

A. INTRODUCTION

This chapter summarizes and responds to all substantive comments received during the public review period on the Draft Environmental Impact Statement (DEIS) for the proposed Hunts Point Water Pollution Control Plant (WPCP) Phase III Upgrade. The DEIS was prepared in accordance with City Environmental Quality Review (CEQR) as set forth in Executive Order 91 of 1977 and its amendments creating the Rules of Procedure for CEQR, adopted by the City Planning Commission on June 26, 1991 and revised in October 2001, as well as the State Environmental Quality Review Act (SEQRA), Section 8-0113, Article 8 of the Environmental Conservation Law, as set forth in 6 NYCRR Part 617. The project is also subject to environmental review pursuant to the State Environmental Review Process (SERP) established for obtaining State Revolving Loan Funds.

Public review of the DEIS began on December 19, 2006 with the issuance of the Notice of Completion and the DEIS. As required under CEQR, the DEIS was available for public review for a minimum of 30 days following publication. The DEIS was circulated to interested and involved agencies and members of the public. A public notice advertising the availability of the DEIS was published in the New York State Department of Environmental Conservation (NYSDEC)'s Environmental Notice Bulletin. In addition, the DEIS was posted on the New York City Department of Environmental Protection (NYCDEP) Web page, and hard copies of the document were made available in local libraries and Community Board offices.

As required by CEQR, a public hearing was held during the public comment period on April 12, 2007, to receive oral testimony from the public and from involved or interested public agencies. A public notice advertising the date, time, and location of the public hearing on the DEIS was published in the *City Record* and in newspapers of general circulation in the affected area, including *The New York Daily News*, *The Bronx Times*, *Hoy*, and *El Diario*. Information on the public hearing was also published in NYSDEC's *Environmental Notice Bulletin*. Flyers were distributed throughout the community (in both English and Spanish), and notices of the public hearing were mailed to those who provided testimony at the public scoping hearing on February 1, 2005. The public hearing was held at The Point Community Development Corporation at 940 Garrison Avenue in Hunts Point, the Bronx. The public comment period was closed on April 23, 2007.

In coordination with the New York City Department of City Planning's (NYCDCP) certification of the Uniform Land Use Review Procedure (ULURP) applications, NYCDEP attended public hearings with the City Planning Commission (on June 6, 2007), the Bronx Borough President's Office (on April 27, 2007), and the local Community Board (on March 14, 2007, March 28, 2007, April 11, 2007 and April 25, 2007) to present the findings of the DEIS as related to the ULURP applications.

¹ Note: This chapter is new for the FEIS.

NYCDEP also held technical meetings with EnviroSciences, the consultant to the Hunts Point Monitoring Committee (HPMC), on January 17, 2007, January 30, 2007, and March 16, 2007, and also met with EnviroSciences and HPMC on March 19, 2007, to discuss the DEIS methodologies and analyses. These meetings were intended to assist HPMC's understanding of the scope of the project and to assist the public in its review of the DEIS and included a substantial question and answer component. NYCDEP responded to over 125 comments, which are included in this chapter.

This chapter of the Final EIS (FEIS) identifies the organizations and individuals who commented on the DEIS during the public comment period, and then summarizes and responds to their comments. It considers all comments made at the public hearing on April 12, 2007, and all written comments submitted during the comment period, which ended on April 23, 2007. All commenters will receive a copy of the FEIS on CD-ROM.

Section B lists all individuals and organizations that commented on the DEIS. Section C contains a summary of all comments made and a response to each of those comments. These summaries incorporate the content of the comments, but do not quote the comment directly. Where similar comments on the same subject matter were made by more than one person, a single comment summarizes all comments on that issue. Following each comment is a list in parentheses of people or organizations that made the comment. The comments are organized by subject area, following the same general order as the EIS.

B. LIST OF COMMENTERS

1. EnviroSciences, consultant to the Hunts Point Monitoring Committee, correspondence dated February 12, 2007, February 26, 2007, March 20, 2007, and April 2, 2007.
2. Sister Marie Howe, Corpus Christi Monastery, written comments dated April 12, 2007.
3. Laura Stockstill, representative of Bronx Borough President Adolfo Carrión, Jr., spoken testimony and written statement.
4. Carmen Aquino, representative of Councilmember Maria del Carmen Arroyo, 17th Council District, spoken testimony and written statement.
5. Ralph Acevedo, Hunts Point Monitoring Committee (HPMC), spoken testimony.
6. Sirita Parker, Mothers on the Move, spoken testimony.
7. Maria Torres, President of The Point Community Development Corporation, HPMC, spoken testimony.
8. Tymeisha Massey, ACTION, spoken testimony.
9. Robert Ingram, ACTION, spoken testimony.
10. Yosenia Dorno, The Point Community Development Corporation, spoken testimony.
11. Frank Merrerro, HPMC, Community Board 2, spoken testimony.
12. Mineka Mohan, Sustainable South Bronx, spoken testimony.
13. Sidhartha Sanchez, representative of Congressman Serrano, spoken testimony.
14. Elena Conte, Sustainable South Bronx, HPMC, spoken testimony.
15. Laura Truettner, Enviro-Sciences, spoken testimony.

16. Mathy Stanislaus, Enviro-Sciences, spoken testimony.

17. Hunts Point Monitoring Committee, written comments dated April 23, 2007.

C. COMMENTS AND RESPONSES

LAND USE, ZONING, PUBLIC POLICY, NEIGHBORHOOD CHARACTER AND OPEN SPACE; ENVIRONMENTAL JUSTICE (CHAPTERS 2, 17, AND 23)

Comment 1: The context of the community that hosts the facility must be considered carefully in addressing both impacts and mitigating efforts. The environmental justice precedent this project sets is of concern. (13)

Response: The EIS analyses consider the context of the community. Chapter 2, “Land Use, Zoning, Neighborhood Character, and Public Policy,” describes the project site and surrounding area within a ¼-mile radius. NYCDEP also provided an environmental justice analysis (see Chapter 23, “Environmental Justice”) to determine whether the proposed action would result in any disproportionate and adverse impacts on minority or low-income populations.

The ¼-mile study area is the area that, based on the technical analyses in the EIS, has the greatest potential to be affected by the proposed action. Where the proposed action would have the potential to result in an impact beyond the ¼-mile area, the study area was expanded. For example, for the construction-period traffic analysis, intersections were analyzed throughout the Hunts Point peninsula. In disclosing impacts from both the construction and operation of the proposed action, the EIS considers the proposed action’s potential adverse impacts on the environmental setting. The EIS analyzes both the proposed action and existing and other future developments under the No Action condition to ensure that the future community context is accurate. Future developments were identified within the ¼-mile study area and in a larger area to ensure that the full scope of potential changes to the community are understood. The ¼-mile area surrounding the project site is predominantly industrial in nature with the exception of Barretto Point Park, a few isolated residences scattered north of Viele Avenue, and the Vernon C. Bain Detention Center.

NYCDEP recognizes that the community is an environmental justice community with many environmental burdens. Therefore, NYCDEP undertook an assessment of environmental justice (see Chapter 23, “Environmental Justice”) even though the proposed action does not meet the criteria for preparing an environmental justice analysis under NYSDEC’s Policy. NYCDEP undertook the environmental justice analysis to evaluate the effects of the proposed action on a community that clearly meets the definitions of an environmental justice community and has numerous environmental burdens in close proximity.

Based on the land use, neighborhood character, and environmental justice analyses, 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, with the exception of two potential significant adverse impacts: 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. As disclosed in the DEIS, these impacts would be adverse impacts on minority or low-income populations.

Comment 2: The proposed action must be considered within the context of the Mayor's PlaNYC. (8, 10) This strategy should begin with reducing the impacts of the Hunt's Point WPCP to the maximum extent possible. (17) NYCDEP must do more than just meet standards. (10, 14) NYCDEP must use the Hunts Point WPCP DEIS as its first opportunity to "assess the impact of development, infrastructure changes, traffic changes, and traffic mitigation measures" (page 129, the Mayor's PlaNYC).² (17)

Construction and operation of the plant should be designed to meet the goals established in the Hunts Point Vision Plan to: support safe connections, improve environmental quality, and promote urban health. (17)

Response: As discussed in Chapter 2, "Land Use, Zoning, Neighborhood Character and Open Space," the proposed action would not significantly affect land use or neighborhood character. The proposed action is being designed to ensure that the most stringent of air quality thresholds will be met and would not result in significant adverse impacts. The project is also consistent with the referenced policies, as discussed below.

The Hunts Point Vision Plan was considered in the EIS; the proposed action's consistency with the plan is described in Chapter 2, "Land Use, Zoning, Neighborhood Character, and Open Space." As stated in that chapter, the proposed action would not impede the implementation of the recommendations of the Hunts Point Vision Plan.

Further, the proposed action is an important component in achieving one of the Mayor's PlaNYC goals. The Mayor's PlaNYC identifies 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

² PlaNYC, *A Greener, Greater New York*, The City of New York, Mayor Michael R. Bloomberg, April 22, 2007.

infrastructure will continue to be upgraded. The plan also identifies nitrogen as a particular water quality concern. The proposed action is an upgrade to one of the City's 14 WPCPs. In addition to improving the plant's solids handling facilities, the proposed action includes measures that will enhance the plant's nitrogen removing capabilities (the carbon and polymer addition facilities). The proposed action is being undertaken to improve existing conditions and to accommodate long-term growth in the area that the plant serves.

With respect to reducing air quality impacts from the plant on the community, NYCDEP has undertaken many initiatives, including numerous odor control measures already undertaken or under construction under the Phase I and II Upgrades and those included in the proposed action. As part of the proposed action, NYCDEP has committed to additional odor controls, including controls for the primary effluent channel. NYCDEP has also agreed to undertake air monitoring of hydrogen sulfide (H₂S) and PM_{2.5}, incorporate the use of Ultra Low Sulfur Diesel (ULSD) fuel for the plant's emergency generators, which will lower PM_{2.5} emissions from these generators, and 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. Consistent with the Mayor's PlaNYC, these measures will cumulatively address methods for minimizing air quality impacts from the WPCP on the community. With respect to traffic, the upgraded plant would generate very few trips. During construction, there would be a significant traffic impact at Bruckner Blvd. and Tiffany St. that will be mitigated through signal timing changes at the traffic light.

Comment 3: The *CEQR Technical Manual* recognizes the value of open space and provides a directive to evaluate all impacts on open space, not just shadows and visual impacts but a comprehensive analysis of all potential impacts, which should include air quality, noise, and odors (page 3D-12). The potential for impacts on the park (both during construction and operation) must be examined collectively to provide a complete picture of the potential impacts on the park. Cumulative impacts on the park will occur because of the following:

- The bulk and height of the digesters will be overwhelming to park users; the eggs will tower over adjacent park structures and significantly affect the way children and adults experience the park. (4, 5, 8, 9, 11, 12, 13, 14, 15, 17)
- The eggs will create shadows on the park; the shadows may be restricted to morning hours but they nonetheless represent an additional impact to the park. (14)

- Construction of the eggs will pose air quality impacts to park users. Even after remediation of the soils, excavation of the clean fill for the foundation of the eggs will create dust and possibly odors.
- Construction will create noise impacts for over 1½ years.

Despite all these impacts, the DEIS concludes “the potential impacts would not result in a significant open space impact as park users overall enjoyment of the park would not be significantly diminished (page 2-7).” NYCDEP cannot justify this conclusion because NYCDEP has not analyzed the impacts in accordance with the *CEQR Technical Manual*. (15, 17)

Response:

The potential for significant adverse impacts on Barretto Point Park was analyzed in accordance with the *CEQR Technical Manual*, as proposed in the Draft and Final Scope of Analysis, and was adequately described in the EIS. The *CEQR Technical Manual* states on page 3D-15 in the section about determining the significance of an open space impact, “If the proposed action results in a significant physical impact on existing open space in terms of increasing shadow, noise, air pollutant emissions, or odors compared to the future no action condition, then there is a significant impact requiring mitigation.” The EIS analyses evaluated the potential for direct impacts—shadows, criteria air pollutants, non-criteria air pollutants, odors, and noise—to Barretto Point Park, and a summary of the analyses (a cumulative assessment) was provided in Chapter 2, “Land Use, Zoning, Neighborhood Character, and Open Space,” for the operation period and in Chapter 17, “Construction,” for the construction period. In addition, the EIS analyzed the potential for the project to result in adverse visual character impacts on the park.

Operation-Period Direct Impacts

As described in the DEIS, in terms of shadows, the egg-shaped digesters would not result in potential significant adverse impacts to Barretto Point Park or to the construction staging area. The potential for an action to result in significant adverse shadows impacts depends on the coverage and duration of a project’s incremental shadow.

Shadow increments from the digesters would be short in duration and would be limited in coverage. The shadow diagrams in the EIS (Figures 4-19, 4-20, and 4-21) show the extent of the shadow at the beginning of the analysis period (indicated in red) and again as the shadow moves off the open space (indicated in yellow). As shown in the figures, the shadows would cover portions of the eastern section of the park as well as portions of the construction staging area but would move quickly off the open space. On the March 21 and June 21 analysis days, there would be no shadow increment from the digesters on Barretto Point Park or the construction staging area by 9:45 AM; on the May 6 and December 21 analysis days, there would be no shadow increment by 10:15

AM. For the remainder of the day, both Barretto Point Park and the construction staging area would be in full sun. The shadow increments would not substantially reduce the amount of sunlight on the park or in the usability of the park, and no significant adverse shadows impacts are expected.

The potential for the proposed action to result in criteria air pollutants, non-criteria air pollutants, and odors was also assessed. As described in Chapters 8, “Criteria Air Pollutants,” 9, “Non-Criteria Air Pollutants,” and 10, “Odors,” 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).

Overall, the proposed action would not result in significant adverse impacts in the areas of shadows, noise, air pollutant emissions, or odors compared to the future no action condition.

As stated above, NYCDEP also undertook an analysis of visual character. This analysis (see Chapter 4, “Visual Character and Shadows”) determined that the introduction of the new egg-shaped digesters would result in a potential significant adverse impact on visual character for Barretto Point Park users facing east toward the additional parcel. This impact would not result in a significant open space impact as the visual impact would be very limited, and no views of or access to the waterfront would be affected. Only views looking east from the park would be affected, and park users’ overall enjoyment of the park would not be significantly diminished.

Based on cumulative effects on open space and as specified in the *CEQR Technical Manual*, the proposed action would not result in a significant open space impact on Barretto Point Park during operations.

Construction-Period Impacts

The *CEQR Technical Manual* states that the determination of the significance of a construction impact is “generally based on the duration and magnitude of the impact” (page 3S-1). NYCDEP undertook a comprehensive analysis of the proposed action’s potential to result in construction-period impacts on the park and other sensitive uses in recognition that the construction period for the proposed action is lengthy. Specifically, NYCDEP assessed the potential for impacts in the areas of land use, open space, neighborhood character, and visual character; traffic and parking; air quality; odors; noise; solid waste; water quality; energy; and hazardous materials. As detailed in Chapter 17, “Construction,” construction of the proposed action would not result in significant adverse impacts on the park but would result in temporary increases in noise levels. There is a predicted significant adverse traffic impact from traffic, but it would not affect the park.

Based on soil samples conducted on the additional parcel, it is not expected that the soils to be excavated during construction of the proposed action would contain either significant odorous compounds or elevated levels of VOCs. The most highly contaminated soils will be remediated in 2008 to 2009, before the construction of the digesters, and a comprehensive remediation plan would be put in place.

The construction specifications for the site will require that the contractor perform in-situ material testing of soils prior to excavation. All potentially 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 NYCDEP 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. The CHASP would be developed in accordance with U.S. Occupational Health and Safety Administration (OSHA) regulations and guidelines.

As part of construction, the contractor will be required to implement a dust control plan that will require water spraying; this control method would provide at least a 50 percent reduction in particulate matter (PM₁₀) emissions. Also, since on-site travel speeds will be restricted to 5 miles per hour, on-site travel for trucks will not be a significant contributor to PM_{2.5} fugitive emissions.

While the on-site construction activities would be noisy and intrusive in Barretto Point Park, due to the duration of the adverse impacts (beginning in third quarter 2011 and extending to the fourth quarter of 2012), the predicted adverse noise impacts from the construction of the proposed action would be temporary. Furthermore, the maximum construction impacts would occur on weekdays, which is not likely to be the period when Barretto Point Park is most fully utilized. Nonetheless, pursuant to the New York City Noise Control Code, as amended December 2005 and effective July 1, 2007, the adoption and implementation of noise mitigation plans would be required for the construction of the proposed action. A construction wall at least 8 feet in height would also be built around the area of digester construction to shield the park from the construction area. However, the wall would not provide shielding during construction of the digesters at greater heights.

Overall, there would not be significant construction-period impacts on Barretto Point Park.

Comment 4: What is the threshold for determining that Phase III construction activities are not “expected to result in potential significant adverse impacts to land use, open space and visual or neighborhood character” (page 17-3)? (1)

Response: As described above in response to Comment 3, the EIS fully addressed the potential of such impacts and followed the suggested guidance in the City's *CEQR Technical Manual*.

In making the determinations of significance for these analysis areas during the construction period, NYCDEP considered the potential duration, extent and frequencies of potential impacts on land use, open space and visual or neighborhood character during the planned construction activities. Due to the temporary nature of construction impacts, these impacts do not usually rise to the level of predicted significant adverse impacts. Although construction of the proposed action would occur over an extended period, much of the construction would occur internally to the plant site and would not be discernible except in the area immediately surrounding the plant site. With the exception of Barretto Point Park, this area is predominantly industrial in nature. The analysis of the potential for construction to affect land use, open space and visual or neighborhood character also considers the results of the construction noise, air quality, and traffic analyses. With the exception of one impacted intersection for traffic, there are no predicted significant adverse impacts for these analysis areas. In terms of noise during construction, on-site construction activities would at times produce noise levels that are noisy and intrusive; however, construction work would largely occur between the periods of 7 AM to 4 PM on weekdays, and not weekends when Barretto Point Park would likely be more fully utilized.

Comment 5: The *CEQR Technical Manual* recommends that a user survey be conducted to determine whether impacts on an open space would discourage public use (page 3D-11). NYCDEP should conduct a user survey to determine whether the presence of the egg digesters, or noise or dust associated with construction, would discourage use of the park. It is only through a formal user survey that the impacts of the expansion on Barretto Point Park (and the proposed South Bronx Greenway) can be quantitatively evaluated; anything else is conjecture on NYCDEP's part. (5, 15, 17)

Response: As discussed in response to Comment 3, the *CEQR Technical Manual* states that direct effects would occur if an action would result in increased noise or air pollutant emissions, odors, or shadows on public open space that would affect its usefulness. The manual states that in some cases when an open space would be directly affected, it may be necessary to conduct a user survey to understand more fully the potential impacts on the users of the open space. As discussed in response to Comment 3, the proposed action would not significantly affect Barretto Point Park in these areas. The purpose of any user survey would be to identify if there were a significant adverse impact on Barretto Point Park or the proposed South Bronx Greenway. NYCDEP has already identified a significant adverse visual impact on users of Barretto Point Park looking east toward the

digesters; however, for reasons stated in Chapter 4, “Visual Character and Shadows,” and in response to Comment 3, these impacts would not result in a significant open space impact. Barretto Point Park (and the proposed South Bronx Greenway) is located within a heavily industrial area. Within New York City, there are a number of parks adjacent to industrial settings—including highways, power plants, etc.—that continue to attract users and that provide important recreational amenities for the surrounding neighborhoods.

Comment 6: The implication in the DEIS that the community agreed to live with the impact of the eggs on Barretto Point Park is incorrect (page 22-1 of the DEIS states that “the two projects were contemporaneously planned”). This is not the case: the community and elected officials had no idea of the extent of the impact of the eggs on the park until the DEIS was released. (5, 9, 10, 13, 17)

Response: The approximate size of the egg-shaped digesters and their proposed location on the additional parcel has been discussed in numerous settings, including in public meetings, in public documents, and in the media. NYCDEP recognizes, however, that because project planning and the environmental review process have continued over a number of years, the specific individuals currently representing the community (elected officials, HPMC members) are not necessarily the same individuals who have been involved in the earliest discussions.

