



August 8, 2005

NEGATIVE DECLARATION
Notice of Determination of Non-Significance

**DEPARTMENT OF
ENVIRONMENTAL
PROTECTION**

59-17 Junction Boulevard
Flushing, New York 11373

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This Negative Declaration has been prepared in compliance with the requirements of the City Environmental Quality Review (CEQR) process as set forth in Executive Order 91 of 1977 and amendments, Article 8 of the Environmental Conservation Law establishing the State Environmental Quality Review Act (SEQRA) and its regulations as set forth in 6NYCRR Part 617, and the New York State Environmental Facilities Corporation State Environmental Review Process (SERP) as required for obtaining financing under the State Revolving Fund Program. The New York City Department of Environmental Protection (NYCDEP), as lead agency, has determined that the proposed action described below would not have a significant effect on the environment and is herein publishing a Negative Declaration. An Environmental Assessment Statement (EAS) was distributed on June 30, 2005.

Applicant Name and Address:

New York City Department of Environmental Protection
59-17 Junction Boulevard
Flushing, New York 11373

Project Title:

CEQR No. 98DEP031K
Avenue V Pumping Station and Force Mains
Brooklyn, New York

Project Location:

The pumping station is located at 76 Avenue V in Brooklyn Community District 13, on Tax Block 7140, Lot 1. One proposed force main would run west under Avenue V (between 86th Street and Stillwell Avenue) from the pumping station to 27th Avenue (between Stillwell and Cropsey Avenues) to Cropsey Avenue (between 27th Avenue and Bay 40th Street) to Bay 40th Street (between Cropsey Avenue and Shore Parkway) to the northern shoulder of Shore Parkway, terminating at a connection with an existing sewer in proximity to the Verrazano-Narrows Bridge. The other proposed force main would follow the same route from Avenue V to Shore Parkway and along Shore Parkway approximately one mile to Bay 16th Street. At that point, the force main would turn northeast from Shore Parkway and run under Bay 16th Street to Bath Avenue. At Bath Avenue, it would turn northwest and continue one block, terminating at an existing regulator under the intersection of Bath Avenue and 17th Avenue. The force main routes are located in Brooklyn Community Districts 13, 11, and 10.



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DIAL 311 Government Information
and Services for NYC

Lead Agency:

New York City Department of Environmental Protection

CEQR Status:

Type I Action

Project Description:

The New York City Department of Environmental Protection (NYCDEP) is proposing to upgrade and rehabilitate the Avenue V Pumping Station in order to meet combined sewer overflow (CSO) abatement and flow conveyance requirements established by the New York State Department of Environmental Conservation (NYSDEC) and to comply with the U.S. Environmental Protection Agency's (EPA) Final CSO policy. NYCDEP would increase wet weather flow capacity at the Avenue V Pumping Station, located at Avenue V and West 11th Street in Brooklyn, from approximately 30 million gallons per day (mgd) to 80 mgd. In addition, NYCDEP would replace the existing force mains with two new force mains. Construction of the two force mains would run west under Avenue V, 27th Avenue, Cropsey Avenue, Bay 40th Street and the northern shoulder of Shore Parkway, with one force main terminating at a connection with an existing sewer in proximity to the Verrazano-Narrows Bridge and the other force main connecting to an existing regulator under the intersection of Bath Avenue and 17th Avenue.

The existing pumping station is staffed by 12 employees (over 24 hours) and has five one-story buildings. The proposed rehabilitation would demolish four of the structures on site and would involve the construction of two new buildings. The Main Building, a national and city eligible landmark structure which houses the pumping equipment, would be upgraded and extensively rehabilitated in coordination with the New York State Office of Parks, Recreation, and Historic Preservation (OPRHP) and New York City Landmarks Preservation Commission (LPC). The upgraded pumping station would not be staffed; however there would be periodic inspection and maintenance by NYCDEP workers.

