APPENDIX H

COMMENTS AND RESPONSES

Appendix H: RESPONSE TO COMMENTS

This appendix summarizes all of the substantive comments received on the FGEIS. Public review for the FGEIS began on April 15, 2004, with the publication and distribution of the document to over 300 agencies, elected officials, organizations and individuals. On April 16, 2004, the FGEIS was posted on LMDC's website and was also made available at five branches of the New York Public Library and Community Boards 1, 2 and 3. Notice of its availability was published in several local newspapers on or about April 16, 2004, in the *Environmental Notice Bulletin* on April 21, 2004, and in the *Federal Register* on April 27, 2004. EPA also announced its availability in the *Federal Register* on April 23, 2004. The comment period on the FGEIS closed on May 24, 2004 at 5 p.m. All substantive comments received through that time were considered in the preparation of this ROD and Findings Statement.

List of Commenters

Elected Officials

1. New York City Council Member Alan J. Gerson (Gerson)
2. New York State Assembly Speaker Sheldon Silver (Silver)
3. New York State Senator Martin Connor (Connor)

Agencies

4. Manhattan Community Board #1 (CB1)
5. New York State Department of State, Division of Coastal Resources (NYSDOS)
6. United States Army Corps of Engineers, New York District (USACE)
7. United States Environmental Protection Agency, Region 2 Office (EPA)

Organizations

8. BPC United
9. Civic Alliance to Rebuild Downtown New York
10. Clean Air Campaign, Inc.
11. Coalition of 9/11 Families
12. Coalition to Save West Street
13. Hudson River Park Trust
14. Lower Manhattan Cultural Council (LMCC)
15. Lower Manhattan Emergency Preservation Fund (LMEPF)
16. New York Environmental Law and Justice Project (NYELJP)
17. 9/11 Environmental Action
18. Rebuild with a Spotlight on the Poor Coalition, LSNY Manhattan (Rebuild Coalition)
19. Riverkeeper, NY/NJ Baykeeper, Soundkeeper and the Natural Resources Defense Council (Riverkeeper)
20. Sierra Club, New York City Group
21. Stuyvesant High School Parents' Association (Stuyvesant)
22. World Trade Center Environmental Organization
23. World Trade Center Restoration Movement

Individuals

24. James Alberts
25. Bryan Arcum
26. Eli Attia
27. C. Barrella
28. Tal Barzilai
29. Jonathan Bornstein

30. Alexander Butzinger
31. Annette Caudiano
32. Robert B. Cox
33. Kevin Cunningham
34. John Dellaportas
35. Gian DeLuca
36. Diane Dreyfus
37. A. Fisekis
38. John Freeman
39. Olive Freud
40. Joy Goldberg
41. Brian Goodwin
42. Jonathan Hakala
43. Ben Hemric
44. Barbara Marion Horn
45. Bill Hough
46. Jeffrey M. Johns
47. David Kupferberg
48. Daniel Lenahan
49. Frederick R. Ling
50. Joseph Pell Lombardi
51. Louise Lo Presti
52. John Lumea
53. John Lictro
54. Mary Robreno Lictro
55. Caroline Martin
56. Andrew Oliff
57. Pedro Ramos
58. Steven Speizer
59. Owen Staley
60. Erika Sullivan
61. Jennifer Thorpe
62. John Townsend
63. Paul Vollaro
64. Josef Zuelch

Comments

Commercial Design Guidelines/Sustainable Design Guidelines

Comment 1: LMDC should commit to the implementation of capturing and reusing 85 percent of stormwater by making the *Sustainable Design Guidelines* mandatory. (Riverkeeper)

Response: LMDC and the Port Authority are committed to the implementation of the *Sustainable Design Guidelines* and the introduction of a greywater system that will capture and reuse 85 percent of stormwater.

Safety and Security

Comment 2: The FGEIS did not solve the problem in the event of a fire or terrorist attack that the latticework, the wind turbines and spire on Freedom Tower could easily collapse and fall onto the street, endangering people's lives. (Ramos)

Response: The Selected Project (discussed as the Proposed Action in the FGEIS) will meet or exceed safety standards expressed by relevant current building codes and guidelines. Emergency response systems will be tailored to the anticipated security and emergency life safety needs of each space or structure including the Freedom Tower's latticework, wind turbines and spire. The Project Site will also be designed to meet, if not surpass, standards expressed in the relevant codes applying to public assembly occupancy structures.

Safety and security considerations will be reflected in the operation of the elements of the Selected Project. The facilities for operational activities will include security, control and communication systems aimed toward maintaining a safe environment during everyday and emergency situations. Visual surveillance, lighting, emergency communications, and public and emergency access are examples of measures that will be carefully considered in the final design. In conjunction with the physical design, the Port Authority (or other appropriate agencies), and, for the office towers, Silverstein Properties, will coordinate with public safety and law enforcement agencies such as the New York City Police and Fire Departments to develop detailed security plans and systems for all areas of the Project Site.

Comment 3: The FGEIS did not solve the problem of inspecting cars that enter the WTC site, as they could also contain bombs. (Ramos)

Response: Vehicular screening and access will be designed to achieve secure protection from an explosive event threat by stressing visible security at sensitive locations. Such security screening will be managed to ensure efficiency and to minimize queuing and idling on streets around the site. Persons entering secure areas and locations within the Project Site will also be subjected to screening for explosives, flammables or firearms at visible security checkpoints at sensitive positions.

It is anticipated that the PAPD (or other appropriate agency, i.e., if the Memorial were to become a National Park, the National Park Service) will be responsible for policing the Project Site, with NYPD support for emergency situations. The PAPD (or other appropriate agency) will be primarily responsible for patrolling, providing security, and protecting the Project Site. In addition to published and industry standards, other efforts

are underway to understand, evaluate and improve the standards, technology and practices that are needed for cost-effective improvements to the safety and security of buildings and occupants.

Comment 4: LMDC does not address the need for defibrillators, CERT teams, and other community involvement in preparedness, nor the safety of electrical apparatuses. (Gerson)

Response: The analyses for community facilities and life safety in the FGEIS were appropriate for the Selected Project. The PAPD are trained as first responders and will be suitably equipped with emergency life safety equipment as required by relevant codes. In addition, the FDNY and EMS serve the site.

FGEIS Procedures and Methodology

Comment 5: LMDC employed an improper baseline in the FGEIS and should have used only "current conditions." (Riverkeeper)

Response: Given the unique circumstances of the events of September 11, it would have been inappropriate to use current conditions as the baseline to measure impacts. As the environmental review for redevelopment of the Project Site began immediately after the rescue, recovery and cleanup from the terrorists attacks of that day, public input has suggested that the only appropriate baseline is pre-September 11. Many commenters on the DGEIS expressed this view as noted in Chapter 27 of the FGEIS. Taking the most conservative approach, the DGEIS and FGEIS presented two analysis scenarios—Current Conditions and Pre-September 11. This approach enabled LMDC to depict a full consideration of impacts while recognizing both former and present conditions.

Comment 6: The only proper baseline is pre-September 11. (Hough)

Response: See response to above comment.

Comment 7: The FGEIS is inadequate because it provided a cumulative impacts analysis only for the construction period and not for operation of the Proposed Action. (Riverkeeper)

Response: The potential effects of the Selected Project includes background conditions in the 2009 and 2015 analyses years consisting of other projects in construction and proposed in appropriate disciplines such as traffic and parking, transit and pedestrians, noise, air quality, etc. The traffic analysis for 2015, for instance, included traffic from all known proposed projects anticipated to be in place by 2015 in background.

Comment 8: The entire LMDC catchment area should be used for analysis, remediation and environmental command-and-control. (Gerson)

Response: Each analysis completed as part of the FGEIS has its own study area, appropriate for the subject being analyzed and the scale of the impacts anticipated, and also reflects comments during scoping.

Comment 9: The FGEIS does not comply with NEPA. There should be a comprehensive EIS on all proposed expenditures of federal 9/11 recovery funds. The FGEIS segments the overall "project," the project area, the NEPA EIS process itself, and the Route 9A Project. The

cumulative analysis was not proper. (Clean Air Campaign, 9/11 Environmental Action, Freud, Coalition to Save West Street, Sullivan, Lenahan)

Response: Federal funding has been appropriated to different federal agencies for specific uses. LMDC acts on behalf of HUD in completing environmental reviews for its projects that will receive Community Development Block Grant (CDBG) funds pursuant to the requirements of 24 CFR Part 58. As CDBG funds will be appropriated for a portion of the Selected Project, namely a portion of the Memorial and cultural uses and the deconstruction of 130 Liberty Street. The Route 9A Reconstruction Project is not being undertaken by LMDC but by NYSDOT, and HUD funding is not being used for the Route 9A Project. Nonetheless, the FGEIS includes a cumulative analysis of the other Lower Manhattan recovery projects, including Route 9A.

Comment 10: The FGEIS is flawed because it fails to discuss the distribution of CDBG funds. (Rebuild Coalition)

Response: Following the completion of all required environmental reviews listed in 24 CFR §§ 58.5 and 58.6, LMDC will submit its formal request for the release of funds to HUD. On May 17, 2004, a notice of intent to request the release of funds was published and distributed to every agency, elected official, organization, and individual identified on the FGEIS distribution list. The notice of intent was subject to a seven-day comment period.

Comment 11: This FGEIS document covers a broad range of highly specialized areas, thus requiring reviewers to have expertise in these fields. It is impossible and unreasonable to expect the general public to understand this document and provide comments within 30 days. We hereby request that the commentary period to be extended to July 1, 2005. The environmental review process was too rushed. (Stuyvesant, Ramos)

Response: The entire environmental review process included multiple comment periods and public hearings. The Draft Scope was made available for public review starting on June 20, 2003. LMDC held two public meetings on the Draft Scope on July 23, 2003 and accepted public comments through August 4, 2003. Public review of the DGEIS began on January 22, 2004, with the publication and distribution of the document to agencies, elected officials and local organizations. The DGEIS was also posted on LMDC's website and made available at several branches of the New York Public Library and Community Boards 1, 2 and 3. Notices of the availability of, announcing public hearings for and inviting public comment on the DGEIS were published in several local newspapers, the *Federal Register* and the *ENB*. Public hearings on the DGEIS were held on February 18, 2004. The public comment period on the DGEIS closed on March 15, 2004. With the release of the FGEIS on April 16, 2004, LMDC again provided another comment period, which ended on May 24, 2004. All comment periods met or exceeded all applicable requirements and have been adequate to permit substantial public participation, as evidenced by the number of comments received during the entire environmental review process. LMDC appreciates the comments raised by Stuyvesant High School Parents' Association and has carefully considered them and all other substantive comments received in completing this ROD and Findings Statement.

Urban Design

Comment 12: The FGEIS treats the Proposed Action as one site, misinterpreting the project's density and bulk. Thus the floor area ratio (FAR) for the office towers is really 28 to 50 FAR, exceeding the maximum in the New York City Zoning Resolution and impacting buildings outside of the Project Site. The original Twin Towers FAR averaged about 14 FAR. (Lumea, Attia)

Response: The ratio of the above-grade floor area to overall Project Site would be approximately 12 FAR, which is less dense than prior to September 11. Although the Port Authority property is not subject to New York City zoning, the Selected Project will be a bold design that is the culmination of more than two years of planning and has received broad public support.

Historic Resources

Comment 13: The FGEIS failed to make provisions for the treatment of archaeological remains, other than indicating general monitoring. (Lo Presti)

Response: The Programmatic Agreement deals with the treatment of archaeological resources, including further coordination with SHPO and consulting parties before finalizing plans that would address monitoring procedures, treatment, and mitigation.

Comment 14: The FGEIS failed to identify the three segments identified by the Vorsanger/Port Authority team to be preserved as artifacts from the WTC Site for incorporation into the Memorial Center, as well as any other WTC Site relics. The FGEIS also fails to state whether or not any remaining segments from the WTC Site will be given to other institutions or entities. Further, the FGEIS fails to vouchsafe the identification and preservation of WTC Site artifacts. (Lo Presti)

Response: LMDC has established a Memorial Center Advisory Committee to guide the development of program elements and the curatorial mission of the Memorial Center. As part of its role, the Memorial Center Advisory Committee will assist LMDC in reviewing suggestions from consulting parties that participated in the Section 106 review process and other members of the public with respect to the display at the Memorial Center of artifacts removed from the WTC Site. In addition, LMDC will also consult with the Port Authority to ensure they safeguard all artifacts in the Port Authority's custody and control.

Comment 15: The Port Authority has done an excellent job of finding and preserving artifacts at the Hanger 17 at JFK Airport. The on-site resources being discussed pale in comparison to what has already been preserved. The efforts of LMDC and the Port Authority to identify further artifacts have gone beyond principles of responsible preservation. (BPC United)

Response: Comment noted.

Comment 16: It is a show of remarkable good faith to have identified two columns and a parking lot sign as artifacts, but they are not high impact pieces. Many small personal artifacts will have far greater power. The column should be removed without taking the floor with it. Sections of original walls that can be removed with authentic markings, such as the

parking level sign, should be. This type of item is easier to remove than the columns, and could easily be used in a memorial center to add to the feeling of authenticity and location. (BPC United)

Response: Comment noted.