Starting as early as November 1999 at a public meeting, it was stated that the Barretto Point Site (which consists of the area that is now Barretto Point Park and the Hunts Point WPCP additional parcel) was to be remediated and used for a waterfront park and for enhancement to the Hunts Point WPCP. In the December 2003 Record of Decision (ROD) for the Environmental Restoration of Barretto Point Site, it was stated that soil remediation in the former paint and varnish manufacturing area was to be conducted in conjunction with construction of digesters on the additional parcel as part of the Hunts Point WPCP Upgrade. At a HPMC meeting held on April 13, 2004, it was asked if the digesters to be built at the Hunts Point plant were the same size as those being constructed at the Newtown Creek plant. NYCDEP replied that the digesters would be the same size but that Newtown Creek would have a greater number of digesters. At a HPMC meeting held on March 16, 2005, URS presented the proposed digester architecture. On October 5, 2005 and again on July 2, 2006, articles discussing the four 13-story egg-shaped digesters to be constructed at the plant appeared in the Daily News.

Comment 7: The DEIS must more fully analyze the impacts to the South Bronx Greenway. The Ryawa-Viele portion of the South Bronx Greenway will be established along two sides of the plant and thus subject to impacts from its construction and operation. The presence of the eggs is likely to impact views for those walking and bicycling along the Ryawa Avenue and Manida Street portions of

the Greenway; these views must be assessed in the EIS. Further, the DEIS neglected to include the quantitative results of the shadow analysis for the Greenway; the qualitative results provided on page 4-10 are insufficient. The Open Space chapter must also include a more complete description of the air quality and odor impacts from operation of the facility; these impacts must be determined on the basis of more realistic assumptions about usage and time spent on the Greenway. (5, 8, 10, 12, 17) All relevant analyses must be undertaken with the assumption that people will sit on benches on the South Bronx Greenway for up to an hour. (5, 12) Construction of the proposed action, particularly the additional two digesters, will have an enormous impact on the continued development of the South Bronx Greenway. (12)

Response: The South Bronx Greenway Ryawa-Viele Connection was identified as a project that would be completed in the future without the proposed action. As such, the EIS analyses were undertaken assuming that the Ryawa-Viele Connection would be complete. NYCDEP reviewed the South Bronx Greenway Master Plan published by the New York City Economic Development Corporation (NYCEDC) in November 2006. The Master Plan for the greenway recognizes that many segments of the greenway would be located in highly industrial areas, and the design and programming of the individual segments reflects this understanding. As indicated in the Master Plan, the Ryawa-Viele Connection would link several waterfront destinations (i.e., the connection would link Barretto Point Park and Tiffany Street Pier with greenway elements to be constructed along Food Center Drive and along the East River). NYCDEP's understanding, based on the Master Plan and conversations with NYCEDC, is that the Ryawa-Viele Connection would consist of the implementation of improvements adjacent to the plant boundary, specifically, along a portion of Viele Avenue (between Barretto Point Park and Manida Street), Manida Street (between Viele and Ryawa Avenues), and Ryawa Avenue (from Manida Street to approximately Halleck Street). These improvements would consist of a 24-foot planted buffer between the plant site and the sidewalk along Ryawa Avenue, the introduction of a bikeway along all three streets, and extensive street plantings. While the Master Plan specifically makes reference to seating in other portions of the greenway, there was no mention of it in this portion. NYCEDC confirmed that seating was not identified for this portion of the proposed greenway. Therefore, NYCDEP does not consider the Ryawa-Viele Connection a location in which people will spend a substantial amount of time in any given location as the Ryawa-Viele connection is a bikeway/walkway link connecting different destinations, and use of this greenway element will be transient.

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. However, 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 and as views from the Ryawa-Viele Connection would be transient and variable depending on distance and intervening buildings at a distance from most vantage points.

The DEIS included a summary statement of the proposed action's potential to result in shadow impacts on the Ryawa-Viele Connection. As stated in Chapter 4, "Visual Character and Shadows," shadows cast by the digesters would be limited to the afternoon and evening hours and would fall mainly on the Manida Street sidewalk and bikeway. Shadows would not reach Ryawa Avenue except for a very small area at the very end of the analysis period on the May and June analysis days. Because the Ryawa-Viele Connection will be devoted to active uses—cycling, walking, etc.—the incremental shadow from the digesters would not impact the usability or enjoyment of this resource.

The analyses of criteria air pollutants, non-criteria air pollutants, and odors consider the potential for the proposed action to result in significant adverse impacts on the Ryawa-Viele Connection. As shown in Chapters 8, "Criteria Air Pollutants," 9, "Non-Criteria Air Pollutants," and 10, "Odors," the proposed action would not result in significant criteria air pollutant, non-criteria air pollutant, or odor impacts.

During construction of the proposed action and as discussed in response to Comment 70, no off-site queuing of trucks is expected. In addition, all construction staging for the proposed action would occur on the plant site, the additional parcel, or the 1.2-acre construction staging area. Therefore, there would be no construction activities in areas designated for the Ryawa-Viele Connection. Overall, construction of the proposed action would not preclude implementation of the South Bronx Greenway master plan, nor significantly affect the enjoyment and use of the proposed South Bronx Greenway.

Prior to actual development of the various South Bronx Greenway elements, including the Ryawa-Viele Connection, the proposed greenway will be the subject of its own environmental review. This environmental review will include the assessment of potential impacts, including the compatibility of the South Bronx Greenway elements with surrounding land uses, such as the Hunts Point plant.

Comment 8: The idea of extending the South Bronx Greenway (including public access and natural habitat areas) along the waterfront must be reexamined. (3, 5, 7, 12, 17) If safety issues can be resolved at the Newtown Creek plant, they can be resolved at the Hunts Point plant. Through good design and planning the Greenway could be placed on the Hunts Point property along the waterfront and managed to ensure that the loading of sludge can occur. (5, 17)

Response: The environmental setting and conditions related to the nature walk at the Newtown Creek differ from the setting and conditions at Hunts Point. Unlike at Hunts Point, sufficient space was available to locate the nature walk along the Newtown Creek WPCP plant site and, upon its completion, the nature walk at Newtown Creek will provide a continuous path along the plant site. The waterfront at the Hunts Point WPCP site consists of a sludge dock and working waterfront. The area along the waterfront is very narrow, and a continuous path is not practical due to the presence of the sludge dock at the southwest corner of the site. People using the walkway could find themselves trapped in the narrow dead end between the plant's fence line and the river, which would create a potential security problem for anyone using it. In addition, use of this area by the public would raise environmental health and safety regulatory concerns.

Comment 9: The DEIS must acknowledge the critical importance of both Barretto Point Park and the South Bronx Greenway. NYCDEP's expansion cannot reduce the value, the use or the enjoyment of Barretto Point Park and the South Bronx Greenway. (5, 7, 14, 17)

Response: NYCDEP recognizes the importance of both Barretto Point Park and the South Bronx Greenway. Consistent with this, NYCDEP will transfer the 1.2-acre construction staging area to the New York City Department of Parks and Recreation (NYCDPR) for inclusion in the adjacent Barretto Point Park when the area is no longer needed for construction staging. NYCDEP is also undertaking, in coordination with NYCDPR, the ULURP application to map Barretto Point Park (and the future 1.2-acre area) as parkland. In addition, NYCDEP is working with community members, a HPMC subcommittee, and a consultant to obtain community input in selecting an open space amenity that will improve conditions on the Hunts Point peninsula for area residents (the Hunts Point Community Investment Project). As part of the Hunts Point Community Investment Project, a consultation exhibition was held from November 15, 2006 through December 8, 2006. The exhibition provided information about the Hunts Point WPCP and the proposed upgrade and provided general ideas for potential community investment projects. A survey was included to solicit ideas for the South Bronx waterfront. Following the exhibition, a community workshop was held on December 9, 2006 to determine the community's preferred options, which were as follows: 1) a boathouse facility at Lafayette Park and streetscape improvements on Lafayette Avenue (described as the Lafayette Paseo in the South Bronx Greenway Master Plan); 2) a multi-use facility focused on maintenance uses and environmental education 3) a floating swimming pool, the reconstruction of Tiffany Street Pier, shellfish habitat creation, or streetscape improvements on Ryawa and Viele Avenues.

VISUAL RESOURCES AND SHADOWS (CHAPTER 4)

Comment 10: The renderings do not do justice to how big the egg-shaped digesters really are. (11).

Response: The renderings provided in the EIS provide illustrative views from various vantage points of how the digesters would look upon completion of construction. As stated in the EIS, construction of the digesters would result in a significant adverse visual impact for park users looking east toward the digesters. The renderings provided in the EIS support this conclusion. In recognition of the visual impact, NYCDEP will complete the final design of the digesters' exterior with input from the community.

CRITERIA AIR POLLUTANTS (CHAPTER 8) AND PUBLIC HEALTH (CHAPTER 20)

Comment 11: The South Bronx Environmental Health and Policy Study commissioned by Congressman Serrano confirms that PM is directly related and responsible for childhood asthma rates in this community. (13)

Response: As discussed in Chapter 20, "Public Health," the EIS addresses the concern of PM_{2.5} as a contributing factor in the childhood asthma rate. The New York City Department of Health and Mental Hygiene (NYCDOHMH) is well aware of the epidemic of childhood asthma in the City's many boroughs and communities, and, under its direction, an aggressive Asthma Initiative was begun in 1997. The goals of the Asthma Initiative are to reduce illness and death from childhood asthma by 1) improving medical standards of care for children with asthma, 2) reducing asthma triggers in both homes and communities, 3) enhancing self-management support for individuals with asthma, 4) enhancing citywide asthma education standards and delivery 5) creating "asthma friendly" schools and daycare settings, 6) monitoring and tracking individuals with asthma, and 7) strengthening the ability of health care facilities, community organizations, schools, government agencies, and academic and research institutions to address asthma by facilitating the New York City Asthma Partnership. Since NYCDOHMH's Asthma Initiative's inception, major childhood asthma initiatives have been implemented in several low income neighborhoods with high hospitalization rates. Between 1997 and 2004, many of these neighborhoods have experienced substantial decreases in hospitalization rates, which may be an indication of success from extensive efforts by medical providers and community organizations participating in such initiatives. As discussed in the FEIS, the entire plant, once upgraded, would not contribute significant levels of PM_{2.5}.

Comment 12: NYCDEP's statement that the DEIS analysis goes beyond the 5 µg/m³ 24-hour standard is incorrect and conflicts with EPA and NYSDEC methodologies. If

there is an exceedance of an impact threshold, mitigation measures must be implemented. NYCDEP cannot explain away its impacts. (16)

NYCDEP performed its analysis of PM_{2.5} 24-hour impacts based on the outdated interim policy issued by the New York State Department of Environmental Conservation (NYSDEC) (*CP-33/Assessing and Mitigating Impacts of Fine Particulate Matter Emissions* dated December 29, 2003). NYCDEP must use the 2 µg/m³ significant impact threshold for PM_{2.5} 24-hour impacts adopted by the Northeast States for Coordinated Air Use Management (NЕСAUM). (1, 7, 12, 13, 16, 17) NYSDEC no longer stands behind the 5 µg/m³ standard used in the DEIS. (16)

NYCDEP's statement that the "PM_{2.5} standard is derived based on a continual 24-hour exposure (page 8-21)" is incorrect. As the EPA notes, the PM_{2.5} standard is based on an average over a 24-hour period to "protect against health effects associated with short-term (hours to days) exposure (page 61164, Federal Register / Vol. 71, No. 200 / Tuesday, October 17, 2006 / Rules and Regulations). In other words, the PM_{2.5} 24-hour standard is designed to protect against PM_{2.5} exposure during discrete spans of time within the 24-hour period; the assessment of impacts is based on averaging periods of exposure and non-exposure. The 24-hour standard is not based on 24 continuous hours of exposure, but on protection from exposure during any number of hours in a 24-hour period when averaged over the entire 24-hour period. Based on this, EPA and NYSDEC air regulations automatically require mitigation whenever any project exceeds the impact threshold.

NYCDEP has attempted to minimize the severity of the impacts by emphasizing that the PLM program would occur for a maximum of 15 days. However, the impacts of the PLM program coincide identically with periods during which residents will use Barretto Point Park and the South Bronx Greenway. Residents will be exposed to the air pollutant emissions for the entire period that the emergency generators are operational. The fact that the residents are not at the park during the rest of the 24-hour period when the generators are not operational is irrelevant with respect to assessing the severity of impacts. As underscored by the Mayor's PlaNYC and EPA's recent revisions to the PM_{2.5} standard, this means that a single day of excessive impacts would result in public health impacts. Moreover, because the use of these generators during peak load conditions would occur during the hottest days of the year, the PM_{2.5} impacts would occur during the worst air quality days of the year when ozone would be at its highest levels. This means that the potential health consequence of PM_{2.5} exposure is compounded by another air pollutant that has similar health concerns. (7, 16, 17)

Emissions from the emergency generators, which do not have any pollution controls and which use dirty diesel as fuel, during the PLM program would be

the equivalent of at least 79 diesel trucks. NYCDEP's proposal to use this dirty energy conflicts with the Mayor's sustainability goals for clean energy as outlined in the Mayor's PlaNYC. (7)

Response: NYCDEP has 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. The commitment to use ULSD allowed the analyses to be updated to reflect the lower PM_{2.5} emissions from these units. The modeling analysis for the PM_{2.5} 24-hour averaging period was updated using lower PM_{2.5} emissions from the generators (with ULSD), more reasonable worst-case operating scenarios for the other plant combustion sources, and EPA's AERMOD dispersion model. NYCDEP has also agreed to reduce the maximum number of emergency generators participating in a PLM program to five of the six 2,000 kW generators that are being installed under the Phase II Upgrade. The evaluation of PM_{2.5} impacts from the revised analysis considered NYCDEP's updated PM_{2.5} interim guidance criteria. Based on the above, the PM_{2.5} 24-hour impacts were below 2.0 µg/m³ at all locations of public access.

In addition, NYCDEP is currently recommending updated interim guidance criteria for evaluating the potential PM_{2.5} impacts for projects subject to CEQR. NYSDEC is reviewing its 24-hour interim guidance criteria of 5 µg/m³ and is expected to lower this threshold in the future.³ The updated interim guidance criteria currently employed by NYCDEP for determination of potential significant adverse PM_{2.5} impacts under CEQR are as follows:

- 24-hour average PM_{2.5} concentration increments which are predicted to be greater than 5 µg/m³ at a discrete receptor location would be considered a significant adverse impact on air quality under operational conditions (i.e., a permanent condition predicted to exist for many years regardless of the frequency of occurrence);
- 24-hour average PM_{2.5} concentration increments which are predicted to be greater than 2 µg/m³ but no greater than 5 µg/m³ would be considered a

³ NYSDEC has published a policy to provide interim direction for evaluating PM_{2.5} impacts. This policy would apply only to facilities applying for permits or major permit modification under the State Environmental Quality Review Act (SEQRA) that emit 15 tons of PM₁₀ or more annually. All of the air emission sources combined at the Hunts Point WPCP in the future with and without the proposed action result in PM₁₀ emissions much less than 15 tons per year. The policy states that such a project will be deemed to have a potentially significant adverse impact if the project's maximum impacts are predicted to increase PM_{2.5} concentrations by more than 0.3 µg/m³ averaged annually, or more than 5 µg/m³ on a 24-hour basis (these thresholds have also been referenced by NYCDEP in its interim guidance policy). The proposed action's annual emissions of PM₁₀ are estimated to be well below the 15 ton per year threshold under the NYCDEC's PM_{2.5} guidance. NYCDEP community-based threshold of 0.1µg/m³ is considered more relevant and appropriate when determining potential public health impacts than the above-mentioned NYSDEC thresholds, since it represents the effect on public health over a larger population evaluated over a "neighborhood-scale" area.

significant adverse impact on air quality based on the magnitude, frequency, duration, location, and size of the area of the predicted concentrations;

- Predicted annual average PM_{2.5} concentration increments greater than 0.1 µg/m³ at ground-level on a neighborhood scale (i.e., the annual increase in concentration representing the average over an area of approximately 1 square kilometer, centered on the location where the maximum ground-level impact is predicted for stationary sources; or at a distance from a roadway corridor similar to the minimum distance defined for locating neighborhood scale monitoring stations) is considered to be a significant adverse impact; or
- Predicted annual average PM_{2.5} concentration increments greater than 0.3 µg/m³ at a discrete or ground level receptor location is considered to be a significant adverse impact.

Based on these revised criteria and the levels predicted by the revised modeling, no potential significant adverse impacts are expected.

Comment 13: In its rule revising the PM_{2.5} 24-hour standard, USEPA affirmed that the 98th percentile is the basis for assessing PM_{2.5} 24-hour levels (Federal Register / Vol. 71, No. 200 / Tuesday, October 17, 2006 / Rules and Regulations, page 61165). NYCDEP must use this threshold as the basis for determining significant adverse impacts from the proposed action, and if this threshold is exceeded, mitigation measures must be implemented or alternatives must be considered to reduce these impacts. (1, 7, 12, 13, 17)

Response: The impacts in the EIS are maximum (100 percentile) 24-hour impacts which are more conservative than 98th percentile conditions.

Comment 14: The analysis of PM_{2.5} does not take into account background levels of PM_{2.5}. (7, 13)

Response: The ambient concentrations of PM_{2.5} are presented in the EIS. EPA has designated New York City as non-attainment for PM_{2.5} because ambient levels exceed the recently revised 24-hour PM_{2.5} standard of 35 µg/m³. To assess the significance of impacts from individual actions, NYCDEP uses an incremental threshold. The threshold is set low enough to ensure that a facility would not contribute significantly to the ambient level. The entire plant, once upgraded, would not exceed these threshold levels at any publicly accessible location. As discussed in the FEIS, NYCDEP has updated its interim guidance for PM_{2.5} threshold values that are used for determining potential significance of air quality impacts. This was done in recognition that background levels exceed the 24-hour PM_{2.5} standard and the City is designated as non-attainment.

Comment 15: The study used the ISC model for all of the criteria and non-criteria pollutant modeling. As of December 9, 2006, this model is no longer accepted for use in New York. Although the work was performed when the ISC model was

allowed, NYCDEP should use AERMOD to determine if there are significant differences. (1)

Response: Most of the modeling analysis for the DEIS was complete before the AERMOD model was approved by EPA. The latest version of the AERMOD model (dated 07026) was used in the FEIS for the 24-hour PM_{2.5} analyses.

Comment 16: NYCDEP must acknowledge and mitigate its PM_{2.5} impacts using NYSDEC's general categories of mitigation measures for PM_{2.5}, i.e., NYCDEP must explore the following:

- Implement an emission level compatible with the concept of the Lowest Achievable Emissions Rate (as outlined in 6 NYCRR 231-2) for PM_{2.5};
- Obtain reductions in emissions from other existing sources to offset the project's emissions;
- Limit the hours of operation or fuel used at the proposed project.

NYCDEP must analyze all these options to eliminate the significant impacts from the generators. (17) In addition, with respect to the most acute impacts from the generators, NYCDEP must:

- Decline to participate in the PLM program. (3, 7, 13, 14, 17)
- Restructure the emergency generators with lowest achievable pollution controls and use the cleanest fuels. (3, 7, 17) Cleaner fuels must be used during other operating scenarios as well. (7, 14) NYCDEP must reduce all sources of PM_{2.5} from the plant. (17)

Response: The plant is not considered a major facility per 6 NYCRR 231-2.1 (17). In addition, the proposed action does not have a project emission potential equal to or greater than the major facility size thresholds in section 231-2.12 of Part 231. Therefore, lowest achievable emission rate (LAER) requirements and requirements to obtain emission reductions per 6 NYCRR 231-2 are not applicable. Further, based on the revised analysis, use of ULSD fuel, and a limit on the number of generators operating during PLM conditions, the maximum PM_{2.5} 24-hour impacts would be less than 2 µg/m³ at places of public access. Given these levels, no mitigation measures are needed.

Comment 17: How do you ensure that the 500 kilowatt (kW) emergency generator would not be tested the same day as the other generators that are employed in the PLM program? (page 8-16) (1)

Response: Based on discussions with NYCDEP plant personnel, the testing of the 500 kW generator will be not be scheduled on the same days the 2,000 kW generators are tested. Operation and maintenance procedures will be established and implemented by plant operations staff such that use of the 500 kW generator for

testing, exercise or maintenance will not be performed on any day where other plant generators are used for PLM.

Comment 18: The issue of whether start-up/shutdown emissions were considered needs to be addressed. The issue would apply to the proposed generators as well as the proposed boilers and waste gas burners. (1)

Response: Engines generators are started and shut down in an unloaded condition. When there is no load on the engines, the fuel consumption is much lower than at full load; hence, the emissions will be lower than at full load. Load will be gradually transferred to the engines after they come up to speed, and the fuel consumption and emissions will increase. The assumption used in the analysis that the engines are loaded during the entire test or PLM operating period is therefore conservative.

There would be no load on the engine and it would not be using maximum fuel, therefore, there would be less emissions than the values employed in the analyses. The boilers and waste gas burners normally operate continuously, so start-up and shut-down emissions should have a negligible impact on the analysis.

