditioned on the following:

(1) Algonquin's completion of construction of the authorized facilities and making them available within two years from the date of this order, pursuant to section 157.20(b) of the Commission's regulations;

(2) Algonquin's compliance with all applicable regulations under the NGA including, but not limited to, Parts 154 and 284, and paragraphs (a), (c), (e), and (f) of section 157.20 of the Commission's regulations;

(3) Algonquin's compliance with the environmental conditions listed in Appendix B to this order.

(C) Permission and approval are granted to Algonquin to abandon certain facilities, including four compressor units at the Stony Point Compressor Station, as more fully described in this order and in its application.

(D) Algonquin shall notify the Commission within 10 days of the effective date of the abandonment of the facilities referenced in Ordering Paragraph (C).

(E) Algonquin shall execute firm contracts for the capacity levels and terms of service represented in signed precedent agreements, prior to commencing construction.

(F) Algonquin's proposed incremental rates for the mainline AIM Project and West Roxbury Lateral are approved, except as more fully discussed above.

(G) Algonquin's proposed incremental Fuel Reimbursement Percentages for the proposed AIM mainline are approved.

(H) Algonquin must file actual tariff records setting forth its incremental recourse rates in accordance with section 154.207 of the Commission's regulations and other proposed changes to its tariff records implementing the Project not less than 30 days, or more than 60 days, prior to placing the AIM Project and West Roxbury Lateral in service, as more fully discussed above.

(I) Algonquin shall notify the Commission's environmental staff by telephone or facsimile of any environmental noncompliance identified by other federal, state, or local agencies on the same day that such agency notifies Algonquin. Algonquin shall file written confirmation of such notification with the Secretary of the Commission within 24 hours.

(J) The late motions to intervene are granted.

(K) The motion for a formal hearing is denied.

By the Commission.

(S E A L)

Nathaniel J. Davis, Sr.,
Deputy Secretary.

Appendix A**Interventions****Timely, Unopposed Motions to Intervene**

- Allegheny Defense Project
- Daniel M. Barry
- Calpine Energy Services, L.P.
- City of New York, New York
- City of Peekskill, New York
- Community Watersheds Clean Water Coalition
- Connecticut Department of Energy and Environmental Protection
- ConocoPhillips Company
- Conservation Law Foundation
- Consolidated Edison Company of New York, Inc.; and Orange and Rockland Utilities Inc.
- Entergy Nuclear Indian Point 1, LLC; Entergy Nuclear Indian Point 2, LLC; Entergy Nuclear Indian Point 3, LLC; and Entergy Nuclear Operations, Inc.
- Exelon Corporation
- Food & Water Watch; Stop the Algonquin Pipeline Expansion; the Sierra Club; Lower Hudson Group; Better Future Project; Capitalism vs. Climate; and Fossil Free Rhode Island
- Fountainhead Parks Inc.
- Peter B. Harckham
- William Huston
- Keep Yorktown Safe
- Stephen D. Kohlhase
- Legacy Place Properties LLC
- Liz Laliberte
- Massachusetts Energy Facilities Siting Board
- National Amusements, Inc.
- New England Local Distribution Companies
- New Jersey Natural Gas Company
- New York State Department of Environmental Conservation
- New York State Electric Gas Corporation
- New York State Office of the Attorney General
- NJR Energy Services Company
- NSTAR Gas Company
- PSEG Energy Resources & Trade LLC
- Reynolds Hills, Inc.

- Riverkeeper, Inc.
- Douglas Taggart
- The National Grid Gas Delivery Companies
- The New England States Committee on Electricity
- Town of Cortlandt, New York
- Town of Dedham, Massachusetts
- Town of Southeast, New York
- Town of Yorktown, New York
- Una Curran
- Village of Ossining, New York
- Yankee Gas Services, Inc.

Late, Unopposed Motions to Intervene

- Matthew Butler
- Charles River Spring Valley Neighborhood Association
- City of Boston Delegation¹¹⁰
- Eastern New York Laborers' District Council
- Rickie Harvey
- Virginia Hickey
- Pramilla Malick
- Direct Abutters in West Roxbury and Other Private Citizens of West Roxbury and Dedham¹¹¹
- Mary Ellen McMahan
- Medical Information Technology, Inc.
- New York State Laborers' Organizing Fund
- Jessica Porter

¹¹⁰ Members of the City of Boston Delegation that jointly intervened include: Congressman Stephen F. Lynch, Mayor of Boston Martin J. Walsh, Boston City Councilor Matt O'Malley, Boston City Councilor Michelle Wu, Boston City Councilor Michael Flaherty, Boston City Councilor Ayanna Pressley, Boston City Councilor Stephen J. Murphy, State Representative Edward F. Coppinger, and State Senator Michael Rush.

