MEMORANDUM

TO:	COMMISSIONER BASIL SEGGOS, NYS DEC
FROM:	MARK IZEMAN, NRDC
SUBJECT:	DEC SHOULD DENY ATLANTIC BRIDGE's 401 WATER QUALITY CERTIFICATION APPLICATION
DATE:	APRIL 27, 2017

We write on behalf of the Natural Resources Defense Council (NRDC) to request that the New York State Department of Environmental Conservation (DEC) deny federal Clean Water Act Section 401 certification to Algonquin Gas Transmission and Maritimes & Northeast Pipeline's (collectively, "Applicants") Atlantic Bridge Project ("Project"), Application ID 3-5599-00078/00003. The primary basis for our request lies in the fact that the Applicants have failed to demonstrate that the Project complies with state water quality standards. As you know, NRDC previously called on DEC to deny 401 certification for the Constitution and Northern Access pipelines for the failure to demonstrate compliance with water quality standards.

Specifically, with respect to the Atlantic Bridge Project, our analysis shows that the Applicants have failed to show that the Project complies with 6 NYCRR Part 703, including, but not limited to, standards for turbidity and thermal impacts (6 NYCRR § 703.2), and 6 NYCRR Part 701 (best usages). By itself, this pipeline would violate state water quality standards. Significantly, however, this pipeline is just one segment of a larger pipeline construction project, referred to as the Algonquin Pipeline Expansion, which also encompasses the Algonquin Incremental Market (AIM) Project and the Access Northeast (ANE) Project. When considering the cumulative impacts of the Atlantic Bridge Project, DEC should consider the impacts of the entire Algonquin Pipeline Expansion on New York State water quality.

This memorandum contains three parts. First, this memorandum summarizes the Atlantic Bridge Project and its companion projects within the Algonquin Pipeline Expansion. Second, it outlines the statutory framework applicable to the 401 water quality certification determination. Finally, it explains why DEC should deny 401 certification to Atlantic Bridge. In addition to detailing how the Applicants have failed to demonstrate that the Pipeline will meet state water quality standards, we also explain that denial by the agency would be consistent with DEC's previous analyses of water quality impacts on pipelines. We also document the widespread opposition to this project throughout the state.

FACTUAL BACKGROUND

As the Department knows, the proposed Atlantic Bridge Project includes the construction of approximately 6.3 miles of 42-inch pipeline in New York and Connecticut; construction of a new compressor station in Massachusetts and modifications to three existing compressor stations in New York and Connecticut; modifications to five existing metering and regulating (M&R) stations and one existing regulator station in New York, Connecticut, Massachusetts and Maine; and the construction of one new M&R station in Connecticut.

In New York State, the pipeline portion of the Project would cross 21 surface waterbodies, three of which are considered protected trout streams as defined in 6 NYCRR Part 608, Use and Protection of Waters. With the exception of just one crossing, all stream crossings would involve the harmful "trenching" method of stream crossing. The Project would cross a total of 15 wetlands (disturbing over 10 acres of wetlands) in New York, including nine federally-regulated wetlands and six New York State-regulated Freshwater Wetlands.

Significantly, the entire Project would be sited within the Hudson River and New York City drinking water supply watersheds. In particular, the majority of the pipeline would be laid within the Croton Watershed, one of the main sources of drinking water for New York City that provides drinking water to over 8 million residents of the City and some surrounding areas. As such, any impacts to water quality have the potential to impair the drinking water supply of millions of New Yorkers.

As indicated above, however, the Atlantic Bridge Project is just one segment of the larger Algonquin Pipeline Expansion Project, which expands the existing Algonquin Gas Transmission Pipeline system, a 1,100 miles-long natural gas pipeline system that traverses New York, Connecticut, Rhode Island, and Massachusetts. The Algonquin Pipeline Expansion Project has been segmented into three parts—the Algonquin Incremental Market (AIM) Project, the Atlantic Bridge Project, and the Access Northeast (ANE) Project. Together, the Algonquin Pipeline Expansion Project will add over 165 miles of new natural gas pipeline, and cross 349 waterbodies, and harm more than 300 acres of wetlands, cross three water supply systems that supply all of New York City with drinking water, and over 950 acres of forest. Indeed, in many ways, the Atlantic Bridge Project serves as the "bridge" between the Algonquin Incremental Market and the Access Northeast Projects.

On January 25, 2017, the Federal Energy Regulation Commission (FERC) granted a conditional certification of the Project, and in November 2015, the Applicants applied to DEC for 401 certification.

