RIVERKEEPER.
NY's clean water advocate

October 15, 2013

VIA ELECTRONIC FILING

Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission
888 First Street NE, Room 1A
Washington, DC 20426

Re: Comments Regarding Scope of the Environmental Impact Statement for the Algonquin Incremental Market Project, Docket No. PF 13-16-000

Dear Secretary Bose:

Riverkeeper, Inc. (Riverkeeper) submits the following comments regarding the scope of the Environmental Impact Statement (EIS) to be prepared by the Federal Energy Regulatory Commission (FERC or Commission) for the Algonquin Incremental Market Project (AIM Project), Docket No. PF 13-16-000. The public scoping period was opened via notice of the Commission dated September 13, 2013 (Scoping Notice).[1]

Riverkeeper is a member-supported watchdog organization dedicated to defending the Hudson River and its tributaries and protecting the drinking water supply of nine million New York City and Hudson Valley residents. Riverkeeper is actively involved in litigation, advocacy, and public education surrounding the issue of shale gas extraction and related infrastructure, particularly because of their potential impacts on New York State's drinking water supplies.

The AIM Project, which will be constructed and operated by Algonquin Gas Transmission, LLC[2] (Algonquin or Applicant), spans four states and involves the replacement and expansion of approximately 37 miles of the existing Algonquin pipeline system, upgrade of multiple compressor stations, and upgrade of existing and construction of new metering and regulating stations along the pipeline route. In New York, the project involves the take up and relay of more than 15 miles of pipeline, a new 1.2 mile crossing of the Hudson River, upgrade of 2 compressor stations, and upgrade of 2 metering and regulating stations, all within the Hudson River and New York City (NYC) watersheds. As a result, the AIM Project has the potential to

[1] Federal Energy Regulatory Commission (FERC or Commission), 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 (Sep. 13, 2013).
[2] Algonquin Gas Transmission, LLC is an indirect, wholly-owned subsidiary of Spectra Energy Corp. *Id.* at 1.

significantly impact not only the Hudson River, but also a portion of the NYC watershed, which provides drinking water to nine million New Yorkers.

In preparing the EIS, Riverkeeper urges FERC to take a hard look at the significant adverse environmental impacts likely to result from the AIM Project. As part of the Scoping Notice, the Commission listed 10 general categories of impacts that will be evaluated in the EIS.[3] Within those categories, the following specific issues related to water resources and cumulative impacts must be fully addressed and evaluated.

Assessment of Impacts to the Hudson River and its Watershed

The Scoping Notice states that the AIM Project includes a new 1.2 mile crossing of the Hudson River, using Horizontal Directional Drilling (HDD). This would appear to be in addition to the existing Algonquin pipeline crossing of the Hudson, which transits the river from Rockland to Westchester Counties near Stony Point and Buchanan, New York respectively. Any potential, reasonably foreseeable impacts of the construction and operation of a new utility crossing of the Hudson River must be comprehensively assessed in FERC's EIS, including a full assessment of route alternatives and mitigation measures to address unavoidable impacts. The Hudson River is a globally significant estuarine ecosystem that is home to hundreds of plant, animal and fish species, including endangered Atlantic and shortnose sturgeon.[4] In addition, the area of the Hudson that presumably would be crossed by the proposed pipeline has been designated as Significant Coastal Fish and Wildlife Habitat (SCFWH) by the New York State Department of State, thereby meriting additional environmental review and protection under state and federal law.[5]

While a HDD crossing of the Hudson would likely involve drilling under the riverbed and avoid disturbance to the river bottom sediment and biota, it is critical that FERC carefully assess the potential impacts to shoreline areas that will be disturbed in order to drill and place the pipeline under the bed of the Hudson. Resource Report 1 describes the Applicant's consideration of two possible crossing routes – one that would place the pipeline adjacent to the existing Right of Way (ROW) and pipelines under the river, and a second possible route 0.5 miles to the south.[6] The EIS should assess all potential impacts and available mitigation measures that could be utilized to offset land and river impacts that could result at either of these potential crossing locations. If more specific information on the preferred route is not submitted

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[3] *Id*. at 5.

[4] The Hudson River Estuary Program at the New York State Department of Environmental Conservation (NYSDEC) leads state efforts to restore and protect the Hudson Estuary. Its website contains a thorough overview of the Hudson River Estuary's ecological significance and history, accessible at: http://www.dec.ny.gov/lands/25564.html. Information on Atlantic Sturgeon can be found here, http://www.dec.ny.gov/animals/37121.html, and information on shortnose sturgeon here, http://www.dec.ny.gov/animals/26012.html.