¹¹¹ The direct abutters and private citizens of West Roxbury that jointly intervened include: Phil Barden, Eunice Carias, Paul Dunn, Margaret P. Sheehan, Paul McIrney, Maria Riviera, Jan White, Mary McMahan, Robert and Audrey Brait, Dan McCann, William and Robin Cullinanae, and Linder Sweeney.

- Alexandra Schumay
- Rickie Valley

Appendix B

Environmental Conditions for Algonquin AIM Project

Docket No. CP14-96-000

As recommended in the final environmental impact statement (EIS) and otherwise amended herein, this authorization includes the following conditions. The section number in parentheses at the end of a condition corresponds to the section number in which the measure and related resource impact analysis appears in the final EIS.

1. Algonquin shall follow the construction procedures and mitigation measures described in its application, supplemental filings (including responses to staff data requests), and as identified in the EIS, unless modified by this Commission's 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 the Office of Energy Projects (OEP) **before using that modification.**
2. The Director of OEP has delegated authority to take whatever steps are necessary to ensure the protection of all environmental resources during construction and operation of the Project. This authority shall allow:
 - a. the modification of conditions of this Commission's Order; and
 - b. the design and implementation of any additional measures deemed necessary (including stop-work authority) to ensure continued compliance with the intent of the environmental conditions as well as the avoidance or mitigation of adverse environmental impact resulting from construction and operation of the Project.
3. **Prior to any construction**, Algonquin shall file an affirmative statement with the Secretary, certified by a senior company official, that all company personnel, environmental inspectors (EIs), and contractor personnel will be informed of the EIs' authority and have been or will be trained on the implementation of the environmental mitigation measures appropriate to their jobs before becoming involved with construction and restoration activities for the Project.

4. The authorized facility locations shall be as shown in the final EIS, 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 for the Project at a scale not smaller than 1:6,000 with station positions for all facilities approved by this order. All requests for modifications of environmental conditions of this 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 the Natural Gas Act (NGA) section 7(h) in any condemnation proceedings related to this 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 route realignments or facility relocations, and staging areas, pipe storage and ware yards, new access roads, and other areas for the Project 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 Algonquin's Erosion and Sediment Control Plan (E&SCP) and/or minor field realignments per landowner needs and requirements that 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 Certificate and before construction begins**, Algonquin shall file an Implementation Plan for the Project 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 EIS, and required by this 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 per spread, and how Algonquin 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 changes), with the opportunity for OEP staff to participate in the training session;
 - 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. for each discrete facility, a Gantt chart (or similar project scheduling diagram), and dates for:
 - i. the completion of all required surveys and reports;
 - ii. the environmental compliance training of onsite personnel;
 - iii. the start of construction; and
 - iv. the start and completion of restoration.

7. Algonquin shall employ one or more EIs per construction spread. The EIs shall be:
 - a. responsible for monitoring and ensuring compliance with all mitigation measures required by this 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 this order, and any other authorizing document;
 - d. a full-time position, separate from all other activity inspectors;
 - e. responsible for documenting compliance with the environmental conditions of this order, as well as any environmental conditions/permit requirements imposed by other federal, state, or local agencies; and
 - f. responsible for maintaining status reports.
8. Beginning with the filing of its Implementation Plan, Algonquin shall file updated status reports **on a weekly basis for the AIM Project 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 current construction status of each spread 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, and their cost;
 - e. the effectiveness of all corrective actions implemented;

- f. a description of any landowner/resident complaints that may relate to compliance with the requirements of this 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. **Prior to receiving written authorization from the Director of OEP to commence construction of any Project facilities**, Algonquin shall 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 commencing service on each discrete facility of the Project**. 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 for the Project into service**, Algonquin shall file an affirmative statement, 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 Certificate conditions 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.
12. **Prior to construction of the AIM Project**, Algonquin shall file with the Secretary, for review and written approval of the Director of OEP, a Field Sampling Plan for potential contaminated sites that could be encountered during construction. The Field Sampling Plan shall include the locations of all proposed sampling, the number of samples to be taken, how and where the samples will be analyzed, the schedule for when the sampling would occur, and the process for providing the results to the applicable agencies. (*Section 4.2.2.6*)
13. All subsurface materials recovered from the Hudson River horizontal directional drill (HDD) process shall be appropriately sampled for polychlorinated biphenyls