Between publication of the DEIS and FEIS, the vendor of the generators provided emission limits of “will not exceed” for PM_{2.5}, which were employed in the FEIS analyses, and would include the provision for start-up emissions.

Comment 19: Explain why the presence of two additional digesters will result in a wake effect resulting in greater dispersion as opposed to washdown effects resulting in less dispersion. (1)

Response: A “cavity zone” is a region of re-circulating air near or adjacent to a structure, where there can be increased dispersion. Based on the results from the dispersion modeling with the EPA models, the two additional digesters (e.g., four digester scenario) will create a larger “cavity zone” adjacent to the digesters than the two digester scenario, resulting in greater dispersion in this area and thus, reduce the predicted impacts in those areas, when compared to the two digester scenario.

Comment 20: Alternatives to flaring—why wasn’t a global warming gas analysis performed? (1)

Response: NYCDEP is initiating a comprehensive study to identify potential operational and engineering modifications to reduce greenhouse gas emissions at its WPCPs. Elements to be reviewed will include beneficial uses of the digester gas instead of flaring, changes to procedures and/or processes, and increases in efficiency of the systems, among other measures. The study is in its preliminary

data collecting stage, and all NYCDEP's WPCPs, including the Hunts Point WPCP, will be evaluated.

As part of the Hunts Point Phase I Upgrade, the main building boilers will utilize digester gas instead of natural gas whenever possible, particularly in the winter months, to reduce flaring. It is the goal of the greenhouse gas study to investigate and identify additional measures.

Comment 21: Within the *Report on Predicted Atmospheric Impacts from the Hunts Point Water Pollution Control Plant* dated April 21, 2003 (2003 Atmospheric Impacts Report) (see page 3-1), what is the design condition used to conduct the annual impact analysis? (1)

Response: In the referenced report (which was also the basis for the respective EIS analyses), the annual average impact analysis was based on projected utilization of the combustion equipment. The degree to which the boilers, waste gas burners, and generators would be utilized depends on the plant's heat load, which varies throughout the year. The projection of fuel usage was based on estimated monthly utilization rates, which included the anticipated heating demands expected with the entire plant as upgraded under the Phase III Upgrade and carbon addition facilities.

Comment 22: Is the prison barge considered a sensitive receptor? (1)

Response: Yes, the prison barge is considered a sensitive receptor and was included as such in the modeling analyses. There were no significant adverse impacts at the prison barge.

NON-CRITERIA AIR POLLUTANTS (CHAPTER 9)

Comment 23: What is the rationale for using TOXCHEM over the EPA approved model, Water9? (1)

Response: TOXCHEM+ fate model is also an EPA-approved model. NYCDEP conducted a study which shows that the emissions estimates of TOXCHEM+ are generally more accurate than the estimates of WATER9. Subsequent to this study, NYCDEP has used the TOXCHEM+ to estimate VOC emissions for all its air permit applications/renewals. NYSDEC accepted the conclusion of the study and the subsequent NYCDEP emissions estimates using TOXCHEM+.

Comment 24: The EIS should include an emission impacts analysis of acrolein similar to that performed for the Newtown Creek WPCP. (1) NYCDEP must analyze potential acrolein impacts from the plant's boilers, waste gas burners, and emergency generators. (7, 17) NYCDEP indicated that currently there are no methods for sampling acrolein emitted from stationary sources and therefore it is difficult to correctly estimate acrolein emissions. While EPA and CARB are in the process of developing a sampling method for acrolein, NYCDEP took a more protective

approach at the Newtown Creek WPCP and conducted some air modeling to estimate acrolein emissions. In that case, they relied on literature values to predict the potential concentrations at the Newtown Creek WPCP and compared the predicted concentrations to the NYS Air Guidelines. The calculations showed that there were potential exceedances of acrolein. However, upon further modeling with actual boiler usage rates, NYCDEP was able to confirm that the acrolein concentrations would not pose an impact to nearby sensitive receptors. NYCDEP should use the same approach at Hunts Point to definitively determine whether acrolein emissions may impact Hunts Point residents. Until that time, this potential impact remains an open question. (7, 17)

Response: During preparation of the DEIS, sampling test methods for the estimation of acrolein were reviewed and it was found that there are no reliable quantification methods available. Since publication of the DEIS, the sampling test methods were reviewed again and it was determined that EPA still has not yet finalized an appropriate sampling method for acrolein. The EPA and California Air Resources Board (CARB) have deemed the wet chemistry method to be inaccurate. EPA and CARB are still in the process of developing appropriate stationary source sampling methods for acrolein. NYSDEC was consulted on this issue and concurs that the EIS has adequately disclosed the situation associated with acrolein.

There is no sampling method with the precision required to perform an acrolein emissions impacts analysis. Until such time that methods are developed and approved and test data for combustion sources are made available, acrolein impacts cannot be quantified. The results from any analysis would be associated with a very large degree of uncertainty. In addition, the Phase III Upgrade would result in replacement of the flares and installation of a 500 kW emergency generator. The new flares would be highly efficient. The 500 kW generator would be used to provide power to the digester building in the event of power failure, and would not participate in the PLM program. These changes are not expected to have a significant effect on acrolein emissions.

Comment 25: Baseline monitoring should be considered for 1,4 dichlorobenzene, chloroform, and dichlorobromoethane since there are no stations close to the site providing representative data. (1)

Response: As described in Chapter 9, “Non-Criteria Air Pollutants,” the procedures outlined in NYSDEC’s *Air Guide-1* were followed to identify the representative backgrounds for the non-criteria pollutants. The DEIS examined available regional monitoring of these pollutants, which included NYSDEC’s Toxics Air Monitoring System (TAMS); NYCDEP’s Monitoring database; and EPA’s National Scale Air Toxics Assessment (NATA) and Cumulative Exposure Project (CEP). After careful examination of these data, the DEIS concluded that these data are not representative of the backgrounds levels at the study area.

(Please see the section on Existing Background Concentrations in Chapter 9 of the EIS for further details.)

Insufficient data exist for establishing credible, non-industrial background concentrations for almost all the noncriteria pollutants addressed in Air Guide-1. Therefore, according to Air Guide-1, one may assume the background concentration is insignificant or zero for non-criteria pollutants.

Comment 26: How and when were the influent wastewater data used for the emission analysis collected? (1)

Response: The concentrations of volatile organic compounds (VOCs) in the influent wastewater were measured by the NYCDEP laboratory under the Organic Priority Pollutant (OPP) monitoring program. Influent data collected for the Hunts Point plant from 1996 to 1999 were analyzed, and the highest and average VOC influent values were used in the modeling for comparison with the New York State Short-term Guidance Concentrations (SGCs) and Annual Guidance Concentrations (AGCs), respectively. These concentrations do not change significantly over time. To be consistent with the previous analyses for non-criteria pollutants in Phase I and II, which focused on the wastewater processes at the plant, the same set of data was used for the analysis of the Phase III Upgrade. The above referenced influent data are shown in Table 2-1 and Table 2-2 in Part B of the 2003 Atmospheric Impacts Report.

Comment 27: AKRF worked with EPA and Hydromantis to develop a model that more closely approximated BNR emissions. Has this model been used at other plants in New York City and have its results been verified in the field? (1)

Response: Metcalf and Eddy, Inc., under contract with NYCDEP, worked with EPA and Hydromantis to develop process specific parameters for wastewater emissions under NYCDEP enhanced BNR program designs. Since the air emission model does not currently contain modules to properly model the biodegradation of supplemental carbon for the step-feed BNR setup, a pilot study was conducted at 26th Ward WPCP where actual biodegradation rates were developed from the enhanced step-feed BNR setup to calculate the process specific emissions for the step-feed BNR design. NYCDEP followed strict EPA procedures to derive these parameters. The work will be used to guide all future air emissions estimates for BNR process studies. Hunts Point WPCP is the first plant to use these parameters, which are New York City based.

Comment 28: NYCDEP conducted a Best Available Control Technology (BACT) analysis in 2001. The 2003 Atmospheric Impacts Report states “The analysis concluded that control of the VOCs would be prohibitively cost-ineffective, especially given the limited accuracy of impact prediction.” What technology options were

considered? Provide a summary of the analysis (nature of control, cost, effectiveness) (1)

New York State regulations require the performance of a BACT analysis when AGCs are exceeded by a factor of less than 10 due to emissions from a stationary source. NYCDEP conducted this analysis during the Phase II Upgrade. NYCDEP's conclusion—that the only viable option was placement of tank covers on the primary clarifiers and aeration tanks and treating ventilation exhausts from tanks using carbon adsorption and that this option was outside the range of the cost-effectiveness values considered acceptable in BACT analysis—is flawed. NYCDEP failed to examine the possibility that some of these pollutants came from other sources, such as the sludge thickeners (identified in Part B. VOC Emissions and Impacts Based on VOC Fate Modeling of the 2003 Atmospheric Impacts Report), on which controls might have been more cost effective. NYCDEP also failed to analyze whether non-fixed control techniques (i.e. process modifications) might also provide a cost-effective methodology for reducing the VOC concentrations. (7, 17)

Response: As part of the BACT analysis, the technology measures considered were:

- VOC stripping and control;
- Tank covers and control of VOCs;
- Control of VOCs at the point of entering the collection system; and
- Acquisition of impacted land area to incorporate it into the plant's fenceline.

Summary of analysis:

- Nature of control: Cover the primary settling and aeration tanks and remove VOCs using activated carbon
- Estimated cost:
Capital cost (labor and materials only [in 2001 dollars]): \$12,557,000.
Annual operating cost: \$1,469,200.
Cost effectiveness: \$1,350,000 per ton of VOCs removed.
- Effectiveness: Removal of chloroform, dichlorobromomethane, and dichlorobenzene emissions from primary settling tanks and aeration tanks: 96 to 98 percent. This would bring these compounds below their applicable AGCs at the fenceline. (Note that all compounds were already below SGCs.)
- Conclusion: The VOC control measures were determined to not be economically feasible.

Based on the modeling performed for the non-criteria pollutants, the predominant sources of non-criteria pollutant impacts are the aeration tanks, and the primary clarifiers. Figure 9-2 in the EIS shows that the exceedances of the AGCs are centered around the primary settling tanks and aeration tanks. The

modeled contribution from the sludge thickeners is low, therefore, installing control measures on the sludge thickeners would have no significant effect on these impacts.

Regarding the comment that non-fixed control techniques were not analyzed, Section 5.1 of Part B of the 2003 Atmospheric Impacts Report addresses non-fixed control techniques such as control of VOCs at the point of release in the collection system, and acquisition of impacted lands, but did not find these alternatives to be technically or economically feasible. In addition, the proposed action would result in slightly reduced emissions of VOCs due to the application of additional carbon to enhance the denitrification process.

Comment 29: NYCDEP must acknowledge that the exceedances in the non-criteria pollutants analysis constitute a significant adverse impact. (14)

Response: Based on guidance from DAR-1, NYSDEC's guidance document on assessing air toxics and determining their impacts, the predicted off-site non-criteria concentrations from the Hunts Point WPCP, which are largely unaffected by the proposed action (Phase III Upgrade and carbon addition), are not considered to be significant adverse impacts.

ODORS (CHAPTER 10)

ODOR SURVEYS AND BACKGROUND CONDITIONS

Comment 30: NYCDEP's conclusion that there is no violation of the 10 parts per billion (ppb) H₂S (1-hour average) ambient air New York State Standard is incorrect given that the odor analysis assumes that the background for H₂S is zero. The odor analysis must account for existing sources of odors such as the New York Organic Fertilizer Company (NYOFCo) (in addition to odors from the plant), by updating the odor emission inventory for the FEIS—odor sources are documented in the *Hunts Point Water Pollution Control Plant Odor Monitoring Pilot Project Final Report*, Ned Ostojic, Ph.D., P.E., dated September 24, 1996 (1996 Odor Report) and in the recent odor study performed by Malcolm Pirnie. To provide a more accurate assessment of the H₂S levels at Barretto Point Park and the South Bronx Greenway, NYCDEP could also perform a cumulative impact analysis that uses the same air dispersion modeling tools used in the 1996 Odor Report and that includes the odors from other significant sources, including the contribution of NYOFCo. (1, 16, 17)

NYCDEP should include the results of the most current odor survey (the odor study conducted by Malcolm Pirnie in December 2006) in the FEIS. (1) That odor survey determined that odors from one facility (either the WPCP or NYOFCo) can travel the two blocks apart from separating the plants and vice versa. (13)

Response: While NYSDEC has established monitoring levels for a number of pollutants, no such system has been established for H₂S, and H₂S ambient levels are not currently monitored on a routine basis. Per NYSDEC's *Air Guide 1* guidance, the assumption of zero background concentrations is recommended when there are no monitoring data available. In part to address cumulative effects from multiple sources, New York City has established an incremental CEQR threshold of 1 ppb that is well below the New York State standard of 10 ppb.

As noted on page 10-1 of the EIS, although there are many common odors associated with treatment plants, H₂S is the most prevalent malodorous gas associated with domestic wastewater collection and treatment. Implicit in the use of 1 ppb of H₂S as the odor threshold under CEQR is that any control measures that may be needed to achieve this threshold will at the same time address other residual odors that are common to wastewater operations. Ensuring that the plant, once upgraded, achieves 1 ppb H₂S at the nearest sensitive receptor avoids the potential for cumulative effects with other sources such as NYOFCo. In addition, NYOFCo is located approximately 4,030 feet away from the location of maximum H₂S impacts on the Hunts Point WPCP eastern fence line near the dewatering building, and approximately 4,460 feet away from the Vernon C. Bain Detention Center, the location of maximum impact at a sensitive receptor. It is located 1,740 feet away from the maximum impacts at Barretto Point Park, and 2,040 feet away from Ryawa Avenue.

Based on achieving 1 ppb at the nearest sensitive receptor, the low contribution from the plant at other locations, and the distance from NYOFCo to the sensitive receptors affected by the Hunts Point WPCP, the contribution from the Hunts Point WPCP to the maximum cumulative odor impact is negligible.

The community odor surveys of the Hunts Point peninsula conducted by Malcolm Pirnie in November and December 2006 were a qualitative study to be used for informational purposes on the odors in the area. The findings were based on a snapshot in time. The community odor surveys did not quantify the odor emissions from any unit operations at the Hunts Point WPCP, and collection of the limited odor data during the study did not follow the rigorous procedures for quantitative analysis/data quality control that are required for use in a CEQR impact assessment. Therefore, this information could not be combined with data used in the DEIS.

The community odor surveys in November and December 2006 identified vehicle exhaust as the most predominant odor in the residential area. Odors from the Hunts Point WPCP (which still did not have all the odor mechanisms being installed under the Phase I Upgrade functioning at the time of the 2006 odor surveys) were localized along Ryawa Avenue and Halleck Street extension.

ODORS—ODOR ANALYSIS ASSUMPTIONS

Comment 31: For the odors analysis, selected runs should be made to compare results of the approved EPA model AERMOD to the now discontinued ISC model. (1)

Response: Most of the modeling analysis for the DEIS was complete before the AERMOD model was approved by EPA. The latest version of the AERMOD model (dated 07026) was used in the FEIS for the odor analysis because a number of additional model runs were made in response to comments. Chapter 10, “Odors,” has been updated with the results of this new analysis.

Comment 32: The odor evaluation was based exclusively on H₂S as the source of odorous emissions. Although H₂S is most likely the major compound, other compounds certainly are capable of producing odors. At a minimum, a literature search should be performed to identify likely emission rates of such compounds and the potential for exceeding levels of detection determined. Emissions of these compounds will exist and as such should not be ignored as part of the odor assessment. (1)

Response: Chapter 10, “Odors,” of the EIS provides the rationale for the selection of H₂S as the malodorous indicator compound of concern (see also response to Comment 30). H₂S has been used by NYCDEP as the indicator for assessing malodorous compounds for sewage treatment in general. Any control measures that may be needed to reduce H₂S will at the same time address other residual odors that are common to wastewater treatment plant operations, such as ammonia, amines, organic sulfides, mercaptans, indole, skatole, and adelhydes.

Comment 33: Emissions of H₂S (and other odorous compounds) are influenced by weather conditions. Were the emission rates determined based on worst-case atmospheric conditions for the release of H₂S? Were the emission rates determined based on worst-case seasonal wastewater flows? (1)

The DEIS did not analyze certain upset conditions and wet weather events (identified in the 1996 Odor Report and in the 2003 Atmospheric Impacts Report). The odor analysis must include an assessment of these issues. (17)

Response: The sampling conducted for the 2003 Atmospheric Impacts Report, which superseded the 1996 Odor Report and was the basis for uncontrolled sources in the EIS modeling analysis, occurred during the summer, which is considered worst-case for potential odors. In addition, the sampling occurred on three separate days at various times of the day to account for varying flows and conditions during days with dry flow, which is considered worst-case since odor concentrations during wet weather flow would be substantially lower due to the dilution of the rain water. An upset condition is an undefined condition, which may not be replicable from year to year. Upset conditions are unusual and irregular. Such conditions include, but are not limited to, mechanical failure or operation error. Consequently, the treatment process is not performing within

the design parameters. Depending on what treatment process is interrupted, upset conditions can result in odorous conditions, but the odor emissions may vary greatly for each upset condition. Since what and when future upset conditions would occur cannot be predicted nor their associated odor emissions, it is not possible to model their effects.

Comment 34: For the modeling, what was the assumed percent capture for all source emissions of H₂S subject to odor control? Explain the difference of outlet concentrations: existing primary and secondary screen rooms—controlled with activated carbon adsorbers located in the proposed central residuals building—20 ppb at outlets. Primary settling tank influent channels and digester sludge distribution box—covered and treated with activated carbon—to 50 ppb at outlet? What is the outlet concentration of the existing odor control at dewatering building—4 wet scrubbers exhausts? (1)

NYCDEP's odor analysis is flawed because the assumption of 100 percent odor capture is unsubstantiated. A tour of the Hunts Point plant on February 13, 2007 identified a number of areas that are open to the outside area; these potential sources of odors (also identified in the 1996 Odor Report) are not accounted for in the DEIS analysis. NYCDEP must provide the results of its analysis (conducted based on *USPEA Method 204—Criteria for and Verification of a Permanent or Temporary Total Enclosure*) of whether the plant meets the 100 percent capture assumption. NYCDEP must also identify any modifications necessary to ensure that odors are no longer being emitted to the open air from these sources. (17)

Response: It was assumed that there is 100 percent capture for all source emissions of H₂S subject to odor control and that these emissions are treated by carbon. Based on this, it was assumed that the outlet concentration is 50 ppb for the primary influent channel and digester overflow box carbon adsorbers and 20 ppb for the central residuals building carbon adsorbers. The existing primary and secondary screen rooms controlled with activated carbon adsorbers located in the proposed central residuals building was modeled with an H₂S outlet concentration of 20 ppb, which is considered a reasonable worst-case conservative assumption since the inlet H₂S concentration was measured as 50 ppb during the 1999 H₂S inventory, and for such low inlet concentrations, the reductions in H₂S concentrations would be less than cases for higher inlet concentrations. The primary settling tank influent channels and digester sludge distribution box, which will be covered and treated with activated carbon, were modeled with an outlet concentration of 50 ppb because the influent concentrations were measured at higher concentrations during the 1999 inventory. For example, at the primary settling tank influent channels, the inlet concentration was measured between 200 and 10,000 ppb. The inlet concentration for the digester sludge distribution box was 350 ppb. Assuming 50 ppb for these processes is

considered a reasonable worst-case assumption. In addition, the 2003 Atmospheric Impacts Report states that the 50 ppb was based on field measurements from carbon vessels operating under similar conditions at the Hunts Point and Newtown Creek WPCPs.

The outlet concentrations for the existing four wet scrubbers at the dewatering building were measured during the 1999 inventory. The measured outlet concentrations at scrubbers 1 and 3 were 16 ppb and 4 ppb, respectively, which were assumed in the EIS.

Based on a request from HPMC, NYCDEP performed a preliminary evaluation of odor control enclosures at Hunts Point to determine if the enclosures meet the EPA Method 204 requirements for total enclosure. Four of the systems meet the requirements for total enclosure and three do not. The three systems do not have sufficient face velocity through the natural draft openings (NDO). They can be brought into compliance by covering a portion of the NDO to increase the face velocity.

NYCDEP will implement enclosure modifications to ensure 100 percent capture of fugitive odor emissions, including blanking off a portion of existing inlet air openings to increase the velocity through the opening to meet requirements under EPA Method 204. No operational changes are required. The three locations where this will be done are the primary influent channel, thickener distribution box, and sludge storage tank No. 10. This work will be included as part of the Phase III Upgrade. Chapter 1, "Project Description," has been updated to include these improvements as part of the description of the proposed action.

