East River Waterfront Esplanade and Piers
Draft Scope of Work for an
Environmental Impact Statement

A. PROJECT DESCRIPTION

The City of New York has proposed a plan (the Proposed Action) for the East River Waterfront that would improve a two-mile-long, City-owned public open space connecting Whitehall Ferry Terminal and Peter Minuit Plaza to the south to East River Park to the north. The Proposed Action is intended to allow connections to upland neighborhoods, increase public access to the waterfront, create a vibrant, active and welcoming water's edge, replace the outmoded New Market Building, and improve access to and around the Battery Maritime Building (BMB). The purpose of the Proposed Action is not only to provide these connections but also to provide amenities—open space as well as appropriate retail, cultural and community uses—to facilitate use of the waterfront by adjacent communities and neighborhoods.

The area of the Proposed Action would generally encompass the waterfront, the upland area adjacent to and under the elevated Franklin Delano Roosevelt (FDR) Drive and South Street extending from the Whitehall Ferry Terminal and Peter Minuit Plaza to East River Park, as well as specific piers. Included in the Proposed Action would be Pier 15, the New Market Building pier, Pier 35, and Pier 42. The esplanade as well as the piers would be renovated and redeveloped. The Lower Manhattan Development Corporation (LMDC) would provide a portion of the funding for the Proposed Action. Additional funding is being sought by the City of New York (the City) for the plaza in front of the BMB, the replacement for the New Market Building and the urban beach on Pier 42.

LMDC is conducting a coordinated environmental review of the Proposed Action pursuant to federal law as the recipient of United States Department of Housing and Urban Development (HUD) Community Development Block Grant program funds (42 USC § 5304(g)) and as lead agency under the National Environmental Policy Act (NEPA). The New York State Environmental Quality Review Act (SEQRA), City Environmental Quality Review (CEQR), and their implementing regulations will be referenced as appropriate. Because the Proposed Action is entirely within New York City and will involve actions by the City Planning Commission, the *CEQR Technical Manual* will generally serve as a guide with respect to methodologies and impact criteria for evaluating the Proposed Action in the Environmental Impact Statement (EIS). LMDC will prepare the EIS described in this document in support of that review. The City will serve as a cooperating agency through relevant departments including the New York City Departments of Parks and Recreation (NYCDPR), City Planning (NYCDCP), and Transportation (NYCDOT). The New York City Economic Development Corporation (NYCEDC) will continue to work with the City in connection with the Proposed Action.

The Proposed Action would consist of a Program Zone under the FDR Drive for pavilions and temporary outdoor activities; a Recreation Zone along the edge of the water with seating, play

spaces, and plantings; and creation of a uniform sidewalk and bikeway along South Street. In addition, the Proposed Action to be analyzed in the EIS would include the construction of a new pedestrian plaza in front of the BMB, and improvements to Piers 15, 35, and 42, as well as the New Market Building and pier.

PROGRAM ZONE

Approximately 14 pavilions totaling up to 150,000 square feet would be built in the Program Zone under the FDR Drive. They would be programmed and built for community, cultural, and commercial uses. Each would correspond to the unique local needs of its location and surrounding community. Examples of such programs could include a flower market, dance studio, martial arts studio, daycare center, and community center. Although their exact locations have not been determined, the pavilions would be positioned to avoid blocking view corridors. The pavilions are also envisioned as having glass skins to promote transparency and openness. In addition to the pavilions, the open space under the FDR Drive could be programmed for temporary uses, such as farmer's markets, performances, exhibitions, skateboarding, and community gatherings. The underside of the FDR Drive would be improved with cladding intended to reduce noise from the overhead roadway and improve the appearance of the viaduct.

Within the boundaries of the South Street Seaport Historic District (from approximately Maiden Lane to include the area under the Brooklyn Bridge), elements of the design would be developed to be appropriate to the context of the district.

RECREATION ZONE

Plantings and seating would be provided to enhance passive recreation opportunities in the Recreation Zone, which extends from Peter Minuit Plaza to East River Park. Components would include benches, railings, planters, and arbors. The railing would include enhanced lighting, fishing pole holders, and brackets for attaching historic placards and viewfinders for sights of interest. Arbors along the esplanade would provide shade, swings, and built-in lighting. Different types of planters would be used to address different soil conditions. Elements of the Recreation Zone are described from south to north.

Between the BMB and Pier 11, the existing esplanade is a narrow strip of land running immediately east of the FDR Drive/South Street. At a width of approximately 8 feet, it is currently too narrow for a bikeway/walkway. The Proposed Action would widen the esplanade to approximately 35 feet with a new approximately 15- to 25-foot-wide structure built out over the water. The new esplanade area is expected to be an independent structure on pilings rather than a cantilever. The total over-water coverage associated with this expansion would be approximately 25,500 square feet (0.59 acres).

Between Pier 11 and the Brooklyn Bridge, the existing esplanade is approximately 58 feet wide, as it has been extended over the bulkhead. To take advantage of the greater width, larger plants and trees in planter boxes would be interspersed between the seating. Within the boundaries of the South Street Seaport Historic District, elements of the esplanade and pier design would be developed to be appropriate to the context of the district.

Pier 15, demolished in 2002/3 and now outlined by four piles, would be rebuilt. The pier would be reconstructed and is intended to enhance water flow and scouring for underwater habitats as compared to the previous Pier 15 structure. The pier could be a deep truss structure with two levels and enclosed uses. Similar to the portion of the esplanade within the boundaries of the

South Street Seaport Historic District, the design of this pier would be developed to be appropriate to the context of the historic district.

Directly north and west of Pier 17, the New Market Building would be demolished to allow for a new structure that would be funded, designed and constructed independent of the Proposed Action. The existing pier would also be reconstructed to enhance water flow and scouring for underwater habitats. A new transient boat dock would be created as a floating structure on the water to provide opportunities to temporarily moor small- to mid-sized vessels. Neither Pier 17 nor the Tin Building is part of the Proposed Action.

From the Brooklyn Bridge to Pier 35 north of the Manhattan Bridge, the esplanade is approximately 24 feet wide and does not extend beyond the bulkhead. The Proposed Action would enhance the esplanade but remain upland of the bulkhead.

At Pier 35 the Proposed Action could provide a two-tiered open space. The existing pier structure is sound with the exception of the upland portion, which has sunk due to the failure of the relieving platform and would be replaced. A portion of the pier may be a floating platform. A multilevel landscape could be created to enhance the open space and block the view of the existing adjacent building on Pier 36, which would continue to be used by the New York City Department of Sanitation (NYCDOS). A gently sloping path could rise to an elevated platform at the southeastern end of the pier. A launch for small boats may also be provided at Pier 35. The entire pier would provide open space opportunities for family gatherings, and include picnic tables and outdoor grills.