STATUTORY FRAMEWORK

Section 401 of the Clean Water Act provides states with broad authority to ensure projects such as natural gas pipelines meet state water quality standards.[1] Under Section 401 of the Clean Water Act ("CWA"), states are authorized to issue or deny certification ("401 certification") to any activity subject to a federal permit that may result in a discharge of waste into that state's waters.[2] States are empowered to certify the activity if it complies with all applicable water quality standards, limitations, and restrictions. Here, the Project is subject to two federal permits: a Certificate of Public Convenience and Necessity under the Natural Gas Act from FERC and a dredge and fill permit under Section 404 of the Clean Water Act from the Army Corps of Engineers, and is therefore subject to the requirements of Section 401.

DEC regulations set forth the framework for the State's issuance of a Section 401 Certification.[3] An applicant "must demonstrate compliance" with the water quality standards set forth in §§ 301, 302, 303, 306, and 307 of the Clean Water Act, as implemented by applicable water quality standards and thermal discharge criteria set forth in 6 NYCRR Parts 701, 702, 703, 704, and 750, as well as "state statutes, regulations and criteria otherwise applicable to such activities."[4] These state water quality standards establish distinct classes into which waterbodies are categorized, based on the suitability of the water for particular uses.[5] New York set narrative water quality standards for parameters such as turbidity, thermal discharges, and flow.[6] Under two of these narrative water quality standards, for example, New York State must ensure, for certain classes of waterways, that there is no increase in turbidity "that will cause a substantial visible contrast to natural conditions" and no alteration in flow "that will impair the waters for their best usages."[7] The State also adopted numeric water quality standards for parameters such as pH, dissolved oxygen, dissolved solids, odor, color, and turbidity.[8]

Significantly, the Department is mandated by statute to take into account the cumulative impacts upon all relevant resources in making a determination in connection with any certification.[9]

When applying for 401 certification, it is the applicant's burden to provide the Department sufficient information to demonstrate that its project complies with the water quality regulations. If the applicant fails to meet this burden, the State must deny the application. A state must also deny water quality certification to a project when an application fails to contain sufficient information to determine whether the application demonstrates compliance with state water quality standards or other applicable criteria described above.

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[1] 33 U.S.C. § 1341(a)(1).
[2] 33 U.S.C. § 1341.
[3] 6 N.Y.C.R.R. § 608.9.
[4] *Id*. § 608.9(a)(6).
[5] 6 N.Y.C.R.R. pt. 701.
[6] *See id*. § 703.2.
[7] *Id*.
[8] *See id*. §§ 703.3–703.5.
[9] N.Y. Envtl. Conserv. Law § 3-0301(1)(b).

Finally, when granting certification, such certification "shall set forth any effluent limitations and other limitations . . . necessary to assure that any applicant for a Federal license or permit will comply" with the CWA, "and with any other appropriate requirement of State law."[10]

DEC SHOULD DENY 401 CERTIFICATION TO ATLANTIC BRIDGE

I. The Construction of Natural Gas Pipelines Harm Water Quality

As explained in our April 7, 2017 request to DEC to deny certification to the Northern Access Pipeline (the "April 7th Memo"), every step required in pipeline construction has the potential to impair water quality. And while the environmental impacts of pipelines begin at construction, they can persist for years after construction is complete.[11] We respectfully refer the Department to the April 7th Memo for a discussion of the many ways in which the construction of natural gas pipelines harms water quality.

II. Applicants Fail to Show that Atlantic Bridge Would Comply with Water Quality Standards

Riverkeeper's October 28, 2016 comments to DEC regarding the Atlantic Bridge Project[12] provide more than adequate justification for the denial of water quality certification to the Project. Here, we only wish to emphasize three points: First, DEC should examine the cumulative effects of the Atlantic Bridge Project, which include the effects of the entire Algonquin Expansion Project. Second, the pipeline will cross all but one waterbody using the harmful "trenching" method of waterbody crossing, which, in addition to destroying any habitat within the pipeline's right of way, also causes erosion, sedimentation, and turbidity. Third, the Project's likely harm to water quality could have devastating effects, because the entire pipeline is located within the New York City drinking watershed.

a. DEC should consider the cumulative impacts of the entire Algonquin Pipeline Expansion Project

While the effects of the Atlantic Bridge segment of this project alone are sufficient to deny water quality certification, ECL § 3-0301(1)(b) requires DEC to examine the cumulative impacts of the entire Algonquin Pipeline Expansion Project,[13] which includes the Algonquin

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[10] 33 U.S.C. § 1341(d).

[11] *See, e.g.*, Scott Reid & Paul Anderson, *Effects of Sediment Released During Open-Cut Pipeline Water Crossing*, 24 Can. Water Resources J. 235, 243 (1999), *available at* http://dx.doi.org/10.4296/cwrj2403235 (last visited Sept. 13, 2016) [hereinafter "Reid"] (citing studies that document changes to nearby stream morphology as many as four years after construction had been completed); Lucie Levesque & Monique Dube, *Review of the Effects of In-Stream Pipeline Crossing Construction on Aquatic Ecosystem*s, 132 Envtl. Monitoring & Assessment 395, 399 (2007) [hereinafter "Levesque"] (citing studies that document changes to aquatic organisms as many as four years after construction was completed).

