



**DEPARTMENT OF  
ENVIRONMENTAL  
PROTECTION**

59-17 Junction Boulevard  
Flushing, New York 11373

Tel. (718) 595-6565  
Fax (718) 595-3525  
[elloyd@dep.nyc.gov](mailto:elloyd@dep.nyc.gov)

Angela Licata  
Deputy Commissioner

Bureau of Environmental  
Planning & Analysis

Tel. (718) 595-4398  
Fax: (718) 595-4479  
[alicata@dep.nyc.gov](mailto:alicata@dep.nyc.gov)

**STATEMENT OF FINDINGS FOR THE HUNTS POINT WATER  
POLLUTION CONTROL PLANT PHASE III UPGRADE**

CEQR No. 05DEP023X

January 10, 2008

Pursuant to applicable environmental rules and procedures specifically in accordance with New York City's Executive Order 91 of 1977 and its amendments establishing City Environmental Quality Review ("CEQR"), Article 8 of the Environmental Conservation Law establishing the State Environmental Quality Review Act ("SEQRA") and its implementing regulations (6 NYCRR Part 617), and the State Environmental Review Process ("SERP") as required by the State Revolving Loan Fund Program, the New York City Department of Environmental Protection ("NYCDEP"), acting as lead agency, issued a Notice of Completion of the Final Environmental Impact Statement ("EIS") for the proposed Phase III Upgrade and carbon and polymer addition facilities at the Hunts Point Water Pollution Control Plant (WPCP) on July 12, 2007. In accordance with Section 617.12(a), this project is classified as a Type I Action.

The NYCDEP issued a Lead Agency Determination, Positive Declaration and Draft Scope of Work on November 23, 2004 and held a public hearing on the Draft Scope of Work on February 1, 2005. The comment period remained open until February 25, 2005. NYCDEP issued a Final Scope of Work that responded to the public comments received on June 15, 2005. The Draft EIS was issued on December 19, 2006, and a public hearing on the Draft EIS was held on April 12, 2007. The comment period on the Draft EIS remained open until April 23, 2007.

**1) Description of the Action**

NYCDEP proposes two components to improve wastewater processes at the Hunts Point WPCP. The first component, which is known as the Phase III Upgrade, would involve construction and upgrading to improve the solids handling facilities at the plant. The second component would be undertaken to enhance nitrogen removal. The Phase III Upgrade would involve construction of two new egg-shaped sludge digesters and a digester gallery, replacement of sludge thickener collector mechanisms, replacement of a gas holding tank, replacement of existing waste gas flares with three new enclosed waste gas burners, renovation of existing digesters and sludge storage tanks, installation of an emergency generator, and installation of odor controls on the plant's primary effluent channels. The enhanced nitrogen removal elements would include carbon and polymer addition facilities. Carbon addition facilities would be constructed to address future 2014 nitrogen reduction goals, and polymer addition facilities would be constructed to enhance nitrogen removal facilities being constructed as part of the Phase II Upgrade.



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## Statement of Findings

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The Hunts Point WPCP is located in the Hunts Point section of the Bronx, in the City of New York, and treats wastewater from portions of the Bronx, Rikers Island, City Island, and Hart Island. The Phase III Upgrade is required to rehabilitate or replace facilities that are at or nearing the end of their useful life. The Phase III Upgrade requires construction and construction staging on the existing plant site and on an additional 5.5-acre vacant parcel of City-owned land located to the northwest of the existing plant boundary. This vacant 5.5-acre property is under NYCDEP's jurisdiction and consists of a 4.3-acre area where the proposed new egg-shaped sludge digesters would be built and an approximately 1.2-acre area that would be used for construction staging. This 1.2-acre area will be transferred to the New York City Department of Parks and Recreation (NYCDPR) and mapped as parkland for inclusion in the adjacent Barretto Point Park when the area is no longer needed for construction staging.

The Final EIS was prepared to evaluate the environmental impacts that could result from the Phase III Upgrade and the carbon and polymer addition facilities. The FEIS also assesses the potential for impacts from implementation of an additional two digesters (for a total of four—the “four-digester scenario”). These two additional digesters would be required in the future as the existing digesters (to be renovated under the proposed action) near the end of their useful life. The Final EIS thoroughly evaluated the various potential environmental impacts of the proposed action including both digester scenarios, and addressed all pertinent comments on the Draft EIS. The Final EIS presented various alternatives exploring different site plan, technological, and carbon addition scenarios. It also identified measures to avoid or mitigate potential significant and temporary adverse environmental impacts to the maximum extent practicable.

NYCDEP, by its Commissioner Emily Lloyd, has considered the Hunts Point WPCP Phase III Upgrade Final EIS and finds that all CEQR/SEQRA requirements have been met. NYCDEP finds that consistent with social, economic, and other essential considerations of State and City policy, from among the reasonable alternatives available, the action is one that minimizes or avoids potential significant adverse environmental impacts to the maximum extent practicable. In addition, potential significant adverse environmental impacts disclosed in the Final EIS, with the exception of a potential significant adverse impact on visual character for Barretto Point Park users, will be minimized or avoided by incorporating as conditions to this decision those mitigative measures that are identified as practicable.

The aforementioned potential significant visual character impact would be limited and no views of or access to the waterfront would be affected. The impact would not significantly impact park users' enjoyment of the Park and there are no significant shadows impacts. The impact on visual character identified in the Final EIS was determined to be an unavoidable significant adverse impact due to the height of the digesters that would affect views looking east from the Park. The planning for Barretto Point Park and transfer of land from NYCDEP to NYCDPR to create the Park were both undertaken in the context of design work for the use of an adjacent 4.3-acre parcel for the egg-shaped digesters. The two projects were contemporaneously planned. It was conceived that the design of Barretto Point Park would transition from its industrial surroundings to the waterfront. Further, the final design of the digesters' exterior will be completed with input from the community, to enhance and convey the modern, innovative architectural style associated with this particular wastewater technology. In addition, the Mayor's Office and NYCDEP are working with the Hunts Point community to increase both open space and visually attractive environments in the study area in recognition that the plant and its long-term construction have placed a burden on the community, including the potential visual impact associated with the proposed digesters.

There are no measures available to mitigate the limited potential significant adverse visual impact and there is no feasible alternative that would better meet the objectives and implementation of the proposed action while reducing or eliminating this significant impact, which is limited in scope. Therefore, the potential significant adverse visual impact would remain unmitigated and is unavoidable.