At the south end of Pier 42, a cove would be created for public enjoyment and temporary mooring of small boats. Steps may lead down to the cove so that visitors could be at the level of the river rather than above it. Other open water areas may also be created at Pier 42. The Proposed Action is being designed so there would be no net change in the amount of over-water coverage and to preserve the extent and quality of marine habitat within its bounds and minimize any potential impacts to marine ecology.

SOUTH STREET IMPROVEMENTS

The Proposed Action would narrow South Street between Old Slip and Montgomery Street, and create a uniform sidewalk and bikeway along the east side of the street. The street improvements would be designed generally as follows:

- Between Old Slip and Robert F. Wagner Sr. Place (Wagner Place) just north of the Brooklyn Bridge, South Street would accommodate a single through-lane in each direction and a center turn lane. Drop-off and pick-up lanes would be provided at strategic locations.
- Between Wagner Place and Montgomery Street, South Street would consist of a striped median with left-turn bays for northbound traffic, a single through-lane in each direction, and parking on both sides of the street.

The South Street improvements would remove on-street public automobile parking south of the Brooklyn Bridge and would create additional on-street automobile parking spaces north of the Brooklyn Bridge. The East River Waterfront Access Project, a NYCDPR project being undertaken separately from the Proposed Action, would also add on-street parking north of the Brooklyn Bridge. Buses currently permitted to lay over along South Street and under the elevated FDR between Old Slip and Burling Slip, as well as along the west side of South Street between Rutgers Slip and the Manhattan Bridge, would be displaced as a result of the Proposed Action. The displacement totals approximately 60 bus layover spaces. As part of a larger project

on Lower Manhattan street management, the City will be embarking on a study to look at commuter/tour bus issues in Lower Manhattan, especially pertaining to the relocation of the buses along South Street and under the FDR.

BATTERY MARITIME BUILDING PEDESTRIAN PLAZA

Although it would not be funded by LMDC, the construction of a new BMB pedestrian plaza is being analyzed as part of the Proposed Action because the City is currently seeking additional funding for this important improvement, and, if funding is obtained, the BMB Plaza would be built along with the Proposed Action. As the southern gateway to the new esplanade, the current roadway and sidewalk configuration in front of the BMB creates an unpleasant pedestrian experience as well as a difficult connection from the East River waterfront to Peter Minuit Plaza and Battery Park. The BMB, which has just been restored, is currently the gateway to Governors Island. It has suffered for some years with a perilously narrow sidewalk fronting South Street. When funding is available, the entrance to the Battery Park Underpass would be moved approximately 350 feet to the northeast, creating the space for a new three-quarter acre pedestrian plaza at the entrance of the BMB. The plaza would connect the bikeway from the esplanade to Peter Minuit Plaza and would use design elements that would be appropriate to the context of the historic BMB. A pedestrian bridge over the tunnel entrance in front of the BMB may be constructed as an interim condition until the BMB Pedestrian Plaza is complete.

The new plaza would also create additional vehicular access to both the BMB and Whitehall Ferry Terminal via a pick-up/drop-off lane. Some reconfiguration of the traffic flow is proposed to minimize pedestrian-vehicular conflicts at the BMB and Whitehall Ferry Terminal and improve traffic flow along Water Street and South Street, such as reconfiguring South Street between Whitehall Street and Broad Street to be one-way in the northeasterly direction with three lanes of northbound traffic and providing a drop-off lane to the west of the plaza. This drop-off lane would create additional access to Whitehall Ferry Terminal.

PIER 42 BEACH

Similar to the BMB pedestrian plaza, the creation of a new beach at Pier 42 would not be funded by LMDC. The beach is being analyzed as part of the Proposed Action, however, because the City is currently seeking additional funding for this structure, and, if funding is obtained, the Pier 42 beach would be built along with the Proposed Action.

The City would remove the Pier 42 structure and rebuild a new pier structure in the same location, using the same piling structure as would be used at Pier 15 and the platform at the New Market Building with piles spaced 30 to 50 feet apart. The shed would be replaced by a new "urban beach" above the East River, with berms reminiscent of dunes separating the promenade and the beach.

NEW MARKET BUILDING REPLACEMENT

At approximately the site of the existing New Market Building, a new two-story, approximately 40,000-square-foot building housing a mixed-use cultural/community center would be constructed. The new building would be situated to allow a view corridor through to the water along the north side of Pier 17. It is expected to have an open floor plan for community, cultural, and/or commercial uses. Like the beach at Pier 42, the replacement building is being analyzed as part of the Proposed Action because the City is seeking alternate funding for this structure, and it is expected to be built along with the Proposed Action.

INDEPENDENT NEARBY PROJECTS

Although South Street is its western edge, the Proposed Action has been designed to be compatible with other independently proposed open space improvements linking adjacent communities to the waterfront. These include improvements to Peck, Catherine, Rutgers and Montgomery Slips. At Pier 42, in the area where the FDR Drive returns to grade, a bikeway/walkway is proposed to connect the esplanade to be constructed under the Proposed Action to the existing East River Park. In addition, under this separate project a berm would be created along the roadway to block traffic noise to the bikeway/walkway.

On Pier 36 the City is creating an East River location for Basketball City, which will use a portion of the pier for six indoor basketball courts, a workout room, locker rooms, and administrative offices. The proposed facility will also include a parking area and an outdoor basketball court, and will provide access and improvements to the waterfront on the portion of Pier 36 that it occupies. The City is also considering adaptive reuse proposals for the BMB. Piers 13 and 14 could be rebuilt as part of other planning initiatives, and Pier 17 may also be reconfigured. However, these are all separate projects with independent utility from the Proposed Action, have separate funding and approval processes, and would be subject to their own environmental review processes.

ACTIONS AND APPROVALS

The Proposed Action is subject to review under NEPA, and the EIS will also be prepared to satisfy the requirements of SEQRA and CEQR as appropriate. The 2001 *CEQR Technical Manual* will be referenced as appropriate. As indicated, LMDC will serve as the lead agency for the environmental review, which will be coordinated with the project reviews required by other federal, state, and local laws as well as the regulations of HUD.

The Proposed East River Waterfront Esplanade and Piers Project includes City land use actions, including disposition of the pavilions under the FDR, disposition of the rebuilt New Market Building, and mapping actions, which are subject to the Uniform Land Use Review Procedure (ULURP) as well as CEQR.

The improvements proposed for the esplanade and piers require permits and are subject to review by the United States Army Corps of Engineers (ACOE) and the New York State Department of Environmental Conservation (DEC). The City already possesses a DEC permit to rebuild Pier 15 for community open space and maritime uses such as those contemplated under the Proposed Action.

SCHEDULE

For analysis purposes it has been assumed that the Proposed Action would be completed by 2009. The reconstruction of South Street between Whitehall and Dover Streets would be timed to correspond with the esplanade improvements. While funding for the BMB Plaza, the New Market Building replacement, and the beach on Pier 42 has not yet been identified, the City is seeking funding for those elements and would pursue them concurrently with the Proposed Action, if possible. It has been conservatively assumed that construction of the Proposed Action, the South Street improvements, and the independent nearby projects would take place concurrently.