[5] The New York State Department of State's Coastal Fish and Wildlife Rating form for the Hudson Highlands section of the river can be found here, http://www.dos.ny.gov/communitieswaterfronts/consistency/Habitats/HudsonRiver/Hudson_Highlands_FINAL.pdf. A Habitat Impairment Test is required to be conducted for projects that may impact the resource.

[6] *See* ALGONQUIN INCREMENTAL MARKET ("AIM") PROJECT, *RESOURCE REPORT 1, General Project Description, FERC Docket No. PF13-16-000,* Pre-Filing Draft (Jul. 2013) at 181-182, available at: http://elibrary.ferc.gov/idmws/file_list.asp?document_id=14133534.

by the Applicant prior to the draft EIS being completed, FERC should supplement the draft EIS with more detailed information, once a preferred route has been selected by the Applicant.

In addition, the EIS must assess the impacts of accidents or spills that could occur during the HDD crossing of the Hudson, including but not limited to those involving drilling fluids such as bentonite clay. The risk of a "frack-out" that would disperse bentonite clay or other drilling fluids into the Hudson or other stream crossings must be minimized to the maximum extent practicable. The EIS should also assess the benefits of real time monitoring of the HDD drilling operation and water quality in the vicinity of the drilling, to ensure that any loss of drilling fluid into the environment would be quickly discovered and stopped. Short and long-term impacts of a "frack-out" on wetlands, streams and the Hudson River should be assessed, and remediation and cleanup methods fully described in the EIS.

The Scoping Notice notes that 608 acres of land will be disturbed for the AIM Project, including 353 acres of land outside Algonquin's existing ROW. However, the Scoping Notice does not provide any additional detail as to the breakdown of different land types, such as wetlands and riparian areas, previously disturbed or undisturbed, that are included in this total estimate of land impacts. The EIS must include a detailed description of what types of land will be disturbed, how much and for how long, as well as mitigation measures to minimize or offset such impacts.

In addition, the EIS should include the same type of assessment for all other stream crossings required under the preferred project route that would be accomplished using HDD, as well as alternative routes discussed in the Resource Report on Alternatives.[7] The full range of impacts associated with other types of stream crossing methods, including the open cut method, must be assessed as well. In areas where trenchless crossing using HDD is found to be infeasible, the EIS should include an assessment of the impacts of an open trench crossing. These could include impacts on water quality, stream flow, benthic habitat, and disturbance of benthic, invertebrate and fish species that may be found in the disturbed area of the stream and would be impacted by the crossing. In areas where open trench crossings are contemplated, either in the preferred or alternative routes, the EIS should include a detailed discussion of best management practices required to minimize impacts, including monitoring water quality during construction and ensuring that the streambed is restored to its original, pre-construction condition after the crossing is complete. Temporary stream diversions that utilize gravel or other hard substrate to ensure stream flow must be fully replaced or remediated to eliminate any permanent alteration of streambeds that could result from construction.

Compliance with NYC Watershed Rules & Regulations

As noted above, a portion of the AIM Project is located within the NYC watershed. Specifically, a portion of the pipeline take up and relay from Cortlandt, NY to Yorktown, NY; upgrade of the Southeast, NY compressor station; and upgrade of the Cortlandt, NY metering and regulating station are located within the sensitive East of Hudson NYC watershed. Drinking

[7] *See* ALGONQUIN INCREMENTAL MARKET ("AIM") PROJECT *RESOURCE REPORT 10, Alternatives, FERC Docket No. PF13-16-000,* Pre-Filing Draft (Jul. 2013), available at: http://elibrary.ferc.gov/idmws/file_list.asp?document_id=14133534.

water supply reservoirs in the East of Hudson NYC watershed are already impaired for phosphorus and must be carefully protected in order to avoid further degradation.[8]

In evaluating impacts to water resources, the EIS must include plans for compliance with Rules and Regulations for the Protection From Contamination, Degradation and Pollution of The New York City Water Supply and Its Sources ("NYC Watershed Rules & Regulations").[9] In particular, the EIS should include an analysis of applicable NYC Watershed Rules and Regulations and the Applicant's plans for compliance. This analysis should detail all streams, wetlands, and waterbodies within the NYC watershed likely to be impacted by the AIM Project and Algonquin's plans for mitigation. Issues involving increases in stormwater runoff and disturbance to wetlands and buffer areas, discussed below, should be evaluated for their potential to further degrade impaired East of Hudson drinking water supply reservoirs.

