May 2, 2019

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Re: Comments on the Water Quality Certification Application of the Northeast Supply Enhancement (NESE) Project, NJDEP File No. 0000-01-1001.3

Dear Mr. Hudgins:

Thank you for the opportunity to comment on the Water Quality Certification Application submitted by the Transcontinental Gas Pipe Line Company, LLC ("Transco") for the Northeast Supply Enhancement Project. These comments are submitted on behalf of the Natural Resources Defense Council ("NRDC") and its over 76,500 members and activists who live in New Jersey. In brief, NRDC writes to urge the New Jersey Department of Environmental Protection ("NJDEP" or the "Department") to deny water quality certification to the NESE pipeline, as the pipeline has failed to demonstrate that it will satisfy New Jersey state water quality standards as set forth in N.J.A.C. 7:9B and N.J.A.C. 7:9C.

As you know, nearly ten miles of the Northeast Supply Enhancement pipeline is proposed to be built in New Jersey—in Sayreville and Old Bridge Townships, Middlesex County, and in New Jersey waters in Raritan Bay, lower New York Bay, and the Atlantic Ocean. These waterbodies are an important source of recreation for millions of people, and support numerous aquatic animals, including the endangered North Atlantic right whale, the endangered fin whale, and the endangered Atlantic sturgeon. These waterbodies are all on a path of ecological recovery that could be disrupted by the construction of this pipeline.

While construction activities associated with the pipeline could violate New Jersey water quality standards in every waterbody that is crossed, our comments focus on just one aspect of the construction process—the 6 miles of offshore construction through Raritan Bay—and how this construction alone would fail to meet state water quality standards.

Specifically, construction of the pipeline would increase the level of total suspended solids in Raritan Bay to an extent that it would render the water unsuitable for designated uses, in violation of 7:9B-1.14(d)(7). Construction would also resuspend toxic substances in the water column such that they would be detrimental to the natural aquatic biota, rendering the waters unsuitable for the designated uses, in violation of 7:9B-1.14(d)(12). Resuspended sediment could also exceed numerical criteria for several contaminants, including mercury and copper, as set forth in 7:9B-1.14(d).

In support of these points, our comments are divided into three parts. Part I describes the proposed pipeline and the important ecological area in which it would be built. Part II sets forth the statutory framework for New Jersey's water quality certification decision. Finally, Part III explains the many ways in which the Northeast Supply Enhancement Pipeline could violate New Jersey water quality standards.

I. Background

a. Natural Resources Defense Council

The Natural Resources Defense Council is an international, nonprofit environmental organization with more than three million members and online activists, including over 76,500 members and activists in New Jersey. For five decades, NRDC has been committed to the preservation, protection, and defense of the environment, public health, and natural resources.

NRDC has a long history of litigating and advocating for clean water at both the federal level and in New Jersey. In 1972, for example, it helped enact the Clean Water Act, America's bedrock water-protection law, and most recently, in 2015, NRDC was a principal advocate for the issuance of the Clean Water Rule, which returned guaranteed protections under the Clean Water Act to hundreds of thousands of miles of streams and tens of millions of acres of wetlands across the country. In the 1990s NRDC brought federal Clean Water Act litigation that led to the establishment of total maximum daily load (TMDL) pollution standards in New York's upstate reservoirs and other state waterbodies. NRDC has also been a key advocate since the 1970s for full cleanup of toxic PCBs from the Hudson River.

b. The Northeast Supply Enhancement Project

The Northeast Supply Enhancement Project ("NESE" or the "Project") is an expansion of the Transco Pipeline, a natural gas pipeline which runs from Texas to New York City. The almost $1 billion project is owned by Williams Partners, L.P. ("Williams"), one of the largest natural gas pipeline companies in the United States. The proposed pipeline is divided into three sections—two of which, the Madison Loop and the Raritan Bay Loop, would cross through New Jersey for nearly ten miles, over half of which (6 miles) would occur in offshore New Jersey waters.

The onshore portion of the pipeline, the Madison Loop, would run for approximately 4 miles and cross eight waterbodies,[1] and an additional four waterbodies would be located in the construction work area of the pipeline. Additionally, the pipeline would cross two major groundwater aquifers—the Potomac-Raritan-Magothy Aquifer system, which includes "some of the most productive and extensive aquifers in the Coastal Plain of New Jersey,"[2] and the Diabase Aquifer[3]. The pipeline would also cross at least one sole source aquifer, the New Jersey Coastal Plain Aquifer System.[4] This aquifer supplies approximately 75 percent of the drinking water for about 3 million New Jersey residents.[5] The pipeline also crosses five Wellhead Protection Areas (WHPAs), the area around a public drinking water well where contaminants could enter and pollute the well.[6]

Once offshore, the Raritan Loop segment of the NESE would cross in and out of New Jersey and New York State waters—through three major waterbodies: Raritan Bay, Lower New York Bay, and the Atlantic Ocean[7]—totaling 6 miles in New Jersey State waters and about 17.3 miles in New York State waters.[8]

When a pipeline is built through a waterbody, the crossing can be undertaken in two ways: either by cutting a four- to seven-foot trench along the bottom of the watercourse, a process known as "trenching," or by tunneling the pipeline under the waterbody, which is known as "Horizontal Directional Drilling" ("HDD"). When a pipeline is constructed through a waterbody via trenching, a trench is dug through the waterbody, either using a clamshell dredge or a jet trencher, and the pipeline is laid into it. With the HDD method, a tunnel would be drilled under the sea floor and the pipe then routed through it.

While each method has the potential to degrade water quality, trenching is generally understood to be more the more harmful method of waterbody crossing.[9] Trenching can result in 100 percent loss of sea floor habitat within the right-of-way for the duration of construction. This process directly tears up part of the sea floor, destroying habitats, increasing turbidity and sedimentation (i.e. the depositing of soil and silt into water).[10]

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[1] *Id.* at 2-24.

[2] *Id.* at 4-24.

[3] *Id.* at 4-23, t. 4.3.1-1.

[4] *Id.* at 4-25.

[5] *Id.*

[6] *Id.* at 4-29.

[7] *Id.* at 4-139.

[8] *Id.* at 2-1.

[9] *See* U.S. Army Corps of Engineers, *Sediment and Erosion Control Guidelines for Pipeline Projects* 2, *available at* https://goo.gl/V3T8Uv (last visited Mar. 15, 2019).