B. PREPARATION OF THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (DEIS)

The DEIS will contain:

- A description of the Proposed Action and its environmental settings;
- A statement of the environmental impacts of the Proposed Action, including its short- and long-term effects, and typical associated environmental effects;
- An identification of any adverse environmental effects that cannot be avoided if the Proposed Action is implemented;
- A discussion of alternatives to the Proposed Action;
- An identification of any irreversible and irretrievable commitments of resources that would be involved in the Proposed Action should it be implemented; and
- A description of mitigation measures proposed to minimize adverse environmental impacts.

TASK 3.1: PROJECT DESCRIPTION

The first chapter of the EIS will introduce the reader to the Proposed Action. It will summarize the consideration of alternatives that led up to the Proposed Action, describe the elements of the Proposed Action, and identify the necessary reviews and approvals. This chapter is the key to understanding the Proposed Action and its impacts, and gives the public and decision-makers a basis from which to evaluate the Proposed Action against the No Action alternative, discussed below. The chapter will contain:

A. A project identification (brief description and location of the Proposed Action, including a description of proposed programming and related open space, traffic and pedestrian improvements);

B. A summary of the background and history of the efforts to develop the East River waterfront and of alternatives considered in arriving at the Proposed Action, the efforts to redevelop Lower Manhattan in the aftermath of September 11, and the proposed plan's role in both processes;

C. A statement of the purpose and need and goals and objectives for the Proposed Action, including a discussion of issues associated with providing access to the BMB, replacing the outmoded New Market Building, increasing public access to the waterfront, and creating a vibrant, active and welcoming water's edge.

D. A general description of existing site conditions and ownership;

E. A description of the required permits and approvals and identification of any uses that would need to be relocated to realize the goals of the Proposed Action;

F. A summary of the regulatory review procedures to be followed; and

G. The role of the EIS in the process.

TASK 3.2: LAND USE, ZONING, AND PUBLIC POLICY

ISSUES

The Proposed Action would transform the East River waterfront into a more inviting and useable resource for the neighboring communities, including the Financial District, the South Street Seaport, the Civic Center, Chinatown, and the Lower East Side, and would improve access to ferry service at the BMB. It is also intended to complement planned open space improvements in the upland communities west of South Street.

The EIS will describe the specifics of the proposed uses under the Proposed Action and any required City land use and mapping actions. Consistency of the Proposed Action with applicable public policies—such as "New York City's Vision for Lower Manhattan," which is intended to restore access and economic vitality to Lower Manhattan by promoting the redevelopment of the waterfront—will also be described.

TASKS

A. Provide a brief development history of the site of the Proposed Action and the study area. The study area will include a primary study area assumed to include the blocks fronting the FDR Drive/South Street and a larger secondary study area, which will be considered more generally.

B. Describe existing conditions on the project site and in the study area, including existing land use patterns and development trends. This description will be based on land use surveys as well as studies conducted for other projects in the area and information compiled from other environmental reviews in the area. Recent development trends will also be identified.

C. Briefly describe the existing zoning in the project area, including waterfront zoning.

D. Describe other land use-related public policies that apply to the project and study areas.

E. Prepare a list of future projects anticipated in the study area and describe how these projects might affect land use patterns and development trends in the study area in the future without the Proposed Action. In addition to the independent projects identified above, these "No Build" projects may include improvements to the South Ferry subway station, the World Trade Center Memorial and Redevelopment Plan, the Fulton Corridor Revitalization Plan, development on the Beekman Hospital parking lot site, and the Fulton Street Transit Center.

F. Identify any pending zoning actions (including those associated with the No Build projects) or other public policy actions that could affect land use patterns and trends in the study area as they relate to the Proposed Action.

G. Assess impacts of implementation of the Proposed Action on land use and land use trends, zoning, and public policy.

H. Describe the proposed ULURP actions and funding.

I. If any significant adverse impacts are identified, identify potential mitigation measures.

TASK 3.3: SOCIOECONOMIC CONDITIONS

ISSUES

Socioeconomic impacts may occur when a proposed action or project would directly or indirectly affect economic activities in an area. The purpose of a socioeconomic assessment is to disclose and assess changes that would be created by the proposed action and identify whether they rise to a significant level. The *CEQR Technical Manual* provides guidelines to determine whether a socioeconomic assessment is appropriate, which would be referenced. Under those guidelines, a socioeconomic assessment may be appropriate if a proposed action meets one or more of the following tests: (a) the action would directly displace residential population so that the socioeconomic profile of a neighborhood would be substantially altered; (b) the action would displace substantial numbers of businesses or employees, or would displace a business that plays a critical role in the community; and/or (c) the action would result in substantial new development that is markedly different from existing uses in a neighborhood.

The *CEQR Technical Manual* establishes thresholds that trigger the need for an assessment of socioeconomic impacts in the first instance. Because the Proposed Action would not displace a residential population or a substantial number of businesses or employees (the Fulton Fish Market has already vacated the area), an analysis of direct displacement is not required and will not be undertaken.

Because the Proposed Action could include the development of commercial space reaching the CEQR threshold of 200,000 square feet, an assessment of potential impacts from indirect residential and business displacement will be undertaken. If any significant adverse impacts to socioeconomic conditions would result from the Proposed Action, potential mitigation measures will be identified.

TASKS

Indirect Residential Displacement

The analysis of indirect residential displacement will consider whether the Proposed Action would:

A. Directly displace uses or properties that have had a blighting effect on property values in the area; and/or

B. Introduce a critical mass of non-residential uses, such that the surrounding area becomes more attractive as a residential neighborhood.

Indirect Business Displacement

The analysis of indirect business displacement will determine if the Proposed Action would:

C. Introduce enough new economic activity to alter existing economic patterns;

D. Add to the concentration of a particular sector of the local economy enough to alter or accelerate an ongoing trend that would alter existing economic patterns;

E. Directly displace uses or properties that have had a blighting effect on commercial property values in the area, leading to rises in commercial rents;

F. Directly displace uses that directly support businesses in the area or bring people to the area that form a customer base for local businesses; and/or

G. Directly or indirectly displace residents, workers, or visitors who form the customer base of existing businesses in the area.

TASK 3.4: OPEN SPACE

ISSUES

The Proposed Action would improve a two-mile-long, City-owned public open space connecting Whitehall Ferry Terminal and Peter Minuit Plaza to the south to East River Park to the north. The proposed open space and cultural, community, and retail uses are all expected to serve existing communities, including the Financial District, Chinatown, and the Lower East Side, along the length of the site of the Proposed Action.