NYCDEP, by its Commissioner, hereby approves the Findings Statement, thereby authorizing the implementation of the Hunts Point WPCP Phase III Upgrade and carbon and polymer additions, including the mitigation measures set forth in the Final EIS and additional commitments made by the Department during the Uniform Land Use Review Process (ULURP). The social, economic, environmental, including mitigation measures and other factors that form the basis of this decision are discussed below.

Therefore, in accordance with the aforementioned consent orders and need described above, NYCDEP is designing the improvements and plans to commence construction in 2008.

**2) The Hunts Point WPCP Phase III Upgrade and carbon and polymer additions are necessary to improve solids handling, replace equipment at end of useful life, improve water quality through enhanced nitrogen removal and comply with 2006 Nitrogen Consent Order requirements.**

The proposed action is part of a multi-phased upgrade program at the Hunts Point WPCP. The upgrade program was recommended after a series of planning exercises undertaken by NYCDEP. The schedule for the proposed action follows a priority system developed under the original Stabilization Program and compliance schedules identified in several consent orders. The proposed action would provide enhanced nitrogen removal to meet 2006 Consent Judgment requirements and improve solids handling at the plant to satisfy the U.S. Environmental Protection Agency’s (EPA) Processes to Significantly Reduce Pathogens (PSRP) regulations under all operating conditions of the Full Step Feed BNR process with the projected 2045 flow of 124 mgd. PSRP regulations determine whether the sludge cake qualifies as “biosolids,” which are wastewater residuals that have been treated and are suitable for land application. In addition, the existing solids handling facilities are nearing the end of their useful lives; refurbishing and replacing this equipment will ensure the future reliability of solids handling process at the Hunts Point WPCP.

**3) Possible Discretionary Permits and Approvals**

<b>NEW YORK STATE</b>
<b>Department of Environmental Conservation</b>
<ul style="list-style-type: none"> <li>• Minor modification of the facility’s February 2006 air permit (Clean Air Act and New York State law and regulation, 6 NYCRR Part 201)</li> <li>• Financing under the State Revolving Fund Program, which requires review under the SERP</li> </ul>
<b>Department of State</b>
<ul style="list-style-type: none"> <li>• Waterfront Revitalization (Coastal Zone) Consistency Determination</li> </ul>
<b>NEW YORK CITY</b>
<b>City Planning Commission</b>

- Approval of two ULURP applications including site selection of adjacent 4.3 acre parcel for digester construction and mapping of Barretto Point Park

#### **4) Beneficial Effects of the Project**

##### **a) Replacement of Aging Infrastructure**

- The construction of the proposed Phase III Upgrade would replace and rehabilitate aging WPCP solids handling facilities nearing the end of their useful lives and ensure the future reliability.
- Building the two-digester scenario on the 4.3-acre parcel adjacent to the existing WPCP allows for the continuous operation of the rehabilitated digesters during and after construction of the two egg-shaped digesters and until the eventual end of their useful lives when the four-digester scenario is constructed.
- By building the egg-shaped digesters as part of the Phase III Upgrade, the WPCP will employ the latest technology in solids handling facilities designed to provide sufficient volumes and enable full anaerobic digestion of the sludge, a biological process that reduces the quantity of sludge (approximately 15 to 20 days).
- Reducing total sludge volumes through anaerobic digestion enables dewatered sludge, or biosolids, produced at the plant to meet PSRP requirements under all operating conditions and produces beneficial reuses of the sludge for land application purposes.

##### **b) Water Quality Benefits**

- Adding a source of carbon to the wastewater would increase the denitrification rate of the wastewater and enhance nitrogen removal, thereby improving the quality of the Plant's effluent and surrounding water body (i.e., the East River) and contributing toward meeting the requirements of the 2006 Nitrogen Consent Judgment.
- Adding a polymer would improve the removal of the froth on the surface of the aeration tanks that results from the nitrification-denitrification process and is a nuisance that can adversely impact the settling of sludge and cause foaming in the sludge digesters.

##### **c) Site Plan Benefits**

- The site plan for the proposed action provides the most efficient site plan for current and potential treatment requirements.
- The 4.3-acre parcel is an appropriate place to construct digester facilities given that the parcel is adjacent to a sensitive use (i.e., Barretto Point Park) and digester operation is very different than operation of the wastewater process facilities. Digesters have stable temperatures and constant mixing, and sludge is intermittently added and removed. In addition, the facilities are sealed, which eliminates the potential for significant adverse odor and air quality impacts on adjacent land uses. Wastewater processes, which tend to be more odorous, would be less appropriate to place next to a sensitive use.

- In recognition of the fact that the Hunts Point WPCP and its long-term construction will affect the community, NYCDEP will commit \$20 million to construct community amenities as prioritized by the community.

**5) No Potential for Significant Adverse Impacts**

Construction and operation of the proposed Hunts Point WPCP Phase III Upgrade and carbon and polymer additions are not anticipated to have significant adverse impacts in the areas of: land use, zoning, neighborhood character, and open space; socioeconomic conditions; historic resources; air quality; odors; infrastructure and solid waste; energy; hazardous materials; water quality; natural resources; and public health. The EIS analyses and findings for each of these areas are summarized below.

**a) Land Use, Zoning, Neighborhood Character and Open Space**

Land Use, Zoning and Neighborhood Character

The changes at the existing WPCP would not change the land use at the existing plant site. The proposed development on the additional parcel would change the land use on the currently vacant lot. However, the additional area is relatively small and the WPCP, a heavy industrial use, is consistent with the land uses in the study area.

As a heavy industrial use the Hunts Point WPCP would continue to be consistent with the M3-1 zoning for the area. No zoning map changes would be necessary as part of the proposed action. With the proposed action, the plant's floor area would remain within that allowed by the site's M3-1 zoning. The proposed action would be consistent with the area's active industrial character, the New York City's Comprehensive Waterfront Plan, the "Plan for the Bronx Waterfront," as well as the area's designation as an In-Place Industrial Park (IPIP) and Industrial Business Zone (IBZ). As a water-dependent industrial use, the WPCP would be consistent with its location within a Significant Maritime Industrial Area (SMIA), the goal of which is to protect and maintain a working waterfront and industrial use. In addition, the proposed action would be in conformance with the City's Waterfront Revitalization Program. Therefore, no potential significant adverse impacts to land use, zoning, public policy, or neighborhood character are expected to occur as a result of the proposed action.