The upgrade of the Avenue V Pumping Station and installation of new force mains would improve the water quality in Coney Island Creek. In the existing condition, flow received at Avenue V Pumping Station during wet weather exceeds the station's maximum capacity (approximately 30 mgd) and overflows into Coney Island Creek. Coney Island Creek is a constricted water body with low circulation levels and has historically exceeded dissolved oxygen (DO) and coliform bacteria standards established by NYSDEC. The proposed project would enhance the water quality of Coney Island Creek by conveying CSO volumes up to 80 mgd away from the creek to a treatment plant or to the strong tidal currents of the Verrazano Narrows; thereby reducing CSO volume, complying with EPA's Final CSO Policy, and satisfying pumping station capacity and flow conveyance requirements.

The project includes the following measures:

Historic Resources

The project site is occupied by five buildings built between 1911 and 1962. The Main Building and the Wet Well are the original two pumping station buildings on site, built in 1911 and 1916 respectively. New York City Landmarks Preservation Commission (NYCLPC) determined that the Main Building is eligible for New York City Landmark designation. The New York State Office of Parks, Recreation, and Historic Preservation (OPRHP) determined that the Main Building is eligible for listing on the National Register, and noted that the Wet Well appears to contribute to the significance of the pumping station property. OPRHP further concluded that the Main Building appears to retain a high degree of integrity on the exterior and the interior, while the Wet Well appears to be in a deteriorated condition. OPRHP has determined that the other three buildings on site are not eligible for listing on the National Register. Repairs of the Main Building would be performed based on conditions outlined in OPRHP comments dated September 15, 2000 and would be supervised by a licensed and professional restoration architect. Although the Wet Well was noted to contribute to the significance of the pumping station, OPRHP has noted that the structure is in a deteriorated condition, including severe damage to the interior and the roof. Although the demolition of the Wet Well would change the context of the site, OPRHP's September 2000 comments indicate that its demolition would not result in potential significant adverse impacts. NYCDEP will continue to consult with OPRHP, as appropriate, as project engineering proceeds and construction commences.

The force main routes would cross twelve areas of potential archeological sensitivity. Two of the twelve areas would not be affected by construction, one because microtunneling would be several feet below the area of potential sensitivity and one because the route would be approximately forty feet to the south of the area of potential sensitivity. Cut and cover construction technique would be used along the northern shoulder of Shore Parkway, which contains five of the areas of potential archeological sensitivity. Microtunneling force main installation would be used along the inland streets, where the seven of the potentially archeologically sensitive areas lie. For the ten sites where excavation may disturb a potentially sensitive site, a monitoring plan has been submitted to OPRHP and NYCLPC which includes provisions for monitoring by a professional archaeologist and allowance for stoppage of work and potential archaeological data recovery. For the potentially sensitive sites along the portion of the route where microtunneling would be used access shafts would be located over the areas of sensitivity in order that excavation may be monitored by a professional archaeologist. In the event that cultural materials are encountered, an Unanticipated Discovery Plan, which has been developed and submitted to OPRHP and NYCLPC for review and approval, will be implemented. NYCDEP will continue to consult with OPRHP and NYCLPC as design continues and construction commences.

Natural Resources

NYCDEP will continue to work with the New York City Department of Parks and Recreation to implement a tree replacement and planting plan to offset the removal of trees along the force main alignment on the northern shoulder of Shore Parkway. Trees would be scheduled for transplanting at the appropriate time for a particular species and

would be over-dug to ensure that a sufficient root system moves with them. A weekly watering schedule during the growing season (April to October) for at least two years would be a part of the transplanting plan, including thorough watering in the days following transplant. Only damaged or dead wood would be removed prior to transplanting. Trees to remain near the construction area along Shore Parkway would be protected by establishing a tree protection zone using fencing at least six feet high at a minimum of five feet past the dripline of the tree. No application of chemicals, trenching, grading, root/branch pruning, or other activity would occur within the tree protection zone without the supervision of an on-site arborist and approval by NYCDEP. Silt fences and hay bales would be used outside the tree protection zone in order to prevent damage from erosion and construction activities.