The Proposed Action is not expected to generate a substantial number of new workers and would not create any residential units. The anticipated open space users would come from the adjacent neighborhoods. Therefore, a full quantified open space analysis is not warranted. However, a description of the benefits associated with the open space elements of the Proposed Action will be provided in this chapter. This discussion will generally be qualitative, but will also focus on key aspects of the project such as the available amount of open space in nearby neighborhoods and existing open space user populations.

TASK

Provide a discussion of the Proposed Action's anticipated beneficial effects on open space. This will include a brief description of existing conditions on the site of the Proposed Action, key open space and user characteristics of areas surrounding the project site, the need for the Proposed Action and improved waterfront access, and benefits associated with the Proposed Action.

TASK 3.5: SHADOWS

Based on the guidelines of the *CEQR Technical Manual*, a shadows analysis is necessary for proposed buildings immediately adjacent to public open spaces and light-sensitive historic resources. The only structures planned as part of the Proposed Action are pavilions under the canopy of the FDR Drive, a structure that would replace an older larger building (the New Market Building), or pier structures that create a variation in the topography of a pier. Further, historic resources in the vicinity of the Proposed Action do not have light-sensitive features or historic landscapes. Therefore, a shadows analysis is not required for the public open space. Shade on the water from the proposed expansion of the esplanade between the BMB and Pier 11 is addressed in the Natural Resources task below.

TASK 3.6: HISTORIC RESOURCES

ISSUES

The Proposed Action would involve demolition of a non-contributing building (the New Market Building) and new development within the South Street Seaport Historic District, which is listed on the State and National Registers of Historic Places (S/NR) and is a New York City Historic District (NYCHD). It would also include the development of an at-grade plaza in front of the BMB (S/NR, New York City Landmark [NYCL]). The Proposed Action would also be visible from the Brooklyn Bridge—National Historic Landmark (NHL) and NYCL—as well as from

the Manhattan Bridge (S/NR). The analysis of historic resources will be undertaken in consultation with the New York State Historic Preservation Office (SHPO) and the New York City Landmarks Preservation Commission (LPC) and will be prepared in accordance with Section 106 of the National Historic Preservation Act of 1966 and coordinated through the NEPA process.

SHPO has also identified the South Street Seaport Historic District as a significant archaeological resource, with the potential to contain archaeological resources relating to historic landfilling activities. Because the Proposed Action would involve subsurface disturbance, including the construction of new standing structures as well as new piers/docks and esplanade cladding, lighting, and landscaping, archaeological sensitivity would be assessed for portions of the project site where subsurface disturbance would occur.

This chapter will assess whether construction of the Proposed Action would be likely to affect any historic architectural or archaeological resources either directly through construction activities or indirectly through alteration of the context or visual environment of the resources.

TASKS

A. Define the Proposed Action's Area of Potential Effect (APE) for archaeological resources. This is the area where in-ground disturbance would occur that could affect archaeological resources.

B. Seek an initial determination from LPC of the APE's potential archaeological sensitivity, and seek concurrence of the determination of sensitivity from SHPO. Based on their review, LPC and SHPO will determine whether further archaeological evaluation is warranted. If documentary study is required for any potentially sensitive areas, a Stage 1A Archaeological Assessment will be prepared for review by SHPO and LPC. The Stage 1A Archaeological Assessment will identify the potential for the APE to contain prehistoric and/or historic-period archaeological resources. It will provide a prehistoric and historic-period context overview in which to assess archaeological resources, a development history of the APE, an in-depth assessment of past disturbance, and the identification of any potential resource types that may be present in the APE and their potential significance.

C. Define the Proposed Action's APE for historic architectural resources. This includes the area in which the Proposed Action may directly or indirectly cause alterations in the character or use of historic resources. Identify and describe any designated historic architectural resources, including historic districts, within the APE. Historic resources include any NYCLs, properties pending NYCL designation, S/NR-listed sites and sites determined eligible for listing, and NHLs.

D. Based on site visits to the APE by an architectural historian, survey standing structures in the APE to identify any properties that appear to meet S/NR criteria as set forth in 36 CFR Part 63.

E. Add any properties determined to be S/NR-eligible by SHPO and LPC to the list of historic architectural resources to be assessed for potential project impacts. Prepare a map indicating the location of all designated and potential historic resources within the APE.

F. Assess the effects of planned development projects expected to be built in the future without the Proposed Action.

G. Assess any potential physical, contextual, or visual impacts on historic resources that would result from the Proposed Action.

H. Where appropriate, develop mitigation measures to avoid and/or reduce any adverse effects on historic architectural and archaeological resources in consultation with SHPO and/or LPC.

TASK 3.7: URBAN DESIGN AND VISUAL RESOURCES

ISSUES

Construction of pavilions under the FDR Drive would alter the urban design character of the East River waterfront. The new development would be visible from the immediately surrounding communities, and may also be visible from the Brooklyn Bridge, Manhattan Bridge, river traffic, and the Brooklyn waterfront. Implementation of the Proposed Action would also alter the visual character of a 2-mile stretch of the East River waterfront. While the Proposed Action would be expected to have largely beneficial effects on visual resources, the EIS will assess the degree to which the Proposed Action would affect existing views from local publicly accessible areas. The proposed developments and facilities within the project site will also be assessed in context with the existing urban design characteristics of the surrounding area.

TASKS

A. Following the guidelines of the *CEQR Technical Manual*, qualitatively describe the existing urban design and visual resources of the site of the Proposed Action and study area. The study area will be refined during the analysis but will generally include the area within 400 feet of the site of the Proposed Action, as well as views from the Brooklyn and Manhattan Bridges, the Brooklyn waterfront, and the FDR Drive.

B. Qualitatively describe the changes expected in the urban design and visual character of the study area that are expected in the future without the Proposed Action, based on planned development projects and public improvements.

C. Assess the changes in urban design characteristics and visual resources that are expected to result from the Proposed Action on the project site as well as in the study area and evaluate the significance of the change.

D. If any significant adverse impacts are identified, describe potential mitigation measures.

TASK 3.8: NEIGHBORHOOD CHARACTER

ISSUES

With the decline in waterfront maritime activity in the area that has occurred in the past 40 or more years, the site of the Proposed Action is largely underutilized and/or vacant and contributes little to the character of the area. The Proposed Action seeks to address a number of issues, including the disconnection between the waterfront and inland neighborhoods, the separation created by the above-grade FDR Drive, outmoded structures, and the lack of amenities and open space on the project site. The Proposed Action could affect many of the elements that define neighborhood character, including land use and underlying land use policy, urban design and visual resources, historic resources, and natural features. The basic studies of the Proposed

Action's impacts on these elements as analyzed in their respective technical sections would be brought together and summarized here.

TASKS

A. Based on the other EIS sections, the predominant factors that contribute to defining the character of the neighborhood will be summarized qualitatively.