Open Space

Overall, the proposed action would not result in significant adverse impacts to Barretto Point Park in the areas of shadows, noise, air pollutant emissions, or odors compared to the future no action condition. Specifically, in terms of shadows, shadow increments from the digesters would be short in duration and would be limited in coverage (see *Potential Significant or Temporary Adverse Impacts, Measures to Minimize or Avoid These Impacts and Commitments by NYCDEP* below). The proposed action would not result in significant increases of criteria air pollutants, non-criteria air pollutants, or odors. In terms of noise, operation of the plant as upgraded under the proposed action would not result in substantial noise increases (an increase of 0.4 dBA within the park).

After construction, the proposed action would result in a potential significant adverse visual impact on Barretto Point Park (see *Potential Significant or Temporary Adverse*

*Impacts, Measures to Minimize or Avoid These Impacts and Commitments by NYCDEP*). However, the potential impact would not result in a significant open space impact as the park users' overall enjoyment of the park would not be significantly diminished. The park has been designed to transition from its industrial surroundings to a pastoral waterfront setting. No views of the waterfront would be affected; only views looking east from the park would be affected. The potential significant visual impact would be very limited. Furthermore, the proposed action would not impede the public's access to the waterfront or disrupt the recreational activities that will be provided as part of the new park or the proposed greenway. Overall, the addition of new egg-shaped digesters and WPCP equipment would not result in a land use conflict or potential significant adverse open space impact on the existing park, or the additional adjacent open space to be created when NYCDEP transfers the 1.2-acre staging area to NYCDPR when it is no longer needed for construction staging, or on the proposed greenway.

The EIS analyses also evaluated the potential for impacts on the potential South Bronx Greenway Ryawa-Viele Connection. While the egg-shaped digesters would be visible from the Ryawa-Viele Connection for those users of the greenway traveling west along Ryawa Avenue, on Manida, and on Viele Avenue, the presence of the digesters would not result in a significant adverse visual impact given the industrial character of the area of the proposed South Bronx Greenway. The proposed action would not result in significant criteria air pollutant, non-criteria air pollutant, or odor impacts. Overall, the proposed action would not disrupt the activities that will be provided as part of the proposed greenway.

As with the two egg-shaped digester scenario, the four digester scenario would increase the presence of the wastewater treatment facility within the study area but would be consistent with the area's land uses and community character and current zoning and public policy initiatives. It is not expected that the four digester scenario would result in any potential significant adverse impacts other than the potential significant adverse visual character impacts on Barretto Point Park described above for the two-digester scenario. Overall, the four digester scenario would not result in potential significant adverse impacts to land use, open space, zoning, or neighborhood character.

### **b) Socioeconomic Conditions**

The proposed action would not involve the direct displacement of any residents or businesses. Moreover, the proposed action would not introduce a new land use that would be incompatible with the existing uses or activities within the neighborhood, and it is therefore not expected to result in the indirect displacement of any residential populations or businesses.

The estimated cost of the proposed action is \$232 million. The total estimated cost for the Hunts Point WPCP upgrades is \$658 million. The city finances construction of wastewater infrastructure through the New York City Municipal Water Finance Authority (Authority) and/or the New York State Revolving Fund Program (SRF). Based on assessments conducted for similar city infrastructure projects, the cost of the proposed action would result in a change in water and sewer rates of less than \$0.50 per month per household, while the increase from all three phases of the upgrade would be less than \$1.50 per month per household. This represents a very small percentage of rents and homeowner expenses and would not be expected to result in potential significant adverse displacement effects. For these reasons, no potential significant adverse socioeconomic

impacts are expected from the proposed action and no further socioeconomic analysis is required.

The costs associated with construction of the four-digester scenario would be approximately \$357 million (in 2005 dollars). Like with the proposed action, the change in water and sewer rates would be less than \$0.50 per month per household, and no potential significant adverse socioeconomic impacts are expected from the four-digester scenario.

**c) Historic Resources**

Construction of the proposed action would involve below-ground construction in areas that have been previously disturbed. In addition, no known architectural or historic resources that would meet the criteria for listing on federal or state registers or as landmark designations are located at the site. Therefore, the proposed action would not have any potential significant adverse impacts on historic resources, and no further analysis was warranted.

**d) Waterfront Revitalization Program**

The Hunts Point WPCP is located within New York City's Coastal Zone Boundary and is an industrial, water-dependent use located in a Significant Maritime Industrial Area (SMIA). The EIS examined the consistency of the proposed action with coastal zone policies. The proposed action would directly promote several policies of the New York City Waterfront Revitalization Program (WRP) including support of water-dependent and industrial uses in New York City coastal areas that are well-suited to their continued operation (Policy 2) and protection and improvement of water quality in the New York City coastal areas (Policy 5). Overall, the proposed action is consistent with applicable WRP policies.

**e) Transportation**

The carbon addition element of the proposed action would result in 2 additional trucks per day to remove sludge cake (biosolids) generated by carbon addition wastewater processes and an additional 6 trucks for related chemical deliveries. The proposed action would not result in any additional plant workers after construction. The proposed action results in very few new vehicle/truck trips and no new rail or transit riders. Therefore, the proposed action would not result in an exceedance of *CEQR Technical Manual* thresholds, and no potential significant adverse impacts would occur. The findings of the traffic analyses completed to determine the potential significant adverse traffic impacts during construction are described below under *Potential Significant or Temporary Adverse Impacts, Measures to Minimize or Avoid These Impacts and Commitments by NYCDEP*.

**f) Air Quality**

The Final EIS for the proposed action included analyses of specific air quality impacts including criteria and non-criteria pollutants. For both types of air quality impacts, the EIS considered the reasonable worst case operating conditions of mobile and stationary sources based on how the entire plant is expected to operate in order to provide the community with a cumulative assessment of potential air quality impacts associated with the Hunts Point WPCP. Criteria air pollutants are air contaminants for which the U.S. Environmental Protection Agency (EPA) or New York State has established maximum ambient air concentrations to protect public health. New York State also controls the

ambient levels of non-criteria pollutants or air toxics from general process emission sources through the use of recommended guideline concentrations in the New York Code, Rules and Regulations (6 NYCRR Part 212).