[10] Lucie Levesque & Monique Dube, *Review of the Effects of In-Stream Pipeline Crossing Construction on Aquatic Ecosystem*s, 132 Envtl. Monitoring & Assessment 395, 396–98 (2007), *available at* https://goo.gl/N2soGd

As explained in the environmental impact statement, most of the pipeline's waterbody crossings in New Jersey will be built using a trenching method, disrupting over 3,700 acres of ocean floor.[11] In Raritan Bay in New Jersey, less than 1 mile of the pipeline would be dug using the HDD Method and the remaining 6 miles of the pipeline would be installed in a trench created by either a clamshell dredge or jet trencher.[12] The width of the construction right-of-way for the offshore segment of the Raritan Bay Loop would be 5,000 feet wide,[13] affecting over 3,843 acres of land.[14] Once a pipe is laid, the entire length of the trench must then be backfilled. This process also kicks up large volumes of sediment.

c. New York York-New Jersey Harbor Estuary

As explained earlier, the NESE would cross three major waterbodies—Raritan Bay, Lower New York Bay, and the Atlantic Ocean.[15] Both Raritan Bay and Lower New York Bay are parts of the New York-New Jersey Harbor Estuary ("New York Harbor"), which opens onto the New York Bight in the Atlantic Ocean to the southeast. Collectively, these bodies of water provide important ecological services, host endangered and threatened species, and support a wide variety of recreational activities.[16]

[hereinafter "Levesque"]; Scott Reid & Paul Anderson, *Effects of Sediment Released During Open-Cut Pipeline Water Crossing*, 24 Can. Water Resources J. 235, 240 (1999), *available at* https://goo.gl/6NPnFV [hereinafter "Reid"].

[11] Federal Energy Regulatory Commission, Northeast Supply Enhancement Project - Final Environmental Impact Statement, Docket No. CP17-101-000, at 2-9, t. 2.2-1 (2019) [hereinafter "EIS"].

[12] EIS, *supra* note 1, at 2-35, t. 2.3.3-1.

[13] *Id.* at 2-11.

[14] *Id.* at 2-9.

[15] *Id*. at 4-139.

[16] Judith M. O'Neil et al., *New York Harbor: Resilience in the face of four centuries of development*, Regional Studies in Marine Science, *passim* (2016), https://par.nsf.gov/servlets/purl/10021363.

Fig. 1. The complex waterways of New York Harbor include the Hudson River and several New Jersey Rivers (Hackensack, Passaic, Rahway and Raritan Rivers), which all empty into New York Harbor. There are six bays that are contiguous with New York Harbor: Newark, Raritan, Sandy Hook, Lower New York, Upper New York and Jamaica Bays. There are two entrances into New York Harbor; Long Island Sound via the Western Narrows and East River, and the Atlantic Ocean via the Mid-Atlantic Bight and the entrance between Rockaway Point and Sandy Hook. Four parallel east–west transects were established to provide insights into the natural and man-made features of New York Harbor. From north to south, these transects were the following: T1-George Washington Bridge transect, T2-Mid-town Manhattan/Empire State Building transect, T3-Statue of Liberty transect, and T4-Verrazano Bridge transect. *Source: O'Neil,* supra *note 16, at 275 fig. 1.*

Since the beginning of the nineteenth century, pollution, sewage, solid waste and, eventually, industrial chemical contamination increasingly debilitated the health of New York Harbor.[17] In the past 50 years, however, the health of the Harbor has improved tremendously as a result of significant investment from municipal governments, local non-profit organizations,

[17] *Id.* at 276.

and citizen involvement.[18] Thanks to these efforts, New York Harbor is the healthiest it has been in over a century.[19]

Although the overall abundance of aquatic life has declined in the past 400 years due to historic contamination and commercial fishing depletion issues, New York Harbor is still home to a diverse collection of aquatic species.[20] Seasonal nutritional upwellings in the estuary support a high volume of algae, phytoplankton, and zooplankton, which in turn support a high variety of aquatic species, including the blue crab,[21] ribbed mussel,[22] Shortnose Sturgeon,[23] bottlenose dolphin,[24] and the harbor seal.[25]

Within New York Harbor, Raritan Bay has such a diverse array of habitats that support regionally rare and important marine, estuarine, and anadromous species, that the U.S. Fish and Wildlife Service designated parts of the Bay as the Raritan Bay-Sandy Hook Bay Significant Habitat Complex.[26] Eight miles of the pipeline would cross this ecologically significant area.[27]

New York Harbor now supports more than 200 fish species.[28] These species include diadromous (fish that migrate between fresh and salt water) and marine finfish species of ecological, commercial, and recreational importance.[29] The New York Bight also serves as spawning grounds for many economically important species and as nursery grounds for their early development stages.[30]

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[18] *Id.* at 278, 281, 283.

[19] New York City Office of the Mayor, *New York Harbor: Healthier Than It's Been in More Than a Century* (Dec. 7, 2017), https://www1.nyc.gov/office-of-the-mayor/news/753-17/new-york-harbor-healthier-it-s-been-more-century.

[20] O'Neil, *supra* note 16, at 282.

[21] National Oceanic and Atmospheric Administration, Significant Habitats and Habitat Complexes of the New York Bight Watershed – Lower Hudson River Estuary 4 (2011) *available at* https://www.nodc.noaa.gov/archive/arc0034/0071981/1.1/data/1-data/disc_contents/document/wp/low_hud.pdf.

[22] New York-New Jersey Harbor & Estuary Program, Hudson-Raritan Estuary Comprehensive Restoration Plan 37, 82 (2016), *available at* http://www.harborestuary.org/watersweshare/pdfs/CRP/FinalReport-0616.pdf.

[23] *Id.*

[24] D. F. Squires & J. S. Barclay, New York-New Jersey Harbor & Estuary Program, Nearshore Wildlife Habitats and Populations in the New York/New Jersey Estuary 92 (1990), *available at* http://www.harborestuary.org/pdf/NearshoreWildlife1990.pdf.

[25] *Id.*

[26] EIS, *supra* note 11, at 4-98.

[27] *Id.*

[28] New York-New Jersey Harbor & Estuary Program, The State of the Estuary 2018 3 (2018), *available at* https://www.hudsonriver.org/NYNJHEPStateoftheEstuary.pdf [hereinafter "*State of the Estuary*"].

[29] EIS, *supra* note 1, at 4-98 – 99

[30] *Id.*

Of these over 200 fish species, essential fish habitat ("EFH") is designated for 33 species in the Project area. Four fish species (Atlantic sturgeon, shortnose sturgeon, cusk, oceanic whitetip shark), are federally or state-listed as threatened or endangered,[31] and eight species (alewife, blueback herring, rainbow smelt, warsaw grouper, cusk, Atlantic bluefin tuna, dusky shark, and sand tiger shark) are listed as "species of concern" by the National Marine Fisheries Service. Three of these species of concern (Atlantic bluefin tuna, dusky shark, and sand tiger shark) have designated essential fish habitat within or in the vicinity of the Project Area.[32]

Sixteen species of marine mammals, consisting of 13 species of cetaceans (i.e., whales, dolphins, and porpoises), and 3 species of pinnipeds (i.e., seals) may also use the Project area during the year. Of these species, six (blue whale, sei whale, sperm whale, North Atlantic right whale, fin whale)[33] are federally or state-listed as threatened or endangered.[34]

In addition, five species of sea turtles have the potential to occur within Project area, all protected under the Endangered Species Act. These include the green, Kemp's ridley, leatherback, loggerhead, and hawksbill sea turtles.[35]

The New York Harbor Estuary also supports benthic species such as clams, oysters, and mollusks that provide important ecosystem services such as water filtration, three-dimensional habitats for other species like fish and anemones, shoreline stabilization, and wave absorption.[36]

Improvements in water quality, increased diversity of marine life, and enhanced access to the shoreline have all contributed to a revitalization of recreational activities in the New York Harbor.[37] Between 2009 and 2014, over 500 acres of the waterfront were opened to the public in the form of parks or public spaces,[38] and by 2016, approximately 37 percent of the Harbor shoreline was estimated to serve as parks or public waterfront spaces, totaling 41,078 acres.[39] As demonstrated by Figure 2 below, along the portion of New Jersey shoreline that abuts Raritan Bay, a majority of shoreline is designated public space.[40] National Park sites in New York

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[31] *Id.* at 4-162.