Comment 17: LMDC refused to define what it meant by "appropriate" access to portions of the west slurry wall and box-beam columns outlining portions of the former Twin Towers. The FGEIS was unclear or silent on how LMDC intends to provide access. It is unclear what LMDC meant when it referred to "portions" of the footprints. (Coalition of 9/11 Families)

Response: Design plans for the Memorial are still being developed. As a result, specific information regarding access cannot be determined yet. As described in the Programmatic Agreement, copies of architectural plans for the Memorial will be available for review by SHPO and consulting parties as the design progresses.

Comment 18: The FGEIS did not mention that a number of the consulting parties in the Section 106 process questioned the adequacy of the March 31, 2004 Coordinated Determination of National Register Eligibility (DOE) and requested that it be referred to the National Park Service for final review. Changes to the DOE could result in significant changes in the evaluation of impacts on historic properties at the WTC Site. (Coalition of 9/11 Families)

Response: The eligibility of the WTC Site for inclusion on the National Register of Historic Places was the subject of extensive comment, by the commenter and others, in the parallel Section 106 process, as well as during the environmental review process. As a result of those comments, LMDC and the involved federal agencies determined that the entire WTC Site is eligible for listing on the National Register.

Comment 19: Rather than simply acknowledging that the Proposed Action would have an adverse effect on historic properties, the FGEIS repeatedly stated that the action is not expected to have significant adverse impacts on historic resources. This is a qualitative and unfounded conclusion on the part of LMDC. Neither Section 106 of the NHPA, nor its implementing regulations provide for a qualification of adverse effects in this manner. The net effect is a transparent attempt on the part of LMDC to minimize the impacts of the proposed action on historic resources that its own DOE considers significant. (Coalition of 9/11 Families)

Response: The FGEIS acknowledged that the Proposed Action may have an adverse effect on some of the remaining elements at the WTC Site. However, it is not anticipated that the Proposed Action would have a significant adverse impact on historic resources under NEPA. LMDC has, nevertheless, entered into the Programmatic Agreement with SHPO and ACHP in order to help mitigate any such impact to historic resources.

Comment 20: The FGEIS stated that the Section 106 Programmatic Agreement "would include additional consultation with the consulting parties." However, when that document was finalized it included only very narrowly defined provisions for input from the consulting parties concerning implementation of the requirements of the PA. (Coalition of 9/11 Families)

Response: The Programmatic Agreement provides the opportunity for input by consulting parties in a number of areas, including providing the consulting parties an opportunity to comment on plans for the Memorial and the Project Site as they are developed in order to avoid or minimize any potential for adverse effects to any historic resources on the Project Site.

Comment 21: The FGEIS referred several times to LMDC's "Proposed Finding of No Adverse Effect" as part of the Section 106 process, but never said that that finding was rendered obsolete and incorrect when LMDC agreed, before the FGEIS was issued, to enter into a Programmable Agreement. (Coalition of 9/11 Families)

Response: The Programmatic Agreement was executed on April 22, 2004, after the release of the FGEIS. The Programmatic Agreement, which addresses any unanticipated or adverse effects on historic resources or properties that may occur as a result of the Selected Project's implementation, satisfied LMDC's Section 106 responsibilities and effectively superceded the proposed finding referred to in the comment.

Comment 22: The Coalition's comment on the DGEIS noted that evaluation of impacts to historic resources should include consideration of the 1993 bombings and objected to LMDC's determination that the 1993 bombings do not contribute to the significance of the WTC Site. We were unable to find a response to this comment in Chapter 27. (Coalition of 9/11 Families)

Response: The period of significance for the WTC Site was defined in the DOE, which was prepared by LMDC, FTA, and FHWA, in consultation with Section 106 consulting parties. The DOE concluded that the period of significance begins on September 11, 2001, the day on which the attacks occurred, and continues to June 30, 2002, the date on which NYCDDC concluded the recovery efforts and returned the WTC Site to Port Authority control. The response to Comment 192 of the FGEIS should have read "See response to Comment 194."

Comment 23: The FGEIS indicated that the Port Authority has completed its inventory of WTC artifacts in storage in Hanger 17 at JFK Airport. This is incorrect—the inventory is still on-going and no final inventory has been provided to any of the consulting parties in the Section 106 process. (Coalition of 9/11 Families)

Response: As described in the Programmatic Agreement, LMDC will obtain from the Port Authority a copy of a complete inventory listing all WTC artifacts in the Port Authority's custody and control as of July 1, 2004. LMDC will consult with the Port Authority to share the inventory with SHPO and each consulting party and provide an opportunity to comment regarding artifacts that may be installed in or displayed at the Memorial Center.

Comment 24: The FGEIS also included or referenced new information that was available to LMDC prior to the issuance of the DGEIS but was not disclosed to the public until the FGEIS was issued. Some of these documents should have been included in LMDC's response to Freedom of Information Law (FOIL) requests made by the Coalition. These previously undisclosed and unreferenced documents include appendices K.3 and K.4 of the FGEIS. These appendices are archaeological studies of the WTC Site dated July 30, 2003, yet are being made public now for the first time. (Coalitions of 9/11 Families)

Response: The documents contained in Appendix K.3 and Appendix K.4 were prepared in response to requests by the New York City Landmarks Preservation Commission subsequent to the release of the DGEIS. They were Topic Intensive Archaeological Studies of the WTC Site and the Southern Site that were prepared in March 2004. The Phase IA Archaeological Reports (Appendix K.1 and K.2) to which the comment refers were provided to the commenter under a FOIL request in late February 2004.

Comment 25: LMDC revised the text of the FGEIS to note that SHPO determined that the WTC was not eligible for listing on the National Register. No further explanation or documentation is provided for this statement in the main text of the FGEIS. However, in responding to Comment 194 in Chapter 27, LMDC states that in December 1989 SHPO determined the WTC not eligible for listing on the National Register. The FGEIS is the first time that LMDC has made public the fact that such a determination was ever made. These actions sharply contrast with LMDC's often repeated public position on their desire to incorporate public involvement into the environmental review process. (Coalition of 9/11 Families)

Response: Pages 5-49 and 5-51 of the FGEIS indicate that buildings that were part of the WTC were evaluated as part of the Route 9A Reconstruction Project and were not found to be eligible for S/NR-listing. The FEIS for the Route 9A Reconstruction Project was published in 1994.

Comment 26: A Supplemental EIS that specifically addresses issues related to historic resources should be prepared. (Coalition of 9/11 Families)

Response: The Programmatic Agreement provides for unanticipated or adverse effects on historic resources or properties that may occur as a result of the Selected Project's implementation.

Comment 27: State-of-the-art technology should be employed for all monitoring activities during all phases of construction. A single entity should be charged with monitoring the impact on historical properties during all stages of construction activities over the 11-year period. (LMEPF)

Response: As was stated in Section 3.2.20 of the ROD and Findings Statement, in order to avoid any adverse impact to historic resources in the area of potential effect throughout the construction period, a Construction Protection Plan will be developed in consultation with the SHPO and will comply with the terms of the Programmatic Agreement.

Comment 28: LMDC's decision not to designate St. Nicholas Church as an historic site was wrong. (Dellaportas)

Response: As stated in response to Comment 197 of the FGEIS, LMDC did consider the potential significance of the former St. Nicholas Greek Orthodox Church. Background information was sent to the SHPO and the New York City Landmarks Preservation Commission (LPC), but both the SHPO and the LPC concluded that the church site is ineligible for listing on the National Register and for designation as a New York City Landmark.

Community Facilities

Comment 29: The increase of office space that will result from the Proposed Action will attract workers who will use community facilities in Lower Manhattan. For example, many workers will enroll their children in already overcrowded Lower Manhattan schools, having a cascading effect on the other facilities that serve children, such as playgrounds, libraries, after school programs, as these facilities serve not only local resident children, but also the children who attend school in the area. The FGEIS should have contained an evaluation of the impact of the Proposed Action on schools, especially given the 4500 new residential units. (Dreyfus, WTC Environmental Organization, CB1)

Response: As stated in response to Comment 319 in the FGEIS, the number of workers and visitors introduced to the Project Site as a direct result of the Proposed Action would be similar to the number of workers and visitors on the Project Site prior to September 11. If public schools and day care facilities experience an additional load due to children going to school or day care near a parent's workplace on the Project Site, it would likely be similar to that which existed prior to September 11. A day care facility could be accommodated on the Project Site, just as there was a day care facility on the Project Site prior to September 11. If there is sufficient demand for day care, the Proposed Action would allow for such a facility. The New York Public Library located on Murray Street just north of the Project Site would experience comparable demand as prior to September 11. Additionally, a proposed library is expected to be constructed independent of the Proposed Action in Battery Park City by 2009. Open space and recreational facilities are addressed in Chapter 6, "Open Space," of the FGEIS.

Comment 30: Two additional ambulance companies should be installed on the East Side and the West Side, as construction obstruction and confusion, with an increase in construction related hazardous activity, can only increase the need by residents, workers, and visitors for ambulance protection. (Gerson)

Response: The peak construction period is anticipated to include fewer daily workers and visitors to the site when compared to the pre-September 11 daytime population. As stated in the response to Comment 320 in the FGEIS: PAPD officers are trained as emergency responders and they would be located on-site during the construction period and beyond. In addition, Engine 10/Ladder 10 on Liberty Street would be expected to be designated as first responders for the Project Site. They are located immediately adjacent to the WTC Site and the Southern Site. EMS is a responsibility of the FDNY. As stated above, it is the responsibility of the NYPD and FDNY to provide sufficient protection to all areas under their jurisdiction, and they have indicated the ability to do so.

Comment 31: Emergency management should be planned in conjunction with the assessment of hazardous materials at 130 Liberty Street. (NYELJP)

Response: There is a Health and Safety Plan (HASP) that is a part of the contract for the demolition of 130 Liberty Street. As part of the hazardous materials assessment for 130 Liberty Street, a detailed HASP will be developed and implemented throughout all aspects of assessment and during deconstruction. The HASP will require that each contractor develop a plan governing their work for the appropriate or responsible project sponsor to

review prior to implementation and commencement of any construction activity. The HASP will require compliance with all relevant laws and regulations.

The HASP will identify all preventive and emergency response procedures to be implemented in managing and controlling hazards and safety issues. The HASP will also describe methods to protect construction workers, the public, and the environment. Specific measures will typically address equipment, materials, controls, crew size, and job responsibilities, and ensure that operating procedures and maintenance practices are addressed, employed, and audited for safety. Preventive measures will include inspections, self-assessments, and testing to identify problem areas. Appropriate security measures will be implemented during the assessment construction to address site needs prior to the completion and implementation of operational security structures and systems.

Comment 32: Given the estimated 9 million annual visitors expected to the Project Site as well as the unique significance of the Project Site as a possible terrorist target, the potential threats and need for additional fire and police services will extend beyond the borders of the Project Site. NYPD and FDNY need to ensure that the area surrounding the Project Site will be adequately serviced. (CB1)

Response: Following the initial surge of 9 million annual visitors during the first few years, the anticipated annual number of visitors will be 5.5 million. As stated in the response to Comment 318 in the FGEIS: As described in Chapter 8, "Community Facilities," of the FGEIS the PAPD would be responsible for providing day-to-day police services to the WTC Site. PAPD officers are also trained as emergency responders. In addition, the building managers and the managers of the Memorial and the cultural facilities would provide private security in coordination with PAPD. It is the responsibility of the NYPD and FDNY to provide sufficient protection to all areas under their jurisdiction. Any additional need for personnel or equipment created by the Proposed Action would be met by PAPD, NYPD, and FDNY, though specific needs and the timing of deployment would be determined as portions of the Proposed Action are constructed. The FGEIS contains letters from NYPD and FDNY in which the agencies have stated adequate protection can be provided.

Socioeconomics

Comment 33: The Socioeconomic Condition Report violates federal law by failing to analyze the impact of the project on racial minorities or low-income people. (Rebuild Coalition)

Response: The analysis of socioeconomic conditions establishes a baseline of social and economic characteristics of residents in the study area. As noted by the commenter, the minority population in the primary study area is extremely low, e.g. 3.6 percent Black and 5.3 percent Hispanic. Because the Selected Project is intended to revitalize the commercial and cultural aspects of Lower Manhattan and contains no residential development, the analysis found that it would not result in significant adverse impacts on the residential population, including the minority population, particularly in the form of indirect displacement. (There would be no direct displacement of residents from the Project Site.) Typically such impacts might occur if a project would result in increased property values in the study area, leading to higher rents and making it difficult for some existing

residents to afford their homes. Sometimes the introduction of a critical mass of non-residential uses could make the surrounding area more attractive as a residential neighborhood, which might lead to higher residential property values and higher rents. However, the analysis examined trends in residential development and found that the additional amenities planned under the proposed project would meet an existing and projected need within the growing residential community, and would not initiate or accelerate trends towards higher residential rents. Therefore, no significant indirect displacement of residents, including minority residents, is expected as a result of the Selected Project. Chapter 20, "Environmental Justice," specifically addresses the potential impact of the project on low-income and minority populations. The chapter includes consideration of economic vitality and job opportunities, preservation/enhancement of community character and cohesion, and indirect residential and business displacements arising from secondary development or change in community character.