Hazardous Materials

Rehabilitation of the pumping station would include excavation of soil and three storage tanks (one underground and two aboveground storage tanks) and force main installation would involve extensive soil excavation. The tanks would be emptied and removed in accordance with federal, state, and local regulations and procedures. A new 2,500-gallon underground storage tank would be installed to New York State Department of Environmental Conservation (NYSDEC) standards for petroleum storage tanks. A construction health and safety plan would be developed and submitted to NYCDEP for review and approval in order to assure that the construction workers, the surrounding community, and the environment are not adversely affected by the construction of the pumping station or the force mains. The plan would specify the appropriate testing activities and measures to control dust during construction activities. All excavated material would be removed and disposed of by a specialty contractor in accordance with all applicable laws and regulations. Following construction, a minimum of one foot of clean imported top soil or fill would be emplaced at the pumping station.

Noise

The new pumps would be installed underground within an enclosed facility and would not increase the noise level outside the facility. Two emergency generators would be located at the site, one in an enclosed permanent structure and the other generator would be a mobile generator enclosed in acoustical panels with a minimum transmission loss of 55 db at 8000 hz. The noise analyses performed assumed that the emergency generator would undergo maintenance operations during the quietest hours. In reality, the generators will likely run through maintenance during normal working hours, when background monitoring levels are greater than those employed in this assessment. In addition, the analyses did not take credit for existing operations. The results of the noise analyses are presented in the table below:

Site	Location	Quietest Existing Leq(1)	Project Generated Equipment Leq(1)	Total Noise Levels with Upgrade Leq(1)	Change
1	Residence at Northwest Corner of Avenue V and W. 11th Street	55.3	45.6	55.8	0.5
2	Marlboro Houses Across W. 11th Street	55.5	50.0	56.6	1.1
3	Marlboro Houses East of Project Site	52.7	51.3	55.1	2.4

At Site 1, the proposed project would increase noise levels 0.5 dBA compared to the quietest ambient noise level of 55.3 dBA. At Site 2, the proposed project would increase noise levels 1.1 dBA compared to the quietest ambient noise level of 55.5 dBA. At Site 3, the proposed project would increase noise levels 2.4 dBA compared to the quietest ambient noise level of 52.7 dBA. Increases of these magnitudes would produce no potential significant impacts. Therefore, the proposed project would not result in the potential for significant adverse noise impacts.

Odor

Dispersion modeling was used to project the potential increase in hydrogen sulfide (H₂S) from the proposed project. Generally H₂S is used as a trace indicator for odors in an odor impact analysis. H₂S is a good way to detect odor because it has a very unique, unpleasant, and discernable odor character (similar to rotten eggs); it has a very low odor recognition threshold; and it can be monitored by hand-held and/or stationary instruments. Modeling results were compared to the 1 part per billion (ppb) NYCDEP H₂S odor impact threshold at sensitive receptor locations. Impacts were also compared with the 1-hour average New York State Ambient Air Quality Standard (NYSAAQS) of 10 ppb for H₂S, which is applicable for all locations beyond the property line of Avenue V Pumping Station and is used to protect the health and quality of life for the surrounding community. The maximum predicted concentrations are presented in the table below:

Averaging Period	Offsite	Sensitive Receptor
1-hour	4.7	0.97

The results demonstrate that the maximum predicted 1-hour impacts are below the NYSAAQS of 10 ppb beyond the property boundary. The maximum predicted 1-hour impacts occurred on the fenceline, where no sensitive receptor sites are located. In addition, even though the incremental analysis did not take into account existing conditions, the NYCDEP odor criteria of 1 ppb at sensitive receptor locations was met. Therefore, the proposed project would not result in the potential for significant adverse odor impacts.