[32] *Id.* at 4-103.

[33] *Id.* at 4-162.

[34] *Id.* at 4-104.

[35] *Id.* at 4-106.

[36] *State of the Estuary*, *supra* note 28, at 31.

[37] New York-New Jersey Harbor & Estuary Program, Connecting with Our Waterways: Public Access and its Stewardship in the New York-New Jersey Harbor Estuary ii (2016), *available at* https://www.nrs.fs.fed.us/pubs/50713 [hereinafter "*Connecting with Our Waterways*"]

[38] *Id.*

[39] O'Neil, *supra* note 16, at 10.

[40] *Connecting with Our Waterways*, *supra* note 37, at ii.

Harbor alone, including the Gateway National Recreation Area in New Jersey, received 16,090,450 visitors who spent $559,169,600 in communities near the parks.[41]

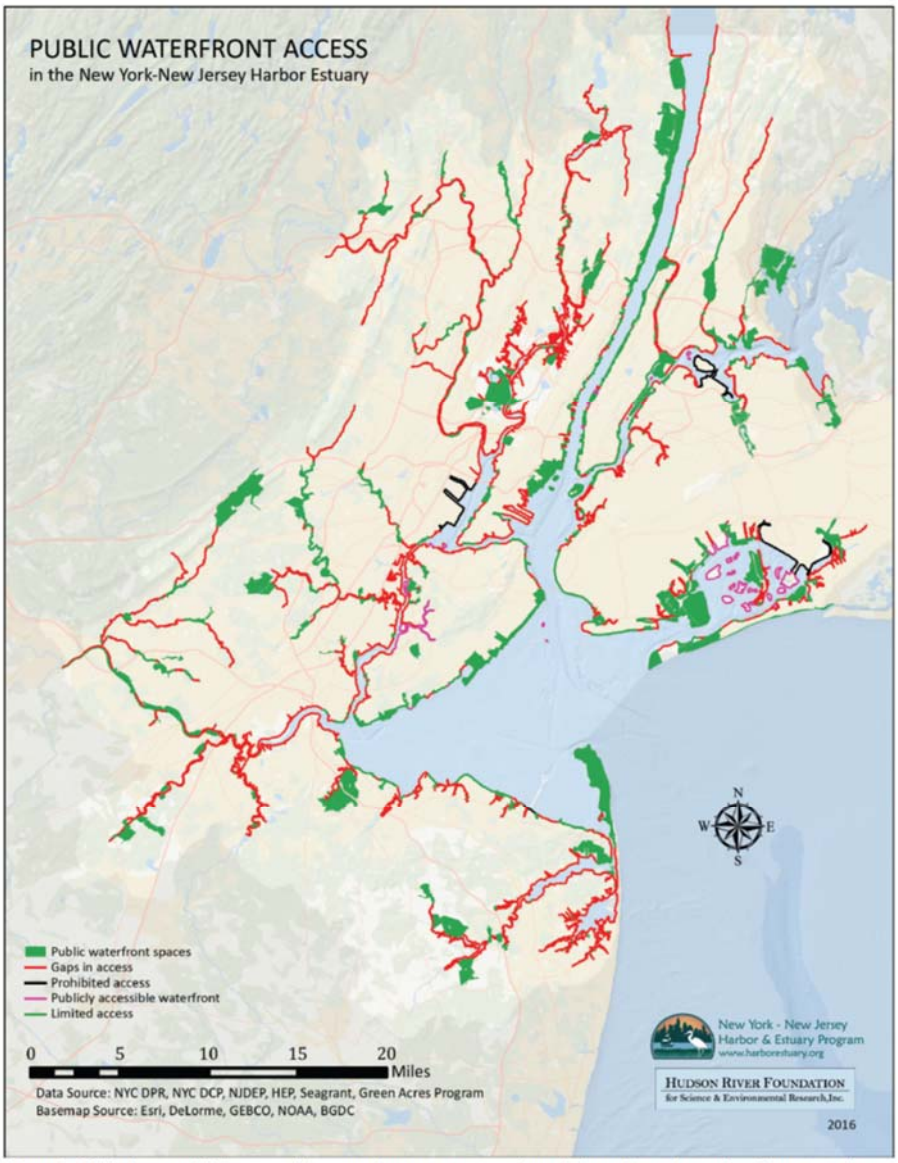

Figure 2: While large publicly-accessible waterfront spaces were found throughout the region, long stretches of gaps in access remain in many areas.

Source: Connecting with Our Waterways, supra *note 37, at 4.*

[41] National Park Service, National Parks of New York Harbor, *Tourism to National Parks of New York Harbor creates $714,149200 in Economic Benefits*, April 29, 2016, https://www.nps.gov/npnh/learn/news/vis_spending_2015.htm.

The Harbor itself also serves as a recreation area for public and private boating activities, such as rowing, kayaking, canoeing, and sailing.[42] Recreational and sport fishing is also a popular recreational activity in the Project Area, as is whale watching and scuba diving.[43] The pipeline's workspace would cross through three New Jersey Department of Environmental Protection-designated sport ocean fishing grounds: the Gong Grounds, Tin Can Grounds, and Ambrose Channel Grounds.[44] In 2015, nearly 4.3 million saltwater recreational angler trips took place off the shores of New Jersey.[45]

II. Statutory Framework

a. Clean Water Act, Section 401

Section 401 of the Clean Water Act empowers states and authorized tribes to block a natural gas pipeline, such as the Northeast Supply Enhancement Project, if the pipeline cannot demonstrate compliance with state water quality standards. Indeed, the courts have referred to Section 401 as "a statutory scheme whereby a single state agency *effectively vetoes* an energy pipeline that has *secured approval from a host of other federal and state agencies*."[46]

Specifically, Section 401 authorizes states and tribes to review any project applying for a federal license or permit that may result in a discharge into the state or tribe's navigable waters.[47] Under this provision, an applicant for a federal license or permit for activity that "may result in any discharge into the navigable waters"—such as an applicant for a section 404 dredge-and-fill permit or for a certificate of public convenience and necessity under the Natural Gas Act—must receive a water quality certificate: state certification that "any such discharge will comply with the applicable provisions of sections [301–303 and 306–307 of the Clean Water Act]."[48] EPA regulations specify that a water quality certificate must include "[a] statement that there is a reasonable assurance that the activity [for which a water quality certification application has been submitted] will be conducted in a manner which will not violate applicable water quality standards."[49]

While section 401(a)(1) of the Clean Water Act provides for state certification of water quality standards compliance, section 401(d) provides additionally that states shall attach

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[42] O'Neil, *supra* note 16, at 10.