Comment 34: Will the Proposed Action address the income inequities between the primary study area and the Chinatown community? The $50 million allocated for "affordable" housing (80 to 135 percent of AMI) does not directly address issues of racial segregation nor does it provide housing for many Chinatown residents where the median income is well below the AMI? Moreover, no attempt is made to analyze how this projected new employment could be used to assist low-income people to obtain employment or help people still without jobs after September 11 to regain employment. No attempt is made to break down jobs created by the Proposed Action by income levels. The FGEIS states that Section 3 of the Housing and Urban Development Act of 1968 will apply to HUD-funded activities, yet sets forth no plan to accomplish this goal. (Rebuild Coalition)

Response: Because of the commercial nature of the Selected Project, employment was estimated using industry standards for office space. Total economic effect of the project during operation was estimated based in part on average wages and salaries earned by office workers, including those who earn minimum wage, to the highest paid CEO. The creation of over 28,000 jobs by 2009 would be a significant economic benefit for the city and state, and would include a broad range of workers typically found in office-type jobs.

As discussed in Chapter 20, "Environmental Justice," construction activity would produce economic benefits in terms of output and jobs during the 10-year construction period. Similarly, completion of the Proposed Action is expected to improve economic vitality and increase the number of job opportunities. This would benefit a wide range of residents and businesses, including low-income and minority communities. Jobs created during the operation of the Proposed Action are expected to encompass a wide range of skills, wage levels, and occupations in office, retail, government agency, and cultural facilities employment.

Comment 35: The conclusion of no secondary displacement lacks a foundation. (Rebuild Coalition)

Response: The conclusion of no secondary displacement is based on analysis of socioeconomic conditions under existing and no build scenarios, and consideration of how the proposed project would affect property values and rents, including residential property values and

rents. The analysis examines the potential for the Selected Project to result in changes in no-build conditions, as specifically outlined in the *CEQR Technical Manual.*

Comment 36: Although we understand that the latest federal census data is for the year 2000, the major tragedy occurred in this locale makes that data extremely unreliable. No serious attempt was made to update the data or take into account the major economic and other effects caused by the devastation of September 11. (Rebuild Coalition)

Response: The analysis uses Census 2000 as a base for describing the existing population in the study area. However, the document specifically sites the increase in the number of residential units in the primary and secondary study areas between 2000 and 2003, and estimates the likely change in population in both areas. The analysis researched the potential for a change in population and housing units between 2000 and 2003, including data on new construction and conversions from commercial to residential use. In addition, the analysis reviewed The Downtown Report, prepared by the Alliance for Downtown in winter 2003, which indicated that residential vacancy rates had returned to pre-September 11 levels by the end of 2003.

Comment 37: The Socioeconomic Condition reports assumes throughout that total housing units in the future are equal to the total housing units now existing plus buildings that are being built or converted. No analysis is done of units lost to the housing market. (Rebuild Coalition)

Response: The analysis includes changes in the housing inventory in both the primary and secondary study areas, based on the extensive list of known and anticipated residential and non-residential development expected to occur in the future period. No major projects were identified that would result in a net loss of housing units. As discussed in the FGEIS, overall trends are expected to continue that would add a substantial number of residential units to both the primary and secondary study areas, specifically citing the number of units added to inventory and the likely rents in those units.

Comment 38: The Chinatown area—the "residential and business area that is defined by the presence of Asian American residents, workers, and Chinese-owned and operated businesses in Lower Manhattan"—is generally considered to go north to Houston Street. Moreover, in choosing the secondary study area, the FGEIS fails to justify the boundaries chosen and gives no rationale for excluding the Lower East Side. (Rebuild Coalition)

Response: The primary and secondary socioeconomic study areas are the same as the land use study areas and generally comprise what is known as "Lower Manhattan." These study areas were described in a scope of work that was available for review by the general public and approved as the appropriate study areas for the proposed project in a highly public process. In fact, the study area was expanded to include additional neighborhoods as a result of comments received on the Draft Scope.

Open Space

Comment 39: Open space calculations should not include sidewalks and other streetscape elements and there is an inadequate amount of open space, given the huge number of visitors expected. The streets should not have been counted in the open space calculations in the FGEIS. (CB1, Oliff)

Response: As stated in response to Comment 305 in the FGEIS, urban open space includes not only "traditional" park land (such as Central Park or Union Square), but other areas that include amenities that are used for enjoyment and relaxation. Some examples of non-park open spaces would include urban plazas and elements such as sidewalk benches. Even some areas that are not intended to serve as open space resources, such as the steps of the New York Public Library, are often accounted for in open space analyses since they do function as such. None of the open spaces at the Project Site prior to September 11 was "traditional" parkland; they were urban plazas and sidewalk sitting areas. In addition, a portion of the Church Street sidewalk and service road was used for a greenmarket. Widened sidewalks or streetscapes that feature passive open space amenities such as benches, plantings, trees, tables and chairs, are included in the calculations of open space. Sidewalks and streetscapes that do not provide amenities are not counted.

Comment 40: The Project Site is actually closer to 14 acres. LMDC also changed the pre-September 11 open space acreage from a 8.13 acres to 7.14 acres, a 12 percent decrease. However, LMDC's failure to provide scaled plans and other documents formally requested under the Freedom of Information Act combined with the inaccuracies and omissions of the DGEIS denies the community the ability to measure and verify open space calculations. (Dreyfus)

Response: The Project Site is approximately 20 acres because in August 2003, the Project Site was expanded to include the Southern Site. LMDC provided the commenter with all available information relating to the Project Site's open space.

Comment 41: The FGEIS should have conducted a thorough analysis of open space and provide adequate open space in light of the density of commercial development and population requirements. (Gerson)

Response: The FGEIS did fully analyze the impacts of the Proposed Action on open space.

Comment 42: Given that the WTC Site is less than 16 acres, creative and innovative ways to allow for maximum flow and usage by pedestrians and visitors have to be found. (Connor)

Response: See responses to the comments above. Further, the Project Site has been designed to allow for the east-west pedestrian flows as well and the north-south pedestrian flows. All of the open spaces are designed to be immediately accessible to the adjacent sidewalks.

Comment 43: The open spaces are too small and some of the open spaces (i.e., Memorial, streets and sidewalks) do not constitute functionally open spaces. (Lumea)

Response: The comment is incorrect. The new Memorial design is functional open space, in addition to Wedge of Light Plaza, Liberty Park, and PATH Plaza, which would provide substantial devoted open space. Further, as demonstrated by Paley Park, relatively small open spaces can provide a major urban open space amenities.

Hazardous Materials

Comment 44: The building at 130 Liberty Street should be heavily monitored during deconstruction for release of environmental contamination. Regular meetings with locals should also take place. (BPC United)

Response: LMDC is committed to a Construction Environment Plan, which will include measures to protect workers, residents, and visitors to the area. The Construction Environment Plan would include monitoring before and during deconstruction activities. LMDC is also committed to providing regular updates to residents and local stakeholders in the area during the deconstruction process.

Traffic and Parking

Comment 45: The FGEIS contemplated the rerouting of traffic away from Route 9A but did not adequately address the impact of increased traffic on north/south arteries including Greenwich and West Broadway. It also contemplated reversing traffic flows on certain streets without adequately addressing the impact of such reversals on the flow of traffic on adjacent streets. In the absence of a coordinated environmental impact study of the entire area that will be affected by the Proposed Action and other planned or contemplated projects in Lower Manhattan, including the reconstruction of Route 9A, the FGEIS did not adequately address the effects of the traffic volume and traffic flow that will be induced by the Proposed Action. (CB1, Connor)

Response: All intersections within the study area were analyzed for traffic impacts when they would be affected by diversions gravitating to or away from Route 9A. All street-reversal effects would be contained within the study area, and these effects were analyzed for *traffic* impacts. Although the FGEIS was released in advance of NYSDOT's environmental review, LMDC did coordinate with NYSDOT and their consultants, and the configuration of Route 9A analyzed by LMDC matched NYSDOT's plans at the time of LMDC's analysis. LMDC used more conservative trip generation rates, which yielded higher traffic volumes than the Route 9A study.

Comment 46: The FGEIS should have contained an analysis of the impact of increased traffic on children who play in the streets and play streets. (Dreyfus)

Response: Pedestrian analyses were performed for adults and children for sidewalks, street corners and crosswalks. No play streets were identified on the major traffic routes for the Proposed Action. When streets are used as play streets they are temporarily closed to vehicular traffic.

Comment 47: LMDC must develop and implement a plan prior to construction for both interim parking during construction and for assurance of adequate long-term parking, and must consider providing incentives to daily commuters to use mass transit. (Gerson)

Response: Most construction workers will arrive at the site by public transit. Limited construction parking will be provided for workers requiring use of their own utility vehicles within work zones. A full build-out parking analysis was performed for up to 1/2-mile from the WTC Site revealed that private lots surrounding the WTC Site will be adequate to provide parking for all workers who must arrive by private vehicle. Traffic Demand Management analyses such as transit incentives will be considered as the Selected Project is built.

Comment 48: LMDC should conduct an analysis to minimize the use of local streets for trucks and construction vehicles, including exploring the establishment of temporary service roads

from the West Street main artery and expand the streets being analyzed for impact at least up through Houston Street. The traffic analysis should include different impacts of large vehicles, buses and other vehicles. (Gerson)

Response: The FGEIS contains an analysis of construction traffic impacts. The extended study area captures all of the impacted locations according to the FGEIS analyses. The traffic analyses account for all vehicles types. A maintenance and protection of traffic (MPT) plan will be developed in conjunction with all Lower Manhattan recovery project sponsors and NYCDOT. The MPT plan will consider use of all available service routes.

Comment 49: The Second Avenue Subway should be included in the long-term traffic analysis for Lower Manhattan. (Gerson)

Response: The Second Avenue Subway project will not be complete until after the Selected Project reaches full build-out. In Lower Manhattan, the Second Avenue Subway is not expected to generate any additional vehicle trips, and for these reasons was not analyzed in the FGEIS.

Comment 50: LMDC must ensure coordination among ongoing traffic studies through the NYMTC process. The traffic studies should include a full comprehensive regional analysis and assessment including the following: minimizing traffic flow for East River crossings through the Holland Tunnel, use of new technology traffic management for East River crossings, replacement of the Verrazano one-way toll with new technology two-way tolls which serve the needs of Staten Islanders. (Gerson)

Response: LMDC coordinated the study with all New York City agencies, and the analyses included all known improvements. LMDC will share all relevant data with NYMTC after the ROD is final.

Comment 51: The FGEIS should have included a study of weekend traffic. (Martin)

Response: Full build-out trip generation rates and baseline traffic volumes were higher on the weekday AM, midday and PM peak hours than the Saturday midday peak hour. Thus, no additional impacts associated with the Selected Project would occur on the weekend, and mitigation measures proposed would also benefit weekend conditions.

Comment 52: Drivers heading downtown will take local arteries, including Broadway, the Bowery, Lafayette/Centre Streets, as well as the East and West Side main arteries. Accordingly, the impact analysis must assess potential congestion on these and other streets throughout its catchment area (up to Houston Street). (Gerson)

Response: A small portion of project-generated traffic volumes was assigned to the aforementioned streets, since all drivers are not expected to use highways to access the WTC Site. However, project-generated traffic volumes on these streets outside of the expanded project study area would be insignificant, and would not likely significantly impact additional intersections.

Comment 53: It is critical that there be ongoing monitoring of the flow of personal vehicles into Lower Manhattan during the redevelopment period. Public transportation, park-and-ride, and other alternatives must be vigorously pursued. (Gerson)

Response: LMDC and the LMCCG are currently exploring all of these options.

Comment 54: Traffic mitigation measures must be implemented as condition warrant. While traffic enforcement agents may be a costlier solution to mitigating traffic problems, if other measures are insufficient, monies must be allocated to assure the livability for Lower Manhattan residents and workers. (Gerson)

Response: LMDC agrees and is coordinating with NYCDOT to ensure that as warranted, mitigation measures as suggested in the FGEIS or other comparable measures are implemented in order to ensure adequate levels of service in the area. If, after full build-out, traffic delays exceed estimates and suggested traffic mitigation measures do not lessen delays, NYPD will deploy traffic control agents appropriately.

Transit and Pedestrians

Comment 55: The FGEIS did not adequately address the impact of bus traffic to, from, and through the Project Site, and underestimated the number of tour buses that will be coming to the Project Site while not identifying an enforceable plan for drop-offs, pick-ups and storage. The FGEIS should include a thorough analysis of peak traffic times that could create crowded conditions at the Liberty Street ramp. LMDC should work with CB1 and other stakeholders to address issues relating to the location, construction and operation of a bus depot. (CB1)

Response: In response to issues regarding bus related traffic, LMDC and the Port Authority traffic analyses indicated that arrival and departure bus trips would be accommodated using Greenwich Street as a pick-up/drop-off zone, and the Liberty Street garage would operate as a security screening and parking facility. The estimates regarding traffic circulation and parking were conservative because they assumed all buses dropping off on Greenwich Street would circulate through local streets and park in the WTC garage, when in reality a portion of buses will leave the area after dropping off passengers.

Comment 56: The pedestrian concourse from Church Street to the World Financial Center will require pedestrians to go down three levels, negatively impacting the mobility impaired. (Hemric)

Response: This concourse is part of the Permanent WTC PATH Terminal that is undergoing environmental review by FTA and the Port Authority. However, LMDC understands that the Port Authority will ensure that such concourse is ADA-compliant.