Comment 35: Due to the density of the regional population, a universal grid spacing of less than 100 meters should be considered. A spacing of 50 meters is recommended.
(1)

Response: Although the EIS analysis utilizes a 100-meter grid, many additional discrete receptors are included to narrowly identify the real extent of the impact. The receptor network includes locations where highest concentrations would be expected, receptors at the plant property periphery, and receptors at selected locations in the surrounding neighborhood. As described on page 10-3 of the EIS, one 2,000 x 1,500 meter Cartesian receptor grid extending from the center of the plant with 100 meter grid spacing is used for the criteria pollutant and PM_{2.5} microscale analysis. In addition to the Cartesian grid, discrete receptors were placed at 3.05-meter (10-foot) intervals along the Hunts Point WPCP fence line adjacent to the Barretto Point Park located northwest of the plant (similar to the fence line receptors used in the construction analysis in Chapter 17) and 25-meter intervals along the rest of the fence line. Additional receptors were placed at locations within Barretto Point Park, at the 1.2-acre area that would be transferred to NYCDPR for inclusion in the Barretto Point Park when it is no

longer needed for construction staging, and at several locations of the residences closest to the Hunts Point WPCP. A network of sensitive and discrete receptors was also placed north of the facility up to 3 kilometers (km) away, at locations such as residences, schools, and churches.

Comment 36: Clarify “deep crust with some cracks” in tanks 5, 6 and 8. Why are H₂S measurements under this condition appropriate—is it assumed that crust will remain in perpetuity? Are there any circumstances of crust being removed? What is the intended design/operation of tanks? Why shouldn’t numbers from Tank 9—no crust tank—be used for worst case emissions? (1)

The use of odor emissions from sludge storage tanks 5 and 6 underestimates the reasonable worst-case odor emissions from these tanks. NYCDEP should use the odor emissions from tank 9 in the odor analysis. It is unreasonable for NYCDEP to assume that the crust that forms in these tanks provides a reliable form of odor control. (16, 17) NYCDEP must update its quantitative analysis of (and provide the results to HPMC) odors. (17)

Response: Tanks 5, 6 and 8 contain dried sludge that has formed a deep floating crust with some cracks in the surface of the crust. The surface of the sludge in these tanks is not continuously moving which allows the crust to form. Under normal plant operations, these tanks would have this deep crust. The only time the crust would be removed is if the tank is cleaned, which occurs relatively infrequently. In addition, tanks would only be cleaned one at a time.

Sludge from tanks 5, 6, and 8 gets pumped into tank 9 and the sludge from this tank proceeds to dewatering. The sludge in tank 9 is a liquid because of the continuous slow circular motion in the tank. Since the sludge in tank 9 is in continuous motion, a crust does not form on the sludge unlike the sludge in tanks 5, 6, and 8. H₂S emissions occur primarily through displacement of the air from within the tanks when they are being filled. The entire sludge production from the plant is directed to one of the tanks 5, 6, or 8. A typical sludge production rate of 76,000 cubic feet (ft³) per 24 hours translates into a displacement air flow rate of 53 cubic feet per minute (cfm). Thus, one of the tanks was modeled with that discharge rate (tank 6), while the other tank was assumed to have no emissions (tank 5). Tank 8 was modeled separately. As stated above, the tanks would be cleaned one at time; therefore, if one of the tanks were cleaned, which occurs relatively infrequently, the crust would be removed.

To be conservative, assigning the emissions from tank 9 to two of the other tanks (e.g., tank 6 and 8) has been evaluated for the FEIS (see Chapter 10, “Odors”).

Comment 37: Table 10-2 reports emissions from uncontrolled sources under “normal” conditions. What is normal, and how often during the year are more than seven

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thickeners in use? Emissions should be based on reasonable worst-case conditions. (1)

Response: Based on a request from HPMC, this assumption was reevaluated. Since up to 10 sludge thickeners could be in operation with the proposed action, the odor modeling for the FEIS was updated assuming 10 sludge thickeners in operation.

Comment 38: On page 10-8, the DEIS states that there is no significant emission difference between the quiescent surfaces and the weirs at the final settling tanks, but that is not the case at the Newtown Creek WPCP. At the Newtown Creek WPCP, the weirs on the final settling tanks had to be covered to control the emissions. (1)

Response: The operations of the Hunts Point WPCP and the Newtown Creek WPCP when odor emissions inventories for both plants were undertaken are not comparable. The Newtown Creek plant utilizes the modified aeration process without primary treatment, while the Hunts Point plant uses the full secondary step aeration process. At Hunts Point, the concentrations collected at the quiescent portion were negligible, so 10 ppb was assumed since this was the concentration at the nearby chlorine contact tanks. The concentration collected at the weirs was 47 ppb. Since this concentration was relatively low, unlike Newtown Creek, separate control of the weirs is not recommended at Hunts Point.

ODORS—ODOR CONTROL

Comment 39: Why is the percent removal of the H₂S for the centrate system so low in Table 3-6 in the 2003 Atmospheric Impacts Report? What are the “optimization” measures to improve the H₂S/odor control removal efficiency (see page 3-12)? (1)

Response: The percent removal for the centrate odor control system was low when the odor survey was performed because the activated carbon was at breakthrough and in need of replacement. The optimization measures would include replacement of the carbon and adjusting chemical feed to the first stage scrubbers to decrease the H₂S concentration going to the carbon. On March 29, 2005, NYCDEP’s Bureau of Wastewater Treatment implemented a new carbon monitoring program to regularly monitor activated carbon units at all its WPCPs and to detect H₂S breakthrough and schedule carbon replacements (see response to Comment 43). Since the modeling was based on 2003 data and not the updated procedures, the modeling would tend to overestimate impacts from these sources.

Comment 40: NYCDEP has done very little to address odors despite identifying several odor related issues that needed to be addressed in the 1996 Odor Study. (11, 14) NYCDEP has been slow to implement measures to address odor problems. Measures to address odors have been insufficient. (13, 14) NYCDEP must become more vigilant about making sure that the sources of odor complaints are addressed. (14, 17) NYCDEP must fully investigate and control odor sources

identified in reports over the last 10 years; these reports include the 1996 Odor Report and the 2003 Atmospheric Impacts Report. Both studies identified the fact that the existing odor controls systems are a significant contributor to odors. Specifically, the activated odor unit at the centrate system and the wet scrubbers at the sludge dewatering building were identified as performing inadequately and requiring optimization. (17)

The 1996 Odor Report found that the most significant odor sources from the Hunts Point WPCP were: the primary settling tanks effluent weirs, the sludge thickener, effluent weirs, sludge storage tanks 9 and 10, and the digester gas flares (Table 5-3, pg. 5-14, 1996 Odor Report). That report discussed potential measures to reduce odors at the plant, as follows:

Sludge Dewatering. The report recommended that odor control systems at the dewatering building be optimized.

Digester Gas Flare. The report states that “precautionary measures aimed at reducing the likelihood of flare outages and providing their early detection should be considered. At a minimum, installation of an alarm to warn the operators of a flare outage is recommended. Flare lighting mechanism should be maintained in excellent working order and tested routinely (pg. 6-4, 1996 Odor Report.”

Sludge Thickeners. The report states “Should elevated odor impacts off-site be traced to sludge thickeners, operational measures may need to be considered, such as reduction of sludge blanket or possibly chemical treatment of the incoming sludge. Covering of the effluent weirs could be considered if elevated odor emissions from this source persist (pg. 6-5, 1996 Odor Report).”

The report further noted that “Many of the wall and roof segments of the building where the thickeners are located had been removed for improved ventilation. At present the building is ventilated by natural ventilation (pg. 4-5, 1996 Odor Report).”

Primary Sedimentation Tanks. The report states that “Chemical treatment could be considered should there be a dramatic increase in odors from the primary sedimentation tanks (pg. 6-5, 1996 Odor Report).”

Aeration Tanks. The report states that “The aeration tanks are currently not a source of objectionable odors off-site. However, more detailed evaluation of the odor emission patterns may be necessary if it becomes apparent that the aeration tanks have become a source of objectionable off-site odors. Such evaluation may need to establish the impact of the anoxic zones on odor emissions and investigate potential operating modifications for odor remediation (pg. 6-5, 1996 Odor Report).”

Scum Collection and Centrate Distribution Box. The report states that “In the case of scum collection, remedial measures could include more frequent

emptying of the scum pit and/or installation of suitable covers. Covering of the centrate distribution box and overflow pipe with suitable covers (e.g., hinged or removable) is recommended (pgs. 6-5 through 6-6, 1996 Odor Report).”

Sludge Overflow Boxes. The report states that “Covering of the overflow boxes with suitable covers, e.g., hinged or removable, is recommended to contain these odors (pg., 6-6, 1996 Odor Report).”

The 2003 Atmospheric Impacts Report found that the highest predicted odor impacts arose from the primary clarifiers, sludge thickeners and primary clarifier effluent weirs and channel. The report found that the “The leading source of H₂S emissions is the primary clarifier complex, which accounts for 36 percent of the plant’s total emissions. Within the complex, most of the emissions are contributed by the influent channel, which accounts for 50 percent of the emissions from the complex (20 percent of the plant total). The centrate tank is the next highest source, accounting for 12 percent of the plant total, followed by the emission control equipment for the centrate collection system and the screens buildings with 11 percent each. Secondary aeration accounts for 10 percent of the plant total, followed by sludge thickeners at 8 percent.” On a plant-wide basis, the report found that “the leading source of odor emissions is again the influent channel to the primary clarifiers, which accounts for 31 percent of the plant’s total odor emissions. It is followed by the odor control equipment serving the centrate collection system (16 percent) and emissions from the screens building (12 percent). Secondary aeration tanks accounts for 12 percent of the plant’s odor emissions, while the share contributed by sludge thickeners is 4.5 percent (pg. 3-14, 2003 Atmospheric Impacts Report).”

Other points of note in the 2003 Atmospheric Impacts Report:

Secondary aeration tank 5 is a potential source of significantly higher levels of H₂S. It does not appear that H₂S and odor tests were performed at Tank No. 5.

The turbulence at the weirs (of the sludge thickeners) significantly enhances H₂S and odor emissions.

Wet Scrubbers at the Sludge Dewatering Building: “[B]oth inlet and outlet H₂S and odor concentrations were low. Optimization of this scrubbing system will be performed as a separate task of this project.”(pg. 3-12).

A more careful evaluation of odor-causing operations could lead to the implementation of individual or smaller-scale odor control operations. (3, 14, 16)

The 1996 Odor Report notes that the study was done in April and May 1996 and that increases in odors occurred as the weather got warmer toward the end of the study in May. As a result of these observations, the report indicated that there was a likelihood of worse odors or peak odors during the hottest period of the year (pg. 6-5, 1996 Odor Report).

Response: A tremendous amount of work has been done that includes the study, design, and construction of odor control measures at the plant. Subsequent to the 1996 Odor Report, NYCDEP undertook an additional evaluation of odors and has implemented and funded numerous odor controls at the plant. In addition, odor control measures are included as part of the Phase I and II Upgrades, and are proposed as part of the Phase III Upgrade. Prior to the Phase I Upgrade:

- Ventilation from sludge storage tank 10 was ducted to an activated carbon adsorber for emission control.
- The sludge distribution boxes serving the sludge thickeners and the digested sludge overflow box have been covered and ventilated to activated carbon adsorbers for control of the emissions.

Major odor control improvements to be implemented under Phases I and II include the following elements (a number of these measures will be installed in the summer of 2007):

- Exhaust air from the existing primary and secondary screen rooms will be treated with activated carbon adsorbers located in the new Central Residuals Facility. Existing grit and scum handling equipment will also be relocated to the Central Residuals Building.
- The open scum wells are being replaced with pumping stations that will pump dilute scum from the settling tanks to scum concentrators located in the Central Residuals Facility, which is an enclosed building with odor control. This will eliminate the odor source from the open scum pits identified in the 1996 Odor Report.
- Primary clarifier influent channels will be covered and exhaust air treated with activated carbon.

Under the Phase III Upgrade, the open digester gas flares would be replaced by enclosed waste gas burners. While an alarm has not been installed at the plant to alert plant operators to a flare outage, the flare is highly visible; plant personnel monitor the flare and take corrective action immediately if it goes out. In addition, NYCDEP will install odor control on the primary effluent channel.

The existing odor control units in the dewatering building are currently meeting their permit requirements and were not determined to be a source of off-site odor impacts. Therefore, modifications to the dewatering building odor control system are not included as part of the proposed upgrades. NYCDEP has developed several City-wide contracts for upgrades of dewatering buildings and prioritized funding for improvements related to risk at dewatering buildings.

The centrate distribution box was not identified as a major odor source. Therefore, no odor control for the box has been included in the plant upgrade. However, a gravity bypass around the centrate box is being installed under the Phase II Upgrade to allow the box to be bypassed and centrate to flow to the

centrate tank by gravity during non-peak centrifuge operating conditions. In addition, the centrate system is optimized by replacement of the carbon and adjusting chemical feed to the first stage scrubbers to decrease the H₂S concentration going to the carbon (see response to Comment 39).

H₂S and odor tests were performed for centrate treatment at tank 5. The results are described on page 3-8 of the 2003 Atmospheric Impacts Report. Results from these tests were included in the odor analysis in the DEIS and the FEIS.

See response to Comment 34 for a discussion of the enclosure modifications that will be implemented to ensure 100 percent capture of fugitive odor emissions.

The aeration tanks were again evaluated for the 2003 Atmospheric Impacts Report and found to only contribute 10 percent of the plant's total H₂S emissions determined from the plant-wide H₂S survey conducted in 1999.

The 1996 Odor Report was conducted in April and May of 1996. It was indicated that the odor levels from the sludge thickeners and the primary settling tanks were unlikely to be considered objectionable within their present impact areas but that there was an upward trend with the approach of the warmer season. The sampling conducted for the 2003 Atmospheric Impacts Report used in the current modeling analysis was conducted in August, the peak season for odors. Impacts from the aeration tanks were also not a source of objectionable odors off-site.

Comment 41: What are the optimization steps for the wet scrubbers? (1) NYCDEP has switched from scrubbers to carbon at the Newtown Creek WPCP because carbon was determined to be more effective. (17) What are the opportunities to switch to carbon adsorber-based odor control, rather than scrubbers? (1)

Response: Optimization measures for wet scrubbers would be operational adjustments such as adjusting chemical feed rates and recycle flow rates. NYCDEP's Bureau of Wastewater Treatment regularly monitors performance of its odor control units and makes adjustments necessary to meet permit requirements. The scrubbers in the Dewatering Building are fairly new and are operating acceptably, and for that reason they were not considered for replacement under the plant upgrade program. Activated carbon requires more room than scrubbers, and it would be difficult to fit them into the existing Dewatering Building.

Comment 42: Why isn't the fact that H₂S impacts at Ryawa Avenue of 2.44 ppb from uncontrolled sources (primary clarifiers and weirs, primary effluent channels, secondary aeration tanks, sludge thickeners, sludge storage tanks, and return activated sludge channels are uncontrolled), above NYCDEP sensitive impact threshold of 1 ppb, a basis for controlling the uncontrolled sources? (1)

The *CEQR Technical Manual* states "NYCDEP considers a 1 ppb increase of H₂S as a *significant* odor impact from wastewater related processes" (pg. 3Q-6).

On this basis, NYCDEP must conclude that the exceedance of the 1 ppb threshold at the eastern fence line (3.35 ppb) and along Ryawa Avenue at the South Bronx Greenway (2.44 ppb) is a significant impact necessitating the implementation of mitigation measures. (14, 16, 17)

NYCDEP's assumption that use of the South Bronx Greenway will be transient with cyclists, walkers, and skaters spending only a limited time in a given area is an unrealistic assumption; the odor analysis should consider that residents will sit or otherwise be stationary on portions of the greenway for up to an hour, particularly at the location of the greatest H₂S impact on the greenway, Ryawa Avenue, because that location will contain an attractive natural landscape buffer referred to as the demonstration garden in the South Bronx Greenway Master Plan. (5, 13, 14, 16, 17) The environmental impact analyses must be undertaken with the assumption that residents will spend more than an hour in any location along the greenway route. NYCDEP cannot restrict the uses of the greenway. (12, 16)

Response: As noted in the EIS, the levels predicted along Ryawa Avenue would not be disruptive of the types of activities that occur or are proposed with the South Bronx Greenway. As indicated in the Master Plan, the Ryawa-Viele Connection would link several waterfront destinations (i.e., the connection would link Barretto Point Park and Tiffany Street Pier with greenway elements to be constructed along Food Center Drive and along the East River). NYCDEP's understanding, based on the Master Plan and conversations with NYCEDC is that the Ryawa-Viele Connection is not a location in which people will spend a substantial amount of time in any given location as the Ryawa-Viele connection is a bikeway/walkway link connecting different destinations, and use of this greenway element will be transient. (See response to Comment 7).

NYCDEP has considered the measures that would be needed to achieve 1 ppb at the fenceline. Due to the short attenuation distance, significant and very costly changes would be needed including covering and controlling of multiple tanks. Given the small area affected and the types of activities that would occur along the fenceline, these measures are cost prohibitive. However, as part of the FEIS, NYCDEP is committing to odor controls for the primary effluent channel. With these measures, maximum predicted 1-hour H₂S concentrations on the greenway would be 1.58 ppb. These levels are generally not detectable. Further, the number of hours with predicted impacts greater than 1 ppb along the greenway between the hours of 7 AM through 8 PM when the greenway is expected to be in use is 33 hours over five years, with a maximum of 10 hours per year.

Comment 43: After construction, some type of validation testing program should be put in place to determine if emissions projections provided in the DEIS document were accurate. There are a variety of sampling and measurement techniques that could be employed. (1) NYCDEP must install H₂S monitors to verify that the

Hunts Point WPCP

Hunts Point WPCP is not impacting Barretto Point Park and the South Bronx Greenway. (13, 14, 16, 17)

A compliance plan for predicting carbon canister breakthrough should be presented. With the H₂S standards being hourly, a single breakthrough event could result in the New York State Ambient Air Quality Standards (NYSAAQS) or the NYCDEP CEQR H₂S thresholds being exceeded. (1)

Response: To ensure the odor control equipment operates at the levels stated by the manufacturer, NYCDEP has a program to test the carbon in the odor control system to prevent breakthroughs (see response to Comment 39).

NYCDEP utilizes more than 150 carbon vessels for odor control at its water pollution control plants. NYCDEP's Bureau of Wastewater Treatment has developed a program that combines laboratory testing and field monitoring to monitor activated carbon H₂S removal capacity and comply with permit monitoring requirements. These procedures are used to predict the remaining service life of the carbon and to determine when new carbon is needed. The program consists of the following three tier approach:

- Semiannual ASTM D6646 breakthrough capacity tests to monitor carbon depletion.
- 10 ppm H₂S breakthrough tests to predict remaining carbon life
- Field monitoring using portable H₂S sensor

This program will continue with the proposed upgrade.

NYCDEP will install H₂S monitors adjacent to the plant. However, it is difficult to identify the source of odors from fixed monitoring stations and therefore the information provided may be limited for use in addressing odor sources.

Comment 44: NYCDEP must become more vigilant about investigating the Hunts Point WPCP when it receives an odor complaint, about tracking responses to odor complaints, and about making sure that the sources of the complaint are addressed. (14, 17) NYCDEP has ignored odor complaints. (13, 14)

Response: Wastewater treatment plant odor complaints are considered priorities by NYCDEP. When a complaint is made to 311 about an odor coming from one of NYCDEP's plants, the call is immediately forwarded to NYCDEP's Emergency Call Center (ECC). ECC assigns the call a complaint number and plant staff may begin an investigation.

Odor complaints about NYOFCo are treated in the same fashion as NYCDEP wastewater treatment plant odors with one exception. In addition to priority treatment, NYOFCo odor complaints are referred to NYCDEP's Bureau of Environmental Compliance (BEC), where an air and noise inspector are assigned to investigate the complaint. All of the complaints are compiled in a

monthly report which is shared with the Hunts Point Monitoring Committee. Staff also call complainants to inform them of the results of the investigation.

