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April 15, 2019

OVERSIGHT - THE ENVIRONMENTAL IMPACTS OF THE PROPOSED WILLIAMS PIPELINE

PRECONSIDERED RES. NO. :	By Council Members Constantinides and Richards
TITLE:	A resolution opposing the construction of the Williams Transco Northeast Supply Enhancement Project fracked gas pipeline across New York Harbor

I. INTRODUCTION

On April 15, 2019, the Committee on Environmental Protection, chaired by Council Member Costa Constantinides, will hold an oversight hearing on "The Environmental Impacts of the Proposed Williams Pipeline." The Committee will also hear Preconsidered Res. No. __, a resolution opposing the construction of the Williams Transco Northeast Supply Enhancement Project fracked gas pipeline across New York Harbor. The Committee expects to hear testimony from the Mayor's Office of Recovery and Resiliency; utility companies; public health, climate justice and environmental advocates; and interested members of the public.

II. BACKGROUND

The Northeast Supply Enhancement Project (NESE) is a gas pipeline that is proposed to run under the sea floor from Raritan Bay in New Jersey to connect with a pipeline offshore of the Rockaways in Queens. NESE is an expansion of the already existing Transcontinental Gas Pipeline, a pipeline that brings fracked and offshore natural gas from the Gulf coast of Texas, Louisiana, Mississippi, and Alabama, through Georgia, South Carolina, North Carolina, Virginia, Maryland, and Pennsylvania to deliver gas to the New Jersey and New York City area.[1] Totaling about 37 miles in length, 17.3 miles of which would be through New York waters, the planned track of the NESE runs parallel to already existing pipeline along the entirety of the proposed

[1] Kimberly Ong. "New York Denies Water Quality Certification to NESE Pipeline. Natural Resource Defense Council https://www.nrdc.org/experts/kimberly-ong/new-york-denies-water-quality-certification-nese-pipeline (last accessed April 5, 2019)

length.[2] The pipeline extension is estimated to cost over $900 million dollars, and is expected to be funded through ratepayer increases.[3]

III. CAPACITY, USAGE, AND SUSTAINABILITY

Williams Companies, Inc. ("Williams") is an energy company based out of Tulsa, Oklahoma. Williams is primarily focused on natural gas production and transportation, but also holds petroleum and electricity production assets.[4] It is the owner of the existing Transco network of pipeline, and the driving force behind the NESE expansion. This additional pipeline would increase capacity by 400 million cubic feet of natural gas per day.[5]

Opponents of the project respond that there is no compelling evidence that this increased capacity is necessary, noting that even during the polar vortices of 2013/14's low temperatures, national overall daily usage still fell far below the capacity that already existing infrastructure is capable of handling.[6]The environmental advocacy group Ecowatch notes that of the 400 plus applications for additional pipelines filed nationwide since 1999, the Federal Energy Regulatory Commission (FERC) has approved all but two, despite the lack of compelling evidence that further pipeline capacity is required.[7] Williams argues that the increased capacity is necessary because of the New York City Department of Environmental Protection's (DEP) 2011 rule phasing out the

[2] Federal Energy Regulatory Commission "Draft Environmental Impact Statement for the Northeast Supply Enhancement Project" https://www.ferc.gov/industries/gas/enviro/eis/2018/03-23-18-DEIS.asp (last accessed April 5, 2019)
[3] Arvind Dilwar "The Latest Pipeline Battle is Ramping Up in New York." The Nation. August 10, 2018 https://www.thenation.com/article/latest-pipeline-battle-ramping-new-york/ (last accessed April 5, 2019)
[4] Williams Companies "Our Company" https://co.williams.com/our-company/ (Last Accessed April 5, 2019)
[5] Williams Companies "Northeast Supply Enhancement Facilities and Maps" http://northeastsupplyenhancement.com/the-projects/facilities-maps/ (last accessed April 5, 2019)
[6] Jon Hurdle "New Gas Pipeline Capacity Sharply Exceeds Consumption" State Impact Pennsylvania https://stateimpact.npr.org/pennsylvania/2017/11/13/new-gas-pipeline-capacity-sharply-exceeds-consumption-report-says/ (last accessed April 5, 2019)
[7]Ecowatch "FERC, Which Rejected 2 Gas Pipelines out of 400 Since 1999, to Review Approval Policy" https://www.ecowatch.com/ferc-approval-process-2520084281.html

use of boilers burning number 6 oil.[8] However, activists counter that the majority of boilers have already been converted, and remaining boiler conversions would require only a maximum 6% increase in National Grid supply, which could be more than accounted for in building-efficiency improvements and the transition to renewables.[9] Notably, Con Edison has declared a "moratorium" on new gas connections in Westchester, which could impact the availability of supply in the greater New York metropolitan area that includes the City, stating "new demand for gas is reaching the limits of the current supplies to our service area."[10]