Comment 57: The FGEIS failed to analyze the impact of ferry facilities. (Clean Air Campaign)

Response: As noted on pages 13B-37 and 13B-39, the number of ferry trips projected to be generated by the Selected Project in 2009 and 2015 would be less than the ferry trips generated as a result of the PATH closure from 2001 to 2003. Most of these new ferry customers would be served at the ferry terminal located at the World Financial Center. The capacity of this terminal is anticipated to be able to and could accommodate an increase in ferry demand. Since private ferry operators serve the World Financial Center ferry terminal, service could be adjusted to accommodate an increase in demand.

Air Quality

Comment 58: As mentioned in Chapter 27 of the FGEIS, Comment 445, the highest $PM_{2.5}$ levels after the attack were found at Stuyvesant High School. Furthermore, anecdotal evidence and surveys indicate an increase in the incidence of asthma among Stuyvesant students post-9/11. We believe Stuyvesant High School is potentially an impacted location with many sensitive receptors. Unfortunately, although this FGEIS has concluded that significant adverse impact from PM is predicted in the vicinity of the site, site-specific impact on sensitive receptors at Stuyvesant High School is not addressed or analyzed in this generic EIS. According to NYCRR Part 617.10(c), we hereby request that a supplemental EIS be conducted for site-specific impact at Stuyvesant High School. (Stuyvesant)

Response: Impacts were assessed in the entire study area. As presented in Figures 22-16 through 22-18, the highest impacts were predicted in the immediate vicinity of the construction sites, and decrease with distance from the sites. Increments at Stuyvesant High School were predicted to be negligible. Even in the non-mitigated scenario, increments at Stuyvesant High School were predicted to be insignificant.

Comment 59: Although this FGEIS concludes and we also believe that the proposed construction is expected to have clear benefits in most areas, the document notes numerous "significant adverse impacts that would require mitigation measures to avoid or reduce such impacts." As these adverse impacts will affect the general public as well as our children for more than a decade to come and this FGEIS document states "no further SEQR compliance is required" for subsequent reconstructions, we hereby request that a public hearing be held on these adverse impacts and the proposed mitigation measures, and that supplemental EIS for subsequent constructions should be required. (Stuyvesant)

Response: Potential significant adverse impacts due to $PM_{2.5}$ emissions during construction, in the immediate vicinity of the construction sites, were identified in Chapter 21, "Construction." These impacts were not predicted to affect the general public at distances greater than approximately 300 feet from construction sites, and once mitigated, that potential would be reduced to less than 100 feet from the construction sites. Mitigation measures were addressed in Chapter 22, "Mitigation," of the FGEIS.

As discussed in the responses to comments under "FGEIS Procedures and Methodology," the environmental review has been subject to multiple public review periods.

Comment 60: The FGEIS concludes that the Proposed Action "would have significant traffic impacts in both 2009 and 2015" but "is not predicted to cause any significant adverse air quality impacts in either 2009 or 2015." These two statements are inconsistent. (CB1)

Response: Although urban air quality is primarily influenced by emissions from motor vehicles, the fact that impacts on congestion would be considered significant does not necessarily indicate that significant adverse impacts on air quality would ensue. Potential air quality impacts due to the Proposed Action were analyzed in a detailed procedure delineated in the FGEIS, according to the strictest conservative procedures used regularly for mobile source analyses, and the predicted impacts were shown to be clearly insignificant.

Comment 61: Air monitoring stations must be put in Engine 10/Ladder 10 to monitor the incoming air from 130 Liberty Street. LMDC must reach out to EPA, NYSDEC and the public, including firefighters, to ensure a better air monitoring process. (NYELJP)

Response: See response to comment under "Hazardous Materials," above.

Comment 62: Generators' maintenance tests should be scheduled at times avoiding concentrated general public activities. Also, because of the limited operational hours of these generators, we agree that emissions from these tests are not likely to have significant long-term impact. However, the short-term impact should be evaluated. (Stuyvesant)

Response: The Proposed Action would include emergency generators which would be fueled by ultra low sulfur diesel. These would be used in the event of an emergency or sudden loss of power from the electrical grid. Occasionally, the generators would be tested for a short period of time to ensure availability and reliability in the event of an actual emergency. Emergency generators are exempt from New York State Department of Environmental Conservation (NYSDEC) air permitting requirements if the conditions of 6 NYCRR Part 201 are met. Potential air quality impacts, both short term and long term, are considered insignificant since the emergency generators would be used only for testing purposes outside of an actual emergency, and the frequency and duration of such tests would be minimal.

Comment 63: Section 14.3.1, "Pollutants for Analysis," lists only criteria pollutants, and does not mention hazardous air pollutants. Because the proposed construction will require that a large fleet of truck and heavy equipment be in service at the site, and because hazardous air pollutants from mobile sources have been proven to have significant impact on urban air quality, we believe that impacts of hazardous air pollutants need to be studied in this FGEIS. Also, Section 14.3.2 Air Quality Regulations, Standards, And Benchmarks should address USEPA's Urban Air Toxics Program as required by the Section 112(c)(3) and 112(k) of the Clean Air Act as amended in 1990. (Stuyvesant)

Response: As required under Section 112(d), EPA has identified a total of 70 area source categories which represent 90 percent of the emissions of the listed air toxics. Of these 70 area source categories, 14 have been regulated and the remaining area source standards are under development or will be developed in the future. None of the 70 categories include on–road emissions, which are regulated under separate definitions (and as analyzed in the FGEIS), or non-road diesel sources such as construction engines, which are regulated separately as well.

Much of the toxics associated with diesel emissions are released in the form of particulate matter or are adsorbed to particulate matter (PM). LMDC has focused on reducing diesel emissions in general, by mandating minimum use of engines on–site, replacing those engines with electric engines utilizing grid power where possible, and further reducing diesel PM through the use of ultra low sulfur diesel, and by applying advanced diesel particle removal technologies to the construction engine fleet, where possible.

Comment 64: This Chapter includes air quality impacts analyses for mobile sources and stationary sources. However, based on the report as written, it seems that different receptors were selected for study of impacts from these source categories. Such a receptor selection

approach is inappropriate and will result in underestimating impacts. Uniform receptors must be used for analyses of comprehensive accumulated impacts from all sources. Also, the FGEIS should identify and list all sensitive receptors within the affected areas and impacts on these sensitive receptors should be evaluated. Furthermore, there is no indication that impacts on elevated receptors were studied. Impacts on elevated receptors are very important because stationary emissions were simulated as point sources at 40 feet above grade and most of the buildings around the construction site, including Stuyvesant High School, rely on HVAC systems with elevated air intakes. (Stuyvesant)

Response: Receptors were placed at all sensitive locations, i.e., any publicly accessible open spaces (including sidewalks), residences, schools, and hotels. The difference between the procedure for receptor selection for mobile and stationary sources is aimed at ensuring that the highest predicted impacts from each type of source are modeled. This and many other conservative assumptions assure that this type of analysis almost always produces overestimates of the predicted air quality impacts.

Mobile source analyses were centered on specific intersections, and the receptors were placed in all relevant locations—sidewalks and buildings. The stationary source analysis, performed for the sub-grade vehicular facilities ventilation system, was a generic analysis because precise locations of the systems air discharge vents were not yet available. Therefore, receptors were placed in a grid all around the source at all distances, capturing the highest predicted increment at the location where the plume would reach ground level. Since the vents would be on-site, the main concern is with the impact at the nearest location of exposure, which would be ground level, and the possible combination with ground level mobile source contributions. There would be no operable windows in the near vicinity, and the placement of air intakes and discharge vents would be designed so as not to co-locate fresh air intakes with discharge vents.

The negligible result from the stationary analysis, when added to any predicted increment at any intersection, would not change those results. However, since the vents would, in all likelihood, not be placed directly in any intersection, these results would never be combined.

Comment 65: **Page 14-24, Dispersion Model:** The USEPA ISC3 plume dispersion model was used in the dispersion modeling study. USEPA is currently working on the introduction of a new AERMOD model for dispersion modeling. We would like to know if there would be significant difference between the modeling results of these two models. (Stuyvesant)

Response: The AERMOD model is expected to improve the results of stationary modeling. It will have better prediction for receptors in close proximity to sources, and will incorporate better vertical dispersion algorithms. In most cases, AERMOD results have been lower than ISC3 results. In some cases, mainly in the near field, results have been higher for short term (i.e. minutes to hours) concentrations. Due to the conservative nature of the analyses performed for the FGEIS, none of these changes would be expected to result in different conclusions than those presented in the FGEIS.

Comment 66: **Page 14-24, Dispersion Model:** As mentioned previously, most of the buildings around the construction site are relying on HVAC ventilation. Due to retention time of ventilation systems, impacts on indoor individuals are likely to be underestimated if

outdoor impacts are used. We suggest that puff dispersion modeling should be considered. For example, the USEPA's CALPUFF model can be used "on a case-by-case basis for certain near-field applications involving complex meteorological conditions."

Response: Actually, ventilation systems tend to reduce exposure due to retention time and deposition process. For example, ozone reacts with surfaces and therefore exposure indoors is typically lower than outdoors. Indoor exposures are often higher due to indoor sources, which are trapped indoors, such as paint, cleaning products, smoking, cooking, or resuspended particles from sweeping or vacuuming. For gases that react slowly, concentrations indoors can be similar to outdoor concentrations.

However, due to all of the uncertainties and complexities of this type of problem, the conservative approach used for environmental analyses is based on outdoor concentrations, and compared to regulation levels such as the NAAQS which are based on outdoor concentrations as well, not on actual individual exposure.

Puff models do not better assess indoor exposures. Furthermore, CALPUFF is mainly used for large scale regional modeling, on the scale of tens to hundreds of kilometers, where non-steady state assumptions are needed, and is not recommended for microscale analyses such as conducted for the FGEIS.

Comment 67: **Page 14-24, Dispersion Model:** The document states "Emissions were simulated as a point source at 40 feet above grade. Since all emissions were modeled as being discharged from a point source, the air exchange rate in the below grade facility has no impact on the result." This is incorrect. Air exchange rate affects discharge plume and thus has impact on dispersion dilution. (Stuyvesant)

Response: Physically, air discharge rates affect both concentrations, by diluting the emissions within the garage, and dispersion in the near field by affecting the turbulence at release. However, since the model utilized a mass–based release approach (that is dispersion of the mass of pollutant from a single point, regardless of how much air was mixed with it), air exchange rate is not an input and would not affect the result. This procedure is actually quite conservative, since the calculated concentrations at the point of release, in a case like this where dilution is significant, will be higher than those that would actually be released. The released volume will always be diluted by surrounding air and therefore actual concentrations are reduced, never increased.

Comment 68: **Page 14-24, Dispersion Model:** This document "assumes that the elevated vents would be located away from sensitive receptors, such as residences and open spaces." We believe that the details of the "assumption" on these locations should be presented. If such details are not available at this time, a supplemental report on these locations (and the impacts if necessary) should be provided once available. (Stuyvesant)

Response: As committed to in the ROD, the air vents would be located at least 40 feet above street level, and will be located away from sensitive receptors. If, for any reason, this were to change, further analysis would be conducted as warranted.

Comment 69: **Page 14-24 Meteorological Conditions:** Because the construction site is located equidistant from LaGuardia Airport and Newark Airport, considering the terrain

condition between LaGuardia Airport and the construction site, we would like to know if there would be significant difference on modeling results if the Newark Airport's meteorological data set is to be used. (Stuyvesant)

Response: LaGuardia is generally considered more representative of New York City conditions. The differences would probably be minor since the stability is similar; the only difference would be slight variations in the frequencies of specific wind directions.

Comment 70: **Page 14-27 paragraph 1:** The sentence of "Total project generated PM_{10} emissions decrease from roughly 8 tons in 2009 to 14 tons in 2020" seems be a typo. (Stuyvesant)

Response: The sentence should read "Total project generated PM_{10} emissions *increase* from roughly 8 tons in 2009 to 14 tons in 2020."

Comment 71: How will LMDC enforce truck idling rules? What will LMDC do to effect reductions in $PM_{2.5}$ and NO_2 concentrations? What verification procedures would LMDC employ to comply with NAAQS? (WTC Environmental Organization)

Response: Consistent with the EPCs, LMDC and the Port Authority will monitor its contractors to minimize unnecessary truck idling. LMDC and the Port Authority have made additional environmental performance commitments and will consider additional measures necessary to address cumulative effects as the environmental reviews proceed on the Lower Manhattan transportation recovery projects. LMDC and the Port Authority will participate in the LMCCG and cooperate with the LMCCC as construction proceeds.

Comment 72: A more thorough assessment than has been presented is required before the LMDC can reach the conclusion as to lack of need for HEPA filters and other equipment in residences. At the very least, a backup plan should be put in place in case necessary. LMDC should also assure funding for low income household to have access to such remediation. We believe the installation of HEPA filters should not be limited to hotels and office buildings, but should also be implemented to all locations with significant impacts or sensitive receptors. (Stuyvesant, WTC Environmental Organization, Gerson)

Response: If necessary to avoid exposure to short-term exceedances of the PM NAAQS, LMDC will explore initiatives relating to location-specific measures in the immediate vicinity of the Project Site.