Comment 45: NYCDEP must perform a comprehensive odor control analysis on the areas of the plant that have been identified as sources of odors. This analysis must consist of controlling odors at currently uncontrolled sources of odors, optimizing odor control at sources that are inadequately controlled for sources of odors, and developing a comprehensive ongoing odor control management and monitoring program to assess the effectiveness of odor control sources. In consultation with HPMC and based on the results of this odor control analysis, NYCDEP must develop and implement a comprehensive odor control program at the Hunts Point plant. The uncontrolled sources of odors that must be analyzed include: primary clarifiers and weirs, primary effluent channels, secondary aeration tanks, sludge thickeners, sludge storage tanks 8 and 9, and return activated sludge channels. This analysis must consist of both fixed odor controls, as well as odor control management techniques such as those identified in the 1996 Odor Report. The analysis should also take into account the planned/existing odor control systems at the plant (central residuals building—primary and secondary screen rooms; primary clarifier tank influent channels—covered and treated with activated carbon; sludge storage tanks 5, 6 and 10; sludge distribution box; and dewatering building—four wet scrubber exhausts). (3, 13, 14, 16, 17)

Response: NYCDEP has undertaken several analyses of odors from stationary sources at the Hunts Point plant in the 1996 and 2003 Odor Reports and will continue to assess odors at the plant as part of ongoing planning and management efforts. As discussed in response to Comment 40, NYCDEP has undertaken a tremendous amount of work, including the study, design, and construction of odor control measures at the plant. In addition, NYCDEP will be installing odor control at the primary effluent channels as part of the proposed upgrade. NYCDEP is also committing to installing H₂S monitoring stations adjacent to the plant.

ODORS—NYOFco

Comment 46: NYCDEP should explore operational procedures under its control that could lessen impacts from NYOFco, including instituting regular sludge deliveries to reduce the back-up on NYOFco's tipping floor and the associated odors. NYCDEP should also review its contract with NYOFco to strengthen odor controls at this facility. (14, 16, 17) NYCDEP cannot continue to defend NYOFco just because it is a City contractor. NYCDEP has promised for over 10 years that it will control the odors from NYOFco and other sources in the community. The community demands a transparent process for investigating, and controlling odors from NYOFco, the plant and other significant sources in the community. (14, 16, 17)

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NYOFCo is a private entity that processes sewage on behalf of NYCDEP. NYCDEP charged with addressing odor problems, is in fact, creating the odors through its operations and practices of the WPCP. (13)

NYCDEP must diligently pursue odor complaints for the WPCP and for NYOFCo, at both facilities, to ensure that complaints are addressed. (13, 14)

Response: NYCDEP is working with NYOFCo to implement odor controls at the NYOFCo facility, including truck controls, and will continue to report to the community on the facility's progress. Although NYOFCo is a privately-owned facility in the Hunts Points area, it has been under contract to DEP since its construction. At this point it processes approximately half of the sludge production of the entire city. NYOFCo has greatly improved its odor controls since the plant first began operation. The plant management has demonstrated their willingness to invest in further controls, including an enclosure for truck loading operations that will capture more of the odors that are released when sludge is offloaded from trucks.

The amount of sludge on the tipping floor does not result in odors in the community currently since tipping room is fully odor controlled with chemical scrubbers. (See also the response to Comment 44 above.)

HAZARDOUS MATERIALS (CHAPTER 14)

HAZARDOUS MATERIALS—BARRETTO POINT REMEDIATION

Comment 47: HPMC would like the opportunity to review the air monitoring data collected during the excavation of the 0.7-acre area (the location of the former paint and varnish facility). (17)

Response: The remediation is being conducted as part of the Barretto Point environmental restoration process; overseen by NYCDEP under NYSDEC supervision. Citizen participation is always encouraged, and repositories for documents related to the remediation work on site have been established. A Community Air Monitoring Program (CAMP) will be conducted to protect the community and park users from airborne contamination releases during Phase III Upgrade construction activities. The CAMP will monitor airborne contaminants, such as VOCs, particulate matter, metals, and polycyclic aromatic hydrocarbons (PAHs) downwind of the site. If action levels specified in the CAMP are exceeded, increased monitoring, corrective actions to reduce emissions, and/or the cessation of work activities will be required. NYCDEP will continue to work with Hunts Point committees and keep NYSDEC informed about the progress of the restoration program and air monitoring. Air monitoring will be ongoing during the environmental restoration process with data presented in the final engineering report that is submitted to NYSDEC. Ronnie Lee, NYSDEC, is the primary contact for all information and data requests from the community about the Barretto Point environmental restoration process.

Comment 48: Does remediation of the soils impacted by the former paint and varnish facility have to start in the summer when the park use will be at its highest? (1)

Response: The current schedule calls for the contract to start mid-2008. As currently scheduled, the contractor will take approximately five months to mobilize, submit shop drawings, fabricate and deliver materials and equipment, and install the excavation enclosure before excavation of contaminated soils starts. This would mean that excavation would start in the winter. The duration of the excavation is approximately six months, which would last until the following summer.

Comment 49: How were the boundaries of the 0.7-acre area delineated from the remaining portion of the 2.75-acre parcel (Figure 14-2)? (1)

Response: The 0.7-acre area encompasses the site of the former paint and varnish manufacturing facility. It was determined from soil sampling conducted for the Site Investigation Report (Dvirka and Bartilucci, 2000) and from additional soil sampling conducted for the Remedial Alternatives Report (Dvirka and Bartilucci, 2003). The boundaries of the 0.7-acre area were delineated based on the analytical results from the area in which the test pit samples exceeded the NYSDEC Recommended Soil Cleanup Objective for total VOCs of 10 ppm.

HAZARDOUS MATERIALS—PROPOSED ACTION

Comment 50: According to the reports, elevated concentrations of SVOCs were detected in several surface/shallow soil sample locations (such as SS-07, SS-08, SS-09, TP-07 and BE-17), yet there is no excavation proposed for these areas, why? (1)

Response: As described in NYSDEC's Record of Decision (ROD) for the environmental site restoration, alternatives for remediating the remaining site area were evaluated, including excavation of all fill to the water table and replacement with clean soil. Alternatives were evaluated on a basis of protection of human health and the environment, effectiveness, compliance with site cleanup goals, feasibility, and cost. The alternative to excavate and replace all fill material with clean soil was not selected because it was significantly more costly than the recommended alternative, but did not provide significant additional benefits to protect human health and the environment.

As discussed in the DEIS, the site will be capped with two feet of clean fill; this capping, along with long-term maintenance plans, will ensure that there is no exposure to these soils. Semi-volatile organic compounds (SVOCs) are less mobile (compared to the contaminants that were detected in the site proposed for construction of the digesters which, therefore, require excavation) and will remain tightly bound to the soil. Capping with two feet of clean fill placed over a demarcation barrier will ensure that there is no exposure to the soils. As

discussed in the EIS, future excavation on the additional parcel will be done in accordance with a CHASP and with all federal, state, and local regulations.

Comment 51: How does NYCDEP know that the soils below the southernmost digester have not been impacted by operations at the former paint and varnish facility? (1) Soils in the vicinity of the southernmost digester are likely to be contaminated with semi-volatile organics and metals since those compounds were found consistently at the plant site (page 14-4 of the DEIS; and Figures 5 and 6, Barretto Point Site, November 2003, Record of Decision and as demonstrated by the surficial soil sample SS-08 [the sample location is labeled SS-06 in DEIS Figure 14-2, but this appears to be a typographical error]). More importantly, these soils may have also been contaminated by operations at the paint and varnish facility. NYCDEP stated that data from test pits TP-31, TP-34, TP-40, TP-41 and TT-3 indicated that the soils were not contaminated. However, a review of Figure 7 in the November 2003 Record of Decision suggests that the only samples sent to a laboratory were those from TP-40 and TP-41, the total VOCs in TP-41 were below the NYSDEC threshold concentration of volatile organics; but the total VOCs in TP-40 exceeded the NYSDEC threshold. No samples were sent to the laboratory for verification from the other three test pits installed on the presumed “clean” southern boundary of the excavation; yet screening data from TP-31 and TP-34 suggested elevated levels of volatile organics. These data cannot be used to rule out the presence of volatile organics in the soils underneath the southernmost digesters. NYCDEP should require the contractor to collect some additional surface and subsurface samples from these soils prior to excavation. (15, 17) The data collected should be given to HPMC. (17)

Response: TP-40 had total volatile organic compounds (abbreviated TVOCs on Figure 7 in the ROD) concentration of 58 ppb, well below the NYSDEC recommended soil clean up objective of 10 parts per million (10,000 ppb). Delineation of the southernmost area of the paint varnish area was based on both field and analytical data. Twelve samples from the additional test pits that were installed (TP-9 to TP-42) did not indicate any presence of contamination in field measurements or laboratory analyses. There is no reason to believe that VOC contamination persists beyond the boundaries delineated in NYSDEC’s ROD. Figure 14-2 has been corrected for the FEIS.

Comment 52: How will community/park users be protected during excavation of soils below the southernmost digester? (1) How will the park and on-site treatment plant personnel be protected during the excavation of soils in the vicinity of the waste gas burners? (1) To protect park users, NYCDEP should require the contractor to implement specific measures for dust and odor control during excavation of the soils in the area of the southernmost digester and in the vicinity of the waste gas burner. NYCDEP must also implement a Community Air Monitoring

Program (CAMP) that entails the same elements as those established for excavation of the 0.7-acre area. (5, 13, 14, 15, 17)

Response: Soils throughout the site, including the area of the digesters and the waste gas burner, are typical of urban fill material, and may contain semi-volatile organic compounds (SVOCs) and metal contamination. Unlike the VOCs found in the soil in the 0.7-acre area, SVOCs and metals tend to be immobile and remain tightly bound to soil. Regular air monitoring as part of the construction health and safety plan will be conducted during excavation in these areas. According to the ROD, a CAMP is not warranted for areas without presence of VOC-contamination.

The following measures will be utilized to prevent fugitive dust from construction activities from becoming airborne:

- Use of water sprays to control dust during construction activities
- Covering open body trucks transporting materials likely to give rise to air borne dust
- Covering of excavated soil with plastic while stockpiled on site
- Prompt removal of accumulations of soil and other excavated materials from the site and roads

The construction specifications will require that the contractor perform in-situ material testing of soils prior to excavation. The Contractor will be required to submit a Field Sampling Plan and Material Excavation Plan for NYCDEP approval which will classify the excavated material as uncontaminated, regulated, industrial waste, or hazardous materials. If any hazardous materials are detected, they will be handled, transported, and disposed in accordance with applicable regulations and the Contractor's Health and Safety Plan.

The soil and groundwater samples taken during the site investigations (see response to Comment 51, above) do not indicate that the area below the southernmost digester was impacted by the former paint and varnish facility, as evidenced by Test Pits TP-40, TP-34, TP-31, TP-41, and TT-3 which are located along the southern boundary of the 0.7-acre contaminated area.

Comment 53: Please describe the institutional/engineering controls that will be required to prevent exposure to contaminated soil and groundwater remaining after remediation of the site. (1)

The procedures to ensure that there is no exposure to contaminated soils in the future that would be included in the Site Management Plan must be provided. The procedures should include requirements for soil sampling prior to excavation, excavation and off-site disposal protocols, dust control measures, particulate and volatile organic air monitoring, and replacement of the demarcation liner and two feet of soil cover. (15, 17)

Who will do the yearly inspections of the cover and submit the annual reports to NYSDEC certifying that the institutional controls are in place? What contracting/enforcement mechanism will be used to ensure that soil cover inspections and repairs occur for the long term in accordance with the site management plan? How will the institutional controls be enforced, and how will NYCDEP ensure appropriate notifications are made prior to performance of ground intrusive activities? How will the protocols described in the Construction HASPs be enforced to ensure that plant and park users are protected during excavation activities? What is the current system of identifying the presence of institutional controls at a NYCDEP WPCP? What NYCDEP Bureau has such responsibility? What is the process of incorporating health and safety requirements into contracts that involving excavating in areas where institutional controls exist? What is the process of notifying the community of activities in areas where institutional controls exist? (1) The DEIS should identify procedures for: 1) maintaining the two foot cover to ensure that it continues to provide a protective barrier, 2) yearly inspections, what they will entail, and required actions and 3) ensuring that all elements of the institutional controls are enforced. Institutional controls are generally not that rigorously enforced and HPMC needs to ensure that park users are protected in the future when new plant personnel are working at the site. (17)

Public notice must be given prior to excavation so that park users are aware when such work is being done at the plant. (5, 17)

Response: Two feet of clean fill cover over a demarcation barrier will be placed in subject areas to remediate the prevalent SVOCs and metals in soils. Institutional controls will be instituted, including site inspections and repair where necessary to maintain 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. The institutional controls will include annual inspections and reporting. NYCDEP will be responsible for submitting a Site Management Plan annual report to NYSDEC describing that the institutional controls remain in place. NYSDEC will require that NYCDEP certify on an annual basis that all institutional and engineering controls 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. The operating bureau, Bureau of Wastewater Treatment, is responsible for implementing institutional controls. Institutional controls and health and safety requirements would be incorporated into the Plant Operations and Maintenance Manual (O&M) which will be updated after the Soil Management Plan is approved by NYSDEC.

Comment 54: How will NYCDEP protect park users and on-site plant workers during pre-renovation asbestos-containing material (ACM) and lead-based paint (LBP) removal activities at the sludge thickeners and the digester complex? (1) The CAMP must also verify that measures taken to prevent the release of asbestos and lead based paint are effective in preventing impacts to the park users. (5, 13, 15, 17) A site specific health and safety plan is not sufficient to address community impacts. (5, 13, 15, 17) Data collected during the program should be provided to HPMC so that they may review the data and inform the community.

Response: Removal and disposal of ACM and LBP will be performed in accordance with all Federal, State, and City regulations, which include requirements for third-party air monitoring. The construction specifications for ACM and LBP abatement will include requirements for air monitoring and containment measures to protect park users and on-site workers. The contractor will develop the construction procedures and submit them for approval to NYCDEP prior to undertaking any removal and disposal of ACM or LBP. Data collected during activities that involve ACM or LBP removal will be made available upon submittal of a FOIL request to NYCDEP.

Comment 55: Is the two feet of fill/demarcation liner covering existing piping and underground utilities? What are the procedures for removing the soil and liner in the event of needing access to the underground piping/utilities? (1)

Response: The two feet of fill/demarcation barrier would cover existing utilities such as sewers, water mains and gas mains beneath former Barretto Street and Ryawa Avenue. NYSDEC requires that a soil management plan be developed for the site that will include procedures for handling soil excavated from below the soil cover and demarcation barrier. The demarcation barrier is perforated construction fencing material which would be removed and replaced during excavation and back filling of the utilities. The soil management plan will be developed as part of the final engineering report at completion of the construction activities for the Phase III Upgrade. Finally, institutional controls/engineering controls will be in place to ensure appropriate measures will be undertaken during future excavation.

Comment 56: What are the remedial costs associated with the 4.1-acre property on which NYCDEP proposes to locate the egg shaped digesters? What are the remedial costs associated with excavating the 0.7-acre area on which the former paint and varnish manufacturing facility was located? (1)

Response: The estimated cost of 2 feet of clean fill cover on the site (3.4 acres) is \$2,087,300. The remedial costs associated with excavating the 0.7-acre area on which the former paint and varnish manufacturing facility was located is estimated to be \$7,854,500. It should be noted that the remediation must be performed whether or not the digesters are located there.

CONSTRUCTION IMPACTS (CHAPTER 17)

CONSTRUCTION—HOURS

Comment 57: Clarify what circumstance would permit construction outside of the weekday period of 7 AM to 4 PM? Alternatively, confirm that no construction would occur outside of this period with the exception of activities interior to structures. (1)

Response: As noted in Chapter 17, “Construction,” it is not anticipated that extended hours beyond the typical construction shift of 7 AM to 4 PM would be needed for construction of the proposed action. The timeframes allowed to meet consent order requirements (for carbon addition) and the Phase III Upgrade (noted in the estimated construction schedule) are sufficient to allow all work to be completed without working outside normal hours. Working hours are established in the contract specifications.

CONSTRUCTION—CONSTRUCTION SCHEDULE

Comment 58: Why is construction period identified as seven years? The EIS needs to present the full period of construction consistently—7 years plus the additional period for the second set of digesters. The total length of construction must include the period of construction of the second set of two digesters. The schedule should include remediation of the 2.75-acre portion of site under digesters, remediation of Phase III construction area, and remediation of 1.2-acre portion that will be given to the park. (1)

The construction schedule included in the DEIS does not include all of the tasks described in the DEIS and so is inconsistent with the description of the proposed action. Specifically, Figure 17-1 is missing the following items described as part of the proposed action:

- Task bar showing time needed to construct the second set of digesters.
- Task bar showing time needed to complete remediation of the 0.7-acre parcel.
- Task bar showing time needed for remediation of the remainder of the 4.3-acre parcel with the new digesters.
- Task bar showing time needed to complete remediation of the 1.2-acre construction staging area and incorporate that section into the park.

The construction of the additional digesters, which according to the EIS could start as early as 2015, will add four years to the schedule (page 17-2). The assertion that this construction was left out of the schedule because funding is not in place is inconsistent with the remainder of the DEIS which includes the additional digesters. At the very least the construction of the additional digesters should be noted with a dashed line on the schedule. As to the other tasks, the DEIS specifically states on page 17-2 that remediation of the 5.5-acre parcel

will occur after completion of the construction/staging, hence the remediation will increase the length of the project. Between the construction of the additional digesters and remediation of the 5.5-acre parcel, the schedule could actually extend out to 2019 or longer. (11, 12, 13, 15, 17) It is important to consider the duration of construction when determining impacts. (14, 15) NYCDEP must acknowledge the construction duration impacts. (17)

Response: As described in Chapter 1, “Project Description,” and Chapter 17, “Construction,” an additional two egg-shaped digesters (for a total of four) would be constructed once the existing digesters are no longer operationally or structurally useful to ensure that the plant is able to treat the projected flow for the year 2045. These two additional digesters would be constructed on Lot 100 to the north of the two egg shaped digesters proposed as part of the Phase III Upgrade. As consistently described in the EIS for the additional two digesters proposed under the four-digester scenario, the specific time frame for construction of the two additional digesters is not known and depends on the life of the rehabilitated digesters. Within individual construction analyses, the potential impacts from the construction of the two additional digesters after 2014 are assessed, and a summary section of the potential construction impacts with the four-digester scenario is included at the end of Chapter 17, “Construction.” Although the construction of the additional digesters was comprehensively described in the text, the construction of the additional two digesters was not included in the construction schedule graphics (Figures 1-6 and 17-1) in the EIS because the start date for construction is unknown.

As noted in the EIS, remediation of a portion of the Barretto Point Site (described in more detail in Chapter 1, “Project Description,” and Chapter 14, “Hazardous Materials”) consisting of 2.75 acres between Barretto Street and Manida Street on the additional parcel for the proposed digesters will occur prior to the proposed action, and is scheduled to commence in mid-2008 and last for approximately one year. This work effort is shown on Figures 1-6 and 17-1 and is indicated by “Barretto Point Remediation.”

The 4.05-acre portion of the plant site would be remediated after construction is complete but within the schedule for the completion of the Phase III Upgrade (i.e., by 2014).

The 1.2-acre addition to Barretto Point Park would be remediated during park construction, after the area is no longer needed for construction staging. This effort is not shown in the figure because the timing is not known at this time.

Comment 59: What is the range in construction period for each of the Phase III elements? (1)

Response: A description of the construction elements for the proposed upgrade is included in the EIS (Chapter 17) and additional information is included in the appendices. This information is summarized in Table 25-1, below.

**Table 25-1
Construction Schedule**

Element	Construction Period
Renovation of existing digesters and sludge storage tanks	2008 to 2009
Renovation of existing sludge storage tanks	2008 to 2009
Polymer addition facilities	2008 to 2009
Upgrade of existing thickeners	2008 to 2012
Replacement of existing Wiggins gas holding tank	2008 to 2012
Replacement of waste gas flares	2008 to 2012
Construction of 2 egg shaped digesters and galleries	2010 to 2014
Installation of 500 kw emergency generator	2010 to 2014
Carbon addition facilities	2011 to 2014

Comment 60: What are the factors that drive the sequence of the proposed construction schedule? (1)

Response: A major factor that drives the schedule is funding availability in the NYCDEP capital planning program. NYCDEP currently has several major projects under construction (such as the Croton Water Treatment Plant, Catskill-Delaware UV Disinfection Facility, Newtown Creek WPCP Upgrade) which limits the amount of funding available to other projects in the near term. NYCDEP regularly conducts a City-wide project prioritization process that is used to distribute capital funding to projects based on risk assessments. The proposed sequence of construction at Hunts Point was based on these processes. The highest priority at Hunts Point is to stabilize the existing digesters so that these last until the new digesters are complete. Another high priority item is the polymer addition system, which would enhance the BNR process. The next highest priority is to upgrade the existing sludge treatment facilities that are approaching the end of their useful life, such as the sludge thickeners, the digester gas holder, and the waste gas flares. Construction of the new egg shaped digesters was scheduled to be implemented after these other priority elements are nearing completion. The schedule for constructing the carbon addition facilities is determined by the Nitrogen Consent Order.