In February of 2019, the New York Public Service Commission approved a portfolio of strategies Con Edison proposed to alleviate local natural gas demands without relying on increased pipeline supply.[11]Because heating and cooling is one of the major uses of fossil fuel in the region, part of the plan allows for the installation of 8,800 geothermal heating and cooling systems in the region. With incentive programs such as Con Edison's rider z electricity rate that reduces the cost of running such equipment, proponents of geothermal technology assert that heat pumps offer a cost effective solution to heating and cooling that is far less dependent on fossil fuel use.[12] Because geothermal heat pumps use the relatively constant temperature of the ground, significantly cooler

[8] Williams Companies "About the Project" https://northeastsupplyenhancement.com/home/about-the-project/ (last accessed April 10, 2019)
[9] Arvind Dilwar "The Latest Pipeline Battle is Ramping Up in New York." The Nation. August 10, 2018 https://www.thenation.com/article/latest-pipeline-battle-ramping-new-york/ (last accessed April 5, 2019)
[10] Con Edison "Statement from Con Edison Re: Moratorium on New Gas Connections in Westchester" https://www.coned.com/en/about-con-edison/media/news/20190118/statement-from-con-edison-re-moratorium-on-new-gas-connections-in-westchester (last accessed April 5, 2019)
[11] Daily Voice Plus "PSC approves Con Edison's plan to slow demand for natural gas" https://dailyvoiceplus.com/westchester/westchester-business-journal/energy/psc-approves-con-edisons-plan-to-slow-demand-for-natural-gas/750645/?utm_source=Westchester%20County%20Business%20Journal (last accessed April 10, 2019)
[12] New York Geothermal Energy Organization "NY_GEO on Westchester Gas Moratorium" https://ny-geo.org/pages/ny-geo-on-westchester-gas-moratorium (last accessed on April 10, 2019)

than outside air in the summer, and warmer in the winter, it allows buildings to use far less energy for temperature regulation.[13]

Proponents of the proposed pipeline insist that the Belmont Park stadium, and similar large scale projects, would be forced to burn oil without the additional pipeline capacity, an assertion that Jack Stern, spokesperson for New York State's Empire State Development Corporation, categorically denies. "There is no connection between the Belmont Redevelopment and this pipeline. Regardless of what happens with the pipeline, the redevelopment at Belmont will construct a world-class arena, build and enhance public amenities, and generate millions in new tax revenue for Long Island. Belmont can move forward without the pipeline and the alternative is definitely not oil, as we're exploring all clean energy and renewable options." [14]

IV. ENVIRONMENTAL CONCERNS

a. EMISSIONS

Burning natural gas for fuel is considered by some to be better for the environment than burning coal or oil, as it emits less particulate matter and carbon dioxide (CO_2).[15] However, natural gas is primarily comprised of methane, which traps heat far more effectively than CO_2, with a global warming potential value calculated to be 20-30 times higher than CO_2 over a hundred year

[13] United States Energy Department "Geothermal Heat Pumps." https://www.energy.gov/energysaver/heat-and-cool/heat-pump-systems/geothermal-heat-pumps (last accessed April 10, 2019)
[14]Marie J. French. "Utility argues New Jersey- New York pipeline needed for Belmont arena" Politico. https://www.politico.com/states/new-york/albany/story/2019/01/10/utility-argues-new-jersey-new-york-pipeline-needed-for-belmont-arena-780780 (last accessed April 5, 2019)
[15]Union of Concerned Scientists "Environmental Impacts of Natural Gas" https://www.ucsusa.org/clean-energy/coal-and-other-fossil-fuels/environmental-impacts-of-natural-gas (last accessed April 5, 2019)

period (see Figure 1).[16] Some scientists even argue that methane is 80 times more effective at trapping heat than CO_2.[17]

Figure 1: Global Warming Potential Values [18]