[12] *Available at* https://www.riverkeeper.org/wp-content/uploads/2016/11/20161028-Riverkeeper-Comments-Atlantic-Bridge-401-w.-attachments.pdf.

[13] N.Y. Envtl. Conserv. Law § 3-0301(1)(b).

Incremental Market (AIM) Project, the Atlantic Bridge Project, and the Access Northeast Project.

As the Department has previously noted,[14] the many individual effects of pipeline construction can have a cumulative effect that is greater than the sum of its parts. While a pipeline crossing through a stream or river, or within a watershed, may not have significant effects on fish and fish habitat in that system, construction of multiple crossings on a stream or river, or within a watershed, has the potential for cumulative effects such that "the capacity of the system to recover from impact may be exceeded, and the detrimental effects of crossing construction permanent."[15]

While Applicants may claim that the impacts of the three pipeline projects should not be considered cumulatively because they are distinct projects with different applications that will be installed at different times, the most basic of facts belie their interconnectedness. For example, all three projects are expansions of the same pipeline system, the Algonquin Gas Transmission Pipeline. Moreover, the same applicant, Algonquin Gas Transmission, sponsors all three projects. Additionally, all three projects serve the same purpose—namely, to provide additional gas supply to New England via the Algonquin Gas Transmission Pipeline. Significantly here, all three projects include segments of natural gas pipeline that will cross through interconnected waterbodies in New York State, leading to impacts on water quality that may be greater than the sum of their parts.

b. DEC should deny 401 water quality certification because the pipeline will cross all but one waterbody using the harmful "trenching" method.

All but one waterbody will be crossed using the "trenching" method of waterbody crossing. As explained in our April 7th Memo, the "trenching" method of waterbody crossing results in 100 percent loss of stream and riparian habitat within the right-of-way for the duration of construction. Trenching also disturbs the downstream channel bed and channel banks, increasing erosion, and sedimentation downstream.[16] Trenching also generates a plume of turbid water downstream from the construction site.[17] And while downstream turbidity plumes are usually limited to the duration of in-stream construction, turbidity can generate longer-lasting effects.[18] Sediment erosion and deposition in the stream can deepen the stream and change the shape of the channel across its floodplain.[19] These longer-term changes can compromise water quality and destroy crucial habitat for aquatic species. DEC, federal guidelines, and even

[14] Letter from John Ferguson, Chief Permit Administrator, DEC, to Lynda Schubring, Environmental Project Manager, Constitution Pipeline Company 3 – 5 (Apr. 22, 2016); Letter from John Ferguson, Chief Permit Administrator, DEC, to Ronald Kraemer, National Fuel Gas Supply Corporation and Empire Pipeline 3 – 5 (Apr. 7, 2017).
[15] Levesque 407.
[16] Levesque 396.
[17] Reid 240; Levesque 398.
[18] Reid 242.
[19] J. M. Castro et al., *Risk-Based Approach to Designing and Reviewing Pipeline Stream Crossings to Minimize Impacts to Aquatic Habitats and Species*, 31 River. Res. & Application 767, 767 (2015), *available at* http://acwi.gov/sos/pubs/3rdJFIC/Contents/8F-Castro.pdf (last visited Sept. 13, 2016) [hereinafter "Castro"]; Reid 243.

industry itself discourage trenching, because during times of high stream flow, stream scour may expose the pipes to rocks, trees, and other objects. This may lead to the pipes leaking, or even rupturing, impacting both the natural environment, and, potentially, the drinking water supply. As such, Applicants have failed to show that there would be no increase in turbidity "that will cause a substantial visible contrast to natural conditions" and no alteration in flow "that will impair the waters for their best usages."[20]

The destructive impacts of in-stream pipeline construction on fish and other aquatic species have been well documented. In a study of impacts of a natural gas pipeline crossing on the Little Miami River in Ohio, downstream catches of the dominant fish species, the silver shiner, dropped by 95 percent immediately after construction.[21] Shortly after the installation of a natural gas pipeline across a creek in British Columbia, turbidity levels increased dramatically, and benthic invertebrate abundance decreased by 74 percent.[22] These effects have been observed to last up to four years after construction.[23] Because the Atlantic Bridge will use trenching to cross all but one of the affected waterbodies, Applicants have failed to demonstrate that the Project would not impair waterbodies' best usages.[24]

c. DEC should deny 401 water quality certification because the Project may endanger the drinking water supply of over 8.5 million people.