Comment 61: What alternatives were considered in the sequence of the construction that could reduce the total period of construction? (1)

Response: As mentioned above, the sequence of construction is dependent on capital planning and prioritization programs. The only potential changes in the sequence that would reduce the total duration of construction would be to either postpone the upgrade of the existing sludge thickeners and digester gas facilities until the period when the new egg-shaped digesters are constructed or schedule the construction of the new egg-shaped digesters earlier. The former is not recommended because it would postpone the upgrading of facilities that are

nearing the end of their useful design life. The latter is not feasible given the other mandates that NYCDEP must meet. Although these alternatives would decrease the total duration of construction by postponing work to a later period, the amount of peak activities would increase.

CONSTRUCTION—CONSTRUCTION PEAK PERIOD AND ACTIVITIES

Comment 62: Table 17-1 should be updated to include workers on-site for non-consent order related activities under Phase I and II. (1)

Response: There will be some non-consent order related activities that extend past consent order dates for the Phase II Upgrade. Table 17-1 of the DEIS was revised for the FEIS to reflect the limited non-consent order related work associated with Phase II Upgrade that will likely be completed by the first quarter of 2009. The updated Table 17-1 is provided below on the page following this response. As shown in this table, the work associated with the non-consent order related activities under Phase I and II would extend three quarters past that described in the DEIS. However, these activities would not require extensive construction equipment compared to the other peak periods for the proposed action. The FEIS was updated to address this change in the projected completion of Phase II construction activities. The net effect of these changes did not result in a change to the predicted peak cumulative construction activities with the proposed action (and completion of Phase II construction), nor did it result in any changes in predicted significant adverse impacts from the construction of the proposed action as reported in the DEIS.

**Table 17-1
Summary of Daily Construction Workers and Truck Traffic**

Year	Quarter	Workers				Trucks			
		<u>Phase I (person days)</u>	<u>Phase II (person days)</u>	<u>Proposed Action (person days)⁽²⁾</u>	<u>Total Average Workers per Day^(1,2)</u>	<u>Phase I (by quarter)</u>	<u>Phase II (by quarter)</u>	<u>Proposed Action (by quarter)⁽²⁾</u>	<u>Total Average Trucks per Day^(1,2)</u>
2006	<u>1</u>	<u>641</u>	<u>9,116</u>		<u>163</u>	<u>118</u>	<u>797</u>		<u>15</u>
	<u>2</u>	<u>641</u>	<u>5,064</u>		<u>95</u>	<u>118</u>	<u>399</u>		<u>9</u>
	<u>3</u>	<u>641</u>	<u>3,762</u>		<u>73</u>	<u>118</u>	<u>399</u>		<u>9</u>
	<u>4</u>	<u>641</u>	<u>2,750</u>		<u>57</u>	<u>118</u>	<u>266</u>		<u>6</u>
2007	<u>1</u>	<u>641</u>	<u>2,750</u>		<u>57</u>	<u>118</u>	<u>266</u>		<u>6</u>
	<u>2</u>	<u>641</u>	<u>1,737</u>		<u>40</u>	<u>118</u>	<u>133</u>		<u>4</u>
	<u>3</u>	<u>320</u>	<u>1,737</u>		<u>34</u>	<u>59</u>	<u>133</u>		<u>3</u>
	<u>4</u>		<u>4,391</u>		<u>73</u>		<u>133</u>		<u>2</u>
2008	<u>1</u>		<u>5,125</u>		<u>85</u>		<u>133</u>		<u>2</u>
	<u>2</u>		1,013		<u>17</u>		<u>133</u>		<u>2</u>
	<u>3</u>		<u>675</u>	<u>5,134</u>	<u>97</u>		<u>133</u>	<u>1,886</u>	<u>34</u>
	<u>4</u>		<u>675</u>	<u>5,868</u>	<u>108</u>		<u>133</u>	<u>2,060</u>	<u>37</u>
2009	<u>1</u>		<u>675</u>	<u>5,868</u>	<u>108</u>		<u>133</u>	<u>1,800</u>	<u>32</u>
	<u>2</u>			4,401	73			<u>932</u>	<u>16</u>
	<u>3</u>			4,401	73			173	3
	<u>4</u>			4,401	73			173	3
2010	<u>1</u>			4,401	73			173	3
	<u>2</u>			4,401	73			173	3
	<u>3</u>			5,868	98			173	3
	<u>4</u>			3,667	61			173	3
2011	<u>1</u>			3,667	61			173	3
	<u>2</u>			3,667	61			173	3
	<u>3</u>			10,604	177			3,063	51
	<u>4</u>			7,936	132			2,521	42
2012	<u>1</u>			6,469	108			990	16
	<u>2</u>			4,802	80			542	9
	<u>3</u>			3,735	62			452	8
	<u>4</u>			3,735	62			361	6
2013	<u>1</u>			3,735	62			361	6
	<u>2</u>			1,601	27			181	3
	<u>3</u>			3,735	62			181	3
	<u>4</u>			3,735	62			90	2
2014	<u>1</u>			3,202	53			90	2
	<u>2</u>			3,202	53			90	2
	<u>3</u>			3,202	53			90	2
	<u>4</u>			3,202	53			452	8

Notes:

⁽¹⁾ Auto trips for workers can be estimated by dividing the number of workers by the estimated average vehicle occupancy of 1.2

⁽²⁾ Includes Barretto Point remediation.

Each quarter is assumed to average 60 work days.

Double underlined text indicates changes from the DEIS

Sources: URS Corp.

Comment 63: For the peak construction period in 2011 identified in the EIS, what is the breakdown of workers and truck trips between the proposed actions 1) renovation of existing sludge thickeners and storage tanks; 2) construction of

the two new egg-shaped digesters and polymer addition facilities and 3) carbon addition facility construction? What activities in each of these actions drive the peak in 2011? Why would this peak not be expected to continue into 2012? (1) What are the options for addressing the delay in schedule for Phase III? Confirm the nature of activities. (1)

Response: The breakdown of workers and truck trips between the activities for the peak construction period, third quarter of 2011, is indicated in Table 25-2.

**Table 25-2
Expected Construction Activities,
Third Quarter 2011**

Activity	Average Workers/Day	Average Trucks/Day
Renovation of existing digesters and sludge storage tanks; new polymer addition facilities	0	0
Renovation of existing sludge thickeners and digester gas facilities	62	3
Construction of new egg shaped digesters	99	41
Construction of new carbon addition facilities	16	7
Total	177	51
Note: Because the existing digesters would be completed by this time, there would not be any trips associated with this part of the plant's construction in 2011.		

During the peak construction period of 2011, the activities under the contract to renovate the existing sludge thickening and digester gas facilities would consist mostly of interior mechanical, architectural, electrical, plumbing, and HVAC work, as well as exterior final grading and paving. The activities under the contract to construct the egg-shaped digesters would consist mainly of excavation and concrete placement. The work under the carbon addition facilities contract would consist mainly of mobilization. The work under Contract 3R, renovation of the existing digesters and sludge storage tanks and new polymer addition facilities, is scheduled to be complete before the third quarter of 2011. The reason that the peak is not expected to continue into 2012 is that the renovation of the sludge thickeners and digester gas facilities are scheduled to be largely completed by end of 2011 and the heavy construction intensive tasks of sheeting, excavation, and concrete placement and the renovation of the existing thickeners are scheduled to be largely completed by the end of 2011.

CONSTRUCTION—ANALYSIS ASSUMPTIONS

Comment 64: How will the cumulative impacts, i.e., the summary of impacts from the entire period of construction, be measured? Because the non-peak impacts were sustained for a numerous years—they could be deemed significant adverse impacts [page 17-19] (1)

Response: As noted in Chapter 17, “Construction,” of the EIS, the level of construction activity would vary over the course of the construction period. Based on the scope of activities, duration and frequency, each of the analysis areas in Chapter 17, “Construction,” addressed the peak and non-peak impacts in order to support the determination of significant adverse impacts by issue. For example, the predicted traffic impacts at the one intersection identified in the EIS would be sustained for almost the duration of construction, and therefore, were determined to be significant for the entire duration. However, for other analysis areas, where predicted construction impacts were greater than impact thresholds in the City’s *CEQR Technical Manual*, examinations of peak and non-peak periods indicated that the impacts would be temporary and not result in predicted significant adverse impacts.

CONSTRUCTION—TRAFFIC ANALYSIS ASSUMPTIONS AND NO BUILD PROJECTS

Comment 65: What is the basis for converting 192 construction workers to 161 vehicle trips during the traffic counts performed in April 2006? What is actual ratio for workers in Phase II contracts? Has a survey been conducted? What is the basis for 9 daily truck trips per day? (1)

Response: As noted in the footnotes for Table 17-1 of the EIS, auto trips for workers can be estimated by dividing the number of workers by the estimated average vehicle occupancy of 1.2. This vehicle occupancy factor is consistent with vehicle occupancies observed by construction workers from other studies. The overall construction worker and truck activities at the site during the traffic counts performed in April 2006 were based on data provided by the construction manager.

The daily truck trips were based on estimates of trucks associated with each construction work component and the anticipated project schedule. For the peak construction period in 2011, this was computed to be 9 daily truck trips per day.

Comment 66: How does the 0.5 percent growth in traffic account for the actual growth projected in Hunts Point? (1)

Response: In accordance with the *CEQR Technical Manual*, the annual background growth factor used for projecting future traffic levels was 0.5 percent. Hence, between existing 2006 and the peak construction analysis year of 2011, a cumulative growth of 2.5 percent was used to project future background conditions. By the project’s completion year of 2014, the total background growth would be 4.0 percent. As demonstrated below in Table 25-3, applying the CEQR growth factor for the EIS traffic analysis resulted in a more conservative projection of future traffic volumes than what would be realized by applying the Mayor’s Office population growth projections for Bronx County.

Table 25-3
Mayor's Office Population
Projections for the Bronx

Year	Population
2000	1,332,650
2010	1,401,194
2030	1,457,039
Period	Average Annual Growth (percent)
2000-2010	0.51
2000-2030	0.31
2010-2030	0.20
2006-2011	0.45
2006-2014	0.36

In addition to background growth, the traffic analysis considers planned development projects in the area. Based on consultation with the New York City Department of City Planning (NYCDCP), New York City Economic Development Corporation (NYCEDC), and other agencies, there are a limited number of new developments planned for the Hunts Point peninsula. The projects expected to be completed in the future No Action condition are described in Chapter 1. These projects were reviewed to evaluate their potential for cumulative effects with the proposed action. Prior to publication of the FEIS, NYCDEP contacted NYCDCP and NYCEDC again to determine whether additional projects not identified in the DEIS were now proposed. The only additional project identified is a proposed rezoning within the Hunts Point peninsula. This project is being sponsored by NYCDCP and is described in Chapter 1 of the FEIS. It contemplates a rezoning within the Hunts Point peninsula and the creation of a special district (the Hunts Point Special District). The purpose of the rezoning and special district is to enhance the environment for the expanding food industry sector in Hunts Point, to act as a buffer between the residential area and the heavier manufacturing district, to encourage the growth of retail services available to residents and employees, and to improve the appearance of the industrial area of the Hunts Point peninsula. This action is only in its early stages of development and will undergo its own environmental review. Also, because the areas expected to be affected by this action are geographically remote from the Hunts Point WPCP and do not substantially share common access routes, any effects on future background traffic levels at the study area intersections are likely to be minimal and assumed to be accounted for in the background growth.

Comment 67: What is the basis for the construction-related travel patterns? (1) Was non-compliance with NYCDOT restrictions examined? For example, was the prohibition of trucks on Hunts Point Avenue between Bruckner Boulevard and

Garrison Avenue (effective July 21, 2004) and the prohibition of trucks Garrison Avenue between Tiffany Street and Bryant Avenue considered? Were any surveys of trucks using non-truck routes within the study area performed? (1)

Response: Construction-related travel patterns are based on local truck routes, access to major transportation corridors, and relative baseline traffic volumes entering/exiting the Hunts Point area. Knowledge of travel patterns associated with the construction of Phases I and II were also considered. Traffic assignments were based on consultations with NYCDOT. In the EIS, truck trips were assigned based on designated truck routes. The EIS did not assume that trucks would travel along routes other than the designated truck routes to reach the plant site.

A survey to determine whether trucks are using non-truck routes within the study area was not conducted. In accordance with CEQR, the analyses in the EIS assumed that trucks would travel along designated truck routes. If the community observes Hunts Point construction trucks utilizing routes that are not designated truck routes, NYCDEP should be notified immediately.

Comment 68: What was the assumption for travel by workers regarding distribution of traffic? Were the truck routes equally distributed? (1)

Response: As stated in Chapter 17, "Construction," workers are expected to access the Hunts Point peninsula via Hunts Point Avenue, Tiffany Street, and Leggett Avenue, with 55 percent approaching from westbound Bruckner Boulevard, 25 percent from eastbound Bruckner Boulevard, and 20 percent from local streets. Truck trips were assigned to Tiffany Street and Leggett Avenue in similar proportions.

Comment 69: What is the basis for assuming truck activities are expected to be distributed evenly throughout the day? Did the analysis account for any restriction of traffic capacity due to queuing off-site in early morning hours prior to beginning of workday? (1)

Response: The distribution of truck activities and assessment of potential queues from deliveries were based on discussions with the design engineer and observations of truck deliveries, which are dispersed throughout the day, for the upgrades currently underway. The traffic analysis assumed 15 percent of daily tucks would occur during each of the analysis hours, including conservatively assuming that these truck trips would occur during the same time periods that construction workers would be expected to arrive and depart from the site. As stated below (see response to Comment 70), there is expected to be no off-site queuing. Therefore, consideration of traffic capacity reduction adjacent to the project site is not warranted.

Comment 70: What is the basis for assuming no off-site queuing will occur? (1)

Response: Queuing of trucks off site is unlikely to occur for the proposed action. According to the Construction Manager at Hunts Point, on-site queuing of trucks occurred only on rare occasions during construction of Phases I and II. There was some on-site queuing of dump trucks on the morning of days when a large excavation would be taking place. The Contractor would have several dump trucks ready for loading first thing in the morning. As the day went on, the queue would disappear. Queuing would always take place on the plant property and never on the street. Based on typical equipment size and capacity for equipment associated with excavation, it does not appear that more than 6 to 8 trucks would be queued on site during the excavation for the digesters. That many trucks could be accommodated on the plant property.

Comment 71: What is the basis for concluding the vehicular generation attributed to Barretto Point Park is “likely to be made occurring outside of the analysis of peak hours” and, therefore, “expected to minimal”? Why wouldn’t a significant portion of the vehicular generation attributed to Barretto Point Park coincide with the PM peak? (1)

Response: While park activity typically increases after school and throughout the afternoon and evening, site construction worker and truck activities would cease at approximately 4 PM, and no work on weekends is anticipated during construction of the proposed action. The background growth incorporated into the future traffic projection is expected to be adequate in accounting for the nominal amount of vehicular traffic generated by Barretto Point Park.

Construction—No Build Projects

Comment 72: Please detail the actions by the New York State Department of Transportation (NYSDOT) that are expected to shield truck traffic from residential neighborhoods and improve pedestrian safety? (1) Identify the route changes being initiated by NYCDOT to route trucks away from residential streets. (1)

Response: Efforts are and have been undertaken by NYCDOT, as part of the Hunts Point Vision Plan, to address specific transportation issues in the Hunts Point peninsula. Measures such as new traffic signals, improved signage, street direction changes, truck route modifications, and other roadway reconfigurations were considered, many of which have been implemented, to improve vehicular and pedestrian safety. Examples of these measures include prohibiting truck traffic along Hunts Point Avenue south of Bruckner Boulevard, converting Oak Point and East Bay Avenues into one-way truck-route pairs, installing new traffic signals at Randall Avenue/Halleck Street and Tiffany Avenue/Garrison Avenue, and reconfiguring signal/crossing movements at Hunts Point Avenue and Bruckner Boulevard.

Comment 73: Why wouldn't the possibility of all-way stop controls at the intersections of Viele Avenue at Barretto, Casanova and Tiffany Streets not be expected to affect the analysis in the EIS (e.g., traffic impacts, pedestrians)? This should be part of the future No Build condition. (1)

Response: These measures are expected to foster traffic calming along the frontage of Barretto Point Park along Viele Avenue and improve pedestrian access and safety. While some of these measures would create new roadway controls (intersection stop signs) for vehicular traffic, they are not expected to have a perceptible effect on traffic flow, due to the overall low to moderate vehicular and pedestrian levels in the area.

Comment 74: Provide more information on area No Build projects, as follows:

Croton Residuals Force Main. What if there are delays in the Croton Residuals Force Main project, it could coincide with peak construction, this impact should be assessed (page 17-14). Describe the total area expected needed for the construction of Croton Residuals Solid Force Main including staging, temporary street closings, intersection closing, etc.? (1)

Ryawa-Viele Connection. Provide background regarding the Ryawa-Viele Connection. (1)

Baldor Specialty Foods and Anheuser Busch. Provide total vehicular trips associated with Baldor Specialty Foods and Anheuser Busch and allocation of the vehicular trips during each weekday. (1)

Response: The Residuals Force Main, Ryawa-Viele Connection, and Baldor Specialty Foods and Anheuser Bush projects are described in Chapter 1, "Project Description," of the EIS (see "Residuals Force Main," "South Bronx Greenway," and "Food Center Drive Projects" within section H, "EIS Content and Analytical Framework").

Croton Residuals Force Main. The Residuals Force Main would take approximately two years to construct and is projected to be in operation by the end of 2011. As noted in Chapter 17, "Construction," effects of the construction of the Croton Force main in the vicinity of the plant are expected to be minimal and limited in duration. As noted in Chapter 17, construction of the force main should be approximately 100 feet per day. The Croton Force Main would generally be constructed down the center of the streets with 15 to 20 feet taken temporarily for construction. Temporary banning of parking adjacent to the force main area under construction would likely occur. Work across intersections is usually segmented so that traffic can cross. While these measures would create new roadway controls for vehicular traffic, they are not expected to have a perceptible effect on traffic flow, due to the overall low to moderate vehicular and pedestrian levels in the area.

Ryawa-Viele Connection. The Ryawa-Viele Connection is a potential segment of the larger South Bronx Greenway. The South Bronx Greenway is a proposed bicycle/pedestrian greenway that would provide open space and waterfront access within Hunts Point. A master plan for the greenway was issued in November 2006. The Ryawa-Viele Connection would involve the implementation of improvements adjacent to the plant boundary, specifically, along a portion of Viele Avenue (between Barretto Point Park and Manida Street), Manida Street (between Viele and Ryawa Avenues), and Ryawa Avenue (from Manida Street to approximately Halleck Street). The conceptual plan shown in the master plan for this element of the greenway includes improvements consisting of a 24-foot planted buffer between the plant site and the sidewalk along Ryawa Avenue, the introduction of a bikeway along all three streets, and extensive street plantings.

Baldor Specialty Foods and Anheuser Busch. According to the Environmental Assessment Statements (EASs) for the specific projects, the proposed Anheuser Busch development is expected to generate approximately 160 passenger-car-equivalent trips (PCE), including 110 autos and 25 trucks, on Wednesdays between 7:30 and 8:30 AM, 72 PCE trips, including 22 autos and 25 trucks, on Wednesdays between 2:00 and 3:00 PM, and 60 PCE trips, including 30 autos and 15 trucks, on Saturdays between 2:00 and 3:00 PM. The proposed project is expected to generate fewer than 50 PCE trips during each of the PM peak hours between 3:00 to 7:00 PM.

For the Baldor Specialty Foods development, the traffic periods evaluated for impacts include the weekday AM (7:30-8:30 AM), weekday midday (2:00-3:00 PM), and Saturday midday (2:00-3:00 PM) peak hours. The maximum number of vehicles through an intersection from this project is 70, which would occur at the intersection of East Bay Street, Halleck Street, Hunts Point Avenue, and Food Center Drive during the peak midday period.

The peak periods for these two projects would not overlap with the peak periods for the proposed project which would occur from 6:30 to 7:30 AM and 3:00 and 4:00 PM.