Comment 73: We are partially satisfied with response to Comment 82 of the FGEIS. We appreciate the benefits of UEQ-8; however, LMDC must recognize the heightened number of on-road vehicles directly due to the planned action. If LMDC cannot mandate use of alternative fuels or hybrid vehicles, at the very least LMDC must use its offices and bearing to call on appropriate government to take the necessary actions. (Gerson)

Response: Comment noted.

Comment 74: The response to comment 158 was unsatisfactory. Referring to the National Ambient Air Quality Standards does not address the universe of children's needs or possible physical or other reactions to the action plan. At the very least, any thorough impact statement should consult with and incorporate input from children's health experts. Accordingly, we stand by our earlier comments. (Gerson)

Response: Comment noted. EPA's setting of National Ambient Air Quality Standards takes into account the health needs of children.

Comment 75: The response to comment 597 was unsatisfactory. Given the vast numbers of on-road vehicles that will be traveling in and out of Lower Manhattan during the long period of redevelopment, the use of ULSD fuel must be required. (Gerson)

Response: As discussed above, as to on–road sources, since LMDC cannot make ULSD available for on–road vehicles across the state and in other states from which deliveries may come, it is not possible to mandate that all companies utilize ULSD for on–road sources.

Noise

Comment 76: LMDC should review new technologies before implementation including the proposed Freedom Tower "windmill" for noise and other internal impacts to assure no adverse impact. (Gerson)

Response: Potential noise impacts from the mechanical equipment and systems of the new buildings, including the wind turbines are analyzed in Chapter 15, "Noise," of the FGEIS. The wind turbines and associated equipment would incorporate noise reduction technology devices to comply with all relevant noise regulations and standards. The analysis concluded that the wind turbines would not be discernible at receptor locations.

Freedom Tower would include multiple wind turbines installed on top of the building to generate electricity. Wind turbines typically consist of an enclosure called a nacelle, which contains the gearbox and generator, and three blades that rotate around a hub protruding from the enclosure. Wind turbines typically include two potential sources of noise: the turbine blades passing through the air as the hub rotates, and the gearbox and generator in the nacelle. Noise from the blades would be minimized by careful attention to the design and manufacture of the blades. The noise from the gearbox and generator is contained within the nacelle by sound insulation and isolation materials. The sound power level from a single wind turbine is usually between 90 and 100 dBA. This creates a sound pressure level of 50-60 dBA at a distance of approximately 120 feet from the turbine, that is, about the same level as conversational speech. At a distance of 1,500 feet, the equivalent sound pressure level generated by wind turbines would be 25-35 dBA when the wind is blowing from the turbine towards the receptor. Twenty-five such wind turbines, all at a height of approximately 1,150 feet, would create a noise level of 40-50 dBA from under the same conditions.

With the wind blowing in the opposite direction the noise level would be approximately 10 dBA. Considering the elevation of the turbines above 1,000 feet and the substantial background noise of 60-70 dBA at receptor locations in the proximity of the Project Site, noise generated by the wind turbines would not be discernible at receptor locations.

Natural Resources

Comment 77: The SPDES permit renewal process identifying the best technology available to minimize adverse environmental impacts would need to be completed before the NYSDOS could complete its decision-making. Failure to use the best technology available, as identified by the NYSDEC, to minimize adverse internal impacts would be inconsistent with the

enforceable policies of the New York State Coastal Management Program and this conclusion would be part of the decision-making processes of federal agencies listed in FGEIS item 1.10.2. (NYSDOS)

Response: Through the SPDES permitting process, NYSDEC will require "best technology available" for the Hudson River Pump Station and its Cooling Water Intake System (CWIS). The Port Authority's commitment to evaluate such technologies is included in the ROD and Findings Statement (see Appendix G). Accordingly, LMDC has determined that the Selected Project is consistent with the New York City Waterfront Revitalization Program. LMDC will continue to coordinate with NYSDOS.

Comment 78: Because of generally improved water quality, the assumption of fish mortality made in the FGEIS based on the 1991-93 study period is too low. (Riverkeeper)

Response: As presented in Chapter 18, "Natural Resources," of the FGEIS, significant water quality improvements occurred in the Lower Hudson River Estuary during the twenty years following the start of operation of the WTC CWIS in the early 1970s. However, water quality improvements, as recorded by the New York City Department of Environmental Protection through its annual Harbor Survey, have been relatively small since the early 1990s. Therefore, the Lower Hudson River Estuary water quality conditions that occurred during the 1991 to 1993 period of the WTC CWIS impingement/entrainment study, can be considered similar to current conditions. Also as presented in Chapter 18, "Natural Resources," of the FGEIS, populations of numerically dominant fish within the Harbor Estuary remain relatively stable from year to year. Results of long-term sampling studies conducted for the Hudson River Utilities indicate that although there may be considerable variability from year to year, the same dominant fish species have been collected since the mid-1980s. Except for striped bass, there has not been noticeable increases in abundance, or long-term changes in composition of the fish community of the Lower Hudson River Estuary. Therefore, it is reasonable to conclude that the annual loss estimates calculated from the 1991-1993 impingement/entrainment data can be used to estimate losses under the Proposed Action in 2009 and 2015.

Comment 79: LMDC mistakenly values the fish species only according to a "foregone production" approach. However, as explained by the NYSDEC in the SEIS for the Hudson River power plants, demonstrable reductions in adult fish populations are just one of several adverse consequences of entrainment and impingement. Fish kills also diminish the forage base, thereby disrupting the food chain and transferring energy from high to lower tropic levels. This compromises the health of the entire aquatic community and not just the species studied. (Riverkeeper)

Response: Chapter 18, "Natural Resources," of the FGEIS employed three standard methods— equivalent recruits, pounds lost to the fishery, and production forgone— to estimate the number of 1-year old fish lost to a population, pounds lost to a fishery based upon equivalent recruits, or biomass (or weight) lost to a predator such as striped bass due to the loss of forage fish such as bay anchovy. Federal agencies (e.g. NMFS, USFWS), interstate agencies (e.g. ASMFC), and the scientific community have long used these methods for setting acceptable loss levels for specific activities that may adversely affect fish species. They have also been used in the determination of significance of power plant

impacts to fish populations in other states, and by the EPA to forecast consequences of impingement and entrainment losses of early life stages for adult population, fishery harvest, and population biomass production for its estimation of benefits in the case study analysis for the Proposed Section 316(b) Phase II Existing Facilities rule. Additionally, in conducting the ecological risk assessment for the case study analysis for the Proposed Section 316(b) Phase II Existing Facilities Rule, the EPA identified adult equivalent losses, lost fishery yield, production forgone and annual losses of individual organisms as the assessment endpoint (the ecological entity of concern to stakeholders that is to be protected). As part of the SPDES permitting process for the CWIS, the Port Authority will evaluate alternative measures to reduce impingement and entrainment of aquatic biota associated with the operation of the CWIS (see Port Authority letter in Appendix G).

Comment 80: LMDC mistakenly relies on the high natural fecundity of certain species and their compensatory mechanisms in concluding that impact to adult fish populations will be minimal. However, DEC has rejected the over-reliance on some fish population models (often referred to as density dependent models) use by industry to show that large losses at early life stages will translate into small losses of adults. (Riverkeeper)

Response: The assessment of potential impacts to aquatic resources presented in Chapter 18, "Natural Resources," of the FGEIS used three standard methods—equivalent recruits, pounds lost to the fishery, and production forgone—which are not density dependent models. The FGEIS correctly indicated that compensatory mechanisms do occur in fish populations but did not rely on compensatory models in the analysis. Further, as discussed above, NYSDEC, through the SPDES permitting process, will require "best technology available" prior to the reactivation of the CWIS.

Comment 81: While the FGEIS examines aquatic biota, it fails to address the impact of the Proposed Action on aquatic invertebrates and microorganisms. (Lo Presti)

Response: The assessment of potential impacts to aquatic organisms presented in Chapter 18, "Natural Resources," of the FGEIS does evaluate potential effects to phytoplankton, zooplankton and macroinvertebrates with respect to potential water quality impacts associated with the WTC outfalls, operation of the CWIS, and stormwater runoff.

Comment 82: With respect to whether the redeveloped CWIS would comply with the requirements of the EPA's Phase II rule, LMDC makes a critical error in setting the baseline for entrainment and impingement reductions by assuming that the proper baseline is the 179 mgd design capacity of the intake. If the CWIS would be operated at 11-32 mgd in order to meet the cooling needs of the 2009 buildout and at 22-63 mgd to meet the cooling needs of the 2015 build out, then those figures must be used as the baseline flows. Entrainment and impingement reductions would have to be at least 60 to 90 percent and 80 to 95 percent respectively, as calculated from these projected use baselines, not from the design capacity. (Riverkeeper)

Response: EPA's Phase II Final Rule (February 16, 2004) defines the "calculation baseline" for existing power generation facilities with cooling water intake structures that withdraw more than 50 million gallons per day (mgd) of surface water for cooling purposes as:

> "..an estimate of impingement mortality and entrainment that would occur at your site assuming that: the cooling water system has been designed as a once-through system; the opening of the cooling water intake structure is located at, and the face of the standard 3/8-inch mesh traveling screen is oriented parallel to, the shoreline near the surface of the source waterbody; and the baseline practices, procedures, and structural configuration are those that your facility would maintain in the absence of any structural or operational controls, including flow or velocity reductions, implemented in whole or in part for the purposes of reducing impingement mortality and entrainment. You may also choose to use the current level of impingement mortality and entrainment as the calculation baseline. The calculation baseline may be estimated using: historical impingement mortality and entrainment data from your facility or from another facility with comparable design, operational, and environmental conditions; current biological data collected in the waterbody in the vicinity of your cooling water intake structure; or current impingement mortality and entrainment data collected at your facility…."

In accordance with this definition of calculation baseline, though the final Phase II Rule would not apply to the Proposed Action because it is not a power generation facility, the calculation baseline would be the estimated impingement mortality and entrainment that would occur for a once-through cooling system in the absence of any structural or operational controls, including flow reduction. Therefore, the baseline was correctly interpreted to be the impingement mortality and entrainment that would occur from operation of the CWIS using the rated capacities of 8 pumps and two emergency pumps such that the intake velocity at each fixed and/or traveling screen and first set of bar racks does not exceed 1.8 feet per second—179 mgd. The estimated flows for the Proposed Action in 2009 and 2015 (based upon the flows reported at the CWIS for the 1991 to 1993 period and in the 1999 to 2001 period) represent a reduction in the flow from the design, or baseline capacity, and therefore, would not constitute the baseline flow or baseline impingement mortality and entrainment. Further, the Port Authority has committed in this ROD and Findings Statement to limit the withdrawal volumes to no more than pre-September 11 levels, which would in 2015 represent between 12 and 35 percent of the CWIS design flow.

Comment 83: LMDC errs by assuming, without any supporting explanation, that cooling towers would have to use potable water. While most buildings with cooling towers use portable water, many power plants with cooling towers use surface water or treated effluent. Thus the 290 mgy estimated in the FGEIS as the water needs for the cooling tower in 2015 could be satisfied from the Hudson River with minimal fish kills or could be satisfied from treated sewage effluent if an on-site/blackwater treatment system is installed. (Riverkeeper)

Response: Comment noted.

Comment 84: There should have been an evaluation of the benefits and impacts of the various cooling technologies in the FGEIS rather than postponed until a later date or process, such as the SPDES permitting process. (Riverkeeper)

Response: While it was reasonable to estimate the cooling needs of the Selected Project in 2009 and 2015 to be less than and similar to the needs reported pre-September 11, respectively, for the assessment of potential environmental impacts, the assessment of alternative measures to reduce potential impingement/entrainment losses should be based upon the detailed design of the WTC Memorial and Redevelopment Plan elements in order to balance environmental effects and cost. Therefore, the Port Authority has committed to performing the evaluation of cooling technologies as part of the SPDES permitting process. See Port Authority letter in Appendix G.

Comment 85: If a cogeneration facility is utilized it should not be permitted to use Hudson River water for cooling in a once-through mode. A 70MW or smaller cogeneration facility added to the proposed HVAC cooling system would drastically expand the cooling requirements at the Project Site, making closed-cycle cooling even more critically important. (Riverkeeper)

Response: The comment that a cogeneration facility, should it be included as part of the Proposed Action, should not be permitted to use Hudson River water for once-through cooling is noted. An evaluation of the potential environmental impacts associated with construction and operation of any such cogeneration facility would be conducted and subject to appropriate public review of such a facility were to be pursued.

Comment 86: LMDC should reconsider its proposal to reuse the CWIS, or in the alternative, should analyze in a revised or subsequent EIS mitigation measures necessary to minimize impacts on aquatic biota. As proposed, the CWIS has not been fully or properly analyzed and will cause ecological harm in violation of federal and state law. (Riverkeeper)

Response: See response to comments above.

Comment 87: LMDC's FGEIS and Partial Action Plans failed to disclose a fact of critical environmental (and economic) significance: most of the 550-acre project area of the Hudson River "Park" (HRP) project lies in the critical habitat in the nearshore waters of the Hudson River off Lower Manhattan. Most of Segment 3 of the HRP project also lies in this critical habitat--not on the dry land at the river's edge which people think of as the park. More than 490 acres of this critical national habitat stands to be lost (along with the East Coat fisheries it sustains). (Clean Air Campaign)

Response: The FGEIS assessed potential impacts to aquatic habitat and resources of the Lower Hudson River Estuary, which includes the portion within the Hudson River Park project. As presented in Chapter 18, "Natural Resources," of the FGEIS, no in-water activities would occur during construction or operation of the Proposed Action. With regard to operation of the CWIS, see responses to comments above.