- prior to disposal of the material.** If contamination is found, it shall be handled as outlined in the Unanticipated Contamination Encounter Procedures. (*Section 4.2.2.6*)
14. **Within 30 days of placing the AIM Project facilities in service,** Algonquin shall file with the Secretary a report discussing whether any water supply well complaints concerning well yield or quality were received and how each was resolved. (*Section 4.3.1.7*)
 15. **Prior to construction of the Stony Point to Yorktown Take-up and Relay segment,** Algonquin shall file with the Secretary its final site-specific crossing plan for the Catskill Aqueduct developed in consultation with the New York City Department of Environmental Protection (NYCDEP). The Plan shall be filed as critical energy infrastructure information in accordance with NYCDEP requirements. (*Section 4.3.2.1*)
 16. **In the event of an unsuccessful HDD at the Hudson or Still Rivers,** Algonquin shall file with the Secretary a plan for the crossing of the waterbody. This shall be a site-specific plan that includes scaled drawings identifying all areas that would be disturbed by construction. Algonquin shall file this plan concurrent with the submission of its application to the U.S. Army Corps of Engineers and other applicable agencies for a permit to construct using this alternative crossing plan. The Director of OEP must review and approve this plan in writing before construction of the alternative crossing. (*Section 4.3.2.3*)
 17. **Prior to construction of the Interstate 84/Still River HDD,** Algonquin shall file with the Secretary, for review and written approval of the Director of the OEP, a revised site-specific plan for the crossing if additional measures are needed to address any existing bridge foundations associated with the alignment across Ridgebury Road. (*Section 4.3.2.3*)
 18. **Prior to construction in the vicinity of the two vernal pools in New York,** Algonquin shall file with the Secretary, for review and written approval of the Director of the OEP, revised site-specific crossing plans incorporating any additional avoidance or mitigation measures for the two vernal pools as required through the permit review process with the applicable agencies. (*Section 4.4.3.2*)
 19. **Prior to construction along the take-up and relay portions of the Project,** Algonquin shall file with the Secretary a revised E&SCP, for review and written approval of the Director of OEP, adding to the responsibilities of the EI to inspect all erosion control devices and sediment barriers on a daily basis along wetlands for the take-up and relay segments, even when active construction and/or equipment operation is not occurring at a specific wetland location. (*Section 4.4.4*)

20. **Prior to construction of the Haverstraw to Stony Point Take-up and Relay segment**, Algonquin shall file with the Secretary, for review and written approval of the Director of the OEP, a site-specific plan for the Harriman State Park, including any avoidance or mitigation measures developed with the New York State Office of Parks, Recreation and Historic Preservation and Palisades Interstate Park Commission. (*Section 4.6.1.5*)
21. **Prior to construction in New York**, Algonquin shall file with the Secretary all permit requirements and avoidance or mitigation measures developed for the timber rattlesnakes in consultation with the New York State Department of Environmental Conservation (New York DEC), and documentation of its correspondence with the New York DEC regarding the proposed measures. (*Section 4.7.5.1*)
22. **Prior to construction of the AIM Project**, Algonquin shall file with the Secretary, for review and written approval of the Director of the OEP, a revised set of Residential Construction Plans that incorporate and address the comments Algonquin received from affected landowners. (*Section 4.8.3.1*)
23. **Prior to construction of the Stony Point to Yorktown Take-up and Relay segment**, Algonquin shall file with the Secretary, for review and written approval of the Director of OEP, a revised site-specific construction plan for St. Patrick's Church. The plan shall include:
 - a. a detailed schedule for construction activities within the HDD pullback area located on church property (i.e., month(s), week(s), days of the week, and hours of the day);
 - b. in addition to avoiding construction activities during weekend services, avoidance of construction activities during the morning masses held at 9:00 a.m. each Monday, Tuesday, Wednesday, and Friday;
 - c. provisions for an alternate parking area and/or shuttle service for use by parishioners during the time the church's parking areas are disrupted by construction activities; and
 - d. restoration of the church's parking areas to their preconstruction condition immediately following completion of construction activities in the HDD pullback area. (*Section 4.8.5.1*)
24. **Prior to construction of the West Roxbury Meter and Regulating (Meter) Station**, Algonquin shall file with the Secretary, for review and written approval of the Director of OEP, a detailed site-specific landscaping plan for mitigation of visual impacts at the station. (*Section 4.8.7.2*)

