

New Jersey does not want NESE, and New York does not need NESE

NJDEP should reject Williams/Transco's third set of NESE applications for water permits.

WHY?

- The applications for water permits do not meet state standards.
- The NESE Project fails to preserve, protect and enhance our natural resources.
- The NESE Project would harm public health, safety and the general welfare.
- NESE would not provide benefit to NJ or the municipalities, and there is no proof that NY needs more gas.

PEOPLE & GOVERNMENT GROUPS HAVE SPOKEN

- (1) The Town Councils/Committees of Franklin Township, Montgomery, South Brunswick, and Princeton (around the proposed Compressor Station 206) and Aberdeen, Atlantic Highlands, Hazlet, Highlands, Holmdel, Keansburg, Keyport, Long Branch, Matawan, Middletown, Rumson, Sea Bright, and Union Beach (around the proposed Raritan Bay Loop pipeline), along with the Freeholders from Somerset and Monmouth Counties, have adopted resolutions opposing the Northeast Supply Enhancement Project due to risks about safety and health, and the Freshwater Wetlands Protection Act Rules require the Department to determine if the Northeast Supply Enhancement Project is in the "public interest" and that there is a "compelling public need" for it after considering, among other things, the "probable individual and cumulative impacts of the regulated activity on public health and fish and wildlife".
- (2) On May 15, 2019, the New York Department of Environmental Conservation conditionally denied Williams/Transco a Water Quality Certification because the Project, as currently conceived, would likely have significant Water Quality impacts in New York State.

"[A]s currently conceived, construction of the Project would likely have significant water quality impacts in New York State. This includes significant water quality impacts from the resuspension of sediments and other contaminants, including mercury and copper. In addition, as currently proposed, the Project would cause impacts to habitats due to the disturbance of shellfish beds and other benthic resources. ... [B]ased on the information currently available, the Department is unable to determine that Transco has demonstrated that construction and operation of the Project would comply with applicable water quality standards." Additionally, "Transco has not provided sufficient documentation to the Department that any reduction in the rate of dredging to comply with water quality standards would be possible within applicable specified protection work windows."

Williams/Transco submitted a new application to New York on May 17, 2019.

- (3) On June 5, 2019, the New Jersey Department of Environmental Protection conditionally denied NESE permits for Freshwater Wetlands, Flood Hazard Area, Waterfront (in-water and upland), and Coastal Wetlands with Water Quality Certification.

"Specifically, Transco has not demonstrated, based on facts specific to its application, that the proposed regulated activity will serve an essential health or safety need of the municipality in which the activities are proposed, that the proposed use is required to serve existing needs of the residents of the State, and that there is no other means available to meet the established public need." - violates Freshwater Wetlands Protection Act Rules, N.J.A.C. 7:7A.

"Accordingly, the available information indicates that the proposed dredging could adversely impact surface water quality and that Transco has not sufficiently demonstrated how it would avoid adverse impacts to surface water quality." - violates Coastal Zone Management Rules, N.J.A.C. 7:7-12.7.

"Transco did not provide modeling to show that turbidity concentrations and water quality parameters for the identified chemicals of concern downstream and upstream of the dredging site will meet the SWQS." - violates Coastal Zone Management Rules, N.J.A.C. 7:7-12.7.

"... it has not been demonstrated that there are no practicable alternatives to the access road and that there is no alternative design for CS 206 and the proposed detention basin." "Transco has not adequately demonstrated that the proposed access road to the CS 206 site from the Franklin Georgetown Turnpike could not be accomplished without clearing, cutting or removing riparian zone vegetation of three unnamed tributaries of Carters Brook." - violates Flood Hazard Control Act, N.J.A.C. 7:13-11.2 and Freshwater Wetlands Protection Act Rules, N.J.A.C. 7:7A-10.2(b) and (c) 1 through 4.

Williams/Transco submitted new applications to New Jersey on June 12, 2019, and these were announced in the DEP Bulletin on July 3, 2019.

- According to NJDEP, the June 2019 applications show that construction of and access to the proposed Compressor Station 206 would adversely affect freshwater wetlands and transition areas, and Williams/Transco has still not demonstrated that no practicable alternative exists.
- According to the DEP's 7/12/19 letter, Williams/Transco needs to provide additional data to account for discrepancies in soil types between Soil Survey and geotechnical investigation reports that are needed to establish groundwater recharge and existing runoff conditions at the CS206 site.
- According to NJDEP, Williams/Transco did not adequately show how it would avoid adverse impact to surface water quality from dredging for the proposed Raritan Bay Loop.

Offshore Issues

The construction of the proposed pipeline will result in significant negative impacts to marine fish and fisheries though:

- increased turbidity
- re-suspension of toxin-laden sediment
- noise impacts
- hydrostatic testing

Furthermore, Williams/Transco has **shortened its proposed in-water construction timetable** from 12 to 7-8 months, and does not appear to be able to comply with necessary time of year restrictions that exist to protect fisheries and marine fish, having requested and been granted some flexibility for constructing during time of year restrictions for threatened and endangered species.

Construction of the Madison and Raritan Bay Loops of the NESE Project would affect 3,843.6 acres of land (3,726.5 offshore + 117.1 on land) according to FERC's 1/25/19 FEIS (pg. 2-9).

Construction of the Raritan Bay Loop would inhibit travel of commercial and recreational vehicles in the Bay for seven to eight months, 24/7 within the **14,165.5 acre construction workspace** footprint.

The process of installing the pipeline will disturb the toxic-laden sediments at the bottom of the Raritan Bay which will smother marine life dwelling on the floor and elsewhere. The construction of the Raritan Bay Loop in New Jersey, New York and Federal waters would **directly disrupt 87.8 acres of seafloor which now provides cover to years of toxics such as PCBs, mercury and copper** that would be unearthed and result in deposition of toxics on the seafloor.