[43] EIS, *supra* note 11, at 4-265.

[44] *Id.* at 4-100, 4-265 – 4-266.

[45] *Id.* at 4-265.

[46] *Constitution Pipeline Co., LLC v. New York State Dep't of Envtl. Conservation*, 868 F.3d 87, 101 (2d Cir. 2017), *cert. denied,* 138 S. Ct. 1697, 200 L. Ed. 2d 953 (2018)

[47] 33 U.S.C. § 1341.

[48] 33 U.S.C. § 1341(a)(1). These sections of the Clean Water Act include provisions relating to standards, limitations, and prohibitions for point source discharges, and also relating to state-promulgated water quality standards. 33 U.S.C. §§ 1311–13, 1316–17.

[49] 40 C.F.R. § 121.2(a)(3).

conditions to water quality certificates in the form of "effluent limitations and other limitations, and monitoring requirements" necessary to assure compliance with the applicable requirements of sections 301–303 and 306–307 of the Clean Water Act, "and with any other appropriate requirement of State law set forth in [the water quality certificate]."[50] The Second Circuit has since stated in dicta that section 401(d) should be understood as limiting water quality certificate conditions "to those affecting water quality in one manner or another."[51]

Notably, states may generally regulate water quality more stringently than as required by the Clean Water Act.[52] Furthermore, a state is not required to adhere to the water quality findings of another agency, such as the Federal Energy Regulatory Commission (FERC).[53]

b. New Jersey Water Quality Standards

The Department is responsible for evaluating the environmental impacts of a proposed pipeline on New Jersey waterbodies in light of the State's water quality standards.[54] Water quality certificate approval in New Jersey is predicated on the demonstration of compliance with applicable New Jersey water quality regulations, including New Jersey Coastal Zone Management Rules,[55] New Jersey Freshwater Wetlands Protection Act Rules,[56] and New Jersey Surface Water Quality Standards[57].[58] While all three sets of rules apply to this pipeline, this letter will focus on the pipeline's anticipated compliance with the New Jersey Surface Water Quality Standards.

Under the New Jersey Surface Water Quality Standards, all waterbodies in New Jersey are assigned classifications that are in turn associated with "designated uses"—the many ways in

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[50] 33 U.S.C. § 1341(d). Although this provision does not mention section 303, the Supreme Court has held that the reference to section 301 incorporates section 303 by reference, making water quality standards a permissible consideration on setting conditions under section 401(d). PUD No. 1 of Jefferson Cty. v. Wash. Dep't of Ecology, 511 U.S. 700, 712–13 (1994).

[51] *Am. Rivers, Inc. v. FERC*, 129 F.3d 99, 107 (2d Cir. 1997). *Accord Arnold Irr. Dist. v. Dep't of Envtl. Quality*, 717 P.2d 1274, 1279 (Or. Ct. App. 1986) (stating in dicta that "only if a [water quality certificate condition] has absolutely no relationship to water quality would it not be an 'other appropriate requirement of State law.'").

[52] 33 U.S.C. § 1370. EPA regulations note that this non-preemption clause is applicable to water quality standards. 40 C.F.R. § 131.4(a) ("As recognized by section 510 of the Clean Water Act, States may develop water quality standards more stringent than required by [the EPA water quality standards] regulation.").

[53] *See Constitution Pipeline Co., LLC v. New York State Dep't of Envtl. Conservation*, 868 F.3d 87, 101 (2d Cir. 2017), *cert. denied*, 138 S. Ct. 1697 (2018).

[54] *See, e.g., id.* at 103, *citing Islander E. Pipeline Co., LLC v. McCarthy,* 525 F.3d 141, 164 (2d Cir. 2008); *accord Keating v. FERC*, 927 F.2d 616, 622 (D.C. Cir. 1991) ("Through [the § 401 certification] requirement, *Congress intended that the states would retain the power to block, for environmental reasons, local water projects that might otherwise win federal approval*." (emphasis added)).

[55] N.J. Admin. Code § 7:7.

[56] *Id.* at § 7:7A.

[57] *Id.* at § 7:9B.

[58] *Id.* at §§ 7:7-1.1(a), 7:7-1.2(a), 7:7-1.1(a), 7:7-1.2(e), 7:7A-2.1(d).

which the public is expected to use that waterbody. Designated uses include drinking water, "primary contact recreation," like swimming, and fish propagation, among other uses.[59] Different water quality criteria apply to different waterbody classifications—the more expansive the list of uses, the more stringent the water quality criteria.

The Department designates all waterbodies that will be crossed by the offshore segment of the NESE (including those in Raritan Bay, Sandy Hook Bay, Lower New York Bay, and the Atlantic Ocean) as SE-1 (saline estuarine) and SC (coastal saline waters).[60] In all SE-1 and SC waters, the designated uses are: shellfish harvesting; maintenance, migration and propagation of the natural and established biota; primary contact recreation; and "any other reasonable uses."[61]

Each waterbody classification has corresponding New Jersey surface water criteria that vary based on the classification of the waterbody. These criteria contain both numeric and narrative standards. For example, the criteria for specific toxic substances is numeric. Water quality criteria for copper in Raritan Bay, for example, is 5.6 µg/L for chronic toxicity, and the criteria for mercury in SE-1 and SC waters is 0.051 µg/L for human health.[62]

The criteria for suspended solids in SE1 and SC waterbodies, on the other hand, is narrative (meaning descriptive), prohibiting any activity that "would render the water unsuitable for the designated uses."[63] The criteria for settleable solids is also narrative, prohibiting settleable solids in amounts that would be noticeable in the water and on aquatic substrata in quantities detrimental to the natural biota and rendering the waters unsuitable for the designated uses, in violation of N.J.A.C. 7:9B-1.14(d)(3).

Each waterbody classification is also assigned an antidegradation category. Each category provides different protections regarding changes to existing water quality outside of the water quality criteria. SE-1 and SC waters are categorized as Category 2 waters, meaning that even where water quality is equal to or better than necessary to sustain the waterbodies' designated uses, the water quality must still be maintained to support the existing and designated uses of that waterbody.[64] New Jersey water quality standards also note that "[t]he maintenance, migration, and propagation of threatened or endangered species is considered an existing use that must be maintained."[65]

In addition, regardless of classification, New Jersey water quality standards state that "[t]oxic substances in waters of the State shall not be at levels that are toxic to humans or the

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[59] N.J. Admin. Code subchapter 7:9B.

[60] EIS, *supra* note 11, at 4-50.

[61] N.J. Admin. Code § 7:9B-1.12(d), (g).

[62] N.J. Admin. Code § 7:9B-1.14(g).

[63] *Id.* at § 7:9B-1.14(d)(7).

[64] *Matter of Issuance of a Permit by Dep't of Envtl. Prot. to Ciba-Geigy Corp.,* 576 A.2d 784, 791 (1990); *see also* N.J. Admin. Code § 7:9B-1.12(d).