Industrial designation or common name	Chemical formula	GWP values for 100-year time horizon		
		Second Assessment Report (SAR)	Fourth Assessment Report (AR4)	Fifth Assessment Report (AR5)
Carbon dioxide	CO_2	1	1	1
Methane	CH_4	21	25	28
Nitrous oxide	N_2O	310	298	265

A study published by the Journal of Science in 2018 found that the domestic oil and natural gas industry leaks an estimated 13 million metric tons of methane a year from various points along the supply pipeline, 2.3% of the total annual extracted supply.[19] Another study identified 4% leakage as the point where any emissions reduction gained from switching to natural gas from coal would be negated.[20]

b. CONSTRUCTION/DREDGING

In 2016 and 2018, the New York State Department of Environmental Conservation (DEC) denied Williams' applications for water quality permits due to deficiencies with the company's

[16] Greenhouse Gas Protocol "Global Warming Potential Values" https://www.ghgprotocol.org/sites/default/files/ghgp/Global-Warming-Potential-Values%20%28Feb%2016%202016%29_1.pdf (last accessed April 5, 2019)

[17] Ken Silverstein "Methane Releases Escalating, Endangering Climate and the Ultimate Health of Oil and Gas Producers" Forbes Magazine. June 21, 2018 https://www.forbes.com/sites/kensilverstein/2018/06/21/methane-releases-escalating-endangering-climate-and-the-ultimate-health-of-oil-and-gas-producers/#2a29bb0e7b1d (last accessed April 5, 2019)

[18] Greenhouse Gas Protocol "Global Warming Potential Values" https://www.ghgprotocol.org/sites/default/files/ghgp/Global-Warming-Potential-

[19] Ramon A. Alvarez et al. Assessment of methane emissions from the U.S. oil and gas supply chain. Science. 13 Jul 2018:

[20] DeVynne Farquharson, et al. Beyond Global Warming Potential: A Comparative Application of Climate Impact Metrics for the Life Cycle Assessment of Coal and Natural Gas Based Electricity. Journal of Industrial Ecology. August, 2016.

plans concerning the handling of toxic sediment that construction of the pipeline is likely to dredge up.[21] The project would require a 23 mile long undersea trench be dug[22] through an area that prior to the 1970's was subject to sustained industrial waste and sewage dumping.[23] While natural processes have capped this toxic material in unpolluted sediment, the act of dredging would expose and release into the water column, [24] high levels of class C sediment, defined as highly contaminated and expected to be acutely toxic to aquatic biota.[25] Contaminants present in the sediment include lead, polychlorinated biphenyls, mercury, and arsenic, [26] all known to be capable of entering the food chain and bioaccumulating in marine species.[27] Prior applications provided insufficient information related to the containment, remediation, or storage/disposal of this toxic sediment,[28] raising serious questions about the overall impact on the ecology of the waterway, as well as many economically important food species such as blue crab, flounder, Atlantic scallop, black sea bass, squid, and many species of conservation interest, including a number of endangered cetaceans, sea turtles, and fish.[29]

c. FRACKING

[21] New York State Department of Environmental Conservation. Notice of Denial/Notice of Incomplete Action Transcontinental Gas Pipe Line Company LLC. https://www.dec.ny.gov/docs/water_pdf/transcodenial42018.pdf
[22] Anthony Santino "The Push to Stop the Williams Pipeline" The Wave. January 31, 2019. https://www.rockawave.com/articles/the-push-to-stop-the-williams-pipeline-2/ (last accessed on April 4, 2019)
[23] Congressional Research Service "Ocean Dumping Act: A Summary of the Law" https://www.gc.noaa.gov/documents/gcil_crs_oda.pdf
[24] UK Marine Special Area of Conservation "Dredging and Disposal: Contaminated Sediments" http://www.ukmarinesac.org.uk/activities/ports/ph5_2_5.htm (last accessed on April 4, 2019)
[25] New York State Department of Environmental Conservation. "Screening and Assessment of Contaminated Sediment" https://www.dec.ny.gov/docs/fish_marine_pdf/screenasssedfin.pdf
[26] New York State Department of Environmental Conservation, "Containment Assessment and Reduction Project Water" https://www.dec.ny.gov/docs/water_pdf/carp.pdf (last accessed on April 4, 2019)
[27] Michigan Department of Community Health "What is Bioaccumulation?" https://www.michigan.gov/documents/mdch/Bioaccumulative__Persistent_Chemicals_FINAL_354016_7.pdf (last accessed April 5, 2019)
[28] New York State Department of Environmental Conservation. Notice of Denial/Notice of Incomplete Action Transcontinental Gas Pipe Line Company LLC. https://www.dec.ny.gov/docs/water_pdf/transcodenial42018.pdf
[29]New York State Energy Research and Development Authority. New York State Offshore Wind Master Plan Fish and Fisheries Studyhttps://www.nyserda.ny.gov/-/media/Files/Publications/Research/Biomass-Solar-Wind/Master-Plan/17-25j-Fish-and-Fisheries-Study.pdf