The proposal to build approximately six miles of pipeline under the Raritan Bay in NJ waters (out of a 23.49 mile pipeline in the NY Bight) will quite likely end up re-releasing arsenic, lead, PCBs and other toxic substances in the sediment back into the Bay. The resuspension of toxic-laden sediments, throughout the dredging and drilling process as well as through the discharge of drilling muds, hydrostatic testing, vessel anchoring and operations, will **significantly degrade the water quality** of the Raritan Bay and result in concentrations, harmful to fish and shellfish, that are detrimental in the short- and long-term.

Construction of the Raritan Bay Loop of NESE will **unearth and re-suspend toxic-and-pathogen-laden sediment.**

- NESE's Final Environmental Impact Statement revealed that construction of the Raritan Bay Loop would result in the **resuspension of 1,091,734 cubic yards of toxic-laden sediment.**
- The re-suspended fine-grain sediments will not readily resettle and contain known harmful chemicals such as heavy metals, methylmercury, dioxin, and others.
- The re-suspended contaminants will affect habitat quality and risk contamination of fishery resources.
- The seafloor would be covered by over 1.2 inches of sediment - known to include harmful pollutants - on areas up to 21.7 acres (from clamshell dredging), up to 3.7 acres (from use of a hand jet and submersible pump/suction dredge), and over 183.2 acres (from backfilling over the pipeline).

- Thinner deposits of 0.12 inches or more would cover over 251.7 acres from excavation and another 695.7 acres for backfill (total of 947.4 acres).
- 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.
- The redistribution of sediments that fall from suspension will bury benthic and demersal species, resulting in mortality of eggs and other life stages, including winter flounder that spawn in shallow, inshore waters in the project area. The FEIS specifically notes that eggs and larva of this species could be directly affected by excavation or by smothering in toxic-laden sediments during construction.
- The FERC FEIS indicates that when benthic habitat is physically disrupted from dredging and smothering, the community can be expected to recolonize in roughly 1-3 years. However, this estimate does not account for the toxic-laden sediment which will now be unearthed, impacting the benthic layer and its viability as potential habitat for marine life.
- If absorbed by phytoplankton, the contaminants risk bio-accumulation throughout the food chain and will significantly impair fish populations and the fishing industry which depends on these species.
- Bottom dwelling marine life in or near the excavation will be exposed to toxins and therefore significantly harmed. Dredging up buried industrial toxins (like arsenic, lead, zinc and mercury) and organic compounds (PCBs, DDT, dioxins) from the seabed will poison fish, shellfish and marine life in the Raritan and Sandy Hook Bays. Recovery from such sedimentation for bottom-dwelling species such as surf clams 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.
- Construction of the pipeline would cause over 134 acres of NJDEP sport ocean fishing grounds to be subjected to some level of additional sedimentation. 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.

Construction of the Raritan Bay Loop of NESE would **increase turbidity**. The sediment resuspension and subsequent increase turbidity will result in direct and indirect adverse impacts on designated essential fish habitat.

- Increases in turbidity can affect fish physiology and behavior which may impair migration, breeding, spawning and development.
- Potential physiological effects from increase turbidity include mechanical abrasion of surface membranes, delayed larval and embryonic development, reduced bivalve pumping rates, and interference with respiratory functions.

Construction of the Raritan Bay Loop would **go through the Raritan Bay Slag Superfund site**, specifically in Area 7 (Morgan Shore Approach HDD exit pit) and pipeline pre-lay trenching for about 1,000 feet in Area 11.

- Offshore samplings of sediment by Williams/Transco near the Morgan Shore portion of the pipeline showed a greater number of exceedances of established thresholds for several contaminants including dioxins, polychlorinated biphenyls, and heavy metals, such as mercury.
- Disruption of this soil will push contaminated soil into the bay and further impact water quality and human health.
- The currents in Raritan Bay will ensure that not all re-suspended sediment will fall back down to the seafloor, but will continue to mix in the water column.

Williams/Transco intends to **discharge over 690,000 gallons of drilling fluid into** the water of the Bay.

- Williams/Transco has indicated that it will use **biocides**, which will contaminate the water quality and impact the food chain, increasing the impairment for fishing and shellfishing in these areas.

The process for the **hydrostatic testing** will also result in negative impacts to fisheries by killing fish eggs and larva, as well as by further disturbing the benthic habitat and layer of the Raritan Bay.

- During the process, a hose would be placed into the bay which will syphon up 3.5 million gallons of water. The water will be syphoned at an extremely fast rate of 2,350 gallons per minute. The water will be filtered through a mesh screen before entering the pipeline. The position of the water intake will be halfway into the water column or at least 10 feet below the surface. Importantly, the Raritan Bay is a shallow waterway.

- Therefore, due to the proximity of the intake, the shallowness of the water and the pressure of the intake, the benthic layer will be significantly disturbed. Juvenile and early stage adult fish and invertebrates could be impinged on the intake screens and zooplankton (including plankton) could be entrained or entrapped.
- This will result in increased re-suspension of toxic sediment, increased turbidity, and the destruction of all larva and eggs near the intake.

Williams/Transco plans to **release water, treated with a known toxin**, used in hydrostatically testing the pipeline into the bay.

- Their plan involves releasing 3.2 million gallons of seawater that was treated with the toxic chemical CORRTREAT 15316.
- According to the Environmental Protection Agency, CORRTREAT 15316 is a highly toxic substance harmful to humans and marine life.
- Clariant, the manufacturer of CORRTREAT specifically notes on its Safety Data Sheet that **“the product should not be allowed to enter drains, water courses, or the soil.”** [Clariant, Safety Data Sheet: CORRTREAT 15316. Pg. 4. Available at https://www.epa.gov/sites/production/files/2018-02/documents/tx0134060_sds.pdf]

The construction of the Raritan Bay Loop would **cross 8.1 miles of the Raritan Bay Significant Habitat Complex**; and it would **cross 7 recreational fishing grounds** in NJ and NY waters that are designated as “prime fishing areas”.