Comment 75: Please explain the basis for the conclusion on page 17-15 that “any overlapping of construction-related traffic pertaining to the proposed actions and [the identified projects] would not likely occur because of likely differences in peak traffic hours and construction schedules.” (1)

Response: As stated in the EIS, peak operating hours at both Baldor and Anheuser Busch would not overlap with project-related construction traffic, and access routes to these sites differ from those to the WPCP. Similarly, the detention facility would also have different operating peak hours. During construction, these projects are expected to require substantially smaller work force, fewer truck deliveries, and shorter durations than the proposed action. Construction of the proposed action

is not expected to have a significant effect on traffic flow in the areas of the overlapping proposed projects, due to the overall low to moderate vehicular and pedestrian levels in the areas of the above mentioned No Build projects. Due to the combination of these factors and according to the *CEQR Technical Manual*, there is no need to incorporate the site-specific trips associated with these “No Build projects” beyond the background growth for the future conditions analysis.

Comment 76: What are the projected differences in the construction peaks for these other projects (Anheuser Busch and Baldor Foods) and the peak traffic hours? (1)

Response: The construction of these projects would not materially alter the background conditions established for the EIS analysis. Their construction would be completed by 2008. Construction needs for these projects would require substantially smaller work force, fewer truck deliveries and shorter duration than the proposed action. Construction of the proposed action is not expected to have a significant effect on traffic flow in the areas of the overlapping proposed projects, due to the overall low to moderate vehicular and pedestrian levels in the areas of the above mentioned No Build projects. In addition, reasonable worst-case conditions for the construction traffic analysis were considered for the proposed action.

CONSTRUCTION—PARKING

Comment 77: Provide the qualitative parking analysis and criteria for determining that no inventory of off-site parking is necessary (see DEIS page 17-6). (1)

Response: For the reasons described in Chapter 17, a more detailed parking analysis was determined to be unwarranted. These reasons, which were qualitatively described, relate to the setting of the project site (“the surrounding area contains primarily low-density industrial uses”), the lack of daytime curbside parking restrictions, the abundance of available curbside parking spaces nearby, and the limited demand associated with the project’s construction. In addition, Phase III would replace construction workers from Phase II that were utilizing parking at the time of the field observations.

Comment 78: What is the basis for concluding the demand for parking including 101 to 110 cars for employee affiliated with current Hunts Point, additional parking at the time of peak construction and additional parking arising from the use of Barretto Point Park can be satisfied by existing on-street capacity? Were any assumptions made regarding the use of on-street parking for queuing or staging? (1)

Response: The 100- to 110-car parking demand was observed in early April 2006 at the same time as when the traffic data collection efforts were undertaken. Based on conversations with the site construction manager, the number of workers at the

site for the Phase I and II Upgrades was approximately the same as what would be expected for the proposed action in the future analysis year. Also as indicated above, since the area's existing on-street parking demand is lower than the available parking supply, it is expected that demand associated with future construction activities at the site and with Barretto Point Park could be readily accommodated. It is anticipated that all construction staging for the proposed action would occur on the plant site. See response to Comment 70 for a discussion of queuing.

Comment 79: What is the basis for the conclusion that parking demand would decrease substantially in the Future No Build Condition (page 17-17)? What is the net of the Future No Build Condition without the construction activities of Phase II, with parking due to Barretto, parking due to development of major projects in area, developments related to the Hunts Point Vision Plan? (1)

Response: As stated above and described in the EIS, the area surrounding the project site is characterized by an excess of on-street parking supply and low utilization. Hence, absent construction activities at the project site, there would be abundant parking supply. Based on the projections stated in the EIS for Barretto Point Park and the likely travel modes used by its patrons, its potential parking demand is expected to be minimal, as compared to that of the WPCP construction. Other projects planned in the area are somewhat remote from the project site and would have practically no effect on the parking supply and utilization in the area.

CONSTRUCTION—PEDESTRIANS

Comment 80: Identify how the vehicular access patterns do not adversely impact pedestrian safety. (1)

Explain why it is concluded that “the addition of project-related traffic would not adversely impact pedestrian safety in the Hunts Point peninsula, mainly due to the area’s vehicular access patterns, such as restricting left-turns from westbound Bruckner Boulevard to southbound Hunts Point Avenue, and the latest truck route changes initiated by NYCDOT to route trucks away from residential streets”? [Pg. 17-6] (1)

Why wouldn't the increase in pedestrian activities associated with Barretto Park require a study of pedestrian safety impact analysis? (1) Why wouldn't the increase in pedestrian activities associated with Barretto Point Park require a study of the operating conditions at the area's sidewalks, crosswalks and corner reservoirs? (1) The EIS did not contain a quantitative analysis of pedestrian impacts from the project. The rationale provided was that no dangerous intersections were located in the study area. However, the Hunts Point Vision Plan reported that there were several dangerous intersections on Hunts Point Avenue with unusually high pedestrian accident rates. Furthermore, the EIS was

based on current pedestrian activities and these will change, particularly during the summer, with the opening of the park. Although NYCDOT may be evaluating traffic calming measures for pedestrians using the park, NYCDOT's study does not take into account the future impacts of the project and so cannot be used as a substitute for a quantitative pedestrian analysis.

In addition to concerns about construction impacts to pedestrians using Hunts Point Avenue and to those using the park, the EIS should be consistent with the Hunts Point Vision Plan, which identifies "Support of Safe Connections" as one of its primary goals. NYCDEP must recognize all of these concerns/conditions and conduct a quantitative analysis of pedestrian impacts. (11, 13, 14, 15, 17)

NYCDEP must undertake a quantitative analysis of residents walking to Barretto Point Park. NYCDEP must continue to do this as the South Bronx Greenway continues to be constructed. (12)

Response: As described in the DEIS, project-generated vehicles and trucks were mostly routed away from residential areas and other sensitive uses. For example, only approximately 10 percent of project-generated construction trips, all of which associated with construction worker automobiles, would traverse the Hunts Point Avenue and Coster Street corridors. Other construction trips would access the Hunts Point peninsula via Tiffany Street and Leggett Avenue, which are both NYCDOT designated truck routes. This pattern is in part attributed to NYCDOT's ongoing effort to improve traffic operations and safety in the Hunts Point peninsula, for example, by banning truck traffic along Hunts Point Avenue just south of Bruckner Boulevard, thereby diverting truck access away from the peninsula's more densely populated residential area and commercial corridor. Furthermore, construction trips would primarily occur outside of peak traffic time periods. Nevertheless, accident data from the most recent three years were requested from NYCDOT and are summarized below.

The January 1, 2004 to December 31, 2006 NYCDOT Summary Accident Reports show that there were no recorded accidents along Viele Avenue in front of the newly constructed Barretto Point Park and only a few vehicle- and pedestrian-related accidents along Ryawa Avenue in front of the Hunts Point WPCP. Seven other intersections within the Hunts Point peninsula where most of the project-generated trips were projected to traverse were selected for analysis. The accident data for these seven traffic study area intersections are included in Chapter 17, "Construction" of the FEIS.

Only the Bruckner Boulevard and Hunts Point Avenue intersection experienced a notable number of pedestrian injuries resulting from traffic-related accidents. In 2005 and 2006, 8 and 6 pedestrians were injured, respectively. In 2005, there were also 2 bicyclists injured due to accidents at this location. A review of the detailed reports on these accidents revealed that the pedestrian injuries in these two years were results of 7 and 6 vehicle-pedestrian related accidents,

respectively. Although 5 or more pedestrian-related accidents occurred at this location, which constitute the intersection as a high pedestrian accident location, the detailed accident reports did not reveal any prevailing trends associated with these accidents.

Nonetheless, NYCDOT has implemented several improvement measures at this location to also address the high number of vehicular accidents, in accordance with recommendations from the Hunts Point Vision Plan. These measures include signal head and lane marking modifications. As stated above, project-generated vehicles and trucks would mostly not traverse past residential areas and other sensitive uses, where pedestrian traffic is prevalent. For streets near or adjacent to Barretto Point Park, lines of sight are adequate and traffic levels are low to moderate throughout the day.

Based on the *CEQR Technical Manual*, a detailed capacity analysis of sidewalk, crosswalks, and corners is not required because the proposed action would not generate any measurable amount of pedestrian traffic. Barretto Point Park is expected to attract pedestrian activity to the area (up to 1,000 visitations a day). NYCDPR had recommended the following strategies to improve park patron access and safety for NYCDOT consideration: diagonal parking on Viele Avenue between Tiffany and Barretto Streets, painted crosswalks at each of the crossings along Viele Avenue at Tiffany, Casanova, and Barretto Streets, and a stop sign or flashing red light at each of these intersections.

These measures were identified since transit connections to the park are non-existent and it is expected that many of the park users will be arriving by car or walking. In addition, these measures provide other benefits including improved accessibility to the park. Diagonal parking is the easiest and most direct way to park and would create an image of vitality compared to the current wide, desolate appearance of Viele Avenue. In addition, diagonal parking would prevent trucks from parking and, as a result, cutting off waterfront access to the park. The traffic calming measures were requested specifically to create a safer and more inviting park experience by slowing the movement of trucks down these sections of the road network.

Existing and future pedestrian levels in the area, even with the newly opened Barretto Point Park and potential future expansion of the South Bronx Greenway, would remain comparatively low, increases in vehicular and truck traffic would be moderate, and traffic calming measures were recently implemented along Viele Avenue. NYCDOT has already restriped the portion of Viele Avenue bordering the park between Tiffany and Barretto Streets, to accommodate perpendicular parking and a widened painted median as part of park construction. NYCDOT has installed new 4-way stop control only at the intersection of Viele Avenue and Tiffany Street but deemed the proposed intersection controls and related new crosswalks at the Viele Avenue

intersections at Casanova and Barretto Streets unwarranted. However, NYCDOT may revisit these findings upon full realization of park activities and determine then whether additional improvement measures are needed.

Comment 81: The EIS states that the Barretto Point Park is estimated to generate 500 to 1,000 daily visits between 8:00 AM and 9:00 PM (page 17-13). What is the basis of this estimate? What is projected allocation of the daily visits between vehicular transport and walking? (1)

Response: Bronx Parks Commissioner Hector Aponte (NYCDPR) confirmed that 1,000 daily visits during warmer months is a reasonable estimate to use for transportation analyses. The allocation of vehicular and pedestrian projections referenced in the text were developed using standard rates from the *ITE Trip Generation Manual* to provide an indication of the likely activities anticipated for the 5-acre park.

CONSTRUCTION—CRITERIA AIR POLLUTANTS

Comment 82: The DEIS predicts that construction activities will generate PM_{2.5} concentrations in excess of the proposed NESCAUM 24-hour threshold of 2 µg/m³ at the Barretto Point Park fence line and on Manida Street along the greenway. Measures to eliminate these impacts must be implemented. (11, 13, 14, 16, 17)

Response: For the FEIS, the worst-case 24-hour PM_{2.5} impacts from construction sources were re-run with USEPA's latest model, AERMOD. As shown in Chapter 17, "Construction," of the FEIS, the maximum predicted 24-hour incremental levels from construction alone would be 1.17 µg/m³, and the maximum predicted 24-hour cumulative impacts from operation and construction would be 1.88 µg/m³ at the nearest place of public access, below NYCDEP's applicable updated guidance threshold.

Comment 83: Does "some equipment, such as graders, pavers, rollers, concrete trucks, and concrete pumps, did not operate in the short-term period" mean that the emissions for such uses were not considered in the short-term air quality impacts analysis? (1)

Response: Since the construction of the proposed action would occur over several years, the modeling analysis was conducted for construction periods that constituted the worst-case scenario for both the short term and annual averaging periods. As described in Chapter 17, "Construction," an emissions profile was created from detailed construction estimates of equipment operations by quarter for the entire duration of the multi-year construction project and the third quarter of 2011 was determined to be the worst case scenario. All equipment operating onsite during this timeframe was considered and included in the modeling analysis. The sentence referred to in the comment above was written in the context of a description for Table 17-7 which presented a list of all equipment that operated

onsite in the year 2011 (not just the third quarter of 2011). The sentence was meant to inform the reader that only a subset of the equipment list in Table 17-7 was applicable to the “short-term period” used for the modeling analysis. There would be no construction period where all construction equipment is being used at one time.

Comment 84: Explain how annual usage factors for equipment were derived using the construction schedule and then applied to adjust the peak hour exhaust emission rates (page 17-23). (1)

Response: For the annual analysis, the modeled emission rates included a factor that adjusted peak emission rates to account for a five day work week and the estimates of the amount of time that each piece of equipment would spend onsite over the course of the year being modeled (i.e., the year 2011). For example, if a piece of equipment were to remain onsite the entire year, the peak emission rate would be multiplied by 5/7th to account for the five day work week. However, if a piece of equipment were to remain onsite for only six months in the year 2011, the peak emission rate would be multiplied by 5/7th and 6/12th to account for the five day work week and the amount of time spent onsite during the course of the year. This factoring is necessary because the dispersion model used to determine ambient concentrations (i.e., annual impacts) is run using meteorological data for all hours of the year (i.e., model output is an annual average).

Comment 85: What is basis for assuming the maximum idle time for trucks will be three minutes? What oversight and enforcement measures will be used to ensure this? (1)

Response: New York City Local Law 25 of 2004 prohibits the idling of heavy trucks for more than three minutes. This requirement will be included in the construction specifications. The construction manager will be in charge of monitoring and enforcing this contract requirement.

Comment 86: The analysis of criteria air pollutants provided in the DEIS incorporated the use of pollution reduction measure for construction equipment. What was the assumption with respect to the level of compliance and the level of effectiveness? (1)

Response: As part of its construction contract specifications and in accordance with Local Law 77 (2003), NYCDEP will require the use of best available technology (BAT) controls for diesel powered construction equipment greater than 50 horsepower. The construction manager will monitor and ensure contractor compliance with this restriction. Full compliance with regulations was employed in the EIS analyses. See also response to Comment 87 and 88.

Comment 87: Is it correct that all equipment above 50 hp was assumed to have diesel particulate filters (DPFs)? Were the emissions reduced based on a control efficiency of 85 percent? What is the basis for concluding that all equipment would have DPFs, and what is the verification process? What is the basis for concluding the DPFs will consistently achieve an efficiency of 85 percent? What factors relate to this efficiency, e.g., maintenance, life of a DPF, continuous operation, temperature? (1)

Response: All equipment above 50 hp was assumed to have DPFs, and the emissions were reduced based on a minimum control efficiency of 85 percent.

New York City Local Law 77 of 2003, which was enacted by the New York City Council and signed by the Mayor on December 22, 2003, amended the Administrative Code of the City of New York to require the use of ULSD for all diesel engines and BAT for all large (greater than 50 hp) nonroad diesel engines owned by New York City and for any privately owned nonroad equipment used for construction projects that are funded by the City. BAT is required for all engines greater than 50 hp. DPFs are considered by NYCDEP to be BAT for the nonroad diesel construction engines expected onsite. These requirements would be included in the construction specifications; therefore, the construction manager will monitor and enforce these contract requirements.

The DPFs selected as BAT by the NYCDEP have been verified by the EPA and California Air Resources Board (CARB) to reduce particulate emissions by at least 85 percent. Generally, DPFs would achieve a control efficiency greater than 85 percent, and recent studies have demonstrated efficiency controls for DPFs greater than 90 percent to as high as 99 percent.

The DPF needs to be chosen by the use, so if it is to be used in an engine that would not achieve sufficient regeneration temperature for a certain DPF, a different one would be used or an active DPF would be used. If a DPF that needs a certain temperature to regenerate is installed in an engine which doesn't achieve that temperature for long enough, the reduction would still be at least 85 percent, but would require replacement or regeneration if the back pressure affects engine operations.

Comment 88: Will sub-50 hp equipment, e.g., generators, be required to use ULSD? (1)

Response: Per Local Law 77 of 2003, ULSD will be required as fuel for all onsite diesel engines.

Comment 89: What is the basis for concluding that six trucks per hour for an 8-hour day is conservative for the short term impacts analysis and three trucks per hour for an 8-hour day for the annual average impact? (1)

Response: The total number of trucks per day in the third quarter of 2011 (modeled short-term period) was taken from the construction schedule which was based on a

quarter by quarter review of construction activities over the entire length of construction. The average number of trucks per day for the four quarters of the year 2011 (modeled annual period) was also derived from the construction schedule estimates. (See also response to Comment 62.)

Comment 90: What is the basis for the 1,150 feet of paved road and 400 feet of unpaved road for the round trip distance for fugitive emission analysis? (1)

Response: Maximum distance traveled within the construction site was estimated using a site plan drawn to scale. The trucks were assumed to enter the site at the Manida Street/Ryawa Avenue entrance and travel to the far point of the digester excavation area on paved road and then enter the excavation area where they would travel to the center of the area.

Comment 91: What is the basis for concluding that dust control plan will result in a 50 percent reduction in PM₁₀ emissions? Pg. 17-23 (1)

Response: Section 13.2.2 of EPA's AP-42 Compilation of Air Pollutant Emission Factors addresses potential control efficiencies from dust control plans. Based on figure 13.2.2-2 (and the studies compiled by EPA to develop this figure), NYCDEP has determined that 50 percent reduction in PM₁₀ emissions is a reasonably conservative estimate to employ in the analyses.

Comment 92: Were the construction, non-road, and mobile source emissions considered in the modeling and receptor impact studies?

How will the cumulative air quality impacts during construction period be assessed, i.e., the significance of air emissions increases over a short time period as compared to a longer time period?

How were the combined impacts due to operational sources, construction impacts done? Did this include mobile emissions? Did it include the results from the multi-source analysis? (1)

Response: Yes. As shown in Chapter 17, "Construction," an assessment of combined operational and construction sources shows that total cumulative concentrations of CO and PM₁₀ would not exceed any applicable standard when the cumulative concentrations were conservatively estimated by adding the highest results from the mobile source and the stationary source analyses, even though the maximum impacts of the two analyses occur at separate locations. In addition, total cumulative concentrations of all criteria pollutants for all averaging periods would not exceed any applicable standard even if the cumulative concentrations were conservatively estimated by adding the highest results from the operational source and the construction source analyses. Therefore, it can be concluded that no significant impacts would be expected for these pollutants and averaging times from the combined impacts of operational and construction sources.

Taking into the account the expected emission rates of PM_{2.5} over the construction period, no significant adverse air quality impacts are expected to occur due to the combined impacts of mobile and construction sources. For the evaluation of maximum cumulative 24-hour PM_{2.5} impacts, the FEIS examined the modeled the potential cumulative impacts from operational stationary with peak construction emissions. The results of these analyses yielded maximum predicted 24-hour PM_{2.5} concentration increments of 1.88 µg/m³ at the nearest place of public access, below NYCDEP's applicable updated guidance threshold and no significant adverse impacts would be expected for PM_{2.5} (24-hour average) from the combined impacts of operational and construction sources.

As described on pages 17-33 and 17-34 of the EIS, the combined impacts of operational sources and construction sources for NO₂, SO₂, PM₁₀, and CO were evaluated by combining the highest modeled concentrations from both analyses. This was done despite the fact that the maximum impacts of the two analyses do not occur on simultaneous dates or at the same locations. As stated in the DEIS, no significant impacts are expected from these combined emissions for any pollutant. Mobile source emissions were not added to these values since the contributions to the cumulative impacts would be negligible.

Comment 93: Why is the result of the multi-source analysis performed for stationary source—ambient air quality analysis—included, along with the mobile source impacts for the future without the proposed action? How are the emissions from the plant—analysis performed in the ambient air quality analysis for the plants stationary sources—included in the future without the proposed action? The incremental impacts are not included in the DEIS. What are the incremental impacts for each pollutant? Why aren't the results presented in a table in the DEIS, as other analysis has been presented? What is the increment of impacts for NAAQS pollutants—e.g., NO₂ under the federal clean air regulations—that is deemed significant? (1)

Response: Except for PM_{2.5} (and CO for mobile sources), the purpose of the analysis is to compare all other pollutants (i.e., NO₂, SO₂, PM₁₀, and CO) to the National Ambient Air Quality Standards (NAAQS). The future without the proposed action does not include results for the stationary ambient air quality analysis because the impact criteria are the NAAQS. To be conservative, all impacts from the operation and construction of the entire plant as upgraded under Phase I, II, and the proposed action and construction impacts were combined in the cumulative impact analysis with background conditions and compared to the NAAQS. For PM_{2.5}, incremental cumulative impacts were evaluated for the cumulative analysis in accordance with NYCDEP's and NYSDEC's interim guidance criteria (see also response to Comment 92). Based on the regulatory analyses reported in the EIS, the total air emissions from the Hunts Point WPCP with the proposed action would not be subject to a major source facility permit

because the total air emissions would not exceed the threshold values, e.g., 25 tons/yr for NO₂.

Comment 94: In early 2006, the EPA came out with the National Mobile Inventory Model (NMIM). The model is an improvement on the NONROAD model used as the basis of the DEIS construction emissions determination. A justification should be provided for the use of the older model and a comparative evaluation performed. (1)

Response: NMIM uses current versions of MOBILE6 and NONROAD (i.e., NONROAD2005) to calculate emission inventories, and is not an improvement to the NONROAD model because it only provides a different interface to using the NONROAD model. The EIS uses the latest model, NONROAD2005 to develop the emission estimates for nonroad equipment in the EIS analyses.