The results of the modeling analysis indicated that the entire plant as upgraded under Phases I, II, and the proposed action would not result in any impacts exceeding federal or state standards for criteria air pollutants of concern including carbon monoxide (CO), particulate matter less than 10 microns in aerodynamic diameter (PM<sub>10</sub>), sulfur dioxide (SO<sub>2</sub>), and nitrogen dioxide (NO<sub>2</sub>). Therefore, no significant adverse air quality impacts are predicted from these emissions.

Particulate matter less than 2.5 microns in aerodynamic diameter (PM<sub>2.5</sub>) was a primary focus of the criteria pollutants analyses given that it is the most inhaleable air pollutant and the high rates of asthma in parts of the South Bronx. The New York State Department of Environmental Conservation (NYSDEC) has developed threshold values for particulate matter to protect public health. In addition to those thresholds, NYCDEP established interim guidance for PM<sub>2.5</sub>, a neighborhood-scale threshold value that is used for comparison when determining the potential significance of air quality and public health impacts. NYSDEC is currently reviewing its 24-hour interim guidance criteria of 5 µg/m<sup>3</sup> and is expected to lower this threshold in the future. The updated interim guidance criteria currently employed by NYCDEP for the PM<sub>2.5</sub> 24-hour average considers a concentration increment or 2µg/m<sup>3</sup> or less at a discrete receptor location as below the threshold for a potential significant adverse impact on air quality.

NYCDEP committed to the use of ultra low sulfur diesel (ULSD) fuel in the generators that are being installed under the Phase II Upgrade and the new emergency generator associated with the Phase III Upgrade. In addition, NYCDEP will also reduce the maximum number of emergency generators participating in a peak load management (PLM) program to five of the six 2,000 kW generators that are being installed under the Phase II Upgrade. The nearest sensitive receptor location with potential continual 24-hour exposure would be the closest residence. At this residence, during worst case operating conditions (i.e., during PLM participation and emergency generator testing periods), the maximum predicted incremental PM<sub>2.5</sub> concentration over a 24 hour period would be well below the PM<sub>2.5</sub> criterion. The maximum predicted impact at other nearby receptors include Barretto Point Park and the proposed South Bronx Greenway would also be below the relevant criterion. Therefore, no potential significant air quality impacts related to PM<sub>2.5</sub> are expected to occur with the entire plant as upgraded under the Phases I and II Upgrades and the proposed action. NYCDEP will design and implement a PM monitoring program for both construction and operation of the upgrade.

Non-criteria pollutants include carcinogens, as well as non-carcinogenic compounds and irritants. Annual average and maximum hourly emissions from the carbon addition sources, and from the WPCP's combustion sources were estimated to determine maximum 1-hour and annual average concentrations at all receptor sites. The addition of carbon, specifically methanol or ethanol, is expected to reduce overall combustion source emissions of non-criteria pollutants because these compounds enhance biodegradation rates in the aeration tanks. Three volatile organic compounds (VOCs) had predicted exceedances of their corresponding state annual guidelines at or slightly beyond the plant's northern and southern fence lines. However, these exceedances are slightly lower than those predicted for the future without the proposed action.



New York State regulations require that a Best Available Control Technology (BACT) be performed when the annual guidance criteria, based on a one-in-million risk level for toxic non-criteria pollutants, are exceeded by a factor less than 10 due to emissions from a stationary source. The only technically feasible option is covering the primary clarifiers and the aeration tanks and treating the ventilation exhausts from the tanks using carbon adsorption. The economic evaluation for this option showed that the cost effectiveness for combined control of the three non-complying VOCs was outside the range of the cost-effectiveness values considered acceptable in BACT analyses. Based on the analyses conducted, BACT was determined to be “no control” due to technical and economical feasibility reasons.

Based on the air quality analyses and predicted impacts described above, no potential significant air quality impacts related to criteria and non-criteria pollutants are expected to occur with the plant as upgraded under the Phases I and II Upgrades and the proposed action.

During construction, NYCDEP will require the contractor to reduce PM emissions to the extent practicable by using ultra low sulfur diesel fuel in engines, employing relatively new equipment to the extent practicable (model years 2003 and newer) and installing diesel particulate filters (DPFs) or diesel oxidation catalysts (DOCs) as emissions controls on diesel equipment. The construction activities will be subject to New York City Local Law 77, which will require the use of Best Available Technology (BAT) for equipment at that time. Also during construction, the contractor will be required to implement a dust control plan that will require water spraying. On-site travel speeds will be restricted to 5 miles per hour and the onsite trucks will be subject to NYC idling laws.

### **g) Odors**

Odors from industrial uses and facilities are a particular concern for the Hunts Point community. As part of Phases I and II, numerous odor controls have been or are in the process of being implemented including activated carbon adsorbers for exhaust air from the existing primary and secondary screen rooms, the relocation of existing grit and scum handling equipment to the central residuals building, and covers and activated carbon for the primary settling tank influent channels. As part of the Phase III Upgrade, NYCDEP will implement enclosure modifications to ensure 100 percent capture of fugitive emissions for three of the odor controlled systems. In addition, NYCDEP has committed to installing odor control in the primary effluent channels. Each effluent channel will be covered, and the exhaust air will be treated with activated carbon through two carbon adsorbers, each with one stack, for a total of two stacks.

The odor impacts assessment for the proposed action, using H<sub>2</sub>S as an indicator compound for odorous compounds, determined that the predicted incremental H<sub>2</sub>S impacts from the proposed action would be negligible, and potential impacts from the entire plant as upgraded under Phases I and II Upgrades and the proposed action as well as the four-digester scenario would comply with the NYSAAQS of 10 ppb H<sub>2</sub>S in ambient air. Maximum predicted 1-hour H<sub>2</sub>S concentrations at the nearest residence, the Vernon C. Bain Detention Center, and at Barretto Point Park during park hours with the proposed action would be less than the 1 ppb significant odor guidance threshold in the City's *CEQR Technical Manual*. Potential odor impacts (1.58 ppb) on the Ryawa Avenue segment of the proposed South Bronx Greenway would not be disruptive of the types of activities that would occur along the greenway. Therefore, no potential significant

adverse malodorous impacts are expected from either the proposed action or the four-digester scenario.

Construction specifications for tank cleaning during construction of the upgrade require that a contractor spray a deodorant into each tank that is cleaned to prevent foul odors that may linger. An odor counteractant shall also be evenly sprayed on filled containers containing residuals removed from the tanks. As part of the subsequent operations and maintenance procedures for the plant after the proposed action is constructed, a portable carbon odor control system will be required to operate at all times during cleaning and an odor counteractant to be utilized as needed for the dewatered residuals. Mobile misters will also be used around the digesters and sludge storage tanks during cleaning.