- The redistribution of sediments that fall from suspension, will bury benthic and demersal species, resulting in mortality of eggs and other life stages, including winter flounder that spawn in shallow, inshore waters in the project area.
- The resuspension of toxic sediment will result in bioaccumulation for osprey and bald eagle populations through ingestion of contaminated marine life.
- There was no analysis provided to document anticipated synergistic effects of exposure to a combination of toxins to any marine species (benthic or pelagic, migratory or otherwise).

Applications for NESE do not meet State requirements

When the NJDEP denied Williams/Transco their permits on June 5, 2019, one of the reasons was that Williams/Transco did not sufficiently demonstrate how they would avoid adverse impacts to surface water quality.

Williams/Transco’s plans for the Raritan Bay Loop would include dredging that would impact surface water quality. More specifically, the NJDEP noted that dredging would exceed applicable surface water criteria for toxic substances - Bis(2-Ethylhexyl)phthalate, Phenanthrene, Arsenic, Manganese, Mercury, PCBs, and 4,4’-DDE (pesticides).

Additionally, NJDEP noted that Williams/Transco did not provide modeling to show that the turbidity concentrations and water quality parameters for the identified chemicals of concern downstream and upstream of the dredging site will meet the surface water quality standards (SWQS).

Thus, the application for a Waterfront Development Individual Permit and Water Quality Certification failed to meet applicable Surface Water Quality Standards at N.J.A.C. 7:9B and the conditions noted in the Coastal Zone Management Rules at N.J.A.C. 7:7-12.7.

REGULATORY CONSIDERATIONS

1. Under the **Coastal Zone Management Rules**, at N.J.A.C.7:7-9.5(c), development which lowers the water quality to such an extent as to interfere with the movement of fish along migratory pathways is prohibited.
 - The construction of the Raritan Bay Loop would threaten to harm marine mammals' communication, navigation, travel, feeding and breeding with noise from construction as well as increased turbidity in the water, and it would kill (smother and poison) benthic communities from dredging and backfilling activities. Construction of NESE's Raritan Bay Loop will impact the endangered Atlantic sturgeon's migratory pathway, and harm to Atlantic sturgeon, which is a benthic feeder, includes exposure to re-suspended contaminants, bioaccumulation of toxins from contamination of benthic invertebrates, seafloor and benthic habitat disturbances, noise, and vessel strikes.
2. According to the **Coastal Zone Management Rules** in N.J.A.C. 7:7-9.39(b), "Development of endangered or threatened wildlife or plant species habitat is prohibited unless it can be demonstrated, through an endangered or threatened wildlife or plant species impact assessment as described at N.J.A.C. 7:7-11, that endangered or threatened wildlife or plant species habitat would not directly or through secondary impacts on the relevant site or in the surrounding area be adversely affected."
3. Currently, NOAA's National Marine Fisheries Service (NMFS) determined that the NESE Pipeline may affect, and is likely to adversely affect the right whale, fin whale, and Atlantic sturgeon. Therefore, formal consultation pursuant to the **Endangered Species Act** has been requested. Until consultation is finalized, the impacts to these species are unknown. [NOAA National Marine Fisheries Service. Revised Determination of Effect and Request for Consultation. Feb. 7, 2019.] Additionally, Williams/Transco has requested permission to harm the hearing of 7 gray seals and 16 harbor seals from construction noise, and they expect to harass endangered species from this noise – 30 humpback whales, 5 fin whales, and 2 North Atlantic right whales.
4. Construction of the Raritan Bay Loop of NESE would violate **NJ's Surface Water Quality Standards**.
 - Construction of the Raritan Bay Loop 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 Surface Water Quality Standards - N.J.A.C. 7:9B-1.12(d).
 - 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 N.J.A.C. 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 N.J.A.C. 7:9B-1.14(d)(12).
 - Resuspended sediment could also exceed numerical criteria for several contaminants, including mercury and copper, as set forth in N.J.A.C. 7:9B-1.14(d).
 - 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, set forth in N.J.A.C. 7:9B-1.14(f)(7),(g).
5. **According to N.J.A.C. 7:7A, Freshwater Wetlands Protection Act Rules**, the Department may not issue a Freshwater Wetlands permit unless the Project
 - will not cause or contribute to a violation of any applicable State water quality standard;
 - will not cause or contribute to a violation of any applicable toxic effluent standard or prohibition imposed pursuant to the Water Pollution Control Act;
 - will not cause or contribute to a significant degradation, as defined at 40 C.F.R. 230.10(c), of ground or surface waters;
 - is in the public interest, as determined by the Department in consideration of the following: The extent and permanence of the beneficial or detrimental effects which the proposed regulated activity may have on the public and private uses for which the property is suited; and
 - will not involve a discharge of dredged material or a discharge of fill material, unless the material is clean, suitable material free from toxic pollutants in toxic amounts, which meets Department rules for use of dredged or fill material.

According to the Coastal Zone Management Rules, **N.J.A.C. 7:7** (last amended March 6, 2019) - **7:7-12.7 New dredging**

(c) New dredging is conditionally acceptable in all general water areas for boat moorings, navigation channels, anchorages, or submerged cable or pipelines provided:

10. The new dredging shall be accomplished consistent with all of the following conditions, as appropriate to the dredging method:

iii. Turbidity concentrations (that is, suspended sediments) and other water quality parameters at, downstream, and upstream of the dredging site, and discharges from dredged material management areas (see N.J.A.C. 7:7-9.49) shall meet applicable Surface Water Quality Standards at N.J.A.C. 7:9B. The Department may require the permittee to conduct biological, physical, and chemical water quality monitoring before, during, and after dredging and disposal operations to ensure that water quality standards are not exceeded

Onland Issues

In New Jersey, the Northeast Supply Enhancement Project would result in a **permanent loss of**:

- 3.9 acres of wetlands,
- 14.5 acres of forest, and
- 8.5 acres of upland vegetation.