25. **Prior to construction in New York**, Algonquin shall file with the Secretary, for review and written approval of the Director of OEP, a revised Traffic Management Plan for the New York Pipeline Segments that includes the site-specific details for the crossings of Zachary Taylor Street, Gate Hill Road (Highway 210), Bleakley Avenue, Route 9A, Montrose Station Road, Maple Avenue, and Cordwood Road. (*Section 4.9.5.1*)
26. **Prior to construction of the West Roxbury Lateral**, Algonquin shall develop and file with the Secretary a detailed construction schedule for each segment of the lateral that includes the proposed construction timeframes (month, week, days), working hours, and times and dates of any restricted work hours. The detailed construction schedule shall be shared with each affected municipality. During active in-street construction of the West Roxbury Lateral, the schedule shall be updated and provided to the municipalities on a biweekly basis and included in Algonquin's construction status reports required by condition 8. (*Section 4.9.5.2*)
27. Algonquin shall not begin implementation of any treatment plans/measures (including archaeological data recovery); construction of facilities; or use of staging, storage, or temporary work areas and new or to-be-improved access roads **until**:
 - a. Algonquin files with the Secretary all remaining cultural resources survey and evaluation reports, any necessary treatment plans, and the New York, Connecticut, Rhode Island, and Massachusetts State Historic Preservation Office's comments on the reports and plans;
 - b. the Advisory Council on Historic Preservation is provided an opportunity to comment on the undertaking if historic properties would be adversely affected; and
 - c. the Commission staff reviews and the Director of OEP approves all cultural resources survey reports and plans, and notifies Algonquin in writing that treatment plans/mitigation measures may be implemented or construction may proceed.

All material filed with the Secretary containing location, character, and ownership information about cultural resources must have the cover and any relevant pages therein clearly labeled in bold lettering: "CONTAINS PRIVILEGED INFORMATION – DO NOT RELEASE." (*Section 4.10.5*)

28. Algonquin shall file **in the weekly construction status reports** the following for the Hudson River and Interstate 84/Still River HDD sites:
 - a. the noise measurements from the nearest noise sensitive area (NSA) for each drill entry site, obtained at the start of drilling operations;
 - b. the noise mitigation that Algonquin implemented at the start of drilling operations; and
 - c. any additional mitigation measures that Algonquin would implement if the initial noise measurements exceeded a day-night sound level (L_{dn}) of 55 decibels on the A-weighted scale (dBA) at the nearest NSA and/or increased noise is over ambient conditions greater than 10 decibels. (*Section 4.11.2.3*)
29. Algonquin shall file a noise survey with the Secretary **no later than 60 days** after placing the authorized units at the Stony Point and Chaplin Compressor Stations in service. If a full load condition noise survey of the entire station is not possible, Algonquin shall instead file an interim survey at the maximum possible horsepower load and file the full load surveys **within 6 months**. If the noise attributable to the operation of all of the equipment at the compressor station under interim or full horsepower load conditions exceeds an L_{dn} of 55 dBA at any nearby NSAs, Algonquin shall file a report on what changes are needed and shall install the additional noise controls to meet the level **within 1 year** of the in-service date. Algonquin shall confirm compliance with the L_{dn} of 55 dBA requirement by filing a second noise survey with the Secretary **no later than 60 days** after it installs the additional noise controls. (*Section 4.11.2.3*)
30. Algonquin shall file noise surveys with the Secretary **no later than 60 days** after placing the authorized units at the Southeast, Cromwell, and Burrillville Compressor Stations in service. If a full load condition noise survey of the entire station is not possible, Algonquin shall file an interim survey at the maximum possible horsepower load and file the full load surveys **within 6 months**. If the noise attributable to the operation of the modified compressor station at full or interim power load conditions exceeds existing noise levels at any nearby NSAs that are currently at or above an L_{dn} of 55 dBA, or exceeds 55 dBA L_{dn} at any nearby NSAs that are currently below 55 dBA L_{dn} , Algonquin shall file a report on what changes are needed and shall install the additional noise controls to meet the level **within 1 year** of the in-service date. Algonquin shall confirm compliance with the above requirement by filing a second noise survey with the Secretary **no later than 60 days** after it installs the additional noise controls. (*Section 4.11.2.3*)
31. Algonquin shall file noise surveys with the Secretary **no later than 60 days** after placing the Guilford, Willimantic, Oakland Heights, and West Roxbury Meter Stations and the proposed new Clapboard Ridge Road Mainline Regulator (MLR)

in service. If the noise attributable to the operation of any Meter Station or MLR at full load exceeds an L_{dn} of 55 dBA at any nearby NSA, Algonquin shall file a report on what changes are needed and shall install the additional noise controls to meet the level **within 1 year** of the in-service date. Algonquin shall confirm compliance with the above requirement by filing a second noise survey with the Secretary **no later than 60 days** after it installs the additional noise controls. (*Section 4.11.2.3*)

32. **Prior to construction of the Stony Point to Yorktown Take-up and Relay segment**, Algonquin shall file with the Secretary its final alternating current/direct current interference study associated with the West Point Transmission Project, documentation of all consultations with West Point Partners, and any additional mitigation measures to address safety-related issues. (*Section 4.12.3*)