### **h) Noise**

The operation of the Hunts Point WPCP with the proposed action would utilize noise control measures, such as enclosures or silencers for emergency generators, and would not result in any predicted exceedances of the suggested incremental thresholds in the City's *CEQR Technical Manual* at nearby sensitive receptors, and would not create exceedances of the octave band limits contained in the New York City Noise Code or the performance standards of the New York Zoning Resolution. The findings of the noise analyses completed to determine the potential significant adverse noise impacts during construction are described below under *Potential Significant or Temporary Adverse Impacts, Measures to Minimize or Avoid These Impacts and Commitments by NYCDEP*.

### **i) Infrastructure and Solid Waste**

The purpose of the proposed action is to improve a crucial component of the City's infrastructure, the Hunts Point WPCP. The proposed action would improve wastewater quality due to enhanced nitrogen removal. At the same time, the proposed action would not be anticipated to result in potential significant adverse impacts to water supply or solid waste. The Phase III Upgrade would include upgrades to the sludge handling systems at the Hunts Point WPCP, creating improved and more efficient sludge production, as well as carbon and polymer addition facilities to enhance nitrogen removal. Carbon addition will increase on-site sludge production at the plant. Overall, the proposed action would not result in potential significant adverse impacts on the City's Sludge Management Program, including the handling, transport, and disposal of sludge materials.

### **j) Energy**

Currently, the plant uses digester gas to meet 48 percent of the total plant's heating needs. Natural gas, fuel oil, and electricity purchased from utilities provide the rest of the plant's energy needs. With the proposed action, energy usage, including electricity and natural gas, would increase at the WPCP site. This expected additional power demand under the proposed action would not require any significant change in Consolidated Edison's regional distribution system or on the region's power supplies.

A 500 kW emergency generator (diesel-engine driven) would be provided at the digester building to provide back-up life safety power to elevators and fire pumps if utility service becomes unavailable (blackout periods). This and the other six emergency generators would be operated periodically for routine maintenance functions to ensure operability should off-site power service ever be interrupted. NYCDEP could also operate five of the six the emergency generators during periods outside of "emergency" conditions under a

PLM program. Under this program, the Hunts Point WPCP may be requested to reduce electrical demand.

The four-digester scenario would result in a small incremental increase in energy demand, as the four existing digesters would no longer be operational. No potential significant adverse impacts from the project's energy demands from the proposed action or the four-digester scenario are expected.

**k) Hazardous Materials**

Previous site investigations conducted for the existing Hunts Point WPCP site and the Barretto Point Site identified soil and groundwater contamination at locations where construction is proposed for the Phase III Upgrade. The areas that would be affected by the proposed action include the western portion of the existing Hunts Point WPCP site (including the area of the existing sludge thickeners, storage tanks, and digesters), the 5.5-acre parcel of city-owned land located to the northwest of the existing plant boundary (including the 1.2-acre construction staging area that would eventually be transferred to NYC DPR), and the carbon addition facility area. The polymer addition facilities would be located within the centrate building being constructed as part of the Phase II Upgrade, so no new construction would be required.

Portions of this area will be remediated by NYC DEP in accordance with the NYS DEC Record of Decision (ROD) for the Barretto Point brownfields site (specifically, a 2.75-acre area will be remediated, including a 0.7-acre former paint and varnish manufacturing facility area where soil and groundwater contaminated with volatile organic compounds have been detected). This remediation is scheduled to commence in the third quarter of 2008 and last for approximately one year. The remaining portion of the Barretto Point Site (5.25 acres) to be remediated by NYC DEP would be remediated during the construction of the Phase III Upgrade. Remediation of this area will include placement of two feet of clean fill over the entire area.

Construction activities would increase potential pathways for exposure of construction workers, workers at the WPCP, and others in the vicinity to contaminants in the soil and groundwater, including metals, polycyclic aromatic hydrocarbons (PAHs), and volatile organic compounds. All contaminated soils in the areas to be excavated would be removed and disposed of in accordance with all applicable federal, state, and local regulations. Construction Health and Safety Plans (CHASPs) would be developed and approved by NYC DEP for the various construction activities associated with the project to reduce the potential for worker or public contact with contamination found in either the soil or groundwater. These plans would address the potential exposure pathways and other safety concerns associated with a variety of construction methods. Each CHASP would address both the known contamination issues as well as contingency items. The CHASP would be developed in accordance with U.S. Occupational Health and Safety Administration (OSHA) regulations and guidelines.

A Community Air Monitoring Program (CAMP) will be conducted during remediation activities. Institutional controls will be implemented, including site inspections and repair where necessary, to maintain the integrity of clean soil cover and fencing around the property. The soil management plan will include procedures for handling soil excavated from below the soil cover and demarcation barrier during any future construction or utility replacement. NYC DEP will submit annual reports to NYS DEC to certify that all institutional and engineering controls, such as dust suppression, employed at the site are

in place and effective; performing as designed; are capable of protecting the public health and the environment; and are in compliance with the operation and maintenance plan. Institutional controls and health and safety requirements will be incorporated into the WPCP's Operations and Maintenance Manual once approved by NYSDEC.

Transportation, storage, and handling of the new chemicals associated with the Phase III Upgrade, and the chemicals already used for operation of the plant would be in accordance with all applicable federal, state, and local regulations and guidelines.

With the implementation of the above measures during the construction and operation of the Phase III Upgrade and carbon and polymer addition, no potential significant adverse impacts are expected related to the hazardous materials on the site.

**l) Water Quality**

The proposed action is an upgrade to one of the City's 14 WPCPs and thus supportive of the water quality goals of Mayor Bloomberg's *PlaNYC 2030*. This report identified the following as one of New York City's primary water challenges: "to ensure that the waterways surrounding the city are clean and available for use by New Yorkers." To ensure that this goal is met, the plan states that the City's wastewater treatment infrastructure will continue to be upgraded. The plan also identifies nitrogen as a particular water quality concern. In addition to improving the plant's solids handling facilities, the proposed action includes measures that will enhance the plant's nitrogen removing capabilities.