Construction of the NESE Project would disturb another:

- 10 acres of wetlands (6+ of which are designated as exceptional value resources) and
- 65.8 acres of upland vegetation (37.1 open acres + 28.7 acres of forest).

Forests help to address stormwater runoff, and the Department considers impacts to forested areas to be permanent if not restored within six months. Recovery of forested areas that are not permanently removed could take 50+ years, so the **real permanent loss of forested area in NJ would be 43.2 acres.**

The NESE Project in New Jersey would **cross 14 streams/waterbodies** (8 for the pipeline & access road, and 4 in construction worksites) and **cross 5.2 Flood Hazard acres** onland.

The Compressor Station 206 site is in the **Millstone Watershed** which is designated as impaired, and no new construction there can impair this watershed further.

Plans for construction of an infiltration basin to control stormwater runoff at the CS206 site need to meet requirements of **Dam Safety Standards** at N.J.A.C. 7:20. Williams/Transco initially submitted an application for a Dam Safety Permit in April/May 2019 – nearly one year after they submitted their second application for water permits to the Department on June 20, 2018 - and they continue to submit changes in plans to address concerns about the application expressed to them by the Department.

Construction of the Madison and Raritan Bay Loops would cross or be next to **toxic or Superfund sites** such as the Raritan Bay Slag & Global Sanitary Superfund Sites and E.I. DuPont DeNemours & Co.

Construction of the onland pipeline would go through **acid producing soils**, rendering re-vegetation extremely problematic, potentially exacerbating erosion and excess stormwater runoff.

Applications for NESE do not meet State requirements

When the NJDEP denied Williams/Transco their permits on June 5, 2019, one of the reasons was that Williams/Transco did not prove that there were no practicable alternatives to construction of Compressor Station 206 and its associated infiltration basin and access road such that clearing of exceptional resource value transition areas, wetlands and forest areas would be avoided.

Thus, the application does not comply with the requirements of the Freshwater Wetlands Protection Act Rules as specified in N.J.A.C. 7:7A-10.2(b) 1 and 2.

Additionally, the application does not comply with the Flood Hazard Area Rules at N.J.A.C. 7:13-11.2 since Williams/Transco did not demonstrate a full exploration of the use of the Higgins Farm EPA access road instead of the proposed access road which, if used, would eliminate clearing, cutting or removing riparian zone vegetation of three unnamed tributaries to Carters Brook.

REGULATORY CONSIDERATIONS

1. Given the likely presence of acid producing soil in the areas where HDD is proposed, the permit applications to NJDEP do not meet the **Goals of the Stormwater Management Act Rules** for stormwater management planning found at N.J.A.C. 7:8-2.2(a)(1) - Reduce flood damage, including damage to life and property or N.J.A.C. 7:8-2.2(a)(3) - Reduce soil erosion from any development or construction project. As has been noted in my prior comment and those of others, excavation in acid producing soils leads to poor revegetation possibility which then threatens increased risk of erosion and flooding.
2. **According to the Coastal Zone Management Rules, N.J.A.C. 7:7-9.39(a)**, “Special hazard areas include areas with a known actual or potential hazard to public health, safety, and welfare, or to public or private property, such as the navigable air space around airports and seaplane landing areas, potential evacuation zones, and areas where hazardous substances as defined at N.J.S.A. 58:10-23.11b are used or disposed, including adjacent areas and areas of hazardous material contamination.” (*underlining added*)
3. **According to N.J.A.C. 7:7A, Freshwater Wetlands Protection Act Rules**, the Department may not issue a Freshwater Wetlands permit unless the Project -
 - will not cause or contribute to a violation of any applicable State water quality standard;
 - will not cause or contribute to a violation of any applicable toxic effluent standard or prohibition imposed pursuant to the Water Pollution Control Act;
 - will not cause or contribute to a significant degradation, as defined at 40 C.F.R. 230.10(c), of ground or surface waters;
 - is in the public interest, as determined by the Department in consideration of the following: The extent and permanence of the beneficial or detrimental effects which the proposed regulated activity may have on the public and private uses for which the property is suited;
 - will not involve a discharge of dredged material or a discharge of fill material, unless the material is clean, suitable material free from toxic pollutants in toxic amounts, which meets Department rules for use of dredged or fill material; and
 - in accordance with N.J.A.C. 7:7A-2.7, is part of a project that in its entirety complies with the Stormwater Management rules at N.J.A.C. 7:8.
4. With planned trenching and HDD construction of parts of the Madison Loop through or near toxic sites, the applications for permits for the NESE Project do not meet the **Goals of the Stormwater Management Act Rules** for stormwater management planning found at N.J.A.C. 7:8-2.2(a)(6) - Prevent, to the greatest extent feasible, an increase in nonpoint pollution.
5. Considering the inappropriate and/or incomplete data about soils and geology constraints for the proposed retention basins and the tie-in pipeline at Compressor Station 206, and incomplete consideration of alternative sites for Compressor Station 206 that would not involve a wetland or have less adverse impact on the aquatic ecosystem, the permit applications for the NESE Project do not meet all the **conditions listed in N.J.S.A. 13:9B-9, the Freshwater Wetlands Protection Act**.
6. Considering the identified issues with the design of the infiltration basin at the Compressor Station 206 site, and lack of consideration of the immediate and long-term impacts from all of NESE’s pipeline construction, the applications for water permits for the NESE Project do not meet the **Goals of the Stormwater Management Act Rules** for stormwater management planning found at N.J.A.C. 7:8-2.2(a).

Greenhouse Gas Issues

Building and operating a 32,000 horsepower gas-fired compressor station and 23.49 miles of offshore pipeline that will have a 50-60 year minimum useful life will create an unneeded but available supply of natural gas at a time when we have acknowledged the need for drastic emission reductions. This Project goes against the renewable energy goals of New Jersey & New York, and will see renewables continue to be blocked from fair market entry.

Construction and operation of the compressor station and pipelines that are part of the NESE Project would exacerbate climate change and increase the severity and intensity of the impacts associated with it.