Stormwater Runoff

The EIS must evaluate impacts from increased stormwater runoff due to construction activities and long-term changes in surface drainage patterns, which have the potential to significantly damage surface water resources. When construction activities remove vegetation and expose soils, forest canopies no longer intercept stormwater and root systems no longer hold soils in place. Stormwater runoff from construction sites may carry pollutants – such as debris, oil and other contaminants from equipment, and any herbicides used for vegetation clearing or ROW maintenance – from the project site to downstream wetlands, streams, and other waterbodies.[10] Construction site runoff can also erode exposed soils and transport sediment to receiving waters.[11] Long-term changes in hydrology and surface drainage patterns may also result from construction activities, particularly in areas, such as steep slopes, where changes in ground cover and topography can increase stormwater runoff, reduce the ability of natural systems to filter pollutants, and permanently alter drainage patterns.[12]

The evaluation of stormwater impacts must include a Stormwater Pollution Prevention Plan (SWPPP), prepared in accordance with New York State Department of Environmental Conservation (NYSDEC) requirements.[13] The Applicant should be required to submit a SWPPP as early in the environmental review process as possible to allow for thorough review and comment. A SWPPP is an important tool for mitigating any adverse impacts from stormwater runoff, and is necessary to fully understand the project's potential for significant impacts on

[8]NYSDEC, Phase II Phosphorous Total Maximum Daily Loads for Reservoirs in the New York City Water Supply Watershed (2000), available at: http://www.dec.ny.gov/docs/water_pdf/nycjune2000.pdf.
[9] Rules of the City of New York, Title 15, Chapter 18.
[10] United States Environmental Protection Agency (USEPA), Stormwater Discharges from Construction Activities, available at: http://cfpub.epa.gov/npdes/stormwater/const.cfm.
[11] USEPA, Construction Site Management Measure III. Construction Activities, available at: http://water.epa.gov/polwaste/nps/czara/ch4-3a.cfm .
[12] NYSDEC, New York Standards and Specifications for Erosion and Sediment Controls (Aug. 2005) at 1.3, available at: www.dec.ny.gov/docs/water_pdf/bluebook.pdf.
[13] NYSDEC State Pollutant Discharge Elimination System General Permit (GP-0-10-001) for Stormwater Discharges Associated with Construction Activity (Stormwater General Permit), or individual permit, if required; New York State Stormwater Management Design Manual (Aug. 2010).

water resources. The EIS should also include a description of how construction will be phased to coordinate with control measures contained in the SWPPP.[14]

Wetlands and Buffer Areas

As part of its consideration of impacts to water resources, the EIS must contain a comprehensive evaluation of likely impacts to wetlands and associated 100-foot buffer areas, including exhaustive delineation of all federal, state, and locally regulated wetlands and buffers, a complete analysis of wetland functions, and an evaluation of HDD or other trenchless crossing methods for each wetland crossing proposed. Wetlands perform a number of important functions, including serving as water storage resources that absorb and retain flood and storm waters to reduce erosion and prevent downstream flooding. This storage capacity also allows for the recharge of surface waters, ground waters, and aquifers that may feed local drinking water supplies. In addition, wetlands perform crucial filtration functions, trapping pollutants and nutrients such as nitrogen and phosphorus and assimilating them in wetland vegetation.[15]

Any analysis of wetlands impacts must include impacts to associated 100-foot buffer areas. Wetland buffers are important transitional areas that intercept stormwater from upland habitat before it reaches wetlands or other aquatic habitat. The benefits provided by wetland buffers include reducing thermal impacts (shade), nutrient uptake, providing infiltration, reducing erosion, and restoring and maintaining the chemical, physical, and biological integrity of water resources.[16] Damage to wetland buffer areas can significantly impair and degrade wetland functions.

In order to ensure that all likely impacts to wetlands and buffer areas are identified and evaluated, the EIS must contain a complete delineation of all wetlands and 100-foot buffer areas potentially impacted by the project. This should include those wetlands and buffer areas regulated at the federal and state level, as well as locally-regulated wetlands and buffer areas. In New York, particularly within the NYC watershed, many municipalities have local wetland ordinances that provide for protection of wetlands and buffer areas. Delineation of locally-regulated wetlands and buffer areas and plans for compliance with these local ordinances should be included in EIS.