Under the proposed action, a source of carbon (such as methanol, a water soluble wood alcohol, or ethanol, alcohol found in liquor and beer) would be added to the wastewater to increase the denitrification rate. The carbon sources are readily biodegradable and will be removed in the downstream aerobic zones. The nitrification-denitrification process on occasion can produce a heavy biological froth on the surface of the aeration tanks. The froth is a nuisance that can adversely impact the settling of sludge and cause foaming in the sludge digesters. Polymer is a coagulant which improves the removal of the froth in the settling tanks. In order to control the froth, polymer addition facilities would be installed. Therefore, the proposed action would improve the quality of the WPCP's effluent, and no potential significant adverse impacts on water quality are expected.

**m) Natural Resources**

No in-water work is proposed as part of the proposed action; therefore there would be no impacts to aquatic species. Although the plant site falls within land designated as littoral zone, no wetland vegetation is present on the site. The proposed action would include enhanced nitrogen removal facilities, thereby improving the quality of the plant's effluent to the East River. This could, in turn, provide benefits for aquatic resources. Therefore, no potential significant natural resources impacts would occur.

**n) Public Health**

The analysis of potential effects of the proposed action on public health considered potential health concerns related to air quality, including the potential for exposure to PM concentrations and VOCs; increased pollution from vehicle emissions; noise; and hazardous materials during both construction and operation. The analysis included the identification of special local populations that are sensitive to environmentally induced stresses. For example, the New York City Department of Health and Mental Hygiene

reported that the prevalence of asthma among children 4 to 5 years old in 1999 was 9.1 percent citywide. In comparison, Hunts Point was among the highest prevalence of asthma among 4 to 5 years olds, 17.1 percent, just a bit lower than High Bridge-Morrisania, Bronx (17.2 percent) and East Harlem (18.5 percent).

Areas with high asthma rates tend to contain a number of potential pollution sources that could affect respiratory health, including designated truck routes and high traffic roads, waste transfer stations, manufacturing facilities and nearby power plants. Based on the air quality assessments performed for the EIS, the operation and construction of the proposed action (for both the two- and four-digester scenarios) would not result in any new predicted exceedances of air quality standards and the predicted neighborhood average incremental concentration of PM<sub>2.5</sub> would be less than the applicable interim guideline concentration. The assessment also considered the type of sensitive receptors that could be affected, especially at locations where 24-hour exposure could occur, given that the standard was derived based on continual 24-hour exposure. Additionally, any increased emission levels produced during the construction activity would be transient. The principal health effects of airborne particulate matter are on the respiratory system. Based on the project changes in air quality resulting from the operation and construction of the proposed action (see “Air Quality” above), no significant impacts on public health in the community would be expected. In addition, the potential impacts from non-criteria air pollutants, noise, traffic and hazardous materials are also not expected to result in a significant adverse impact on public health. Therefore, the construction and operation of the proposed action is not expected to result in a potential significant adverse impact on public health.

### **6) Potential Significant or Temporary Adverse Impacts and Measures to Minimize or Avoid These Impacts.**

The Final EIS discussed the potential for significant or temporary adverse impacts to result from the proposed action. Where such potential or temporary impacts have been identified—in the areas of construction-period traffic and noise and visual character and shadows during the operation of the proposed action—measures are examined to minimize or eliminate the anticipated impacts. These impacts and mitigation measures are discussed below along with a brief description of the environmental justice analysis NYCDEP conducted as part of its commitment to the Hunts Point community to review the proposed action in the context of other potential burdens faced by the community.

#### **a) Visual Character and Shadows (Operational)**

While in keeping with the area’s industrial character, the digesters would be prominent additions to the study area. The height and bulk of the egg-shaped digesters (both the two- and four-digester scenarios) would be much greater than the relatively low-lying industrial buildings in the area surrounding the plant. Construction of the digesters would not result in potential significant adverse shadow impacts to Barretto Point Park or to the construction staging area (future park area). Shadows would be limited to the morning hours and to the eastern half of the park. After the morning hours, both Barretto Point Park and the construction staging area would receive full sunlight throughout the rest of the day since there is open water to the south and west and no other shadow-casting structures exist. Shadows from two digesters would be less than the new shadows introduced by four digesters. Therefore, there would not be a significant reduction in the

amount of sunlight on the park or in the usability of the park, and no significant adverse shadows impacts are expected.

Rising 130 feet tall, the proposed egg-shaped digesters would be prominent additions to the study area. Because it is an industrial area, there are few viewers or views that would be affected. However, for Barretto Point Park users looking east toward the 4.3-acre additional parcel on which the digesters would be constructed, there would be a potential for a significant adverse impact on visual character.

The transfer of land from NYCDEP to NYCDPR to create Barretto Point Park and the planning for Barretto Point Park were both undertaken in the context of design work for the use of the 4.3-acre parcel for the egg-shaped digesters. The two projects were contemporaneously planned. It was conceived that the design of Barretto Point Park would transition from its industrial surroundings to the waterfront. The potential significant visual character impact would be very limited. No views of or access to the waterfront would be affected. Only views looking east from the park would be affected. The impact would not significantly impact park users' enjoyment of the park and there are no significant shadows impacts.

NYCDEP will hire a design architect and the final design of the digesters' exterior will be completed with input from the community, to enhance and convey the modern, innovative architectural style associated with this particular wastewater technology, as was done at the Newtown Creek WPCP. There will be planted buffers of 20 feet on the southern edge and 20 feet on the eastern edge of Barretto Point Park. The buffers along the Park's fence line have been established to partially screen the visual character impacts associated with the digesters. However, there are no measures available to mitigate the limited potential significant adverse visual impact. Several alternative site plans were evaluated, however, there is no feasible alternative that would better meet the objectives and implementation of the proposed action while reducing or eliminating this significant impact, which is limited in scope. Therefore, the potential significant adverse visual impact would remain unmitigated and is unavoidable.

### **b) Noise (Construction)**

Construction activities for the proposed action would be expected to result in increased noise levels as a result of the operation of construction equipment on-site during normal construction time periods (7 AM to 4 PM) and the movement of construction-related vehicles (i.e., worker trips, and material and equipment trips) on the surrounding roadways during AM and PM peak hours. Construction work would largely occur during normal construction time periods on weekdays, and not weekends when Barretto Point Park would likely be more fully utilized.