FERC acknowledged the **specific vulnerability of New York City to climate change** by listing projected changes on page 4-388 in the FEIS (1/25/19) for NESE:

	By 2020	By 2050
average temperature would increase from 54 °F	to 57 °F	To 61 °F
Coastal flooding would increase by up to	1.5 percent	3.6 percent
100-year flood heights		reaching 13.8 feet
number of days per year with rainfall exceeding 2 inches would increase from 3 to	up to 5 days	up to 4 days
Precipitation would increase	up to 10 percent	up to 13 percent
Sea level rise would increase by as much as	10 inches	30 inches

New Jersey is an **Ozone Compromised Region**, and the proposed Compressor Station 206 would emit 33.41 tons of Methane (CH₄) and a projected 3.29 tons of Nitrous Oxide (N₂O) every year, and this does not include methane leaked from the pipelines.

Compressor stations and gas pipelines leak methane – the most potent short-term greenhouse gas.

Even over CO₂'s average 100-year lifetime in the atmosphere, methane yields 25 to 32 times the global warming potential of CO₂. Methane is a much more potent greenhouse gas than CO₂, producing 84 times the global warming potential (GWP) of an equivalent weight of CO₂ over a 20-year period. Nitrous oxide is worse still, creating 298 times the global warming potential of CO₂ over a 100-year period, as well as causing depletion of stratospheric ozone, leading to more sun burns and skin cancer.

In short, methane and nitrous oxide are much worse greenhouse gases than CO₂, especially when we consider the speed with which we need to act. CO₂ is only considered to be the most damaging greenhouse gas emission because there is so much more of it emitted worldwide.

NESE's Applications & reviews clearly omitted assessing actual greenhouse gas (GHG) emissions, both initially and cumulatively, for the impact on Central New Jersey from Compressor Station 206 (CS206).

Yearly Emission Estimates for Compressor Station 206	
Greenhouse Gas Equivalent (CO₂e)	136,143 tons per year
• Methane (CH₄, most impacting GHG)	more than 33.41 tons every year *
• Carbon dioxide (CO₂)	claimed est. 130,943 tons every year
• Nitrous oxide (N₂O)	claimed est. 3.29 tons every year

** Note: Any accounting for fugitive emissions (leaks) is likely grossly underestimated.*

The threshold for comparing this to the Prevention of Significant Deterioration (PSD) threshold of 75,000 tons per year of emissions of 132,720 tons of Greenhouse Gas Equivalent per year (as noted in the application) was not triggered because CS206 was not considered a major source for the NJDEP.

According to NOAA / NASA, 2018 was the 4th warmest year on record (since 1880). "2018 is yet again an extremely warm year on top of a long-term global warming trend," said GISS Director Gavin Schmidt.

July 2019 was the hottest month on record.

Since the 1880s, the average global surface temperature has risen about 2 degrees Fahrenheit (1 degree Celsius).

This warming has been driven in large part by increased emissions into the atmosphere of carbon dioxide and other greenhouse gases caused by human activities, according to Schmidt.

Accessed at: <https://www.nasa.gov/press-release/2018-fourth-warmest-year-in-continued-warming-trend-according-to-nasa-noaa>

The leakage of methane from pipelines and methane release of will contribute to ongoing climate change with real impacts to New Jersey. The construction of new fossil fuel infrastructure will hamper New Jersey’s clean energy goals and is against the State’s Global Warming Response Act goals.

Health Issues

In addition to threats to health from the toxic emissions from the gas-fired compressor station units, the NESE Project’s impact on climate change would also harm our health, security and economy from leaking and burning of natural gas - more significant flooding, hurricanes, heat waves, air and water temperature increases, other health risks and the likelihood of infectious diseases and stress, and displacement.

- Extreme weather events not only result in damage to property, businesses, infrastructure and the environment, but also trigger stress and depression in people and are associated with costly health risks like water borne infections as well as increases in dampness and mold that trigger more allergies and respiratory disorders. Milder, shorter winters have increased the population of disease-carrying insects in our area. Longer and wetter seasons lead to more asthma, allergies and respiratory disorders. Flooding events are a pathway for pollution and bacteria to enter our waterways.
- As the climate warms and atmospheric carbon dioxide increases, the amount and potency of the allergens like ragweed and airborne fungi increases, with significant consequences for exacerbating asthma and other forms of respiratory distress.
- Other consequences could include higher cooling costs and a heightened risk of heat stroke.
- Warmer temperatures will also exacerbate the risk of vector-borne diseases like Lyme and West Nile

Toxins from the proposed Compressor Station 206

The Department and FERC have denied requests to conduct a Health Impact Assessment around the site of the proposed Compressor Station 206 even though the emissions will contain cancer-causing elements; the Department adopted more stringent reporting thresholds for HAPs after issuing an Air Pollution Permit for Compressor Station 206 under the less protective standards; and the emissions from Compressor Station 206 will exceed the levels of the new, more protective HAPs standards. NJDEP determined that the compressor station would be a “minor” source of air pollution and, as such, the permit issued by the NJDEP was for each turbine as a separate unit rather than basing their decision on facility-wide emissions from two turbines at a site adjacent to another air polluting industrial facility – Trap Rock Quarry.