Fracking, or hydraulic fracturing is the practice of using highly pressurized fluid to force open cracks in natural gas bearing shale formations, allowing the trapped gas to move through the cracks, to points where it can then be collected.[30] Once a well is drilled, it is first flushed with water mixed with hydrochloric acid or a similar acid solution. This stage is meant to clear cement, debris, and carbonate minerals out of the gas pathways. After this stage, slickwater, water that has been chemically altered to lower its viscosity is pumped into the well, further opening the formation and facilitating the movement of proppant, (sand or ceramic particles that help keep the fractures open) that are pumped into the well during the third stage. Finally, fresh water is flushed through the system, clearing the way for gas production.[31] The natural gas collected via fracking is principally comprised of methane, anywhere from 70-90% of the total volume.[32]

There is a marked resistance from environmental groups to fracking as a general means of energy production. In addition to concerns about methane's ability to trap heat more effectively than CO_2, issues related to unregulated chemical cocktails being pumped into natural aquifers, and the volume of toxic wastewater which must then be disposed of, are of great concern. Since forcing gas out of shale reserves requires immense amounts of water, each individual well can result in the creation of hundreds of millions of gallons of polluted water.[33] Additionally, chemicals used for fracking are protected from disclosure through trade secret exemptions,[34] making it very

[30] Frac Focus Chemical Disclosure Registry. "Hydraulic Fracturing: The Process" https://fracfocus.org/hydraulic-fracturing-how-it-works/hydraulic-fracturing-process (last accessed on April 4, 2019)
[31] Id.
[32] Argonne National Laboratory. Fuel Chemistry Division. "Natural Gas" https://www.ems.psu.edu/~pisupati/ACSOutreach/Natural_Gas.html (last accessed April 4, 2019)
[33] American Geosciences Institute. "How Much Water Does The Typical Hydraulically Fractured Well Require?" https://www.americangeosciences.org/critical-issues/faq/how-much-water-does-typical-hydraulically-fractured-well-require (last accessed April 4, 2019)
[34] Cora Currier. "ALEC and ExxonMobil Push Loopholes In Fracking Chemical Disclosure Rules" ProPublica https://www.propublica.org/article/alec-and-exxonmobil-push-loopholes-in-fracking-chemical-disclosure-rules (Last accessed April 4, 2019)

difficult to gain a full understanding of what pollutants individual companies are pushing into the natural environment, but over 600 chemicals commonly used in the process have been identified.[35] The United States (U.S.) Environmental Protection Agency (EPA) studies have confirmed the presence of fracking chemicals in groundwater in Pavillion, Wyoming, proving that these contaminants are capable of infiltrating the environment at large. [36] Fracking processes have also been credibly linked to a massive surge in seismic activity in Oklahoma.[37]

While industry representatives are quick to point out that seismic disturbances are generally caused by the disposal of fracking waste rather than the fracking itself,[38] this belies the point that the each individual well drilled creates hundreds of millions of gallons of dangerously contaminated water. Of the chemicals identified from drilling operations throughout the U.S., research has found that 75% could affect the skin, eyes, and other sensory organs, and the respiratory and gastrointestinal systems. Approximately 40–50% could affect the brain/nervous system, immune and cardiovascular systems, and the kidneys; 37% could affect the endocrine system; and 25% could cause cancer and mutations.[39]

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[35]Frac Focus Chemical Disclosure Registry "What Chemicals Are Used?" https://fracfocus.org/chemical-use/what-chemicals-are-used (last accessed April 4, 2019)

[36] Dominic C. DiGiulio and Robert B. Jackson. Impact to Underground Sources of Drinking Water and Domestic Wells from Production Well Stimulation and Completion Practices in Pavillion, Wyoming, Field. Environmental Science and Technology. 2016. https://pubs.acs.org/doi/abs/10.1021%2Facs.est.5b04970 (last accessed April 4, 2019)

[37] United States Geological Survey "Oklahoma now has more earthquakes on a regular basis than California. Are they due to fracking?" https://www.usgs.gov/faqs/oklahoma-now-has-more-earthquakes-a-regular-basis-california-are-they-due-fracking?qt-news_science_products=0#qt-news_science_products (last accessed April 5, 2019)

[38] Id.