The City's Noise Control Code mandates noise emissions levels for various types of construction equipment and NYCDEP would require all contractors and subcontractors to properly maintain their equipment throughout the construction of the proposed action. Noisy equipment, such as generators, cranes, concrete pumps, concrete trucks, and dump trucks, would be located away from and shielded from Barretto Point Park which is the only existing sensitive receptor immediately adjacent to the construction site. The construction sites would have construction walls located between the construction site and the Park to provide shielding (i.e., minimum ¾ inch thick, 8-foot tall plywood). Because the egg-shaped digesters would rise to a height of 130 feet, the noise wall would

not be effective during the period when the digesters are constructed. adjacent to Barretto Point Park, and delivery trucks would operate behind this construction wall. Noise curtains and equipment enclosures would be utilized to provide shielding to sensitive receptor locations. Finally, a noise mitigation plan consistent with requirements in revised Noise Control Code would be implemented by NYCDEP.

Based on the noise analyses completed for the EIS, NYCDEP has determined that there would be no potential significant adverse noise impacts at the nearest residence. During construction activities, predicted noise levels at Site R3 (located in Barretto Point Park at 50 feet away from the construction site) would exceed the 5 dBA CEQR impact criteria during the third quarter of 2011 through the fourth quarter of 2012 (1.5 years), and the fourth quarter of 2014 (quarter of a year). The major contributor to these construction noise levels at Site R3 would be the pile driving that is require for sheeting for 20 days of the third quarter of 2011. The pile driving would be more than 25 feet above grade. Work related to construction of the digesters above the construction wall would not be attenuated by the construction wall, and no feasible noise control attenuation is achievable for this construction of the egg-shaped digesters. Such noise levels would be readily noticeable, but would not be expected to disrupt or interfere with park users' activities and would not occur on weekends when the park would be most fully utilized. Due to the temporary nature of the adverse impacts, the predicted temporary adverse noise impacts from the construction of the proposed action would not be significant.

A construction schedule of the estimated the workers, equipment, and construction vehicles anticipated to be operating during each quarter of the construction period was prepared. Based upon the traffic analysis, the worst-case scenario for potential construction transportation impacts would occur in the third quarter of 2011. The maximum noise level increase with the proposed action would be 1.9 dBA compared to the future without the proposed action noise levels, which is well below the 3.0 dBA CEQR noise impact threshold. Increases of this magnitude would be imperceptible and would produce no significant adverse impacts. Therefore, the predicted temporary adverse noise impacts from construction-related vehicles associated with the proposed action would not be significant due to the temporary nature of the adverse impacts.

### **c) Traffic (Construction)**

Detailed traffic analyses were performed at seven critical intersections within or bordering the Hunts Point peninsula to evaluate the potential for traffic impacts from the projected construction activities. The intersections were selected based on the expected construction-related worker and truck trips and an understanding of the area's travel routes. Results of the detailed analyses show that projected construction activities would result in significant adverse traffic impacts at one intersection (Bruckner Boulevard and Tiffany Street) during both the AM and PM peak hours under 2011 peak construction conditions. Although these impacts are not permanent and their effects would be less in other construction years, the length of time during which the impacts could be sustained is expected to span over numerous years.

Feasible mitigation measures were explored to alleviate these potential significant adverse traffic impacts. Analysis results showed that signal timing adjustments would be required to fully mitigate the AM and PM peak hour traffic impacts identified. Shifting four seconds of green time from the eastbound/westbound phase and three seconds of green time from the northbound/southbound phase to the westbound lead phase at the

Bruckner Boulevard and Tiffany Street intersection would mitigate the westbound left-turn impact during the AM peak hour. Likewise, shifting one second of green time from the eastbound/westbound phase to the westbound lead phase at the Bruckner Boulevard and Tiffany Street intersection would mitigate the westbound left-turn impact during the PM peak hour.

NYCDEP has already coordinated with New York City Department of Transportation (NYCDOT) to implement the signal timing adjustments described above. Upon completion of the planned construction activities, these measures could be maintained or removed at the discretion of the NYCDOT. In addition, there will not be any off-site queuing of trucks during the construction period.

### **d) Environmental Justice**

The environmental justice analysis completed for the proposed action was consistent with the intent of Executive Order 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low Income Populations* (February 11, 1994) and based on NYSDEC's *Policy (CP)-29 Environmental Justice and Permitting* to address environmental justice concerns and ensure community participation in the NYSDEC environmental permit review process and State Environmental Quality Review Act procedures. Although the proposed action does not meet the criteria for preparing an environmental justice analysis under NYSDEC's Policy (i.e., the proposed action would not require a state permit or a major modification to a state permit, but would only require a minor modification to the facility's February 2006 air permit) NYCDEP committed to the Hunts Point community to inventory the sources of environmental burdens and cumulative environmental impacts in the study area.

As set forth in the Policy, "Environmental justice means the fair treatment and meaningful involvement of all people regardless of race, color, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. Fair treatment means that no group of people, including a racial, ethnic, or socioeconomic group, should bear a disproportionate share of the negative environmental consequences from industrial, municipal, and commercial operations or the execution of federal, state, local, and tribal programs and policies." About 48.4 percent of the residents in the study area live below the poverty level (compared to approximately 30.7 percent in the Bronx as a whole and 21.2 percent in New York City). The study area thus meets NYSDEC's definition of a low-income community. To identify potential environmental burdens present among these industrial uses, a compilation of databases was prepared by Toxics Targeting, Inc. for the Hunts Point peninsula. Data compiled consisted of records from regulatory databases maintained by the U.S. Environmental Protection Agency (EPA) and NYSDEC. These records were reviewed to identify locations within the study area where hazardous materials and chemicals are used, generated, stored, treated, and/or disposed of, as well as locations where they may potentially be released.

In general, the cumulative analysis of the proposed action together with expected future No Action conditions or current environmental burdens indicated that the proposed action would not result in potential significant adverse impacts to the surrounding area for air quality, noise, hazardous materials, public health, or other environmental impact areas. As described above, however, two potential significant adverse impacts were identified: the proposed action's construction activities are predicted to result in a potential significant adverse traffic impact during construction, and the new egg-shaped digesters would result in a potential significant adverse impact on the visual character at Barretto



Point Park. In addition, temporary noise impacts from construction activities would occur on the park. These impacts would be adverse impacts on minority or low-income populations.