Comment 88: The FGEIS fails to adequately substantiate the claim that the Proposed Action will not result in significant adverse impacts to water quality or aquatic resources. The FGEIS fails to provide detailed and accurate figures quantifying the volumes of stormwater and sewage generated at the Project Site, fails to identify and analyze the magnitude of the severe storm that would exceed the Selected Project's retention capacity (i.e., 50 year

storm, 100 year storm) and fails to address sewage system constraints and bottlenecks in the Selected Project's drainage basin. (Riverkeeper, Clean Air Campaign)

Response: Chapter 12, "Infrastructure," analyzes sewage generation rates for each use in the Selected Project. With the application of the *Sustainable Design Guidelines*, sewage generation rates are anticipated to be approximately 25 percent less than those estimated under pre-September 11 conditions and the existing wastewater treatment infrastructure is more than adequate to treat wastewater from the Project Site in an environmentally protective manner.

As part of the *Sustainable Design Guidelines*, stormwater on the Project Site (excluding the public streets of Greenwich and Fulton) will be captured and reused in a greywater system. The greywater system, as part of the WEQ-3 Water Use Efficiency guidelines, will treat and re-circulate the water for non-potable water usage such as toilet flushing, vehicle maintenance, and irrigation needs. The *Sustainable Design Guidelines* would result in a minimum reduction of 30 percent in overall water usage and sewage generation. Furthermore, the greywater system would achieve a reduction of up to 85 percent of the volume of annual rainfall flowing directly into the sewer system and CSO. Designs will also consider the incorporation of ledges, roofs, and setbacks to increase opportunities for stormwater capture, thereby reducing stormwater peak flow and recycling opportunities. In addition, stormwater will be captured (possibly through subterranean structures) from the pervious and impervious surface areas of the Project Site not occupied by buildings, thereby further reducing peak flows. The greywater system will be designed to capture typical volumes of stormwater from the site. Severe, incidental storm events may therefore still exceed the stormwater capture capacity of the greywater system. In such cases, discharges to the sewer system may occur. However, it is noted that the anticipated discharge volumes would be less than volumes estimated under pre-September 11 conditions due to the capture of up to 85 percent of the stormwater on the Project Site.

Comment 89: Far more combined sewage will be added to the system on an average annual basis than will be removed by the greywater treatment system and the net increase of combined sewage added to the system by the Selected Project will be approximately 348 million gallons per year. The FGEIS omits details such as the timing of discharges, and in particular what the net contribution to CSOs during storm events will be. (Riverkeeper)

Response: Prior to September 11, 2001, there was no stormwater collection, detention, or reuse within the WTC complex. Using the average rainfall of 44.6 inches per year for New York City, the WTC complex was contributing approximately 20,000,000 gallons of water per year to the combined sewer system. Additionally, because the toilets, faucets, and other fixtures were not low flow fixtures, the WTC complex is estimated to have used approximately 200 mgy of potable water and contributed a similar volume of sewage to the City's combined sewer system. The Proposed Action would substantially decrease the volume of stormwater and sewage that would be discharged to the City's combined sewer system when compared to the pre-September 11 baseline. This will be achieved in two ways. First, in accordance with the *Sustainable Design Guidelines*, the Proposed Action would typically collect and reuse on site approximately 85 percent of the annual rainfall or 16.8 mgy. This would reduce the amount of stormwater that would

typically be discharged to the City's combined sewer system from the Project Site when compared to the pre-September 11 and current conditions baseline. Therefore, only about 15 percent of the stormwater generated on the Project Site would be discharged to the City's combined sewer system. The existing wastewater treatment infrastructure is more than adequate to treat wastewater from the Project Site in an environmentally protective manner.

Second, in accordance with the *Sustainable Design Guidelines*, the Proposed Action would use low flow fixtures for toilets, urinals, and sink fixtures. This would result in a projected sewage discharge of 72 mgy, which represents a 64 percent reduction of the volume of sewage discharged to the City's combined sewer system pre-September 11. Only about 36 percent of the estimated volume of wastewater discharged pre-September 11 would be discharged to the City's combined sewer system under the Proposed Action. This substantial reduction in stormwater and wastewater discharged to the City's combined sewer system would minimize adverse impacts to this system and reduce the potential for the Proposed Action to result in discharge from combined sewer overflows (CSOs) to the Hudson or East Rivers. Therefore, stormwater and wastewater discharges generated by the Proposed Action would not be expected to result in significant adverse impacts to the City combined sewer system, water quality of the Hudson River, East River or Newtown Creek, or to aquatic resources.

Comment 90: The Proposed Action should adopt the goal of eliminating net increases in combined sewage overflows from the Project Site. LMDC should consider a decentralized wastewater system to treat stormwater and sewage from the Project Site. LMDC should look to LEED and other guidelines and specifically prescribed stormwater treatment and water use restrictions to avoid environmental impacts. LMDC should treat 100 percent of wastewater onsite to tertiary standards. LMDC should consider the detention of excess stormwater flows from the Project Site with treatment and releases to the Hudson River. (Riverkeeper)

Response: As noted in response above, the Selected Project results in a decrease in sewage generation through design measures that increase impervious surfaces, introduction of a greywater system and implementation to *Sustainable Design Guidelines*. Among the sources for the *Sustainable Design Guidelines* are the U.S. Green Building Council (USGBC), an umbrella organization which has produced the LEED Green Building Rating System. It is the intention of designated developers to achieve eligibility for certification and strive for certification at the silver level. The greywater system will reduce the amount of stormwater discharged into the City's sewer system. Because of the reduction in the volume of sewage and stormwater, significant adverse impacts to water quality or aquatic organisms from the City's combined sewer overflows would not be expected to occur. This combined with sufficient capacity of the Newtown Creek Water Pollution Control Plant would make consideration of an onsite treatment system unnecessary.

Comment 91: Despite the addition of an average annual storm water flow, the FGEIS fails to fully and accurately quantify the net volume and flow rate of sewage and stormwater that will run off the Project Site into the City's combined sewage system during rain events if the Proposed Action or any of the project alternatives were built. The FGEIS provided no

information on the constraints of the combined sewer system infrastructure in the immediate vicinity of the Project Site or anywhere else in the Newtown Creek drainage basin. (Riverkeeper)

Response: As stated in responses above, only about 15 percent of the stormwater generated on the Project Site would be discharged to the City's combined sewer system. Prior to September 11, 2001, all stormwater was conveyed to the City's combined sewer system. The annual stormwater volume is anticipated to be 30 percent lower than under pre-September 11 conditions. Only about 36 percent of the estimated volume of wastewater discharged pre-September 11 would be discharged to the City's combined sewer system under the Proposed Action. This substantial reduction in stormwater and wastewater discharged to the City's combined sewer system would minimize adverse impacts to this system and reduce the potential for the Proposed Action to result in discharge from combined sewer overflows (CSOs) to the Hudson or East Rivers. Therefore, stormwater and wastewater discharges generated by the Proposed Action would not be expected to result in significant adverse impacts to the City combined sewer system, water quality of the Hudson River, East River or Newtown Creek, or to aquatic resources.

Comment 92: In order to assess the effects of the increased sewage load on CSOs, the FGEIS should have quantified and compared the reductions in stormwater runoff which might counteract the effect of the increased sanitary sewer generations. In particular, there was no assessment as to whether the net result would be an increase or decrease in combined sewer flows and CSOs from the Project Site under the foreseeable wet weather conditions. The FGEIS should have, but did not, concluded that combined sewage from the Project Site will cause significant impacts. (Riverkeeper)

Response: As described in response above, the Selected Project is anticipated to result in a 64 percent reduction of the volume of sewage discharged to the City's combined combined sewer system pre-September 11. In addition, whereas stormwater was discharged into the City's combined combined sewer system pre-September 11, the Selected Project will result in an 85 percent reduction in such discharges. As a result, there is no significant impact to the City's combined sewer system and CSO.

Comment 93: The FGEIS failed to address the impact of the Proposed Action on avian biota. (Lo Presti)

Response: Chapter 18, "Natural Resources," of the FGEIS presents an assessment of potential effects to birds resulting from the Proposed Action.

Comment 94: If new construction work were to be performed at the existing intake and outfall structures seaward of their spring high tide line, a Department of the Army permit would be required. (USACE)

Response: Comment noted.

Environmental Justice

Comment 95: Chapter 20 of the FGEIS is troublesome because it presupposed the conclusions from Chapters 8-10, 12 and 21 that there is no significant environmental impact and then thus concluded that there is no significant environmental justice issue. First, the conclusions

made in Chapters 8-10 and 12 may not be "conservatively high" estimates. Second, rather than referring and annotating to various sections of other chapters, the FGEIS should have re-examined the issue in Chapter 20 in a comprehensive manner in order to fully assess potential sensitive populations. The FGEIS should have created a separate section to list all the sensitive populations and discuss environmental effects of the Proposed Action in a comprehensive manner. (NYELJP)

Response: The evaluation of environmental justice in Chapter 20 presented a complete census profile of the demographic and economic characteristics of Lower Manhattan and other adjacent areas along potential construction truck routes to identify the location and characteristics of low income and minority communities of concern. The chapter also presented findings of a review of all the technical analyses in the FGEIS, evaluating the potential for impacts of particular concern to low income and minority communities including: human health and quality-of-life impacts related to construction, construction traffic, and infrastructure requirements; preservation/enhancement of community character and cohesion; continued availability of community services; economic vitality and job opportunities; and the cumulative effect of the Proposed Action and other recovery and improvement projects. Each of the technical analyses in the FGEIS were designed to provide the most conservative approach to the evaluation of impacts. Chapter 20 outlined the adverse and beneficial impacts identified and evaluated the potential for disproportionately high and adverse impacts on the low income and minority communities identified. The assessment followed the guidelines of the U.S. Council on Environmental Quality (CEQ); NYSDEC; and the environmental justice goals of HUD.

The evaluation supported several conclusions: the area of Chinatown south of Canal Street was the only portion of the primary or secondary study areas that constitutes a low income or minority community of concern for environmental justice, this community of concern is far removed from many of the potential impact causing activities associated with construction of the Proposed Action; the comprehensive evaluation of impacts outlined in other chapters identified no significant adverse impacts with the potential to disproportionately affect low income or minority communities; the cumulative benefits of recovery on the Project Site would work to support the goals of New York City to recover from the terrorist attacks, revitalize Lower Manhattan and enhance quality of life for all.

Construction

Comment 96: The FGEIS did not adequately address the cumulative effects of the various redevelopment and reconstruction projects planned for Lower Manhattan in a coordinated environmental impact study, stating that a coordinated approach is essential to ensure adequate mitigation of construction and other short-term effects as well as the long-term effects of the Proposed Action and other planned or anticipated redevelopment projects in Lower Manhattan. (CB1, Silver, Gerson, Connor)

Response: Chapter 21, “Construction,” of the FGEIS provides a cumulative construction period analysis for the peak year (2006) of the combined construction activities of the major Lower Manhattan construction projects while recognizing other commercial office and residential construction projects that may occur during the same time period, particularly during the peak year (2006). Chapter 2, “Methodology” of the FGEIS discusses the large

number of residential, commercial and other projects in construction or being planned and utilized as background growth that is assumed to have occurred during the analysis years 2006, 2009 and 2015. Tables 2-3 and 2-4 of the FGEIS accounts for the potential developments noted in the comment above based upon available public information.

The cumulative effects analysis assumes that the construction of the Proposed Action would take place over approximately twelve years, from 2004 to 2015, the most intense period of activity is anticipated to occur between the Third Quarter of Year 2004 and Fourth Quarter of 2008 with a peak period occurring in 2006. While not a part of the Proposed Action, several major transportation recovery projects are also anticipated to occur in or around the Project Site during the 2004-2015 period: permanent WTC PATH Terminal on the WTC Site, Route 9A Reconstruction Project, the Fulton Street Transit Center (FSTC), and the South Ferry subway terminal. All are anticipated to begin in 2004 and be completed by 2008/2009.

These construction activities and other projects such as street reconstruction and private residential and commercial development are anticipated to occur during the 2004–2015 period. Potential cumulative effects from the operation of the Proposed Action are also considered in each of the subject matter chapters of the FGEIS by including the effects of other relevant projects in the Future with the Proposed Action as described in such chapters.

Comment 97: There should be clear environmental oversight for the demolition of Deutsche Bank and Fitterman Hall and a Community Panel should be implemented, as the Department of Buildings has agreed to do, with community leaders and local residents receiving advance information about registering input to appropriate aspects of the demolition projects. (Gerson)

Response: LMDC has committed to promoting public awareness both prior to the commencement of construction activities, including the deconstruction of 130 Liberty Street (Deutsche Bank), and throughout the construction period through mechanisms such as: public notices and informational meetings, signage; and website updates. LMDC has no jurisdiction over Fiterman Hall, a structure owned by the City University of New York, but would invite them to coordinate construction activities with the LMCCG.