[39]Joe Hoffman. "Potential Health and Environmental Effects of Hydrofracking in the Williston Basin, Montana" The Science Education Research Center at Carleton College. https://serc.carleton.edu/NAGTWorkshops/health/case_studies/hydrofracking_w.html (last accessed on April 5, 2019)

There are also growing concerns related to radioactive contamination in fracking wastewater, [40] and the metal pipes used in the production and transport of natural gas.[41] According to the U.S. Occupational Safety and Health Administration (OSHA), readings obtained from refinery pipe located at a scrap yard in Houma, Louisiana, were high enough to necessitate employee monitoring, had they been obtained at a licensed nuclear installation.[42]

As slickwater travels through rock matrices forced open by the fracking process, it picks up sodium and other minerals from the shale and other substances that it passes through. As salinity increases, so does the water's effectiveness in pulling thorium, barium, radium-228, and radium-226 isotopes from the environment. As radium decays, it releases other toxic substances such as radon.[43] Radium is known to enter human body via inhalation, swallowing, or gamma radiation.[44] Once in the body, radium is perceived as calcium, and is deposited in bone in a similar fashion.[45] Prolonged exposure can result in anemia, cataracts, fractured teeth, cancer and death. While it is currently unknown what levels of exposure are sufficient to cause harm, prolonged exposure is associated with greater risk of adverse health effects.[46]

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[40] Joshua D. Landis, et al. Rapid desorption of radium isotopes from black shale during hydraulic fracturing. 1. Source phases that control the release of Ra from Marcellus Shale. Chemical Geology, 2018; 10.1016/j.chemgeo.2018.06.013 (last accessed April 8, 2019)

[41] United States Department of Labor, Occupational Safety and Health Administration "OSHA Hazard Information Bulletins: Potential Health Hazards Associated with Handling Pipe used in Oil and Gas Production" https://www.osha.gov/dts/hib/hib_data/hib19890126.html (last accessed April 8, 2019)

[42] Id.

[43] Joshua D. Landis, et al. Rapid desorption of radium isotopes from black shale during hydraulic fracturing. 1. Source phases that control the release of Ra from Marcellus Shale. Chemical Geology, 2018; 10.1016/j.chemgeo.2018.06.013 (last accessed April 8, 2019)

[44] Center for Disease Control Agency for Toxic Substances & Disease Registry "Toxic Substance Portal: Radium" https://www.atsdr.cdc.gov/phs/phs.asp?id=789&tid=154 (last accessed April 9, 2019)

[45] Atomic Heritage Foundation " The Radium Girls" https://www.atomicheritage.org/history/radium-girls (last accessed April 9, 2019)

[46] Id at 40

At the federal level, radioactive waste products of the oil and gas industry are exempt from many regulations.[47] While comprehensive studies on the environmental impact of fracking and industry byproducts have suffered from a lack of access to actual treatment practices,[48] studies have found radium contamination 200 times higher than background readings in sediment samples taken downstream of outflows where treated frack waste water is dumped into surface water streams.[49]

V. WILLIAMS/TRANSCO SAFETY AND COMPLIANCE RECORD

According to local climate advocacy group 350 Brooklyn, over the past 10 years, Williams has presided over 15 major fires or explosions in its pipelines, compressor stations, or processing plants, resulting in 6 deaths and over 100 injuries.[50] Good Jobs First, a non-profit that tracks federal violations and government subsidies, lists 94 violations since 2000, totaling over 80 million dollars in fines. Notably, of the 94, 64 were for violations of environmental regulations, and 26 for safety issues.[51] The company has also been fined nearly 50 million dollars at the federal level for energy market manipulation,[52] for withholding capacity during the 2000 rolling blackouts in California, in an attempt to artificially inflate energy prices. [53] Williams paid California $417 million to settle