[65] *Id.* at § 7:9B-1.5(d)(1)(i).

aquatic biota, or that bioaccumulate in the aquatic biota so as to render them unfit for human consumption"[66]

c. Regulatory Background

On March 27, 2017, Transco, a subsidiary of Williams, filed an application for the Project with the Federal Energy Regulatory Commission (FERC) requesting a Certificate of Public Convenience and Necessity (Certificate) under Section 7(c) of the Natural Gas Act (NGA) (FERC Docket Number CP17-101). On January 25, 2019, FERC issued the Final Environmental Impact Statement for the project. This application is still pending.

Transco also filed an application to NJDEP on June 27, 2017 for a water quality certification under Section 401 of the federal Clean Water Act. On June 14, 2018, Transco withdrew its application, and resubmitted it on June 20, 2018. This is the application upon which NRDC now comments.

III. New Jersey Should Deny Water Quality Certification to NESE

As demonstrated by Transco's water quality certification application, construction of the NESE pipeline could violate New Jersey water quality standards. In particular, construction of the pipeline would increase the concentration of total suspended solids to an extent that the water would be unsuitable for its designated uses, in violation of N.J.A.C. 7:9B-1.14(d)(7). Relatedly, construction would cause the suspension and eventual deposition of settleable solids in amounts that would be noticeable in the water and on aquatic substrata in quantities detrimental to the natural biota and rendering the waters unsuitable for the designated uses, in violation of N.J.A.C. 7:9B-1.14(d)(3). By resuspending sediment in the water column, construction of the pipeline would also exceed numerical criteria for several contaminants, including mercury and copper, set forth in N.J.A.C. 7:9B-1.14(f)(7),(g). Finally, construction would pollute the water so that their existing uses, such as shellfish harvesting and the maintenance, migration, and propagation of natural and established biota, would be impaired, in violation of N.J.A.C. 7:9B-1.12(d).

a. Total Suspended Solids

Altogether, pipeline construction activities would lead to the suspension of solids across hundreds of acres in Raritan Bay and the lower New York Harbor. The dredging and filling required to construct an offshore pipeline can temporarily suspend sediments in the water column, increasing turbidity there, making the water cloudy or opaque,[67] and less hospitable to aquatic life that is accustomed to surviving in clearer water. This impact can be quantified by measuring the concentration of total suspended solids, the mass of solids present in the water in a given volume. Total suspended solids ("TSS") are a significant factor in observing water clarity. The more solids present in the water, the less clear the water will be. Under New Jersey water

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[66] *Id.* at § 7:9B-1.5(a)(4).

[67] 40 C.F.R. § 230.21(a).

quality standards, a project cannot add to the suspended solids in the water column to an extent that total suspended solids would "render the water unsuitable for the designated uses."[68]

According to the Project's water quality certification application, the majority of sediment-disturbance activities will occur during construction.[69] The environmental impact statement acknowledges that pipeline construction would lead to the suspension and redeposition of solids in the surrounding waters—Indeed, an area larger than Central Park, about 945 acres of seafloor, would be affected.[70]

Several activities required to construct the pipeline would lead to increased TSS concentrations. Specifically, activities required to dig the pipeline trench, like clamshell dredging activities, jet trenching, and use of a hand jet and submersible pump, would create sediment plumes. According to the environmental impact statement, clamshell dredging activities would generate sediment plumes exceeding ambient concentrations of total suspended solids by 100 parts per million (ppm) up to 3,150 feet from the source of the activity.[71] Jet trenching would generate sediment plumes with TSS concentrations exceeding the ambient conditions by 100 ppm that would extend between 262 feet to 1,345 feet from the source, and use of the hand jet and submersible pump would generate sediment plumes with TSS concentrations exceeding the ambient conditions by 100 ppm that would extend between 197 feet to 1,378 feet from the source.[72] While the environmental impact statement for the Project ("EIS") states that TSS concentrations would return to ambient conditions up to 7.9 hours after sediment disturbance, [73] it is important to consider that construction itself could last for several weeks and take place 24 hours a day, 7 days a week, and excavation along any particular section could last as long as a few weeks.[74]

Activities required to bury the pipeline, such as backfill placement activities, would also increase concentrations of suspended solids in the water column. Backfill placement activities would generate sediment plumes with TSS concentrations exceeding the ambient conditions by 100 ppm would extend between 591 and 5,151 feet from the source.[75] While the EIS states that TSS concentrations would return to ambient conditions up to 3.5 hours after sediment

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[68] *Id.* at § 7:9B-1.5(d)(7).

[69] *Id.*

[70] EIS, *supra* note 11, at ES-11.

[71] *Id.* at 4-109.

[72] *Id.*

[73] *Id.* at 5-11.

[74] *Id.*

[75] *Id.*

disturbance,[76] it is important to consider that construction itself could last for several weeks and take place 24 hours a day, 7 days a week.[77]

Accidental release of drilling fluid during HDD drilling could also lead to turbidity and sedimentation after drilling fluid becomes entrained in the water column and transported to other locations.[78]

Increased concentrations of suspended solids would render the water unsuitable for designated uses such as shellfish harvesting[79] and maintenance, migration and propagation of the natural and established biota.[80] Higher concentrations of suspended solids leads to higher turbidity.[81] While turbidity naturally occurs in the Project Area, artificially high levels of turbidity can impair uses of the water—they can lower the rate of photosynthesis and the primary productivity of an aquatic area, damaging the surrounding ecosystem.[82] Increased turbidity can also harm aquatic animals: it can be harder for sight-dependent species to find food limiting growth and lowering resistance to disease.[83] Increased total suspended solids can also make respiration difficult by clogging fish gills.[84] Increased turbidity can also make water too cloudy for mobile aquatic species to migrate.[85]

The destructive impacts of pipeline construction on fish and other aquatic species have been well-documented. Studies have demonstrated that pipeline construction can have significant and long-term effects on entire species within the construction area. 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.[86] Shortly after the installation of a natural gas pipeline across a creek in British Columbia, turbidity levels in the creek increased dramatically, and benthic invertebrate

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[76] *Id.* at 5-11.

[77] *Id.*

[78] *Id.* at 4-96.

[79] While all of the New Jersey state waters crossed by the proposed Raritan Bay Loop are currently classified as prohibited for shellfish harvest, NJDEP issues permits such that shellfish may be harvested from restricted areas for relay and depuration, and issues permits that allow the harvest of surf clam for bait purposes in the waters crossed to the north of Sandy Hook. EIS, *supra* note 1, at 4-101.

[80] N.J. Admin. Code § 7:9B-1.14(d)(7).

[81] Fondriest Environmental, Inc., Turbidity, *Total Suspended Solids and Water Clarity*, FUNDAMENTALS OF ENVIRONMENTAL MEASUREMENTS (Jun. 13, 2014), https://www.fondriest.com/environmental-measurements/parameters/water-quality/turbidity-total-suspended-solids-water-clarity.

[82] 40 C.F.R. § 230.21(b).