Comment 98: LMDC should establish an office of construction coordinator to minimize disruption and maximize access through coordination of timing and work of various construction projects, put in place a mechanism for community notification and put in place the legal authority necessary to ensure coordination among all relevant agencies and contractors. (Gerson)

Response: On May 5, 2004, Governor George Pataki announced the creation of the Lower Manhattan Construction Command Center (LMCCC) that will coordinate construction schedules and activities and dissemination of other information to residents, workers and the general public. The LMDC is committed to working with the LMCCC prior to and during the construction period.

Comment 99: LMDC should, in coordination with the City, appoint an Environmental Czar who could report to a panel of independent experts and serve as the environmental command

structure for all of Lower Manhattan during the construction period. This czar and committee should assure state-of-the-art environmental air and noise protection and an overarching environment framework for Lower Manhattan development activity. (Gerson)

Response: LMDC and the Port Authority are committed to continuing to coordinate with the members of the Lower Manhattan Construction Coordination Group (LMCCG). In addition to LMDC and the Port Authority, the members of the LMCCG include sponsors of the other major Lower Manhattan recovery projects including MTA and its relevant subsidiaries, NYSDOT, NYCDOT and the New York City Department of Design and Construction. Other agencies with relevant expertise, such as DEC, EPA, and NYCDEP will work with the LMCCG, as will private developers, utility companies and construction firms managing projects in Lower Manhattan, on coordinating construction activities for all these major Lower Manhattan projects and implementing mitigation to reduce the cumulative impacts from such projects as discussed below. The LMCCG will also receive input from residents, businesses, agencies and organizations to discuss the construction processes and schedules for the Lower Manhattan recovery projects.

It is anticipated that the LMCCC will oversee air quality and noise reduction coordination efforts in accordance with commitments provided by individual project sponsors and as outlined in the Environmental Performance Commitments.

Comment 100: The precise legal structure and enforcement powers of the LMCCG are unclear and require clarification. The LMCCG must include a full-time paid position as well as volunteer representatives of the community that will be directly affected, including participants from CB1, downtown residents, community groups, and neighborhood businesses. LMDC should consider representatives from the community to be members of the LMCCG. (CB1, Silver, Connor, BPC United)

Response: The membership and mission statement of the LMCCG are included and attached as Appendix C. As stated therein, the LMCCG and its constituent agencies are committed to ensuring that the rebuilding adheres to high environmental standards and includes coordination and communication with stakeholders in Lower Manhattan. The LMCCG will facilitate the implementation of the environmental performance commitments agreed to by the Lower Manhattan recovery project sponsors. Governor Pataki and Mayor Bloomberg have indicated that they will issue Executive Orders to establish a LMCCC in summer 2004 that will enhance public information and construction coordination. LMDC and the Port Authority will cooperate with the LMCCC.

Comment 101: LMDC should require that there be no Saturday or Sunday or post 7 p.m. construction, except well-defined non-noisy work, and any exception should require advance community notification. LMDC should establish a process for community board review of regular, anticipated exceptions to normal hours. Construction should be in compliance with New York City regulations which limit construction to 7 a.m. to 6 p.m., Monday through Friday. Criteria must be established as well as community and community board review procedures for all nonemergency work outside of the normal hours. There must be a mechanism to inform those affected by anticipated exceptions to normal hours or any major disruptions and unusual or excessive noise. (Gerson)

Response: While construction activities for the Selected Project are anticipated to occur on weekdays, between approximately 7 a.m. and 6 p.m., work could occur on Saturdays, as may occasionally be necessary to perform make up work for a lost weekday. LMDC and the Port Authority are committed to providing as much advance notice of weekend or nighttime construction schedules as possible to Community Board 1, other community organizations, and area residents and businesses.

Comment 102: LMDC should assure state-of-the-art noise suppression mufflers and techniques for all equipment vehicles and activity, draw up plans to deploy modern technology sound barriers around all construction, put in place seismic monitors to assure that vibrations and sounds do not undermine structural safety, impose a sign-off procedure on street construction metal plates to assure that they do not move and make noise, establish a community notification process to inform residents in advance of unanticipated unusual sounds, put in place a school sensitivity plan to avoid or minimize noise or other disruptions to schools during school hours and identify sensitive dates for downtown schools to avoid noise and other disruptions in school vicinities on those dates. (Gerson)

Response: As discussed in Chapter 22, "Mitigation," of the FGEIS, the LMDC is committed to implementing various mitigation measures designed to avoid and minimize impacts including the use of sound path reduction measures such as silencers and mufflers and noise barriers. A Construction Environment Plan and a Construction Protection Plan would be designed and implemented prior to construction to avoid and minimize impacts as discussed in the FGEIS and committed to in the ROD and Findings Statement.

Comment 103: EPA remains concerned about air quality impacts from construction, both individually and cumulatively. Specifically, given that the NAAQS threshold is 100 $\mu g/m^3$, EPA is concerned that the cumulative NO_2 levels are predicted to reach 99.7 $\mu g/m^3$ during project construction. While this does not indicate a violation of the NAAQS, EPA believes that construction activities cannot be predicted that precisely to insure the 99.7 $\mu g/m^3$ value and thereby a protection of the NAAQS. In addition, the application of the EPCs reduces the value only slightly. EPA also has indications that the Lower Manhattan redevelopment transportation projects will introduce NO_2 emissions beyond what the FGEIS predicted, resulting in an unacceptable cumulative impact. Therefore EPA believes the emissions of the Proposed Action will require additional mitigation commitments. The ROD must be more definitive and make commitments as to how much of the fleet of construction equipment will need to be electric. The ROD must also include a commitment to implement all of the EPCs. (EPA)

Response: The FGEIS states that the maximum predicted cumulative increment in NO_2 concentrations adjacent to the Proposed Action would be significant, given that the highest measured background of NO_2 was 72 $\mu g/m^3$. The comment infers that other projects were not taken into account, and would add additional emissions to those predicted, resulting in higher concentrations—in fact all construction activity was accounted for. There is no reason to believe that Lower Manhattan redevelopment transportation projects would contribute more NO_2 than was already included in the cumulative analysis of the FGEIS; in fact, it is the objective that the on–going coordination between all of the major reconstruction projects will result in the other major projects instituting electrification of engines, similar to that implemented by the

Proposed Action, resulting in further reduction in NO_x emissions from those projects as well. Due to the conservative nature of the analysis, actual concentrations would most likely be lower than the maximum predicted concentrations. The mitigation scenario presented in the FGEIS included electrification to the extent practicable, as mitigation for NO_2, for the Proposed Action only; this is due to the fact that, at that time, the issue was still under investigation by the other major reconstruction projects. The project–only reduction was 17 percent of the NO_x emissions due to electrification only. The total cumulative concentration was not decreased significantly due to the fact that credit could not be taken at that time for other projects.

Nonetheless, LMDC agrees with EPA that specific mitigation measures for NO_x should be committed to in the ROD and Findings Statement. Thus, pursuant to this comment, and based on further clarification with EPA, the ROD includes specific mitigation measures to address NO_x emissions, including, i) maximizing the use of electrification of construction engines, and ii) evaluating alternative reduction technologies that minimize such emissions without increasing emissions of particulates, and to implement one or more of such measures in order to ensure that overall, a 17 percent reduction of NO_x is achieved on the Project Site during construction. Further, as stated in the ROD and Findings Statement, LMDC and the Port Authority are committed to implementing all EPCs.

Comment 104: EPA is concerned with the cumulative NO_X impact. While the project-specific NO_x emissions were calculated, the FGEIS did not include a quantification of the cumulative NO_x emission impact. As New York City is a serious Ozone nonattainment area, the evaluation of NO_X emissions is critical. EPA recommended that the ROD should contain an evaluation of the cumulative NO_X emissions and the result of the final statement of Conformity. With regard to the project's direct emissions, LMDC is expecting that they may be accounted for in the New York State Implementation Plan (SIP) construction budget, an approach that has not been officially accepted by EPA because the State [NYSDEC] must demonstrate that not only can the World Trade Center Redevelopment can be accommodated in the emission budget, but all other lower Manhattan projects must be as well. Since this issue is not yet resolved, we recommend that the Record of Decision contain an evaluation of the cumulative NO_x emissions and the result of the final statement of Conformity. If LMDC is not able to demonstrate conformity with the New York State SIP, then the emission offset measures that would be necessary should be offered as commitments in the ROD as well. (EPA)

Response: Evaluation of project-related NO_x emissions was presented in the FGEIS; full multi-year emissions data for all projects was not available at this time. LMDC will cooperate with the sponsors of other major Lower Manhattan reconstruction projects, in the context of the EISs for those projects, to produce a full inventory of all predicted emissions during construction. Further analysis of total emissions from the federally-funded portion of the Selected Project was presented in the draft general conformity analysis, which was performed for the project-related emissions in coordination with EPA and NYSDEC. NYSDEC has concurred that the emissions conform to the ozone SIP and will not therefore add regional emissions to those already accounted for in the SIP or increase ozone concentrations. Since the project will not increase regional ozone, and since off-

site offsets would not decrease local NO_2 concentrations, off-site offsets are not being considered at this time. It is also important to note that HUD is subject to the General Conformity requirements of 40 CFR Part 93, Subpart B because it is funding portions of the Selected Project that are not transportation related. LMDC understands that all the other Lower Manhattan recovery projects, which are transportation related, are coordinating with the Interagency Consultation Group with regard to transportation conformity, which requirements are different and independent of EPA's General Conformity regulations. See also response to comments above.

Comment 105: The response to Comment 625 is partially satisfactory. LMDC should make a commitment at this stage to the proposed air monitoring. At the very least, this responsibility should be charged to the environmental oversight monitors. The air monitoring should include fine particulate detection capabilities. The analysis area should include to 14th Street, river to river and include Brooklyn Heights. Air quality data should be posted on a website and frequently updated. The LMCCG should also take effective steps to ensure enforcement of laws to reduce air pollution such as the existing idling law. (CB1, Gerson, Connor, Dreyfus, Stuyvesant)

Response: LMDC is committed to a Construction Environment Plan, which will include measures to protect workers, residents, and visitors to the area. The Construction Environment Plan would include monitoring before and during deconstruction activities. LMDC is also committed to providing regular updates to residents in the area during the deconstruction process. It is anticipated that the LMCCC will enhance public information and construction coordination efforts of individual project sponsors, including their implementation of the Environmental Performance Commitments.

Comment 106: LMDC should refuse to consider construction bids from contractors and subcontractors who cannot refrain from using anything other than ultra-low sulfur diesel fuel (ULSD) and diesel particular filters for all vehicles. The provisions of Local Law 77 must be extended to all construction projects in Lower Manhattan on Port Authority owned land and should be extended to all vehicles and equipment, including buses and limos coming downtown. The response to comment 600 is partially satisfactory. LMDC must make a commitment to the use of ultra-low sulfur diesel fuel, as proposed in the comment. At the very least, this responsibility should be charged to the environmental monitors discussed in our comments above. The FGEIS has no provision on what will happen if the construction contractors are unable to obtain ultra-low sulfur diesel fuel. (Dreyfus, Silver, Gerson, Connor)

Response: All contracts for construction of the Selected Project will include the use of ultra-low sulfur fuel for all construction equipment. Fuel containing more than 15 ppm sulfur will not be available on-site; the only possible exception to that commitment would be in cases where small equipment is brought on site temporarily (for less than 20 days) already containing fuel in the tank. The contracts will also include the requirement that all equipment larger than 50 horsepower (HP) be equipped with the most advanced PM reduction system technically feasible—diesel particle filters, and where those are not possible, diesel oxidation catalysts. Only in cases where neither is technically feasible, and where the engine cannot be replaced with one that can be fitted with controls, would engines greater than 50 HP be allowed without controls.

As to on–road sources, since LMDC cannot make ULSD available for on–road vehicles across the state and in other states where deliveries may be arriving from, it is not possible to mandate that all companies utilize ULSD for on–road sources. That could only be achieved by fleets which can limit refueling to central locations, such as municipal bus fleets; this is not the case for construction deliveries. ULSD used for trucks and buses, as proscribed by the federal regulations, will be available beginning June 1, 2006, and will be mandated for all post-2006 model year heavy duty vehicles beginning in 2007. This will enable the phasing in of vehicles with advanced reduction technologies.

Although LMDC cannot dictate laws in New York City, it has, in effect, mandated the strictest possible measures for reducing PM emissions during construction and thereafter, identical to those mandated in Local Law 77.

Comment 107: There should be an illumination analysis to evaluate the possible light trespass during construction and operation and to assess the use of focused lighting to avoid light spills. (Gerson)

Response: Construction is anticipated to occur primarily during daytime hours ending at 6 p.m. Depending upon the time of year, illumination of construction areas may be required for safety and security reasons. During operation illumination is expected to be similar to that associated with typical commercial operations, such as that existing pre-September 11. LMDC and the Port Authority, as members of the LMCCG, will coordinate with the community to minimize potential effects of illumination, including opportunities to implement focused lighting to avoid light spills, as practicable.

Comment 108: Aggressive noise mitigation measures must be adopted to shield people who live and work in Lower Manhattan from the major disruptions that are likely to be caused from the cumulative noise effects. Ongoing monitoring of noise levels must be made to assure the health and environmental safety of the Lower Manhattan community. (Gerson)

Response: As indicated in Chapter 22, "Mitigation," of the FGEIS, LMDC and other members of the LMCCG will develop specific measures to carry out its mission which includes reducing noise during construction. In addition, LMDC and the Port Authority are committed to implementing measures to reduce significant noise impacts from construction through the *Sustainable Design Guidelines*.