Williams/Transco reported that they expect the two gas-fired turbines at Compressor Station 206 to emit the following each year:

EMITTED CHEMICAL	POUNDS PER YEAR			
	Estimated Potential Emissions from Compressor Station 206		Reporting Thresholds (NJDEP)	
	from one turbine	from two turbines	<i>new</i>	<i>old</i>
			N.J.A.C. 7:27-17.9 (February 12, 2018)	N.J.A.C. 7:27-8 (February 27, 2015)
Formaldehyde	334	668.6	3.5	400
Acetaldehyde	44	87.84	21	1,800
Acrolein	7.02	14.06	1	8
Benzene	13.18	26.36	6	87.6 (0.01 lbs/hour)
Ethylbenzene	35.2	70.26	19	2,000
Naphthalene	1.428	2.856	1.4	2,000
Propylene Oxide	31.8	63.68	12	1,000
Toluene	142.5	285.46		2,000
Xylenes	70	140.54		2,000
Ammonia	14,790 *	29,580 *	* No threshold standards	

Formaldehyde

- Known Carcinogen
- Suspected gastrointestinal/liver, immune system, neuro, reproductive, respiratory, and skin/sense organ toxicant

Acetaldehyde

- Possible human carcinogen
- Suspected cardiovascular/blood, developmental, gastrointestinal/liver, neuro, respiratory, skin/sense organ toxicant

Acrolein

- Known irritant of eyes, skin, nasal passage & respiratory system
- Lethal if high level of exposure for short time

Benzene

- Known Carcinogen
- Recognized developmental and reproductive toxicants

Ethylbenzene

- Possible human carcinogen
- suspected blood/cardiovascular, developmental, endocrine, gastrointestinal/liver, kidney, neuro, reproductive, respiratory, and skin/sense organ toxicant

Naphthalene

- Possible human carcinogen
- Suspected cardiovascular/blood, developmental, gastrointestinal/liver, neuro, respiratory, skin/sense organ toxicant

Propylene Oxide

- Possible human carcinogen
- Known irritant of eyes, skin, nasal passage & respiratory system

Toluene

- recognized developmental toxicant
- suspected cardiovascular/blood, gastrointestinal/liver, immune system, kidney, neuro-, reproductive, respiratory, and skin/sense organ toxicant

Xylenes

- suspected cardiovascular, developmental, liver, immune system, kidney, respiratory, skin, reproductive, and immune system toxin

Ammonia

- Suspected gastrointestinal/liver, immune system, neuro, reproductive, respiratory, and skin/sense organ toxicant

Toxins from construction of the proposed Raritan Bay Loop

The re-suspension of toxic-and-pathogen-laden sediment and the discharge of chemically laden drilling fluid would have significant health impacts to the people of New Jersey. The toxins include **arsenic** which is known to cause a variety of cancers in humans. **Lead**, another heavy metal which samples found exceeded the state thresholds is proven to cause neurologic impairment, especially in children. The re-suspended **PCBs** will enter the food chain and have significant effects on human health. More than 90% of human exposure to PCBs is through food, including fish and shellfish.

The currents in both the Raritan and Lower New York Bays run counter-clockwise. Therefore, both the toxic-and-pathogen-laden sediment and the chemically laced drilling fluid will be caught by the currents and pushed toward the beach of the Bayshore towns. The pipeline construction is planned to go through Areas 7 and 11 of the Raritan Bay Slag Superfund Site where the slag is contaminated by known pollutants such as **lead, arsenic, antimony, copper, iron and chromium**. Other metal contaminants here include manganese, vanadium and zinc. EPA sampling has found contaminants in the soil and surface waters in these areas. These known harmful chemicals may make their way onshore, polluting the coast and impacting public health.

A release of 3.2 million gallons of seawater that was treated with **CORRTREAT 15316** from hydrostatic testing of the Raritan Bay Loop poses a threat to the health of people and marinelife. According to the Environmental Protection Agency, CORRTREAT 15316 is a highly toxic substance harmful to humans and marine life. Clariant, the manufacturer of CORRTREAT specifically notes on its Safety Data Sheet **that “the product should not be allowed to enter drains, water courses, or the soil.”** [Clariant, Safety Data Sheet: CORRTREAT 15316. Pg. 4. Available at https://www.epa.gov/sites/production/files/2018-02/documents/tx0134060_sds.pdf]

REGULATORY CONSIDERATIONS

NESE does not serve essential health or safety needs of the municipality in which the proposed regulated activity is located, and the proposed use does not serve existing needs of the residents of the State.

Reference: **Freshwater Wetlands Protection Act Rules 7:7A-1.3 Definitions**

“Compelling public need” means that based on specific facts, the proposed regulated activity will serve an essential health or safety need of the municipality in which the proposed regulated activity is located, that the **public health** and safety benefit from the proposed use and that the proposed use is required to serve existing needs of the residents of the State, and that there is no other means available to meet the established public need.

NJDEP may only issue a Freshwater Wetlands Individual Permit if the agency determines that the regulated activity is **in the public interest** after considering the “functions and values provided by the freshwater wetlands and probable individual and cumulative impacts of the regulated activity on **public health** and fish and wildlife.” [N.J.A.C. 7:7A–10.2(b)12vii]. The term “public health” requires the Department to consider the potential safety and air pollution impacts of proposed Compressor Station 206, Madison Loop and the Raritan Bay Loop as part of its “public interest” analysis.

Safety Issues

Natural gas is primarily methane. This gas is highly flammable and explosive, and it is extremely risky when traversing over pipeline segments through New Jersey that were installed in 1950 (Mainline A) and 1969 (Mainline C).

Data and plans about addressing the risks of and preventing catastrophic accidents from increased corrosion and leaks on components of the compressor station and the pipelines have not been fully disclosed by Williams/Transco; and explosions, fires and leaks would likely contribute to degradation of water quality and impact wetlands.

Franklin Township received a report from a local resident and pipeline engineer expert through its Franklin Township Task Force (FTTF) detailing and identifying the real erosion and corrosion risks of Williams/Transco’s Mainline A and C segments traversing through Franklin Township due to the age of the pipelines. Another expert who reviewed the confidential CEII data (not publicly available) provided by Williams/Transco to FERC, concluded that he could not independently verify or evaluate Williams/Transco’s safety claims for their existing and proposed pipeline system since important information was missing. Data Parameters should have included pipe grade, thickness and diameter as well as maximum operating pressure (MAOP) that can change by pipe segment.

Williams/Transco has not provided any details to FERC or NJDEP regarding the current state of their aging pipeline segments, any reports of degradation of pipeline integrity, or any specific counter-measures taken over the past 50 years to abate the propagation of corrosion on its pipeline system despite Williams/Transco claiming to inspect mainlines A and C every 10 years.