[47] National Institute of Health "Radionuclides in Fracking Wastewater: Managing a Toxic Blend" https://ehp.niehs.nih.gov/doi/full/10.1289/ehp.122-A50 (last accessed April 10, 2019)
[48] Id.
[49] Id.
[50] 350Brooklyn "Williams and its safety Record" https://350brooklyn.org/williams-safety-record/ (last accessed on April 5, 2019)
[51] Good Jobs First Violation Tracker "Williams Companies" https://violationtracker.goodjobsfirst.org/parent/williams-companies
[52]Good Jobs First Violation Tracker "Energy Market Manipulation" https://violationtracker.goodjobsfirst.org/offense/energy%20market%20violation (last accessed April 5, 2019)
[53]Nancy Rivera Brooks "New Evidence of Fraud in Power Crisis" Los Angeles Times. November 16, 2002 https://www.latimes.com/archives/la-xpm-2002-nov-16-fi-williams16-story.html (last accessed April 5, 2019)

state level actions related to their conduct during the blackout, as well as for complaints related to the double selling of energy, and charging the state for emergency capacity they never provided.[54]

In 2013, an explosion at a Williams olefins plant in Geismar, Louisiana resulted in 2 employee fatalities, and 167 reported injuries. A case study performed by the US Chemical Safety and Hazard Investigation Board found that the explosion was caused by the company's failure to perform adequate management of change or pre startup safety reviews for process changes they enacted related to reboilers on site, and failure to implement action items developed during process hazard analyses. The board also found that the company disregarded recommendations from a contracted pressure relief system engineering analysis, failed to perform a hazard analysis, and failed to develop emergency protocols for staff. The study concluded that the programmatic weaknesses that led to the explosion stemmed from an organizational culture that did not adequately value or foster process safety. [55]

A 2014 explosion at the Plymouth liquefied natural gas plant in Washington State shows a similar pattern of antipathy toward safety regulations. Natural gas ignited in a piece of processing equipment, causing an explosion so large it resulted in 69 million dollars in property damages, was audible as far as 6 miles away, and injured 5 workers, one so seriously that the colleague who helped him evacuate was not immediately able to recognize him. The underlying cause of the explosion was a gas pipeline that was capped with plastic and tape instead of proper sealing equipment, and left in that condition for 5 months, allowing a mixture of natural gas and air to

[54] State of California Department of Justice Office of the Attorney General "Attorney General Lockyer Announces Settlement with Williams That Saves Ratepayers $180 Million and Provides New, Clean and Reliable Power to San Francisco and San Diego" https://oag.ca.gov/news/press-releases/attorney-general-lockyer-announces-settlement-williams-saves-ratepayers-180 (last accessed April 5, 2019)

[55] U.S. Chemical Safety and Hazard Investigation Board "Williams Geismar Olefins Plant. Reboiler Rupture and Fire Geismar, Louisiana" https://www.csb.gov/file.aspx?DocumentId=6004 (last accessed April 5, 2019)

seep into the processing system that later exploded. Making matters worse, the company's written safety procedures did not meet industry standards, and were neither clear nor detailed enough for employees to follow with consistent and safe results. An investigation would show that these insufficient procedures had been standard practice on site for years prior to the explosion. Not only did Williams fail to establish effective safety protocols, they again failed to provide their employees with adequate emergency protocols, and declined to provide their employees with protective clothing, respirators, or any legally mandated protective equipment. Employees who later volunteered to enter the hot zone to assist firefighters in addressing ongoing hazardous conditions were forced to do so in the absence of the most basic protective equipment.[56]

In 2018, Williams destroyed a stormwater detention basin during the construction of its Atlantic Sunrise pipeline project in Pennsylvania. While Williams had permits from federal and state regulatory bodies for the pipeline construction, local legislators in Rapho Township declined to approve the removal of the stormwater infrastructure, and were ignored. Shortly thereafter, a major rainstorm passed through the area, dropping over 10 inches of rain in a six hour period, causing a mobile home park adjacent the detention basin to flood, and requiring two young children to have to be rescued from their mobile home. Six homes were completely destroyed, and 18 others suffered considerable damage. While the flooding cannot be definitively tied to the destruction of the detention basin, residents noted that the area had never flooded in such a manner, not even during 1972's Tropical Storm Agnes, or 2011's Tropical Storm Lee.[57]