Air Quality

The proposed upgraded pump station would include the installation of two reciprocating engine emergency generators to provide back-up power if utility service becomes unavailable (one operating and one spare). The operating emergency generator would have a nominal (standby) rating of 1,000 kilowatts (kW) and would be operated regularly for testing and exercising. A forced air heating system would be installed for comfort heating. Emissions from the emergency generator and heating system were modeled to assess the effects of maintenance testing and exercising. An analysis was performed to determine whether the upgrade may result in potential impacts from emissions for the criteria pollutants of concern (nitrogen oxides [NO_x], sulfur dioxide [SO₂], carbon monoxide [CO] and fine particulate matter [PM₁₀ and PM_{2.5}]).

The emission rate of PM for the emergency generator was based on a performance level of 0.062 grams per brake horsepower per hour (including both filterable and condensable PM). The performance level will require the use of ultra low sulfur diesel fuel as well as particulate traps.

As presented in the following table, the maximum predicted total criteria pollutant concentration from the emergency generator and heating system for all of the pollutant time averaging periods are less than their respective standards.

Pollutant	Averaging Period	Background Conc. (µg/m ³)	Predicted Impact (µg/m ³)	Total Max Predicted Conc. (µg/m ³)	Ambient Air Quality Standard (µg/m ³)
PM ₁₀	24-hour	50	4.99	55.0	150
	Annual	20	0.21	20.2	50
SO ₂	3-hour	165	359.58	524.58	1,300
	24-hour	86	44.98	131.0	365
	Annual	18	0.04	18.0	80
CO	1-hour	4,008	501.80	4,501.8	40,000
	8-hour	2,863	125.73	2,988.7	10,000
NO ₂	Annual	49	2.86	51.9	100

In addition, impacts from the air quality modeling analysis determined that the highest predicted 24-hour and annual average PM_{2.5} concentrations from the emergency generator are below significance levels. Because the facility currently has a heating system that utilizes natural gas, has the same exhaust point and is slightly larger than the unit planned under the proposed project, the PM_{2.5} incremental analysis for the proposed project was based only on the incremental emissions associated with the emergency generator. However, both the proposed emergency generator and the heating systems were included in the PM₁₀ analysis to compare with PM₁₀ standards. The following summarizes the results of the impacts compared to the appropriate interim guidance criteria.

Averaging Period	Maximum Increment($\mu\text{g}/\text{m}^3$)	Significant Impact Threshold ($\mu\text{g}/\text{m}^3$)
24-hour	4.99	5.0
Annual	0.001	0.3

As shown in the table, the maximum 24-hour predicted incremental impacts would be less than the applicable NYCDEP interim guidance criterion of 5 $\mu\text{g}/\text{m}^3$. On an annual basis, $\text{PM}_{2.5}$ impacts would be less than the NYSDEC policy threshold of 0.3 $\mu\text{g}/\text{m}^3$. In addition, this maximum annual impact is less than the NYCDEP interim neighborhood-scale guidance criterion of 0.1 $\mu\text{g}/\text{m}^3$. Therefore, an analysis to determine the neighborhood-scale annual $\text{PM}_{2.5}$ increment was not required.

Therefore, as all results are below the NAAQS as well as NYSDEC's and NYCDEP's interim $\text{PM}_{2.5}$ guidance criteria, the proposed project would not result in the potential for significant adverse air quality impacts.

Statement of No Significant Effect:

The upgrade and rehabilitation of the Avenue V Pumping Station and construction of two force mains, as proposed, is not anticipated to have any potential significant adverse effects on the quality of the environment. No potential significant adverse impact on air quality, noise, odor, traffic, natural resources, hazardous materials, architectural or archeological resources would occur as a result of the proposed project.

Supporting Statements:

The above determination is based on an environmental assessment which finds that the project, as proposed, would not result in significant effects on the environment which would require the preparation of an EIS. The construction manager for the proposed project, in conjunction with the New York City Department of Environmental Protection's, Office of Environmental Planning and Assessment and Bureau of Engineering Design and Construction, will ensure that all commitments within the EAS, upon which the Negative Declaration is based, are understood and implemented.

For Further Information Contact:

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