Williams/Transco has a poor safety record in the management of its pipelines, compressor stations, and processing plants. In the past ten years, facilities of Williams/Transco have been cited for numerous violations for not following their own safety procedures, and they have reported at least 15 incidents of explosions and/or fires at their facilities to PHMSA.

Applications for NESE do not meet State requirements

When the NJDEP denied Williams/Transco their permits on June 5, 2019, one of the reasons was that Williams/Transco did not prove that there was a “compelling public need”, or, alternatively, an extraordinary hardship if the permits are denied for the NESE Project that would comply with the Freshwater Wetlands Protection Act Rules as specified in N.J.A.C. 7:7A-10.4.

NJDEP explained that Williams/Transco did not demonstrate (1) that the proposed NESE Project serves an essential health or safety need of the municipality in which it is proposed; (2) that the proposed NESE Project serves existing needs of residents of the State; and (3) that there is no other means available to meet the established public need.

REGULATORY CONSIDERATIONS

NESE does not serve essential health or safety needs of the municipality in which the proposed regulated activity is located, and the proposed use does not serve existing needs of the residents of the State.

***Reference:* Freshwater Wetlands Protection Act Rules 7:7A-1.3 Definitions**

“**Compelling public need**” means that based on specific facts, the proposed regulated activity will serve an essential health or safety need of the municipality in which the proposed regulated activity is located, that the public health and **safety** benefit from the proposed use and that the proposed use is required to serve existing needs of the residents of the State, and that there is no other means available to meet the established public need.

NJDEP may only issue a Freshwater Wetlands Individual Permit if the agency determines that the regulated activity is **in the public interest** after considering the “functions and values provided by the freshwater wetlands and probable individual and cumulative impacts of the regulated activity on **public health** and fish and wildlife.” [N.J.A.C. 7:7A–10.2(b)12vii]. The term “public health” requires the Department to consider the potential safety and air pollution impacts of proposed Compressor Station 206, Madison Loop and the Raritan Bay Loop as part of its “public interest” analysis.

Need Issues

There is no demonstrated need for NESE, and existing facilities can and will continue to meet energy demands in National Grid’s service territory.

Despite a moratorium after NYSDEC denied permits and not approving new & re-hook-up applications for gas, Williams/Transco and National Grid have failed to establish a “demonstrated need that cannot be satisfied by existing facilities.” The alleged purpose of the project is to bring an “incremental” amount of natural gas to National Grid’s service territory to meet winter heating needs. However, the need for this project has not been independently documented, and studies show existing facilities can currently meet the heating needs for the service territory. Williams/Transco and National Grid have claimed that the project is necessary to meet a 10% increase in natural gas demand over the next decade; however the projection is based on outdated information.¹ Independent studies contradict the claims of Williams/Transco and National Grids for these reasons:

- The New York Independent System Operator (NYISO), which maintains and regulates the state’s energy system, found that energy use in New York is expected to decrease over the next decade.²
- The Long Island Power Authority, which serves 1.1 million customers on Long Island, the Rockaways and Queens, has also forecasted flat energy demand until 2035.³
- New York City recently passed the most aggressive building energy efficiency standards in the nation. The Climate Mobilization Act will require buildings over 25,000 square feet to cut climate emissions by 40% by 2030 and 80% by 2050. Therefore, residential and commercial buildings will be required to invest in energy efficiency which will further decrease heating demands over the coming decades.
- According to the U.S. Energy Information Administration, from 2000 to 2050, natural gas consumption in the residential and commercial sectors will remain flat due to efficiency gains and population shifts which counterbalance demand growth.⁴

Williams/Transco's justification for the alleged increase in demand is based on the locally mandated elimination of heavy No. 6 and No. 4 fuel oil from use in residential boilers, from which Williams/Transco and National Grid claim they will convert roughly 8,000 customers per year to natural gas.⁵ This claim has also been questioned and challenged based on the following facts:

- All of the No. 6 boilers in New York City residential buildings were converted from heavy oil long ago.
- The New York City Housing Authority stopped using both No. 6 and No. 4 oil and converted to natural gas. Currently, the Housing Authority relies on natural gas for 98% of its heating needs.⁶
- The oil burners which convert to No. 2 oil will be required to use No. 2 oil mixed with biodiesel. New York City currently requires 5% biodiesel mixed with ultralow sulfur No. 2. In 2025, the standard increases to 10% and eventually 20% by 2034.⁷
- Less than 446 No. 4 oil boilers (which must be converted by 2030 under New York City regulations) exist in National Grid's service area. Even if all were converted to natural gas and not ultra-low sulfur No. 2 oil and biodiesel, this conversion does not require anything close to the 400 million cubic yards the applicant is seeking to bring to New York per day.⁸
- The remaining oil burners either use or will convert to ultra-low sulfur No. 2 oil, which can replace heavier dirtier home heating oil without any modifications to furnace systems. Due to the fact both No. 2 and biodiesel can be adopted without any modifications to home furnace systems, it acts as a true bridge to renewable energy and energy efficiency. Home and building owners will not need to invest in a new heating system and therefore will not be deterred from future distributed renewable energy investments or energy efficiency investments.

Thus, the projection and conversion statistics highlight how demand is currently met, and will continue to be met, through "existing facilities." Moreover, with the new focus and requirements in New York City, investments in energy efficiency will be expected. Energy efficiency is readily available and is a cheaper and more environmentally sound. Energy efficiency programs have proven to be the most cost effective means of both lowering rates and reducing carbon emissions.⁹

¹ 350 Brooklyn, *False Demand: The Case Against the Williams Fracked Gas Pipeline*. March 2019. *Available at* http://350.org/wp-content/uploads/2019/03/Stop_Williams_False_Demand.pdf

² New York Independent System Operator (NYISO), *Power Trends: New York's evolving Electric Grid 2017*, p. 12. The report's data is from the 2017 Load & Capacity Data Report, known as "the Gold Book."