B. Based on planned development projects, public policy initiatives, and planned public improvements, changes that can be expected in the character of the neighborhood in the future without the Proposed Action will be described qualitatively.

C. The Proposed Action's impact on neighborhood character will be assessed and summarized qualitatively.

D. If any significant adverse impacts to neighborhood character are identified, describe potential mitigation measures.

TASK 3.9: NATURAL RESOURCES

ISSUES

This section will assess the degree to which natural resources of the East River and upland areas could be affected during project construction and operation. The Proposed Action includes a number of activities that have the potential for impacts to the aquatic environment. These include repair, rehabilitation, or replacement of piers, bulkheads, or relieving platforms; construction of additional over-water structures; construction of docks and walkways; and other activities associated with a boating marina. The Proposed Action also offers various opportunities for enhancing aquatic and terrestrial habitats, for example through providing wider spacing of pier pilings to increase water flow and inhibit sedimentation. The EIS analyses will be prepared with extant data and coordinated with relevant regulatory agencies.

TASKS

Water/Sediment Quality

A. Summarize relevant information on existing water quality and sediment conditions in the lower East River. Physical characteristics of the East River in the vicinity of the Proposed Action, such as water quality characteristics (dissolved oxygen, water temperature, salinity, turbidity, light penetration, fecal coliform concentration, etc.) will be described based on existing information such as the New York City Department of Environmental Protection (DEP) New York Harbor Water Quality Survey, United States Environmental Protection Agency (EPA) Storet Water quality database, water quality data compiled by the ACOE as part of the Harbor Navigation Improvement projects and Dredge Material Management Plan, water quality data compiled by DEP as part of the CSP Abatement Program, and water quality information compiled as part of the Harbor Estuary Program (HEP). Bottom substrate conditions and sediment quality characteristics will also be described based on existing information, such as sediment sampling conducted as part of the EPA's Regional Environmental Monitoring and Assessment Program (R-EMAP), and results of sediment sampling conducted for historical studies, such as East River Landing, and more recent projects within the vicinity of the study area for the Proposed Action, such as sampling

conducted at Pier 6 for the Second Avenue Subway EIS, and the hydrographic study of the area performed by HDR/LMS in 2004.

B. Provide an assessment of the future conditions for water and sediment quality within the study area without the Proposed Action. This will consider effects on water quality and sedimentation rates of in-water activities that may occur independently of the Proposed Action. This evaluation will be based on the detailed description of the existing conditions and continued improvements to water quality, sediment quality, and habitat quality that would result from ongoing programs being conducted by the City, such as the CSO Abatement Program, Shoreline Survey Program, and Floatables Program, continued infrastructure improvements such as improvements to existing sewage treatment plants and construction of additional plants, improved stormwater management, water quality improvement measures identified by the IEC, and implementation of water quality and habitat improvement measures identified by HEP and the Hudson-Raritan Estuary Ecosystem Restoration project, and potential effects of other projects planned within the New York City metropolitan region.

C. Assess the potential effects of the Proposed Action on water and sediment quality within the project area. The assessment will consider potential water quality effects from project construction and operation and stormwater runoff from the Proposed Action. Effects of temporary increases in resuspended materials, potential releases of contaminants from disturbed sediments, and changes in turbidity will be evaluated.

D. Describe any changes in hydrodynamics or sedimentation rates that may result from marine construction activities. Incorporate the results and conclusions obtained from any previously conducted hydrodynamic and/or sedimentation modeling studies.

E. If any significant adverse impacts are identified, work with the project team to develop mitigation measures to minimize potential effects to water quality.

Biological Resources

F. Conduct a literature review and site visit to describe the existing terrestrial and aquatic resources at the site of the Proposed Action. Existing information on the East River's aquatic community prepared by the U.S. Fish and Wildlife Service (USFWS), DEC, DEP, and other published and grey literature sources will be used. Some of these sources include power plant licensing studies done in the lower East River, results of benthic studies done near Pier 6 for the Second Avenue Subway EIS, aquatic sampling programs for DEP, and historic data collected for such studies as the East River Landing and South Street Seaport projects.

G. Describe the existing condition of the East River phytoplankton and other primary producers, zooplankton, and benthic communities.

H. Assess the importance of this region of the East River for supporting resident and marine fish populations, as well as its role as a migratory route for other fish species.

I. Prepare an Essential Fish Habitat (EFH) evaluation, which will be included as an appendix in the DEIS but may also be relied on for permitting purposes.

J. Contact the New York State Natural Heritage Program (NYSNHP), the National Marine Fisheries Service (NMFS), and USFWS to determine whether there is a potential for threatened, endangered, or other protected species to occur within or near the project area.

K. Assess the future conditions for natural resources within the project area without the Proposed Action. Assess the extent to which future programs intended to improve water and sediment quality may affect biological resources. Consider effects of upland and in-water activities that may be planned in the future without the Proposed Action on terrestrial and aquatic resources.

L. Assess the potential effects of the Proposed Action on terrestrial and aquatic biota and habitats within the project area. The Proposed Action offers the potential for habitat enhancement resulting from open space landscaping and in-water improvements, e.g., pile spacing. Issues to be addressed with respect to aquatic organisms and habitats include:

- Potential loss of bottom habitat during construction.
- Potential loss of fish breeding, nursery or feeding habitat.
- Potential impacts to EFH as identified by NMFS.
- Potential loss of benthic organisms as a result of bulkhead repair or replacement, removal or replacement of piles, or driving of additional piles.
- Potential effects to aquatic organisms associated with increased turbidity, reduced dissolved oxygen, and decreased light penetration caused by construction or operational activities.
- Potential effects to natural resources from the resuspension of sediment contaminants during in-water construction and operational activities.
- Potential effects to natural resources from the deposition of contaminated sediment that might occur upriver and downriver of the project site due to sediment transport.
- Potential effects from the discharge of stormwater runoff from the project.
- Potential shading effects to aquatic organisms caused by new or modified in-water and over-water structures.

M. Development of Habitat Enhancement and Mitigation Strategies. The EIS will explore the addition of habitat enhancement features, which may include enhancing aquatic and upland habitat. Mitigation strategies would be developed in the event that any significant adverse impacts to natural resources are identified from the Proposed Action. Mitigation for aquatic impacts may involve measures such as removing additional areas of decking, creating or maintaining pile fields or open water habitat, or other methods to add shelter or structure to existing habitat. Mitigation measures such as the use of native plants in landscaped areas to provide possible nesting or feeding habitat for songbirds and feeding habitat for butterflies will be investigated should significant adverse impacts to terrestrial habitat from the Proposed Action be identified. Specific concepts for mitigation will be provided as appropriate.