For actions that may affect potential environmental justice areas, NYSDEC's *CP-29 Environmental Justice and Permitting* requires project sponsors to actively seek public participation through the permit review process. In accordance with the Policy, public participation has been actively sought from the communities potentially affected by the proposed action, through and in addition to the environmental review process. Public participation to date has included outreach and coordination through the Hunts Point Monitoring Committee (HPMC), public outreach during scoping for the EIS, and several specific outreach efforts undertaken by NYCDEP which have been described above (i.e., Hunts Point Odor Source Study, future addition to Barretto Point Park, and the Community Investment Project). Through ongoing coordination with the HPMC, specific Mayoral and NYCDEP efforts to increase open space and improve the neighborhood's visual character, and the public review of this EIS, the proposed action is consistent with the public participation requirements of federal and state environmental justice policies.

**e) Other NYCDEP Commitments**

**i) Air Quality**

- NYCDEP has a PM program and will undertake a review of the Program in consultation with HPMC. The Program will operate for the life of the WPCP, during and after construction, and will monitor air quality in Barretto Point Park and on the Greenway.
- NYCDEP will facilitate a meeting between Hunts Point community members and the New York City Department of Health (NYCDOH) to discuss what is known about the potential impacts from acrolein.

**ii) Energy**

- NYCDEP will prepare an energy audit of its wastewater treatment system using the Hunts Point WPCP and four other plants as benchmarks.

**iii) Odors**

- NYCDEP will prepare an Odor Monitoring and Management Plan, including time frames for implementation of the identified abatement measures for both the Hunts Point WPCP and the New York Organic Facility Company (NYOFCO).
- NYCDEP will initiate a Hunts Point Area Odor Management Plan for sources in the Hunts Point peninsula apart from the Hunts Point WPCP and NYOFCO.

**iv) Amenities**

- NYCDEP will commit \$20 million to fund the construction of community amenities as prioritized by the community. A workshop was held with the community on December 9, 2006 and three priority options were identified: 1) a boathouse facility at Lafayette Park and streetscape improvements on Lafayette Avenue; 2) a multi-use facility focused on maintenance uses and environmental education; 3) a floating swimming pool streetscape improvements on Ryawa and Viele Avenues and the reconstruction of the Tiffany Street Pier. In addition, NYCDEP has funded a consultant to undertake a planning process, in

coordination with the ad hoc committee of Bronx Community Board 2 and with community input, to further develop the three projects.

### v) Other

- NYCDEP will collaborate with New York City Department of Parks and Recreation (NYCDPR) on a user survey to identify issues that are affecting the use and enjoyment of Barretto Point Park.
- NYCDEP will fund a community liaison for the duration of construction at the Hunts Point WPCP. The liaison will be located at the Hunts Point WPCP and will be selected by NYCDEP and Community Board 2, in consultation the HPMC.
- NYCDEP is committed to the continuation of the HPMC for the duration of the construction at the Plant and for eighteen months following completion of the Phase III Upgrade.
- NYCDEP will continue funding a technical advisor to provide assistance on issues that cannot be addressed adequately by the community liaison, NYCDEP project managers, or the consultant team.

## 7) Project Alternatives

The Final EIS evaluated numerous project alternatives including the no action, site plan, technological, and carbon addition alternatives for the proposed action. The alternatives analysis presents alternatives that, in addition to a no action alternative, reduce or eliminate project impacts while substantively meeting project goals and objectives; demonstrate a reasonable range of options to the proposed action; and compare potential impacts under alternative approaches for meeting project objectives.

Overall, the alternatives analysis did not identify any feasible alternatives that would meet the objectives of the proposed action while reducing or eliminating impacts identified for the proposed action. The various site plan alternatives—constructing the egg-shaped digesters in the existing digester location or along the waterfront—as well as the conventional digester alternative which would construct digesters of similar dimensions to those of the existing digester were evaluated to determine if these alternatives would minimize the potential significant adverse visual character impacts associated with the proposed action. Site Plan Alternative 1 (along the waterfront) would not eliminate the potential significant adverse visual impact of the proposed action, but would require extensive in-water construction that may result in adverse impacts on natural resources that would not occur with the proposed action, and might exacerbate and lengthen the duration of construction-related impacts. Site Plan Alternative 2 (location of existing digesters) would eliminate the potential significant adverse visual impact of the egg-shaped digesters, but would greatly increase the construction complexity and schedule for the Phase III Upgrade and would eliminate future flexibility of the plant configuration for potential future plant needs. While the digesters that would be constructed under the Conventional Digester Alternative would not be as visible as the egg-shaped digesters under the proposed action, this alternative would not eliminate the potential significant adverse visual impact. This alternative would also directly displace land committed as open space (the 1.2-acre construction staging area) for incorporation into Barretto Point Park. Use of conventional digesters would also eliminate the technological advantages provided by the egg-shaped digesters and would require extensive in-

water construction that may result in adverse impacts on natural resources that would not occur with the proposed action.

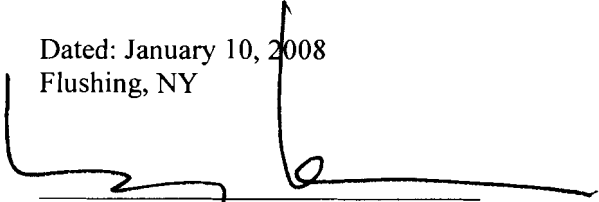
**8) Conclusions and Findings**

The Final Environmental Impact Statement evaluated the environmental effects of the construction and operation of the proposed Hunts Point WPCP Phase III Upgrade and carbon and polymer additions. Having considered the Final EIS, and the information and analysis contained therein, the Commissioner concurs with the findings of the Final EIS, and finds that:

- The requirements of Part 617 of the Uniform Compilation of Codes, Rules, and Regulations of the State of New York have been met;
- Consistent with social, economic, and other essential considerations, from among the reasonable alternatives thereto, the actions to be approved are ones that would minimize or avoid adverse environmental impacts to the maximum extent practicable; and,
- Consistent with social, economic, and other essential considerations, the adverse environmental impacts revealed in the Final EIS will be minimized or avoided to the maximum extent practicable by incorporating as conditions to the approval those mitigative measures that were identified as feasible and practicable.
- The actions are consistent with the policies of the New York City Waterfront Revitalization Program (WRP) and New York State's coastal zone management policies.

The Final EIS and the Notice of Completion of the Final EIS constitute the written statement of facts and the environmental, social, economic and other factors and standards that form the basis of this decision, pursuant to Section 617.11(d)(5) of the SEQRA regulations.

Dated: January 10, 2008  
Flushing, NY



Emily Lloyd  
Commissioner  
New York City Department of Environmental Protection