³ LIPA, "Integrated Resource Plan and Repowering Studies – FAQs" (2017). *Available at* <https://www.lipower.org/wp-content/uploads/2016/10/Frequently20Asked20Questions20LIPA20201720IRP20and20Repowering20Reports1.pdf>

⁴ U.S. Energy Information Administration, *Annual Energy Outlook 2019* (Jan. 24, 2019) *Available at* <https://www.eia.gov/outlooks/aeo/pdf/aeo2019.pdf>, p. 82.

⁵ See, Mark Harrington, *supra*. National Grid's own proffered energy plan for 80% GHG reductions by 2050 calls for increased burning of natural gas for heating from 55% to 60% of heating sources. For natural gas GHG reductions, it primarily recommends converting half of all vehicles to electric by 2030. National Grid, *Northeast 80x50 Pathway* (June 15, 2018). *Available at* <http://news.nationalgridus.com/wp-content/uploads/2018/06/80x50-White-Paper-FINAL.pdf>.

⁶ City of New York, Local Law 43 of 2010 and Rules of the City of New York, Title 15, §§ 2-15(b)(2), (c)(1) and (d) *Available at* http://www.nyc.gov/html/dep/pdf/air/heating_oil_rule.pdf. The Rules were promulgated by the New York City Department of Environmental Protection ("NYCDEP"). In 2010, only one percent of buildings were using No. 4 and No. 6 heating oil – but those boilers' emissions were causing 86 percent of soot pollution in the City. D. Seamonds, D. Lowell, T. Balon, *The Bottom of the Barrel: How the Dirtiest Heating Oil Pollutes Our Air and Harms Our Health* (Environmental Defense Fund, 2016). *Available at* https://www.edf.org/sites/default/files/10085_EDF_Heating_Oil_Report.pdf.

⁷ See Local Law 119 of 2016. *Available at* https://www1.nyc.gov/assets/buildings/local_laws/ll119of2016.pdf; and NYC Department of Citywide Administrative Services, "New York City Submits Strong Comments to EPA Supporting Biodiesel," *Biodiesel Magazine* (Oct. 2017). *Available at* <http://www.biodieselmagazine.com/articles/2516181/new-york-city-submits-strong-comments-to-epasupporting-biodiesel>.

⁸ New York City adopted more comprehensive legislation in 2015, Local Law 38, that effectively bans the burning of No. 6 fuel oil for any purpose by January 1, 2020, and the burning of No. 4 fuel oil by January 1, 2030 (except that any boiler replaced before the deadline must use a cleaner fuel). City of New York. “Local Laws of The City of New York for the Year 2015, No. 38” (Apr. 16, 2015). *Available at* https://www1.nyc.gov/assets/buildings/local_laws/ll38of2015.pdf.

⁹ See, The Cost of Saving Electricity Through Energy Efficiency Programs Funded by Utility Customers: 2009 – 2015. Energy Analysis and Environmental Impact Division of Lawrence Berkeley National Laboratory. (June 2018). *Available at* http://eta-publications.lbl.gov/sites/default/files/cose_final_report_20180619_1.pdf.

REGULATORY CONSIDERATIONS

Freshwater Wetlands Protection Act - The NJDEP’s determination of “public interest” must consider the **“relative extent of the public and private need for the proposed regulated activity.”**

N.J.S.A. 13:9B-11(b) and N.J.A.C. 7:7A-10.2(b)12ii

The criteria for “need” for a project under the Natural Gas Act, governing FERC’s decisions, is distinct from the criteria from “need” under the Council on Environmental Quality (CEQ) regulations as well as the “public interest” under New Jersey’s Freshwater Wetlands and Water Quality Certificate Standards.

The NJDEP is bound by their regulations, formed under authorization of the Clean Water Act, and NJDEP is not bound by FERC’s regulations that are informed by the Natural Gas Act.

According to the Freshwater Wetlands Protection Act Rules, N.J.A.C. 7:7A-1.3, “Compelling public need” means that based on specific facts, the proposed regulated activity will **serve an essential health or safety need** of the municipality in which the proposed regulated activity is located, that the **public health and safety benefit** from the proposed use and that the proposed use is required to **serve existing needs of the residents of the State**, and that there is no other means available to meet the established public need.

N.J.A.C. 7:7A-10.4 Additional requirements for a non-water dependent activity in exceptional resource value wetlands or trout production waters

(a) If an applicant proposes a non-water dependent activity in wetlands of exceptional resource value or in trout production waters, the applicant, in addition to complying with all other requirements in this subchapter, shall also demonstrate either:

1. That there is a compelling public need for the proposed activity greater than the need to protect the freshwater wetland or trout production water, and that the need cannot be met by essentially similar projects in the region which are under construction or expansion, or which have received the necessary governmental permits and approvals; or

2. That denial of the permit would impose an extraordinary hardship on the applicant brought about by circumstances peculiar to the subject property.

The NESE Project does not meet the standards for “public interest” noted in N.J.S.A. 13:9B-11, the Freshwater Wetlands Protection Act when one looks at the need to preserve natural resources; the relative extent of the public and private need for the regulated activity; the practicability of using reasonable alternative locations and methods (e.g., renewable energy sources and energy efficiency initiatives); the economic value, both public and private, of the proposed regulated activity to the general area; and the ecological value of the freshwater wetlands and probable impact on public health and fish and wildlife.

Note:

Many points noted in this document, along with their references, are from FERC’s 1/25/19 Final Environmental Impact Statement for NESE, the 5/2/19 comments provided to the NJDEP by attorneys from Clean Ocean Action & the Natural Resources Defense Council, and the report by Suzanne Mattei (3/19/19), *False Demand: The case against the Williams fracked gas pipeline*. 350.org.
accessed at: http://350.org/wp-content/uploads/2019/03/Stop_Williams_False_Demand.pdf