TASK 3.10: HAZARDOUS MATERIALS

ISSUES

The Proposed Action is expected to require subsurface disturbance and some excavation along the length of the project site, including areas east of and under the FDR Drive and in the area inland from the BMB. Also the New Market Building would be demolished, and some

additional structures may be renovated. The hazardous materials assessment will include a discussion of current environmental conditions on the site of the Proposed Action and will examine how the Proposed Action would affect these conditions. The discussion of current environmental conditions will rely on information provided in a Phase I Environmental Site Assessment (ESA) that will be prepared for the site of the Proposed Action.

TASKS

A. The scope of the Phase I ESA will be consistent with current industry standards, including ASTM E1527-00 (though search radii for off-site properties will likely be modified given the extent of the study area and its waterfront location), and will include the following: a review of available records and historical maps to determine previous on-site and adjacent land uses, a detailed site reconnaissance and general characterization from public rights-of-way, evaluation of regulatory compliance, and a determination of the need for further investigations to identify and quantify potential contamination and related liabilities. Areas of the project site that are not accessible for inspection would be cited as limitations in the Phase I ESA. To the extent that the results of existing soil and groundwater testing can be obtained from NYCDOT or other property owners in the area, this information will be incorporated into the Phase I ESA.

B. The Phase I ESA will identify properties where subsurface testing is required to determine the need for or scope of remedial measures (e.g., relating to underground petroleum tanks or special handling of excavated soils).

C. The Phase I ESA will be summarized for inclusion in the EIS. If warranted based on the results of the Phase I ESA, a Phase II investigation, any necessary remediation of hazardous materials identified as a result of either the Phase I ESA or Phase II investigation, and a worker health and safety plan will be developed and described.

TASK 3.11: WATERFRONT REVITALIZATION PROGRAM

ISSUES

The Proposed Action is located within New York State and City's Coastal Zone, and therefore must be assessed for consistency with the New York City's Local Waterfront Revitalization Program (WRP). A revised WRP consisting of 10 policies was approved by the New York State Department of State in August 2002. These policies are used as the basis for evaluation of discretionary actions within the City's designated Coastal Zone. The analysis will examine and describe the consistency or inconsistency of the Proposed Action with each of the 10 policies. As described below, potential floodplain impacts will be analyzed as a separate task.

TASK

Review the WRP waterfront policies and assess, where applicable, the general consistency of the Proposed Action with the policies.

TASK 3.12: FLOODPLAIN

The Proposed Action will be assessed for compliance with Executive Order (EO) 11988-Floodplain Management and 24 CFR Part 55. EO 11988 requires federal agencies to avoid, to the extent possible, the long- and short-term adverse impacts associated with the occupancy and

modification of floodplains. EO 11988 further requires federal agencies to avoid direct and indirect support of floodplain development wherever there is a practicable alternative. Regulations provided in 24 CFR Part 55 provide a consistent means for implementing the agency's interpretation of the executive order in the project approval decision-making process. The analysis will include: relevant maps defining floodplain/floodway boundaries within the project area; reports and studies documenting the scope of the project and surrounding areas as it relates to direct, indirect, and cumulative impacts; and documentation of all programs and plans, and coordination with other agencies.

TASK 3.13: INFRASTRUCTURE, SOLID WASTE, AND ENERGY

ISSUES

This chapter will describe the utilities and services available in the area of the Proposed Action, including water supply, sewage treatment and stormwater runoff, solid waste collection and disposal, and energy. Since the Proposed Action would require potable water, solid waste handling services, sanitary and stormwater disposal, and energy, the EIS will describe these needs and assess the potential effect on their supply and distribution. Where significant adverse impacts are identified, potential mitigation measures will be described.

TASKS

Water Supply

A. The existing water supply system and current usage will be described, and any planned changes to the system will be discussed.

B. Likely future trends in water supply will be assessed. The effects of the incremental demand on the system will be assessed to determine if there is sufficient capacity to maintain adequate supply and pressure. Any relevant water conservation programs being implemented will be described.

C. Based on the development concepts and any available information on construction phasing, average and peak water demand under the Proposed Action will be assessed, and whether the effects of this incremental increase on demand for the system would strain the existing system or alter existing flow patterns will be determined.

Sewage

D. The existing sewer system serving the area of the Proposed Action will be described based on information obtained from DEP. The flows to the appropriate water pollution control plant (WPCP) will be obtained for the latest 12-month period. The average dry weather monthly flow will be presented.

E. The projected annual average monthly flow for the future No Action condition will be presented.

F. Sanitary sewage generation for the Proposed Action will be estimated and the effects of the incremental demand will be assessed to determine if any significant adverse impacts on the system and WPCP operations would occur.

Stormwater

G. The existing stormwater drainage system for both areas that flow into DEP's sewerage and for areas that drain directly into the East River will be described. The location and operation of existing Combine Sewage Overflows (CSO) will be identified.

H. The quality of the stormwater will be described using typical New York City runoff data from DEP.

I. Any changes that are likely to occur to the stormwater system in the future without the Proposed Action will be described.

J. Any likely changes in the stormwater system associated with the Proposed Action and any consequential changes in the volume and/or quality of stormwater will be described.

K. The potential impacts to water quality in the East River will be assessed.

Solid Waste

L. Existing and future New York City solid waste disposal practices will be described, including the collection system and status of recycling and other disposal methods. Current estimates of solid waste generation in the planning area will be assessed, and any changes in solid waste collection and management that may be expected in the future will be described.

M. Solid waste generation under the Proposed Action will be described and the impacts of the Proposed Action's solid waste generation on the City's collection needs and disposal capacity will be assessed.

Energy

N. The Consolidated Edison systems that would supply the project with electricity, natural gas, and steam will be described. Information on the capacity and existing demand of the entire system and of the distribution networks in the area of the Proposed Action will also be included.

O. Any projected changes in the demand for electricity, natural gas, and steam in the Build year will be assessed, and their effect on the supply systems will be described.

P. The energy usage for the Proposed Action will be estimated, including annual average and peak hourly use of electricity, natural gas, and steam. The analysis will take into account the energy conservation provisions of ASHRAE 90-75. The effect of this new demand on the energy supply systems will be assessed.

TASK 3.14: TRAFFIC AND TRANSPORTATION

ISSUES

The Proposed Action would extend from Whitehall Ferry Terminal to the southern end of East River Park, providing passive and active waterfront space along with a limited amount of neighborhood cultural, recreational, and retail facilities under the FDR Drive. It will serve nearby neighborhoods, create a bikeway and walkway along its length, provide linkage to the existing pier uses, and support the area's existing residential and commercial uses.

South Street is proposed to be narrowed along the full length of the Proposed Action. To provide an at-grade plaza in front of the BMB, the Battery Park Underpass connecting West

Street with the FDR Drive would be extended to just north of Broad Street. In addition to the South Street and BMB Plaza improvements that are part of the Proposed Action, planned roadway infrastructure changes proposed as an independent project for Peck, Catherine, Rutgers and Montgomery Slips will also be assessed in the EIS as part of the No Build condition. Other relevant background projects and improvements will also be accounted for in the No Build condition of the EIS. If the changes to area roadways proposed as part of the Proposed Action are expected to result in changes to traffic circulation patterns, they will be accounted for in the EIS and mitigation for any significant adverse impacts identified as a result of such changes will be proposed.