[83] *Id.*

[84] *Id.* at § 230.32(b); EIS, *supra* note 11, at 4-107

[85] Minnesota Pollution Control Agency, Turbidity: Description, Impact on Water Quality, Sources, Measures - A General Overview (2008), https://www.pca.state.mn.us/sites/default/files/wq-iw3-21.pdf.

[86] Reid, *supra* note 10, at 245.

abundance decreased by 74 percent.[87] Such effects have been observed to last up to four years after construction.[88]

At least one study has observed that turbidity has adverse effects on hard clams, a species that dwells throughout the Project Area.[89] In this study, hard clam adults experienced reduced growth after 2 days of exposure to suspended sediment concentrations of 100 ppm. Hard clam larvae experienced 10 percent mortality after 10 days of exposure to suspended sediment concentrations of 750 ppm.[90] According to the environmental impact statement, pelagic species (fish that inhabit the water column, as opposed to dwelling near the bottom or the shore) are even more sensitive to turbidity,[91] as are fish eggs and larvae.[92]

In predicting effects of pipeline construction on mobile species (i.e., fish, sea turtles, and marine mammals), the assumption is often that they can avoid impacts by moving to other available habitat for the duration of the activities of concern.[93] This habitat avoidance is generally considered to have no negative impact on the species in question. In our view, this is an unsupported assumption. A greater understanding of the extent to which animals vacate areas of high turbidity is needed before assuming that the action will not result in harm.

b. Settleable Solids

Just as the Department regulates total suspended solids, it also regulates the amount of settleable solids, those solids that, once suspended, eventually settle to the sea floor. New Jersey water quality standards prohibit activity that contributes to the concentration settleable solids in quantities that are "noticeable in the water" or deposited "in quantities detrimental to the natural biota."[94] Construction of the pipeline would cause the resuspension and eventual subsidence of settleable solids that, according to Transco's own sediment transport modeling, would injure natural biota and render affected waters unsuitable for designated uses, including shellfish harvesting and maintenance, migration and propagation of the natural and established biota in violation of New Jersey surface water criteria.[95]

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[87] *Id*. at 244.

[88] Levesque, *supra* note 10, at 399.

[89] EIS, *supra* note 11, at 4-116.

[90] *Id*.

[91] *Id.*

[92] Kjelland, M.E. et al., *A Review of the Potential Effects of Suspended Sediment on Fishes: Potential Dredging-Related Physiological, Behavioral, and Transgenerational Implications*, 35 ENVNTL. SYS. DECISIONS 334 (2015), https://doi.org/10.1007/s10669-015-9557-2.

[93] EIS, *supra* note 11, at 4-116.

[94] N.J. Admin. Code § 7:9B-1.14(d).

[95] N.J. Admin. Code § 7:9B-1.12(d), (g).

In total, over 1 million cubic yards of sediment would be excavated or otherwise disturbed during the offshore pipeline installation.[96] According to Transco, sedimentation in excess of 1.2 inches is expected throughout the pipeline's path as a result of excavation and backfilling.[97] According to the environmental impact statement, sedimentation from clamshell dredging during excavation exceeding 1.2 inches of deposition would cover up to 21.7 acres of sea floor.[98] Use of the hand jet and submersible pump/suction dredge, another method of digging a trench for the pipeline, would lead to sedimentation of more than 1.2 inches over up to 3.7 acres of sea floor.[99] Backfilling the trench after the pipeline is laid would also cause sedimentation of over 1.2 inches over 183.2 acres of seafloor.[100] Thinner deposits of sediments would extend even further from areas of seafloor disturbance. [101]

This sedimentation would injure natural biota and render affected waters unsuitable for designated uses, including shellfish harvesting and maintenance, migration and propagation of the natural and established biota.[102] The redistribution of sediments that fall out of suspension could bury benthic and demersal (bottom-dwelling) species, leaving benthic organisms, fish eggs, and larvae could at risk of smothering or other injury.[103] Recovery from such sedimentation could take 3 years, or even longer if the physical characteristics of the habitat are altered (e.g., sediment type, hydrology), resulting in recolonization of different species.[104]

In particular, shellfish may be especially exposed to sedimentation as a consequence of the Project. According to the environmental impact statement, it is "possible" that the increased sediment load from Project construction activities would result in the mortality of some clams and other benthic organisms.[105] Indeed, over 134 acres of NJDEP 2014 hard clam beds would receive some level of additional sedimentation, with 76 acres receiving more than 1.2 inches of sedimentation.[106]

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[96] EIS, *supra* note 11, at 4-106.

[97] EIS, *supra* note 11, at 4-113.

[98] *Id.*

[99] *Id.*

[100] *Id.*

[101] *Id.*

[102] N.J. Admin. Code § 7:9B-1.12(d), (g).

[103] EIS, *supra note 1*, at 4-107, 4-126.

[104] *Id.* at 4-117.

[105] *Id.* at 4-116.

[106] *Id.* at 4-113, t. 4.5.2-6.

While benthic invertebrates and demersal fish species in or near the excavation area would be most directly harmed, pelagic fish, sea turtles, and marine mammals could also be affected. [107]

Construction of the pipeline would cause over 134 acres of NJDEP sport ocean fishing grounds to be subjected to some level of additional sedimentation.[108] Across the Project Area, up to 573.3 acres of shallow bay waters would be subject to some level of additional sedimentation. If this sedimentation occurs during the spawning period of some fish, fish eggs could be smothered and die.[109] For example, winter flounder is known to spawn within the Project Area, and studies have demonstrated that winter flounder eggs are less likely to hatch when the eggs are buried by as little as 0.05 centimeter of sediment. Another study has found that "almost complete mortality" of winter flounder eggs results from deposition of more than 0.25 centimeter."[110] While the environmental impact statement concludes that mobile species would likely temporarily vacate the area to avoid the disturbance,[111] for the reasons explained in Part III.a, we do not believe those assumptions are supported.

c. Resuspension of toxic sediments and other contaminants

Construction of the NESE pipeline would also cause resuspension of toxic contaminants at levels exceeding New Jersey surface water quality criteria. As explained in Part II, New Jersey water quality standards include numeric criteria for certain toxic contaminants.[112] For example, copper, lead, mercury, nickel, and zinc all have numerical water quality standards that apply to waters classified as SE-1 and SC.[113] The environmental impact statement reveals that resuspension of contaminants in the water column will exceed New Jersey standards for at least two contaminants—mercury and copper. [114] And there is reason to believe that other toxic contaminants may be resuspended at levels that exceed New Jersey water quality standards.

The environmental impact statement confirms that it is likely that mercury and copper could be resuspended into the water column at concentrations in excess of New Jersey water quality standards. In the majority of modeled scenarios, the maximum total mercury concentrations were predicted exceed the relevant water criteria for mercury of 0.051 µg/L.[115] Copper concentrations would also be expected to exceed New Jersey water quality standards—in

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[107] *Id.* at 4-107.

[108] *Id.* at 4-113, t. 4.5.2-6.

[109] *Id.* at 4-147.

[110] *Id.* at 4-147.