The Project's likely harm to water quality is especially troubling because increases in stormwater runoff, erosion, and sedimentation from the Project will impair drinking water supply reservoirs that serve as a drinking water supply for over 8.5 million people. Increases in suspended sediment, as well as the toxic materials and pathogens that can bind to sediment particles, may impair the best usages of the New Croton, Amawalk, and Muscoot Reservoirs, which are all part of the Croton watershed system.

Applicants have the burden to prove to DEC that the Project will not violate the State's water quality standards.[25] Given the potentially significant effects of the Project on New York State water quality, and consistent with DEC's conclusions that natural gas pipelines have the potential to harm water quality, DEC should deny Atlantic Bridge's application for certification under Section 401 of the Clean Water Act.

III. DEC's Denial of Atlantic Bridge's 401 CWA Application Would Be Consistent with DEC's Earlier Findings Regarding the Impact of Natural Gas Pipelines on Water Quality

DEC's decision to deny 401 certification for the Pipeline would not be the first time the State has determined that proposed natural gas pipelines could adversely impact water quality.

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[20] *Id*.
[21] Reid 245.
[22] Reid 244.
[23] Levesque 399.
[24] 6 NYCRR Part 701.
[25] *See Islander E. Pipeline Co. v. McCarthy*, 525 F.3d 141, 152 (2d Cir. 2008) (finding that it was the petitioner pipeline company's burden to demonstrate that its application should have been approved).

In 2015, DEC conducted a supplemental environmental review of natural gas hydraulic fracturing, including a review of the environmental impacts of natural gas pipelines, and found that natural gas pipelines that carry the "fracked" gas have the potential to impair water quality.[26] Based on that review, New York State determined that fracking had sufficient potential to have significant adverse environmental impacts to justify a prohibition of it within New York. [27]

Since the fracking ban, DEC has denied 401 certification to two natural gas pipelines: Constitution Pipeline,[28] and Northeast Access Pipeline.[29] A similar denial here would be in line with all of DEC's previous findings related to the impacts of natural gas pipelines on water quality.

IV. A Wide Coalition of Community and Environmental Groups Oppose Atlantic Bridge

A variety of local, statewide and national organizations have organized to oppose the Algonquin Pipeline Expansion, which, as explained earlier, includes Atlantic Bridge. Residents located across the Algonquin Pipeline Expansion—in Connecticut, New York, Rhode Island, Massachusetts, and upper New England—have organized against the Project. The movement against Atlantic Bridge has been so widespread that members of Congress, such as Senators Ed Markey and Elizabeth Warren of Massachusetts, have come out in opposition to the Project.[30] In New York, resistance to the Atlantic Bridge Project is concentrated in the lower Hudson Valley region, where the pipeline would be located.

In addition to water quality impacts, environmental groups and local landowners have voiced concerns over the impacts of the pipeline on air quality, including from the construction and expansion of compressor stations, which would push natural gas eastward from Pennsylvania to New England. Compressor stations are widely known to contaminate local air quality through "blow-down" events, which vent dangerous toxins into the air, as well as methane that is a primary contributor to climate change.

In addition to NRDC, national and New York-based organizations that oppose Atlantic Bridge include:

- Catskill Mountainkeeper
- Riverkeeper

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[26] DEC, Final Supplemental Generic Environmental Impact Statement of Regulatory Program for Horizontal Drilling and High-Volume Hydraulic Fracturing to Develop the Marcellus Shale and Other Low-Permeability Gas Reservoirs, Findings Statement 5 (2015), *available at* http://www.dec.ny.gov/ energy/75370.html (last visited Sept. 13, 2016) [hereinafter "SGEIS"].

[27] *Id.* at 6-51.

[28] Letter from John Ferguson, Chief Permit Administrator, DEC, to Lynda Schubring, Environmental Project Manager, Constitution Pipeline Company (Apr. 22, 2016).

[29] Letter from John Ferguson, Chief Permit Administrator, DEC, to Ronald Kraemer, National Fuel Gas Supply Corporation and Empire Pipeline (Apr. 7, 2017).

[30] Mary Serreze, *Sens. Ed Markey, Elizabeth Warren Call on FERC to Rescind Atlantic Bridge Natural Gas Pipeline Authorization*, MASSLIVE.COM, Feb. 1, 2017, http://www.masslive.com/news/index.ssf/2017/02/sens_warren_and_markey_call_on.html.

- Sane Energy Project
- Food & Water Watch
- Center for Biological Diversity
- Grassroots Environmental Education
- Keep Yorktown Safe
- Safe Energy Rights Group
- Stop the Algonquin Pipeline Expansion
- Resist Spectra
- Concerned Families of Westchester
- Grassroots Environmental Education

CONCLUSION

Thank you in advance for your consideration of this important and urgent request. We stand ready to provide additional information on why the Atlantic Bridge certification should be denied.