Mitigation

Comment 109: The FGEIS failed to set forth and analyze measures sufficient to mitigate the Proposed Action's significant impacts to surface water quality and fish. With respect to CSOs, while there were some proposed features that might reduce impacts, such as the *Sustainable Design Guidelines* and reductions in impervious surfaces, it is unclear to what extent the former will be mandated as a requirement and there has been no quantification or analysis of the effect of the latter. The FGEIS should have set forth green building practices including decentralized greywater and blackwater treatment and detention systems sufficient to meet a goal of no net CSOs increases, meaning that no sanitary sewage or stormwater contributions to the City's sewers, unless the Selected Project creates offsets elsewhere in the drainage basin. With respect to CWIS impacts,

while the FGEIS set forth a laundry list of possible mitigation measures, the analysis of their effectiveness is entirely deferred to the SPDES permitting process. (Riverkeeper)

Response: As described in the FGEIS, the Proposed Action represents an opportunity to rebuild Lower Manhattan in a sustainable manner, using the latest sustainable design and management technologies and practices. The Proposed Action thus represents a substantial improvement over the environmental footprint of the development existing Pre-September 11. As summarized below, the FGEIS quantifies the benefits of implementing the *Sustainable Design Guidelines* in minimizing the environmental impacts of the Proposed Action, especially compared to Pre-September 11 conditions. However, because specific or detailed designs have not yet been developed for the entire Project Site, the exact manner in which the *Sustainable Design Guidelines* will be integrated into the design and operation of future developments at the Project Site (and their exact benefits) cannot yet be determined. It is recognized that the benefits of *Sustainable Design Guidelines* are most effectively realized when they can be integrated into the detailed design, so that opportunities for sustainability can be realized at every level of scale.

Prior to September 11, 2001, there was no storm water collection, detention, or reuse within the WTC complex. Using the average rainfall of 44.6 inches per year for New York City, the WTC complex was contributing approximately 20,000,000 gallons of water per year to the combined sewer system. Additionally, because the toilets, faucets and other fixtures were not low flow fixtures, the WTC complex is estimated to have used approximately 200 mgy of potable water and contributed a similar volume of sewage to the City's combined sewer system.

In contrast, the Proposed Action would substantially decrease the volume of stormwater and sewage that would be discharged to the City's combined sewer system when compared to the pre-September 11 baseline. This will be achieved in two ways. First, in accordance with the *Sustainable Design Guidelines*, the Proposed Action would typically collect and reuse on site approximately 85 percent of the annual rainfall or 16.8 mgy. This would reduce the amount of stormwater that would typically be discharged to the City's combined sewer system from the Project Site when compared to the pre-September 11 and Current Conditions baseline. Therefore, only about 15 percent of the stormwater generated on the Project Site would be discharged to the City's combined sewer system.

Second, in accordance with the *Sustainable Design Guidelines*, the Proposed Action would use low flow fixtures for toilets, urinals and sink fixtures. This would result in a projected sewage discharge of 72 mgy, which represents a 64 percent reduction of the volume of sewage discharged to the City's combined sewer system pre-September 11. Only about 36 percent of the estimated volume of wastewater discharged pre-September 11 would be discharged to the City's combined sewer system under the Proposed Action. This substantial reduction in stormwater and wastewater discharged to the City's combined sewer system would minimize adverse impacts to this system and reduce the potential for the Proposed Action to result in discharge from combined sewer overflows (CSOs) to the Hudson or East Rivers. Therefore, stormwater and wastewater discharges generated by the Proposed Action would not be expected to result in significant adverse

impacts to the City combined sewer system, water quality of the Hudson River, East River or Newtown Creek, or to aquatic resources. With regard to CWIS, see responses to comments above, under "Natural Resources."

Comment 110: LMDC and the Port Authority should provide regular updates and submit for review and comment specific designs and proposals for mitigating potential adverse effects of the Selected Project, including pollution controls, street closures and traffic management plans, quality of life issues, security barrier installations and all other design construction elements they will affect the residents, workers, businesses and visitors to Lower Manhattan. (CB1)

Response: LMDC and the Port Authority are committed to providing regular updates and meetings to receive input from Community Board 1 and other stakeholders prior to and throughout the construction period. It is anticipated that such meetings may include issues described in the comment.

Comment 111: The FGEIS has concluded that there will be significant adverse impacts that would require mitigation measures and presented a series of mitigation measures to minimize these adverse impacts. However, the good will of these mitigation measures depend on how well these measures are implemented. Therefore, there should be a method for enforcing these mitigation measures. We recommend that all contracts to be awarded for subsequent reconstructions should include a penalty clause for violation of these mitigation measures. (Stuyvesant)

Response: The conclusion presented in the FGEIS is that mitigation is necessary in order to eliminate and minimize any significant adverse impacts during construction on the Project Site. Through adoption of the ROD and Findings Statement, LMDC and the Port Authority are committed to implementing the mitigation measures through construction specifications. The construction specifications for the Selected Project represent the contract between the agencies and the construction managers and will contain appropriate performance standards.

Alternatives

Comment 112: The FGEIS failed to present or assess alternatives which eliminate or reduce to the bare minimum any significant adverse impacts, as required by NEPA. (Clean Air Campaign)

Response: As required by state and federal law, the FGEIS presented a rigorous exploration and objective evaluation of all reasonable and feasible alternatives, including a No-Action Alternative, a Memorial-Only Alternative, a Restoration Alternative, Rebuilding Alternatives, a WTC-Site Only Alternative, an Enhanced Green Construction Alternative, a Reduced Impact Alternative, an Enhanced Cogeneration Alternative, a Cooling Towers Alternative, and an At-Grade Loading Alternative. In addition, Chapter 1, "Project Description," of the FGEIS includes a discussion of various early alternatives that were considered in the site planning process.

Comment 113: The comparison of the new plan to the restoration alternative must include the full spectrum of the environmental impact in regard to the daily operation of the site. Most

importantly this includes the flow of both pedestrian and vehicular traffic, safety, and both noise and air pollution. (Speizer)

Response: See response to comment above.

Comment 114: The FGEIS failed to consider reasonable project alternatives that would drastically reduce or eliminate the significant impacts to natural resources. (Riverkeeper)

Response: In the FGEIS, a new Cooling Towers Alternative was examined as an alternative to reduce impacts to aquatic resources. Further, as discussed in the responses to comments regarding natural resources above, the Port Authority has committed to explore best available technologies to reduce fish mortality as part of the Port Authority's application for a SPDES permit renewal.

Comment 115: The FGEIS should have included realistic alternatives to reducing bus and auto traffic. (Clean Air Campaign)

Response: Under the No-Action, Enhanced Green, and Reduced Impact Alternatives, LMDC explored practicable and feasible alternatives that would reduce traffic-related impacts.

Comment 116: A number of individuals noted their preference for the Restoration Alternative over the Selected Project.

Response: As LMDC stated in response to Comment 652 in the FGEIS, this alternative was fully analyzed in Chapter 23, "Alternatives," of the DGEIS but was found to not have the same level of benefits as the Proposed Action. In particular, this alternative would concentrate retail below-grade such that the streetscape would not become enlivened and active, and this alternative would not permit the extension of the street grid that is part of the Proposed Action. This alternative would also not provide the same amount or quality of open space as afforded by the Proposed Action.

Comment 117: The FGEIS prepared seems only to propose one alternative to the Proposed Action–the alternative of taking no action and leaving the Project Site vacant. A need for new affordable housing has been repeatedly identified by the community; yet the LMDC considered no alternative that including any housing.[1] (Rebuild Coalition)

Response: As LMDC stated in response to Comment 14 in the FGEIS, replacing the commercial uses destroyed on September 11 has been an important planning goal for the Proposed Action and has received broad support from elected officials, involved agencies, area residents and businesses, and the public. Independently from the Proposed Action, LMDC proposes to fund the creation of affordable housing units. Specifically, Partial Action Plan No. 6 proposes to allocate funding to create affordable housing for low, moderate and middle-income individuals and families. More details about this Partial Action Plan can be found on LMDC's website at www.renewnyc.com under Funding Initiatives-Partial Action Plans.

[1] In response to our comments that housing has been identified over and over as a community priority, the LMDC repeatedly refers to their partial action plan to allocate $50 million dollars for "affordable housing." For a variety of reasons set forth in detail in the comments to that Partial Action Plan, that plan is simply not sufficient to address a desperate shortage of low-income housing.

Comment 118: It was misleading for LMDC to compare the Restoration Alternative without any possible benefits from the Southern Site to the Proposed Action assuming maximum benefits from the Southern Site. It was also misleading for LMDC to assume the Restoration Alternative would not integrate design elements into the surrounding neighborhood or that the Southern Site would be redeveloped under the Restoration Alternative without mitigation measures incorporated under the Proposed Action. LMDC also never recruited tenants to occupy top floors of the redeveloped towers in the restoration alternative. (Hakala)

Response: LMDC, as lead agency, developed alternatives based on the most practical realization of those alternatives. In addition, alternatives were developed based on comments received during LMDC's initial public outreach and the public comment periods for the Draft Scope and the DGEIS. LMDC received numerous comments from the WTC Restoration Movement and Team Twin Towers that requested LMDC consider a Restoration Alternative with the Twin Towers, with up-to-date technology, moved away from the footprints to allow for the Memorial during the comment period for the Draft Scope. Based on these comments, this is the alternative that was analyzed in the DGEIS and FGEIS.

Overall Project Description/Memorial

Comment 119: LMDC should relocate the maximum amount of retail space at or above grade to create active, vibrant street level retail and street level retail development should be phased in as early as possible in the redevelopment process. (CB1)

Response: The Selected Project will provide up to 1 million square feet of retail above and below grade. Retail uses at or above grade will be maximized while providing space for other at grade uses.

Comment 120: The underground parking should be reconfigured to allow bus parking, as the daytime use of the underground garage would only be 10 percent of the garage capacity in 2009 according to the FGEIS. (Gerson)

Response: The general project plan reserves an area for bus parking underground at the site. The exact location and configuration is still being determined. The daytime use of additional portions of the underground garage in 2009 would be subject to lease negotiations, design considerations (vehicle ramp radii, clearance, and structural loads), cost, and logistics.

Comment 121: The FGEIS did not solve the problems of ice falling off the slanted roof of the Libeskind buildings that could potentially endanger people and the wind turbines not working in the winter because of ice. The FGEIS also did not solve the problem of extreme weather, either wind, ice or freezing temperature, causing the collapse of the cage and wind turbines on Freedom Tower. (Ramos)

Response: Safety measures will include materials selection to reduce accretion of ice in cold weather. All structures will exceed or meet all relevant codes.

Comment 122: LMDC and HUD should be mindful that they do not endanger the residents and workers of Lower Manhattan by encouraging experimental construction, such as the turbines and windmills on the Freedom Tower. (Martin)

Response: As discussed in response above, the Selected Project will meet or exceed safety standards expressed by relevant current building codes and guidelines. When the provisions of the relevant current codes do not address the unique conditions at the Project Site, a nationally recognized reference will be used to prepare an appropriate solution to present to authorities having jurisdiction over the Project Site, or an expert or team of experts will be consulted to propose an appropriate solution to the authorities having jurisdiction over the relevant authorites

Comment 123: The FGEIS did not solve the problem of how LMDC would keep the Memorial waterfalls from freezing in the winter and how people would be kept from falling into the waterfall. (Ramos)

Response: The Memorial design and operation of waterfalls are still being refined, and these refinements will consider operational characteristics during cold weather. Appropriate measures will be taken at the pools to prevent injury.

Comment 124: LMDC should create the necessary infrastructure to present visual, performing, and new media public arts projects in the open spaces of the WTC Site and Liberty Park. LMDC should also plan for large-scale gatherings in Liberty Park. (LMCC, Cunningham)

Response: The Proposed Action provides necessary infrastructure and space to support a variety of public gatherings.

Miscellaneous

Comment 125: Hudson River Park Trust clarified that a portion of the ballfields and PS/IS 89 playground described on page 7-8 of the FGEIS actually fall within Hudson River Park. Additionally, the group requested to be included in any discussions involving exact placements last location of pedestrian bridges, escalators and/or staircases adjacent to the Hudson River Park, which includes the bikeway west of Rt. 9A. Similarly, the group would like to be included in future discussions relating to the impact to the bulkhead and consistency with the existing Programmatic Agreement.

Response: Comment noted.

Comment 126: All funding for the link to JFK, and the West Street tunnel, should come from the capital budget not CDBG funds. (9/11 Environmental Action)

Response: Comment noted.

Comment 127: New architects should be used for each additional office tower. (BPC United)

Response: It is the responsibility of the Port Authority's Net Lessee to select the architects for the remaining towers.

LMDC also received a number of written comments that did not raise any new or substantive issues. For instance, some individuals expressed their preference for the Restoration Alternative over the Selected Project. At least two individuals stated that the Memorial design violates the revised master site plan and called for a new Memorial competition. One individual reiterated opposition to the Route 9A bypass which is not part of the Selected Project. LMDC also received a number of comments on its Notice of

Intent to Request Release of Funds. These comments will be taken into consideration prior to certification of the request.