TASKS

Based on the description above, the transportation assessment will evaluate the potential changes in travel resulting from the Proposed Action. It will include a description of existing conditions, projection of conditions in the future without the Proposed Action, projection of future conditions with the Proposed Action, identification of any potential significant adverse impacts, and recommendation of feasible mitigation measures to address such impacts. The specific tasks to be undertaken are as follows:

A. Project travel demand. Trip generation estimates will be developed using standard references and information presented in approved studies. It is expected that the Hudson River Park FEIS would serve as the primary source of reference. However, as stated above, since the Proposed Action would embrace the concept of providing waterfront connection to the surrounding communities, rather than developing a regional attraction, the future trips associated with the Proposed Action are expected to originate from the adjacent neighborhoods or link to existing activities at the piers and other nearby public uses. Therefore, while a substantial amount of pedestrian traffic is expected to be attracted to the revitalized East River waterfront, a notable increase in vehicular traffic is not anticipated. The time periods during which most activity would occur are expected to be the weekday midday and evening time periods, as well as the Saturday early afternoon hours. Information from the East River Waterfront Development Study prepared in 2003/2004 will also be used to augment the trip generation estimates and to provide projections on future No Build projects.

B. Assess traffic conditions. It is expected that the travel demand projections will show that the level of vehicular traffic generated would not exceed CEQR thresholds for a quantified traffic impact study, since, as described above, most trips are expected to be local. However, the proposed reconfiguration in the vicinity of the BMB will require an evaluation of traffic operations in the area to address the associated access and circulation issues. Material from the traffic analysis prepared as part of the East River Waterfront Development Study will be considered, and additional data will be collected and projections will made to address potential traffic diversions. The proposed narrowing of South Street and changes to adjacent vehicle parking/storage will also be analyzed. Using projections from the East River Waterfront Development Study and those made from other recently approved studies, such as the WTC Memorial and Redevelopment Plan FGEIS and the Fulton Street Transit Center FEIS, future no action traffic levels will be projected. Conditions with the proposed modifications will be developed based on anticipated circulation pattern changes. The assessment of potential traffic impacts will be conducted in accordance with *CEQR Technical Manual* guidelines. The assessment will include the detailed analysis of up to 15 intersections during the weekday AM and PM peak periods.

C. Assess parking conditions. The Proposed Action is not expected to generate a perceptible demand on the legal public parking supply in the area. However, since parking regulations and supply would be affected by the planned reconfiguration of South Street, an inventory of existing parking supply and utilization within the project limits will be conducted to gather the information necessary for assessing the potential changes in parking conditions along the waterfront under the proposed plan. The displacement of bus parking from the areas along South Street and under the FDR between Old Slip and Burling Slip will also be analyzed.

D. Assess transit conditions. Similar to the conclusions made with respect to vehicular trip generation, the Proposed Action is not expected to generate a substantial number of new transit trips to the area. It is, therefore, assumed that CEQR thresholds would also not be exceeded for a quantified transit study. A qualitative assessment of how the roadway changes may potentially affect transit service in the area, if any, will be provided.

E. Assess pedestrian conditions. Likely changes in pedestrian levels and circulation patterns anticipated from the Proposed Action will be analyzed. During the peak activity periods of weekday midday and evening hours, as well as the Saturday midday hours, an assessment of key pedestrian routes to/from the waterfront will be conducted. Up to 15 intersections and their connecting sidewalks will be analyzed for the above peak time periods. The AM and PM peak period volumes presented in the East River Waterfront Development Study will be reviewed and used, when appropriate, for analysis.

TASK 3.15: AIR QUALITY

ISSUES AND TASKS

Because the Proposed Action is designed to serve adjacent communities, is a linear open space with many entry points, and does not provide any parking, it is not expected to add 100 or more vehicle trips to any given intersection in the peak hour (the *CEQR Technical Manual* screening threshold), and analysis of potential air quality impacts from motor vehicle trips generated by the project is not warranted.

A screening analysis will be performed to determine whether emissions from any on-site fuel-fired HVAC equipment (for example, boilers or hot water heaters) would be likely to result in significant adverse impacts. The screening analysis will use the procedures outlined in the *CEQR Technical Manual*. The procedure involves determining the distance (from the exhaust point) within which potential significant impacts may occur on elevated receptors (such as open windows, air intake vents, etc.) that are of an equal or greater height when compared to the height of the proposed project's HVAC exhaust. The distance within which a significant adverse impact may occur is dependent on a number of factors, including the height of the discharge, type(s) of fuel burned and development size. If any significant adverse impacts are identified, potential mitigation measures will be described.

TASK 3.16: NOISE

ISSUES

Noise can be an issue if a Proposed Action adds noise sources in the community or if ambient noise levels are inappropriately high for the use proposed. Existing noise levels in the area immediately adjacent to the Proposed Action are relatively high and reflect the level of activity (particularly vehicular activity) in the area. Autos, taxis, and trucks, together with noise

generated by aircraft flyovers, mechanical equipment, and people going about their normal business, all contribute to the total ambient noise levels. The noise analysis to be performed will address federal, DEC and CEQR noise criteria, and will consider three issues:

- First, would the traffic generated by the Proposed Action, or changes in circulation, result in significant community noise impacts;
- Second, would proposed waterfront uses result in significant noise impacts on waterfront users; and
- Third, what level of building attenuation would be necessary to satisfy regulatory requirements.

With regard to community noise impacts, existing and future noise levels, both with and without the Proposed Action, will be examined to determine conformance with HUD regulations. CEQR impact criteria will also be referenced. In terms of the effects of the Proposed Action on community noise levels, CEQR noise criteria considers a 3 to 5 dBA increase in noise a significant impact. To achieve a 3 dBA increase in noise level from traffic, there would have to be approximately a doubling of traffic (or a significant increase in the number of trucks). In this area, it is unlikely that a significant noise impact would occur except possibly on lightly trafficked streets where the Proposed Action results in significant changes in traffic.

With regard to impacts on waterfront users, the *CEQR Technical Manual* has a 55 dBA L_{10} noise level requirement for such areas. Based on experience with other parks in New York City, most parks do not satisfy the CEQR criterion except for parks situated far away from roadways. When the 55 dBA L_{10} noise requirement is exceeded, this is considered to be a significant adverse noise impact to be disclosed and an examination of feasible/practical mitigation is required.

With regard to building attenuation, the *CEQR Technical Manual* criteria require that certain new or reconditioned buildings have sufficient acoustical treatment to provide interior noise levels that do not exceed 45 dBA L_{10}. In addition, HUD regulations discourage construction of noise-sensitive uses without suitable noise mitigation measures in areas of high ambient noise levels. Generally, this can be accomplished using standard building construction with double glazed windows and air conditioning.