In addition to delineating all wetlands and buffer areas likely to be impacted, the EIS should include a detailed analysis of wetland functions and mitigation plans for each potentially impacted wetland and/or buffer area. The analysis of wetland functions should include studies evaluating the hydrology, vegetation, and soils present, along with any fish and/or wildlife supported. The EIS should also include a comprehensive wetland mitigation plan.[17]

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[14] Absent special authorization and compliance with additional conditions, construction activities must be phased to avoid disturbance of greater than 5 acres of soil at any one time. *See* Stormwater General Permit at Part II.C.3.
[15] USEPA, Functions and Values of Wetlands, available at: http://water.epa.gov/type/wetlands/outreach/upload/functions-values.pdf.
[16] USEPA, Aquatic Buffer Model Ordinance, available at: http://water.epa.gov/polwaste/nps/mol1.cfm. .
[17] The need for preparation and submission of a wetland mitigation plan is supported by FERC regulations, which require a discussion of proposed mitigation measures, and the Commission's Wetland and Waterbody Procedures, which call for the development of a "project-specific wetland restoration plan." *See* 18 C.F.R. § 380.12(d)(8); FERC Wetland and Waterbody Construction and Mitigation Procedures (May 2013), at 17.

Finally, the EIS must include an evaluation of trenchless crossing methods for each wetland crossing contemplated by the applicant. This evaluation should include information regarding alternate routes that might avoid the specific wetland crossing, the feasibility of using trenchless methods, and the environmental impacts likely to result from the use of trenchless versus trench crossing methods for each specific crossing proposed. In areas where the use of trenchless crossing methods may require the creation of additional temporary workspace outside of an existing ROW, the EIS should include a discussion of the impacts likely to result from any clearing or other disturbance outside the ROW, balanced against the likely impacts of using trench crossing methods. Trenchless crossing should be utilized under the buffer area as well as within the wetland itself, and all workspace should remain outside the 100-foot wetland buffer area.

Hydrostatic Testing

The EIS must include a detailed evaluation of the amount of water to be used, methods and rates of withdrawal, planned use of any additives, and specific withdrawal and discharge locations for all water to be used for hydrostatic testing of the pipeline prior to placement in service. Depending on project specifics, the amount of water used for hydrostatic testing, a method of verifying the structural integrity of constructed pipeline segments using pressurized water,[18] can be in the range of millions of gallons.

As early in the review process as possible, Algonquin must be required to provide specific, detailed information regarding all water to be used for hydrostatic testing. This includes the amount of water to be used, along with methods and rates of withdrawal. If water is withdrawn from surface waters, the EIS must evaluate likely impacts to fish and other organisms. If water is drawn from municipal sources, the EIS must assess potential adverse impacts on local supplies. The Applicant must also be required to state whether it plans to use additives, and, if so, detail the adverse environmental impacts likely to result from the discharge of additive-laced testing water, which could be severe.

It is also important for the EIS to identify exactly where water will be withdrawn and where it will be discharged. Simply listing a waterbody or general area is not sufficient, as different waterbody sections may be more or less sensitive than others, or may support ecosystems or uses that are incompatible with large-scale water withdrawals. The identification of specific discharge locations is also critical, particularly if testing water is to be discharged into surface waters from which it was not withdrawn, and/or has been contaminated with harmful additives.

Cumulative Impacts

Pursuant to the National Environmental Policy Act, 42 U.S.C. §§ 4231 et. seq., an EIS must include an evaluation of cumulative impacts,[19] defined as:

[18] Interstate Natural Gas Association of America, Hydrostatic Testing, available at: http://www.ingaa.org/cms/82.aspx.

[19] The National Environmental Policy Act requires an analysis of "direct effects" and "indirect effects." 40 C.F.R. § 1502.16(a),(b). The term "effects" includes those that are "direct, indirect, or cumulative." *Id*. § 1508.8.

> "[T]he impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time."

40 C.F.R. § 1508.7.

As such, the cumulative impacts analysis in the EIS must identify and assess the environmental impacts of the project components as a whole, including pipeline take up and relay, new pipeline installation, upgrade of existing compressor stations, upgrade of existing and construction of new metering and regulating stations, and system operation once construction is complete. This analysis should include cumulative impacts within all categories of likely environmental impacts identified in the EIS.

The EIS must also identify and evaluate the incremental effects of the project in combination with "other past, present, and reasonably foreseeable future actions." This evaluation must include more than a mere recitation of neighboring actions. It is also important to note that another action's compliance with applicable regulations rarely negates all environmental effects; regulatory compliance or not, the incremental effects of other actions in combination with the AIM Project must be fully identified and assessed in the EIS. Finally, the EIS should include a consideration of the impacts associated with increased industrial gas extraction activities that will be facilitated by the AIM Project, which will considerably expand natural gas delivery capacity – and therefore increase demand for gas extraction – in the Northeast region.

Thank you for the opportunity to comment on these important issues.

Sincerely,

Phillip Musegaas
Hudson River Program Director

Misti Duvall
Watershed Program Staff Attorney