[111] *Id.* at 4-107.

[112] *See also* N.J. Admin. Code § 7:9B-1.14(f), (g).

[113] *Id.* at § 7:9B-1.14(f), (g). Copper has a site-specific criterion for Raritan bay. *See id.* at 7:9B-1.14(g).

[114] *Compare* EIS, *supra* note 11, at 4-122 *with* N.J. Admin. Code § 7:9B-1.14(f)(7).

[115] *Compare* EIS, *supra* note 11, at 4-122 *with* NJAC 7:9B-1.14(f)(7).

two of the modeled scenarios, the predicted maximum concentrations for copper exceeded the chronic toxicity standard of 3.1 µg/L.[116]

And water quality criteria for other contaminants may also be exceeded. The contamination of New York Harbor and the surrounding waterbodies by heavy metals, PCBs, dioxins, pesticides, and other contaminants is well-established.[117] Sediment from New York Harbor is so contaminated that most of the dredged material (66 percent) from New York/New Jersey Harbor was found to be unacceptable for ocean disposal.[118]

Transco acknowledges that there are dangerous levels of contaminants in the Project Area. Sediment contamination is widespread throughout the pipeline route—According to the environmental impact statement, most of the sites that Transco sampled had at least one contaminant that exceeded upper level effects thresholds, i.e., New York Class C and/or New Jersey Effects Range – Medium sediment screening thresholds.[119]

In offshore sediment sampling, Transco detected levels of many contaminants in sediment that exceeded New Jersey thresholds.[120] Specifically, Transco detected exceedances of at least fourteen metals (including Arsenic, Barium, Cadmium, Cobalt, Copper, Lead, Manganese, Nickel, Selenium, Silver, Vanadium, Zinc, Mercury),[121] polychlorinated biphenyls (PCBs),[122] four semi-volatile organic compounds (SVOCs),[123] fifteen polycyclic aromatic hydrocarbons (PAHs),[124] and dioxins and furans.[125]

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[116] N.J. Admin. Code § 7:9B-1.14(g).

[117] Kirk Johnson, *The Problem Is Deep, and Its Name Is Mud; Before New York Harbor Is Dredged, Toxic Sediments Must Be Mapped*, N.Y. TIMES, Jun. 3, 2002, https://www.nytimes.com/2002/06/03/nyregion/problem-deep-its-name-mud-before-new-york-harbor-dredged-toxic-sediments-must-be.html.

[118] New York State Dept. of Env. Conservation, Contaminant Assessment and Reduction Project: NY/NJ Harbor Sediment Report 1998-2001 (2003), http://www.hudsonriver.org/CARP/Appendicies/A-1/NYNJ%20Harbor%20Sediment%20Report%20(NYSDEC).pdf.

[119] EIS, *supra* note 11, at 4-121.

[120] Ecological screening criteria for saline surface water in New Jersey is presented in terms of Effects Range Low (ER-L) and Effects Range Median (ER-M) levels. ER-L reflects the sediment concentration of a contaminant where 10 percent of the studies found adverse biological effects. ER-M reflects the sediment concentration of a contaminant where 50 percent of the studies found adverse biological effects. *See* NJDEP, Ecological Screening Criteria (2009), *available at* https://www.nj.gov/dep/srp/guidance/ecoscreening/esc_table.pdf.

[121] Transcontinental Gas Pipe Line Company, Fall/Winter 2016 Offshore Environmental Sampling Report for the Northeast Supply Enhancement Project: New Jersey, New York, t. B-5 (2018).

[122] *Id.* at 2-7.

[123] *Id.* at 2-8.

[124] *Id.* at t. B-6.

[125] Total toxicity equivalency factor for dioxins and furans exceeded the ER-M threshold two locations. *Id.* at 2-9.

The resuspension of these contaminants could significantly harm aquatic ecosystems, potentially rendering the waters unsuitable for their designated uses, in violation of New Jersey water quality standards.[126] According to EPA, toxic metals, toxic organics, pathogens, and viruses can absorb or adsorb to fine-grained particulates, and through this process, become biologically available to organisms living in the water.[127] Furthermore, certain suspended material may react with the dissolved oxygen in the water, which can result in oxygen depletion,[128] which, in turn, can cause losses in biodiversity, ecosystem function, and services such as fisheries and aquaculture.

The environmental impact statement acknowledges that seafloor-disturbing construction activities such as the ones undertaken for the NESE could re-suspend contaminants into the water, potentially exposing biota to contaminants via ingestion with food, membrane-facilitated transport, or passive diffusion, making organisms sick and even killing them.[129] And once contaminants enter an organism, they could move up the food chain, potentially harming and killing organisms that were not directly exposed to the contaminant in the environment.[130]

d. Maintenance and Protection of Existing Uses

Finally, construction of the pipeline would violate New Jersey water quality standards as it would impair the existing uses of the waterbodies. Under New Jersey surface water quality standards, "[e]xisting uses [of a waterbody] shall be maintained and protected."[131] SE-1 and SC waters are categorized as Category 2 waters, meaning that even where water quality is equal to or better than necessary to sustain the waterbodies' designated uses, the water quality must be maintained to support the existing and designated uses of that waterbody.[132] Additionally, the "maintenance, migration, and propagation of threatened or endangered species is considered an existing use that must be maintained."[133]

The effects of turbidity, resuspension of sediments, and sedimentation on existing uses has already been discussed in Parts III.a – c; however, additional activity associated with pipeline construction could also impair the existing uses of the waterbodies. Construction would directly harm or kill all aquatic organisms caught in the 87.8-acre path of the pipeline and in the 947.4 acres just outside of the path of the pipeline.[134] This would impair designated uses of the

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[126] N.J. Admin. Code § 7:9B-1.14(d)(12).

[127] EIS, *supra* note 11, at 4-121.

[128] 40 C.F.R. § 230.21(b).

[129] EIS, *supra* note 11, at 4-121.

[130] *Id*.

[131] N.J. Admin. Code § 7:9B-1.12(d).

[132] *Matter of Issuance of a Permit by Dep't of Envtl. Prot. to Ciba-Geigy Corp.*, 576 A.2d 784, 791 (1990).

[133] N.J. Admin. Code § 7:9B-1.12(d).