TASKS

1. Select appropriate noise descriptors. Appropriate noise descriptors to describe the noise environment and the impact of the Proposed Action would be selected. The L_{10}, and $L_{eq(1)}$ levels will be examined.
2. Select receptor locations for detailed analysis. These sites would include sensitive locations or representative locations in the study area. A maximum of 10 receptor sites will be selected. Receptor sites will be selected on each of the streets adjacent to the site of the Proposed Action, at nearby sensitive receptor locations, along major feeder streets to and from the project area, and at the project site itself.
3. Determine existing noise levels. Existing noise levels will be determined primarily by field measurements. Measurements will be made during three time periods: weekday midday, weekday evening peak, and Saturday midday. Measurements will be made using a Type I noise analyzer and include measurements of L_{eq}, L_1, L_{10}, L_{50}, and L_{90} noise levels. Measurements will screen out aircraft flyovers, sirens, and other atypical street noise. Where

necessary, measurements will be supplemented by mathematical model results to determine an appropriate base of existing noise levels.

4. Determine future noise levels without the Proposed Action for the future analysis year. At selected receptor locations, noise levels without the Proposed Action will be determined using existing noise levels and modeling techniques.
5. Determine future noise levels with the Proposed Action for the future analysis year. At selected receptor locations, noise levels with the Proposed Action for the analysis years will be determined using existing noise levels and modeling techniques.
6. Compare noise levels with standards, guidelines, and other criteria, and perform impact evaluation. Existing noise levels and future noise levels with and without the Proposed Action will be compared with various federal, State, and City standards, guidelines, and other criteria, including *CEQR Technical Manual* and HUD noise impact criteria, and New York City CEPO CEQR Noise Standards. In addition, future noise levels with the Proposed Action will be compared with future noise levels without the Proposed Action to determine project impacts.
7. Examine mitigation measures. If any significant adverse noise impacts are identified, recommendations of measures to attain acceptable interior noise levels and to reduce noise impacts to within acceptable levels will be proposed.

TASK 3.17: CONSTRUCTION IMPACTS

ISSUES

The EIS will analyze the potential impacts associated with the construction of the Proposed Action. Construction of the Proposed Action may also overlap with construction of other (generally larger-scale) nearby projects—including the improvements to the South Ferry subway station, the Fulton Street Transit Center, the WTC Memorial and Redevelopment Plan, the permanent WTC PATH Terminal, NYCDOT's Street Reconstruction Program, and the potential redevelopment and revitalization of the Fulton Street corridor. The intensity and duration of project-related construction activities, as well as the degree of overlap with these other projects, will determine whether quantified and cumulative construction impact analyses are required.

In addition, the EIS will analyze the construction impacts associated with the relocation of the eastern portal of the Battery Park Underpass (connecting the FDR Drive to West Street) approximately 350 feet north of its current location under the Proposed Action. Construction of the new tunnel segment would be performed according to the strict engine, fuel, and operational specifications aimed at minimizing emissions during construction that are applicable to all Lower Manhattan reconstruction projects. Since the construction of the new tunnel segment is expected to be limited in scope and duration and is not located immediately adjacent to any other construction projects, no special analysis is warranted. The current ventilation system for the tunnel will be investigated to determine whether it would be adequate to handle emissions in the proposed new segment, and if not, mitigation to address any significant adverse impacts on air quality would be proposed.

TASKS

A. Develop a schedule showing phasing of the various elements of the Proposed Action along the project corridor. Compare with updated schedules for other nearby projects such as those mentioned above to determine the degree of overlap.

B. Develop estimates of construction activities for each of the Proposed Action's project elements, including duration, intensity, identification of on-site construction equipment, and quantification of associated truck trips.

C. For each environmental area analyzed in the DEIS, determine whether quantified analysis of construction impacts is warranted, based on the expected duration and intensity of the construction period, as well as the potential for cumulative impacts with nearby projects.

D. For areas not requiring quantitative analysis, prepare a qualitative description of construction period impacts.

E. As appropriate, discuss potential measures to minimize construction period effects and mitigate any significant adverse construction impacts identified.

TASK 3.18: ENVIRONMENTAL JUSTICE

Executive Order 12898, "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations," is designed to ensure that each federal agency "shall make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations."

An analysis of environmental justice will be prepared following appropriate guidance documents. The analysis will incorporate the results of the analyses of other impact areas, and will specifically consider how any negative environmental impacts might affect low-income and minority populations. Using information from the 2000 U.S. Census of Population and Housing, low-income and minority populations will be identified and specific impacts on those populations assessed. This will involve compiling data on race, ethnicity, and income from the 2000 U.S. Census of Population and Housing for the populations that could be affected by the project (those within approximately ½ mile of the project site, depending on how other study areas are defined) to identify low-income and minority communities. The environmental impacts identified in other analysis areas will then be evaluated to determine whether any significant adverse impacts might disproportionately affect low-income and minority residents. The benefits of the Proposed Action to surrounding communities will also be accounted for. If disproportionate impacts are identified, mitigation measures and enhancement measures for the affected populations will be considered and described.

TASK 3.19: ALTERNATIVES

In developing the Proposed Action, a variety of alternatives were examined and subsequently rejected. They include an alternative with residential buildings built over the FDR Drive south of the Brooklyn Bridge; an alternative in which the elevated FDR Drive structure south of the Brooklyn Bridge would be deconstructed and the FDR Drive would be brought to grade; a stepped-ramp alternative to remove pedestrian vehicular conflicts near the BMB and the existing south end of the waterfront esplanade; and an alternative with additional in-water changes to piers in the area south of Pier 15. These will be described in the Project Description and

considered in the EIS to the extent relevant. A Partial Stepped-Ramp Alternative (a modified version of the stepped-ramp design described above), which was also developed and considered in the planning process, will be considered in more depth. The DEIS may also consider an alternative without the BMB plaza, an alternative without the creation of a beach at Pier 42, an alternative that assumes neither of these elements, and an alternative with less over-water coverage than the Proposed Action. NEPA, as well as SEQRA and CEQR, requires the consideration of alternatives that reduce or eliminate adverse project impacts, and alternatives that reduce any significant adverse impacts identified in the other study areas will be considered. The EIS will also evaluate a No Action Alternative. The alternatives analysis is qualitative, although where significant adverse impacts are identified the alternatives may be assessed quantitatively.

TASK 3.20: MITIGATION

Where significant adverse project impacts have been identified in the analyses discussed above, measures to mitigate those impacts will be identified and described. Mitigation options will generally be presented in concept and analyzed qualitatively**.** Where impacts cannot be mitigated, they will be described as unavoidable significant adverse impacts. ✷