Comment 95: Page 17-34 of the DEIS states that sludge and grit removal activities in the digesters and sludge storage tanks has the potential to generate odors, yet the DEIS did not contain a quantitative analysis of these odor impacts. A quantitative analysis should be included in the FEIS. (17) HPMC is concerned about odors during sludge and grit removal activities in the digesters and sludge storage tanks. NYCDEP should install a permanent odor misting system, similar to the one installed at the Newtown Creek WPCP, around the digesters and sludge storage tanks to control odors during cleaning. (11, 13, 17) What is the protocol for the use of odor counteractant? Is it a specific contractor specification? (1)

Response: The NYCDEP construction specifications for tank cleaning during WPCP operations as well as during the construction of the upgrade require that a contractor spray a deodorant into each tank that is cleaned to prevent foul odors that may linger. They also specify that an odor counteractant shall be evenly sprayed on filled containers containing residuals removed from the tanks. Depending on the effectiveness of the odor counteractant, the dilution or dosage of the counteractant may be increased or decreased as approved by the construction manager. As part of the upgrade construction contracts and the subsequent Operations and Maintenance procedures for the plant after the proposed action is completed, 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.

Comment 96: Provide a range of air quality impacts distributed over the significant periods of construction activities. (1)

Response: A quantified air quality modeling analysis was performed for the construction activities using a time period considered to be the most conservative scenario

based on the multi-year emissions profiles generated for the analysis. The broader conclusion regarding potential concentrations during other construction periods, which were not modeled explicitly, is that they would be less than the quantified periods. If standards were exceeded during the peak period, the EIS would have provided the duration of the exceedence, including non-peak periods. However, since no standards were exceeded in the peak, the analysis of other periods was not warranted.

Comment 97: NYCDEP must install at least two monitoring stations, one at Barretto Point Park and one along the South Bronx Greenway to monitor impacts to these receptors during the expansion. (4, 17)

Response: NYCDEP will install particulate matter (PM) monitors for both construction and operation of the upgrade.

CONSTRUCTION—NOISE

Comment 98: The conclusion that elevated noise levels for 1½ years between 2011 and 2012 and for another quarter later in the construction period would not result in a significant adverse impact because the elevated noise levels would only occur during the weekdays between 7 AM and 4 PM and not on the weekends when the park would be more fully utilized (page 17-41) is without justification. This conclusion ignores the fact that during the warmer months the park will be utilized consistently during the weekdays and therefore park users, including families with young children and senior citizens, will be subjected to unacceptable noise levels five days a week. Furthermore, there is some question as to whether construction work will be restricted to the weekday hours during construction.

A review of the construction documents for remediation activities at Barretto Point Park indicated that while normal working hours are 8:00 AM to 4:30 PM, the contractor has the option to work a second shift or overtime. If construction occurs during evening hours, additional park users who enter the park after work will likewise experience significant impacts. Overall, the construction noise impact must be acknowledged the EIS as a significant impact and all potential options must be presented to reduce the noise impacts. (11, 13, 14, 15, 17) Activities like pile-driving and the use of other construction equipment will have an impact on Barretto Point Park. (15)

Response: As suggested in the *CEQR Technical Manual* and stated in the SEQRA regulations, part of the determination of significance of impacts includes consideration of the duration and magnitude of the impact. While the construction period for the proposed action is long and noise impacts would be readily noticeable in the park, the noise impacts are temporary. Pursuant to the New York City Noise Control Code, as amended December 2005 and effective July 1, 2007, the adoption and implementation of noise mitigation plans would

be required for the construction of the proposed action, and a construction wall would be constructed between the site and Barretto Point Park. Construction activities would occur largely during the hours of 7 AM and 4 PM on weekdays, and not on weekends when the park would likely be more fully utilized. Second shifts are not anticipated during construction of the proposed action and would require NYCDEP approval.

ALTERNATIVES (CHAPTER 24)

Comment 99: The proposed location of the egg-shaped digesters must be reconsidered. (2, 6, 9, 10, 12, 13, 14, 17) NYCDEP must relocate the egg-shaped digesters to the location of the existing conventional digesters. (5, 6, 10, 12, 13, 14, 17)

NYCDEP must provide a complete and thorough analysis of Site Plan Alternative Scenario 2 based on an assessment of the concrete advantages and disadvantages associated with the proposed action and the alternative. (5, 17) Given the visual and shadow impacts created by placing the egg digesters adjacent to Barretto Point Park, as well as the air quality and noise impacts associated with their construction, Scenario 2 must be more carefully considered, particularly because NYCDEP acknowledged that the placement of the egg digesters as proposed in Scenario 2 would eliminate the major, unmitigated impact of the proposed action, as well as the noise and air quality construction related impacts. (5, 17)

NYCDEP's conclusion that construction of this alternative would be more complex, take longer and cost more is not adequate. (17) The additional construction time (1½ years per set of digesters) and cost (\$15 million or 2 percent of the current \$700 million budget for all three phases of the upgrade) is not substantial enough to dismiss this alternative. (5, 10, 12, 13, 14, 17) A more careful analysis might reveal additional costs savings or more cost-effective construction methods that could reduce these costs further. This alternative provides significant benefits to the community by eliminating the visual, noise, shadow, and air quality impacts to the park. (5, 10, 12, 13, 14, 17)

NYCDEP has stated that under Alternative 2, treated sludge might not meet PSRP until all four digesters are constructed. However, it was later clarified that it was only under maximum design sludge production conditions (which are based on a 2045 population) that PSRP might not be met. Since the egg shaped digesters should be complete well before 2045, this should not present significantly more of a concern than it does under current conditions at the plant. And to the extent that NYOFCo will have extra capacity as the egg digesters at Newtown Creek are put into operation, the City will have the capacity to treat any additional sludge that does not meet PSRP. (5, 17)

NYCDEP has speculated that there might be a future need for new equipment at the plant, and that the new equipment might be more conveniently placed at the

location of the current digesters. However, in the absence of a definitive plan for a future piece of equipment that is included in the proposed action, such future speculative actions cannot be considered in the CEQR analysis or the related ULURP proposal. (17)

Response: In the EIS, NYCDEP has undertaken an analysis of alternatives to the proposed action to determine whether there are any alternatives that reduce or eliminate project impacts while substantively meeting project goals and objectives. While Scenario 2 would eliminate the potential significant adverse visual impact for users of Barretto Point Park looking east toward the digesters and potentially reduce the temporary adverse noise impacts during construction, it would also greatly increase the construction complexity for the Phase III Upgrade and would eliminate future flexibility of the plant configuration for potential future plant needs.

Future Requirements at the Hunts Point WPCP

A primary reason for not locating the digesters in the area of the existing digesters is potential future plant needs and the fact that the existing plant site is completely and densely developed. Over the last 20 years, NYCDEP has had to respond to many mandates, many of which have related to the wastewater process and have required an intensification of use within the plant site. It is expected that NYCDEP will continue to have to respond to changing mandates in sewage treatment.

In addition to the implementation of odor control units at the plant, requirements over the last 20 years have included the following: requirements related to dewatering (Ocean Dumping Ban Act), which included the construction of dewatering facilities; requirements related to reducing nitrogen, which included construction of bigger aeration blowers, larger solids recycle capabilities, chemical storage and feed systems, and increased electrical requirements; requirements related to CSO capture, which included construction of larger main sewage pumps; requirements related to ammonia removal during sludge dewatering, which necessitates centrate treatment; additional requirements related to effluent limits, which includes modifications to the disinfection systems and carbon treatment.

Although not known at this time, future requirements requiring the use of the area of the existing digesters could include additional mandates related to wastewater processes, for example, future potential CSO and BNR programs. These future needs cannot be predicted but previous mandates over the last 20 years (as discussed above) have necessitated the construction of additional facilities within the existing plant site, such that the plant is currently fully developed. Once four digesters are constructed on the additional parcel, the area of the existing digesters would be reserved for use in meeting future needs of the plant. Locating additional wastewater facilities within the area of the existing

digesters is more efficient than constructing them on the additional parcel because these facilities should be located closer to the existing wastewater processes rather than at the additional parcel which is farther away necessitating substantial construction of piping connections. The wastewater facilities transport 120 to 400 mgd, while transporting thickened sludge flow to the additional parcel is less than 1 mgd. The size of piping connections required for the wastewater treatment facilities would differ by orders of magnitude from the connections for the sludge facilities. The existing underground tunnels on the existing plant site would interfere with the required wastewater conduits connections to the additional parcel. Furthermore, digester operation is very different than operation of the wastewater processes. Specifically, digesters have stable temperatures and constant mixing, and sludge is intermittently added and removed. In addition, the tanks are sealed, which eliminates the potential for significant adverse odor and air quality impacts on adjacent land uses. Therefore, such operations are the most appropriate to be located away from the plant's major operating systems.

Construction Cost and Duration

A larger engineering and construction effort would be required to design and build facilities that would fit within the space at the existing tanks, and to protect the existing tanks and maintain operations during construction. More extensive construction protective measures would be required due to the hazards involved with welding adjacent to existing active digesters and protection and maintenance of plant operations during construction. Construction progress would be slower due to limited site access, demobilization-mobilizations, installation of temporary facilities, and maintenance of plant operations.

Between the DEIS and FEIS, NYCDEP was asked by the HPMC to provide cost information for the alternatives included in the DEIS. Preliminary estimates, which are based on very limited information and are therefore conceptual in nature, indicate that the construction period for each set of two digesters would increase by about 18 months, from 4 years to an estimated duration of 5½ years. Additional costs of constructing the egg-shaped digesters in the location of the existing conventional digesters would be related to maintenance of operation during construction; temporary piping and facilities; digester cleaning and purging; hazardous gas monitoring during construction; selective demolition of digesters; cost of new storage building to replace lost storage space; remobilization costs; slower production due to limited access; increased overhead due to longer construction duration; and additional contingencies due to unforeseen conditions. There would be some cost savings related to the elimination of some excavation and construction of a utility tunnel and not repairing the existing two digesters. The additional cost of this alternative is

approximately \$15.3 million (at the midpoint of construction).⁴ The cost estimates are very preliminary. In general, more detailed analysis of upgrades to existing facilities lead to increased cost estimates as more problems and conflicts may be discovered, rather than discovering additional cost savings or more cost-effective construction methods. Additional analysis would most likely not change the conclusion regarding constructability, cost, and additional construction duration of Alternative 2. Furthermore, the estimates are likely to increase as the design develops and more detailed information becomes available. In addition, unforeseen and changed conditions may be discovered in the existing facilities during construction which could lead to change orders and delays that are not accounted for in the estimate.

Process to Significantly Reduce Pathogens (PSRP)

Sludge must meet “Process to Significantly Reduce Pathogens” (PSRP) regulations to be beneficially reused. PSRP may not be met if sludge production is higher than normal, which will reduce the storage capacity, if digester temperature is not maintained at 95°F or above, or if froth forms in the digesters. If PSRP is not met, the biosolid will be sent to facilities, such as NYOFCo, for further processing to reduce pathogens so that it can be beneficially reused. All laboratory tests are performed under the EPA methodology at NYCDEP or NYCDEP-contracted private laboratories.

The Hunts Point plant has been failing PSRP from February 23, 2007 to present (March 19, 2007) due to one or more digesters not being able to maintain temperature above 95°F. PSRP also was not met from January 1, 2007 to January 8, 2007 for the same reason. PSRP was met 335 days of calendar year 2006. Whether one or all tanks are not able to meet PSRP requirements, sludge production as a whole is considered to have failed PSRP requirements (i.e., the whole days’ volume). In March 2007, the average daily volume of sludge production at the plant was 51,000 cubic feet per day (in February 2007, the average volume was 51,700 cubic feet per day). It would be this total volume that does not meet PSRP requirements. It is not possible to predict future compliance with PSRP requirements or time periods of non-compliance during the upgrade since it is largely dependent on the peak volume of sludge produced, which could range from 38,000 to 98,000 cubic feet per day, and the number of tanks in service. All sludge that does not meet PSRP requirements is sent to NYOFCo.

The additional sludge load at the plant is produced by two components: population increase and additional solids resulting from carbon addition. The additional sludge produced by carbon addition will occur in 2014 when the carbon addition facilities mandated by the Nitrogen Consent Order go into

⁴ The cost estimate was inflated to the mid-point of construction (2012).

operation. When the additional solids from carbon addition are added to the current plant sludge production, PSRP would not be met during maximum month conditions with two new egg-shaped digesters and two existing digesters in service, which would be the condition if Alternative 2 is constructed. Therefore, the comment that not meeting PSRP would not be an issue until 2045 is not valid. It would be an issue as soon as the new digesters go into operation, if Alternative 2 is selected.

MITIGATION (CHAPTER 21)

Comment 100: It is unacceptable to ignore the impacts quantified in the DEIS in light of the historical impacts of the plant on the community. The mitigation section of the DEIS does not adequately capture all of the impacts quantified in the earlier sections of the document and therefore does not adequately account for nor address all of the impacts posed by the project. The complete list of impacts includes: visual, shadow, PM_{2.5}, odor, and air quality impacts on Barretto Point Park and the South Bronx Greenway, noise impacts on Barretto Point Park, hazardous material impacts on the park (during soil excavation and possibly during ACM and LBP removal from digesters and thickeners), and traffic impacts. (17) Where there are impacts that cannot be avoided, such as the visual, shadow, VOC, and noise impacts, NYCDEP must find alternative ways of mitigating these impacts. (14, 17)

Response: The mitigation chapter discusses those analysis areas where potential significant adverse impacts requiring mitigation were identified—these areas include visual character and traffic. Where impacts are not able to be mitigated (visual character), these impacts are called unavoidable significant adverse impacts (see Chapter 22, “Unavoidable Adverse Impacts.” For other impacts that are not significant, the EIS chapters discuss, where applicable, measures that NYCDEP will put in place to avoid impacts—see for example hazardous materials and noise. As discussed in response to Comment 99, the placement of the egg-shaped digesters in the area of the existing conventional digesters would eliminate the potential significant adverse visual impact of the egg-shaped digesters but would greatly increase the construction complexity for the Phase III upgrade and would eliminate future flexibility of the plant configuration for potential future plant needs.

GENERAL COMMENTS

Comment 101: NYCDEP must mandate that all city and city-contracted facilities reduce energy use during peak periods, enter into agreements with the private users to reduce energy, initiate a particulate matter (PM) monitoring program to assess PM and other air pollutant hot spots, and implement aggressive traffic mitigation measures that specifically target trucks in residential areas. (17)

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Response: While many of these suggestions are outside the scope of work of the proposed action, the Mayor's PlaNYC addresses these issues and outlines specific goals. In terms of energy usage, the PlaNYC calls for reducing demands for energy, better management of energy on days of peak usage, and finding cleaner and more reliable sources of energy. In terms of PM, the PlaNYC calls for a collaborative local air quality study that will include an enhanced air quality monitoring system, with an emphasis on traffic-related emissions.

The proposed action would be consistent with these aspects of the PlaNYC (see response to Comment 2). In addition, NYCDEP has committed to measures at the Hunts Point WPCP that could greatly reduce PM_{2.5} emissions and has agreed to install PM_{2.5} monitors. With respect to traffic conditions in the Hunts Point peninsula, Comment 67 describes measures that NYCDOT has put in place to alleviate truck traffic in residential areas.

Comment 102: NYCDEP must provide funding for an office, necessary support items, and a full-time community liaison for the duration of the review, approval, and construction phases for the project and for a period thereafter as agreed to by HPMC and NYCDEP. (3, 7, 17) In addition, NYCDEP must continue to work with HPMC and its consultants (with monthly project status meetings) during construction activities so that the implementation of mitigation measures can be monitored and impacts to the community can be prevented. (7, 17)

Response: A community liaison position will be funded by NYCDEP. NYCDEP will develop detailed information about the location and support needs of the community liaison position prior to the start date for upgrade construction.

NYCDEP will continue to sponsor the HPMC and meet regularly with HPMC members to share regular updates about the plant's upgrade and operations, and to obtain continuous feedback from HPMC members about community issues.

Comment 103: The capital investment to be committed for the various projects identified by the Community Board and HPMC is a concern. (4)

Response: In recognition that the Hunts Point WPCP and its long-term construction have placed a burden on the community, including the potential visual impact associated with the proposed digesters, NYCDEP is currently working with community members, a HPMC subcommittee, and a consultant to obtain community input in selecting a project that will improve conditions on the Hunts Point peninsula for area residents. A workshop was held with the community on December 9, 2006 to discuss options for the amenity. At that workshop, three priority options were identified: 1) a boathouse facility at Lafayette Park and streetscape improvements on Lafayette Avenue (described as the Lafayette Paseo in the South Bronx Greenway Master Plan); 2) a multi-use facility focused on maintenance uses and environmental education; 3) a floating swimming pool, the reconstruction of Tiffany Street Pier, shellfish habitat

creation, or streetscape improvements on Ryawa and Viele Avenues. Results of the workshop, including discussions of potential amenity projects, have been shared with the Hunts Point community.

Comment 104: I am concerned by the lack of transparency and oversight by which this project has been advanced. (12)

Response: Community review and input is a critical component of New York City’s CEQR process. NYCDEP has made considerable efforts to facilitate public review of the DEIS and to encourage public participation in the environmental review process. NYCDEP has undertaken the environmental review of the proposed action in accordance with SEQRA and CEQR. Public review of the Draft Scope of Analysis for the proposed action began on November 23, 2004 with the issuance of the Notice of Lead Agency Declaration, Positive Declaration, EAS, and Draft Scope of Analysis to Prepare a DEIS. A public scoping meeting was held to accept comments on the scope of work on February 1, 2005 at The Point Community Development Center, within the Hunts Point community. The comment period remained open until February 25, 2005. A final scope of work, reflecting comments made during scoping, was issued on June 15, 2005.

A notice regarding the public meeting date of February 1, 2005, appeared in the Bronx Times twice in December 2004. An English version of the notice appeared twice in both the Bronx Times and the Daily News in January 2005. A Spanish version of the notice appeared twice each in January in Hoy and El Diario. HPMC members received written meeting announcements three times (twice in December, once in January) prior to the public meeting. Communication for the public meeting was discussed at the January 11, 2005 HPMC meeting where in addition to the newspaper announcement additional outreach efforts for the public scoping meeting were discussed. In response, NYCDEP delivered flyers in both English and Spanish; NYCDEP also posted announcements in both English and Spanish.

NYCDEP has consistently demonstrated its commitment to coordinating with HPMC, the local Community Board, and members of the public regarding implementation of this important project, and has made considerable effort to facilitate public review of the DEIS and to encourage public participation in the environmental review process. This included meetings with HPMC beginning in late 2003 (when HPMC was established; as of publication of the DEIS, NYCDEP staff and HPMC members had met 33 times) and technical meetings with EnviroSciences, HPMC’s consultant on the DEIS, to review the DEIS. Technical meetings/conference calls were held on January 17, 2007, January 30, 2007, and March 16, 2007.

In addition, to allow for additional time for community review of the DEIS, NYCDEP published the DEIS in advance of the NYCDCP certification of the ULURP applications (as discussed in Chapter 1, “Project Description,” of the

EIS, the proposed action would require site selection of the 4.3-acre area under ULURP. A second ULURP application for the mapping of Barretto Point Park is following a parallel schedule). Typically, the ULURP application is certified by NYCDCP upon publication of the DEIS. The DEIS was published on December 19, 2006, and the ULURP applications were certified on February 26, 2007, thereby extending the public comment period on the DEIS by an additional 73 days. In coordination with NYCDCP's certification of the ULURP applications, NYCDEP attended public hearings with the City Planning Commission (on June 6, 2007), the Bronx Borough President's Office (on April 27, 2007), and the local Community Board (on March 14, 2007, March 28, 2007, April 11, 2007 and April 25, 2007) to present the findings of the DEIS as related to the ULURP applications.

With these extensive efforts, NYCDEP believes that the project has been advanced with community input and oversight.

Comment 105: The comment period should be extended by two weeks. (7)

Response: Unfortunately, NYCDEP was unable to grant this request. Granting the request would impact the simultaneous ULURP schedule which requires the FEIS be completed before the City Planning Commission's approval in July. As discussed in response to Comment 104, NYCDEP has worked extensively to facilitate public review of the DEIS. Considering these efforts and the fact that the DEIS public review period provided (December 19, 2006 through April 23, 2007) far exceeded the 30-day review period provided by law, NYCDEP believes the public review period provided was adequate.

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