[134] EIS, supra note 1, at 4-107.

waterbodies, including shellfish harvesting and the maintenance, migration and propagation of the natural and established biota.[135]

Notably, construction of the pipeline would impede the maintenance, migration, and propagation of the Atlantic sturgeon, a federally listed endangered species.[136] As the "maintenance, migration, and propagation" of an endangered species is listed as an existing use that must be maintained, injury to the Atlantic sturgeon would violate New Jersey water quality standards.[137] Construction of the pipeline would interfere with the spawning and migration of the Atlantic sturgeon, activities that are essential to the species' proliferation. In particular, Transco is anticipating that from June 1 – 30, clamshell dredging would overlap with spawning migration of Atlantic sturgeon, from June 15 – 30 or October 1 – November 10, hand jet/submersible pump activities near the Rockaway Transfer Point would disturb sediment during the Atlantic sturgeon's spring or fall migration, and from October 1 – November 30, spool installation, hydrotesting and drying near the Rockaway Transfer Point would interfere with Atlantic Sturgeon fall migration.[138] Because of the many ways in which construction is expected to injure the Atlantic sturgeon population, the environmental impact statement concludes that, even with mitigation measures, "the NESE Project *may affect, and is likely to adversely affect* the Atlantic sturgeon."[139]

The surf clam is another example of how pipeline construction can have long-lasting effects on the survival of a species. The decline of the surf clam population after the construction of the Rockaway Delivery Lateral Project, the pipeline to which the NESE will tie-into offshore of Queens at the Rockaway Transfer Point, may be instructive. Before completion of the Rockaway Delivery Lateral, Transco found that the Atlantic surf clam was one of the most prevalent species near the Rockaway Transfer Point, and a survey by the New York State Department of State confirmed the persistence of a relatively dense patch of surf clam in New York waters seaward of the Rockaway Peninsula.[140] Notably and unfortunately, after construction of the Rockaway Delivery Lateral Project, post-construction surveys found that the concentration of surf clam in this area declined after construction. [141] A similar effect could befall other surf clam populations in the pipeline's path—Indeed, populations of surf clam were found at nearly every sampling station east of approximately milepost 25 of the pipeline,[142] and a

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[135] N.J. Admin. Code § 7:9B-1.12(d),(g).

[136] The Atlantic sturgeon is a federally listed species with five DPSs, one of which is listed as threatened, and four of which are listed as endangered. Aggregations of the New York Bight DPS are closest to the Project area, with spawning populations found in the Hudson and Delaware Rivers, but the ranges of the other four DPS also overlap this area. *Id.* at 4-184.

[137] N.J. Admin. Code § 7:9B-1.12(d).

[138] *Id.* at 4-120, 4-184 – 4-192.

[139] EIS, *supra* note 11, at 4-191 (emphasis in original).

[140] EIS, *supra* note 11, at 4-101.

[141] *Id.*

[142] *Id.*

portion of the pipeline would cross a Special Permit Area where the Department issues permits for the harvest of surf clam.[143]

Other clams, such as the hard clam, could be similarly affected. NJDEP has identified populations of hard clam at nearly every sampling station westward of milepost 25, and were found in abundance in the majority of Raritan and Sandy Hook Bays[144] Soft clam and blue mussel were also observed in the Project Area.[145]

Horseshoe crabs, also found in the Project Area, are also vulnerable. Horseshoe crabs are an ecologically and economically important species—They are harvested for use as bait in commercial American eel and conch fisheries, and for their blood, which is used in the biomedical industry. Additionally, horseshoe crab eggs and larvae are an important food source for migratory birds, other crab species, and several gastropods, and serve as common prey for the sea turtles and finfish, including striped bass, white perch, American eel, killifish, silver perch, weakfish, Atlantic silverside, summer flounder, and winter flounder.[146]

Unfortunately, the population of horseshoe crabs, once abundant in Raritan Bay and the New York-New Jersey Harbor, has declined substantially in recent decades—the population remains at about 25 percent of its carrying capacity and there is no sign of sustained recovery for the population.[147] Construction of the pipeline may further injure the already weakened population. Juvenile, adult, and larval life stages of the horseshoe crab may be present in the construction areas.[148] According to the environmental impact statement, horseshoe crabs in the Project area may be injured or killed by excavation through the temporary loss of foraging habitat.[149]

This decline has demonstrably affected animals who rely on the crab as a food source. For example, as a consequence of the horseshoe crab's dwindling population, the population of the East Coast red knot, a migratory shorebird, has plummeted, from more than 100,000 in the 1980s to only about 30,000 today.[150] Wildlife biologists in New Jersey have expressed concern that without stronger protections to the horseshoe crab, the East Cost Red knot could go

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[143] *Id.*

[144] *Id.*

[145] *Id.*

[146] *Id.* at 4-103.

[147] *Id.*

[148] *Id.* at 4-118.

[149] *Id.*

[150] Lisa W. Foderaro, *A Bird, a Crab and a Shared Fight to Survive*, N.Y. TIMES, Jun. 5, 2012, https://www.nytimes.com/2012/06/06/nyregion/red-knots-horseshoe-crabs-and-fight-to-survive-in-delaware-bay.html; *see also* U.S. Fish and Wildlife Service, *Modeling a Future for Horseshoe Crabs and Red Knots*, Nov. 30, 2016, https://www.fws.gov/news/blog/index.cfm/2016/11/30/Modeling-a-Future-for-Horseshoe-Crabs-and-Red-Knots.

extinct.[151] Similar cause-and-effect relationships between the health of prey and predator populations are likely present throughout the New York-New Jersey Harbor Estuary ecosystem.

Despite the expected injury to the horseshoe crab population, Transco has not proposed species-specific mitigation measures for horseshoe crabs.[152] In fact, to protect the existing horseshoe crab population, NJDEP recommended that no construction activities take place nearshore or offshore between April 15 and September 15.[153] Despite this recommendation, Transco has requested that construction activities be allowed near the Morgan shore during the recommended horseshoe crab time of year restriction.[154] While the environmental impact statement claims that potential impacts would be reduced by Transco's effort to "minimize seafloor disturbance to the extent practicable," the implementation of "best management practices during construction" (e.g., use of an environmental bucket during all clamshell dredging), and "backfilling with clean material where necessary," these mitigation measures would still not prevent turbidity blooms or suspended sediment from injuring these animals.

Harm to specific populations is not limited to the illustrative sample described here. Notably, construction of the pipeline will interfere with important times of year for the following species:

- River herring:
    - From June 1 – 30, against the recommendation of the NMFS, clamshell dredging would overlap with spawning migration of river herring.[155]
- Winter flounder:
    - From December 15 – January 30, reinstatement of the channel crossing and backfilling would interfered with the spawning of winter flounder, a species that NMFS has identified as a sensitive resource.[156]

Transco's water quality certification application acknowledges that this detrimental effect on aquatic species populations "could potentially impact recreational and commercial fishing in the Project area and, by extension, the seafood industry by either reducing the abundance of commercial fish communities or interfering with fishers' access to commercial fishing grounds,"[157] impairing the use of the affected area for recreational, sports, and commercial fishing.

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[151] *Id.*

[152] EIS, *supra* note 11, at 4-118.

[153] *Id.*

[154] *Id.*

[155] EIS, *supra* note 11, at 4-120, t. 4.5.2-7.

[156] *Id.* at 4-120, t. 4.5.2-7.

[157] Transco, Joint Application to the New York State Department of Environmental Conservation Northeast Supply Enhancement Project 4-34 (2018).

Conclusion

Transco has failed to make a compelling case for how, despite the acknowledged increase in suspended solids and toxic contaminants and the loss of aquatic life, the project would still be in compliance with state water quality standards. For this reason, we ask that New Jersey takes a hard look at Transco's application and denies the water quality certification application for the Northeast Supply Enhancement pipeline.

Sincerely,

Kimberly Ong
Senior Attorney