[56] Tarika Powell "WILLIAMS COMPANIES FAILED TO PROTECT EMPLOYEES IN PLYMOUTH LNG EXPLOSION" Sightline Institute. June 3, 2016. https://www.sightline.org/2016/06/03/williams-companies-failed-to-protect-employees-in-plymouth-lng-explosion/ (last accessed April 5, 2019)

[57] Ad Crable. "Did bulldozed detention basin on pipeline path cause Mount Joy mobile home park destruction?" Lancaster Online. September 20, 2018. https://lancasteronline.com/news/local/did-bulldozed-detention-basin-on-pipeline-path-cause-mount-joy/article_5109a786-bc3f-11e8-85ae-b7350b639329.html (last accessed April 5, 2019)

VI. LEGISLATION

The resolution would call upon the New York State Department of Environmental Conservation to deny the Water Quality Certification permit for the construction of the Northeast Supply Enhancement pipeline through New York Harbor.

Res. No.

Resolution calling upon the New York State Department of Environmental Conservation to deny the Water Quality Certification permit for the construction of the Northeast Supply Enhancement pipeline through New York Harbor

By Council Members Constantinides and Richards

Whereas, The Northeast Supply Enhancement pipeline proposed by Williams Companies Inc. (Williams) would carry natural gas extracted from the ground via the process of hydraulic fracturing to customers in lower New York by connecting to an existing pipeline across New York Harbor; and

Whereas, Natural gas can be comprised of anywhere from 70 to 90% methane which is a more potent greenhouse gas than carbon dioxide, as it traps heat in the earth's atmosphere by 30 to 80 times in magnitude; and

Whereas, A recent NASA study into atmospheric methane levels has identified oil and gas exploration as a major contributor to the sharp rise in methane concentrations beginning in 2006; and

Whereas, Further, multiple studies by various researchers have found methane leakage from hydraulic fracturing operations at rates much higher than the levels that industry reports suggest; and

Whereas, The State of New York has committed to a 50% reduction in greenhouse gas emissions by 2030, and New York City has committed to an 80% reduction in greenhouse gas emissions by 2050; and

Whereas, The State of New York has also committed to 9,000 megawatts of offshore wind energy by 2035, and 6,000 megawatts of solar energy by 2025, which will reduce the need for new fossil fuel infrastructure; and

Whereas, The City and State's emissions reduction goals cannot be reached without a shift away from fossil fuels and an increased reliance on renewable energy generation; and

Whereas, The United States (U.S.) Energy Information Administration's forecast for natural gas use is flat due to a downward trend in demand, efficiency gains in new equipment, and an increased load capture by the renewable energy sector; and

Whereas, Williams' projection of a 10% increase in demand is contradicted by analyses by the New York Independent System Operator, the Long Island Power Authority, and the U.S. Energy Information Administration; and

Whereas, The construction of the Northeast Supply Enhancement pipeline will require trenching through under water sediment heavily contaminated with toxins such as polychlorinated biphenyls, arsenic, and lead; and

Whereas, The act of trenching would uncover these toxic sediments, releasing them back into the environment and back into the food chain; and

Whereas, Many of these toxins are known to bio-accumulate in marine life, posing a serious threat to the marine ecosystem, including many important or endangered species of fish, marine mammals, sea turtles, and invertebrates; and

Whereas, The bioaccumulation of polychlorinated biphenyls, arsenic, and lead, in sea-life poses a threat to the Mid Atlantic fishing industry, as well as to the health of anyone who consumes the products of said industry; and

Whereas, A study published by the Journal of Science in 2018 found that the domestic oil and natural gas industry leaked an estimated 13 million metric tons of methane a year from various points along a respective supply pipeline, 2.3% of the total annual extracted supply; and

Whereas, According to another study from the Yale School of Forestry and Environmental Studies' Journal of Industrial Ecology, published in 2016, an increase to 4% leakage would negate any emission reduction gains made by switching from coal to natural gas; and

Whereas, Williams Companies has been reported to have at least 64 environmental violations since the year 2000; now, therefore, be it

Resolved, That the Council of the City of New York calls upon the New York State Department of Environmental Conservation to deny the Water Quality Certification permit for the construction of the Northeast Supply Enhancement pipeline through New York Harbor.

NRC
LS# 7706
4/02/19