A. PROJECT IDENTIFICATION

Governors Island Corporation, doing business as The Trust for Governors Island (The Trust), is a not-for-profit corporation and instrumentality of the City of New York. The Trust holds title to 150 acres of the 172 acres of Governors Island (the Island) located in New York Harbor (see **Figure S-1**). The Island is approximately 800 yards south of Manhattan and 400 yards west of Brooklyn. The northern part of the Island (North Island) consists of the approximately 92-acre area north of Division Road and is designated as both a National Historic Landmark District and a New York City Historic District. This area includes the National Monument, a 22-acre area administered by the National Park Service (NPS). The portion of the Island south of Division Road (South Island) largely consists of 1960s and 1970s non-historic development on land created from material from the excavation of the Lexington Avenue subway line. The Proposed Project consists of the creation of parks and open spaces pursuant to the Park and Public Space Master Plan, reuse of historic buildings, two areas of mixed-use development, and modernization and upgrade of certain infrastructure.

To create the vibrant, mixed-use destination that is envisioned for the Island, The Trust has undertaken a public planning effort that resulted in a plan which would be implemented over a number of years, with development and tenancy of the Island proceeding in multiple phases and dependent on financing. This redevelopment of the Island is a complex process and not all the specifics of future development are known at this time. To further The Trust's goals, a Park and Public Space Master Plan (the Park Master Plan) was developed that establishes the fundamental concepts for the design of the Island's parks and public spaces. The Park Master Plan also sets aside two areas for future mixed-use development.

The initial phase (Phase 1) would be park and open space development that is presently funded and includes the improvement of existing space and the creation of new, publicly accessible spaces on the Island. Also included in Phase 1 are upgrades and stabilization of the existing infrastructure to support the phased redevelopment of Governors Island, specifically: (1) the replacement and repair of the seawall with the consolidation and upgrade of stormwater outfalls, and (2) the provision of new potable water connection(s) under Buttermilk Channel. Phase 1 would be completed in 2013. The later phases include additional open space projects identified in the Park Master Plan but not presently funded, as well as mixed-use development on the Island. Completion of the later phases park and open space, tenancies in historic buildings, and new development would occur over time in later phases (Later Phases) as plans are developed and funding is secured. For analysis purposes the full project is assumed to be complete in 2030. Several scenarios have been identified that could represent a reasonable range of new development that could occur in conformance with the Island's current land use and historic resource covenants contained in the transfer deed from the federal government.

The initial discretionary action by the City is the approval of capital funding to begin construction of Phase 1 of the Park Master Plan and to invest in basic Island infrastructure. This

10.18.11

0 2000 FEET

SCALE

Project Area

Governors Island National Monument (not part of the project site)

PROPOSED PHASED REDEVELOPMENT OF
GOVERNORS ISLAND

Project Location
Figure S-1

funding is a discretionary action subject to City Environmental Quality Review (CEQR). In addition, New York State Department of Environmental Conservation (NYSDEC) permits and a nationwide or other permit from the United Stated Army Corps of Engineers (USACE) will be required for in-water work associated with the Phase 1 infrastructure improvements. Discretionary actions for the mixed-use development in the later phases are expected to include changes to zoning, special permits, modifications, and/or authorizations from the City Planning Commission (CPC); NYSDEC and/or New York City Department of Environmental Protection (NYCDEP) permits or approvals; as well as approval of capital funding for the completion of the park and open space. Subsequent discretionary actions will require further environmental review, the extent of which will be determined at that time.

This Generic Environmental Impact Statement (GEIS) has been prepared pursuant to CEQR and New York State Environmental Quality Review Act (SEQRA). The Office of the Deputy Mayor for Economic Development (ODMED) in the Office of the Mayor is the lead agency for the preparation of this GEIS, with The Trust as the applicant.

B. HISTORY

Having been used by the military for about 200 years, Governors Island was most recently occupied by the United States Coast Guard as a base for nearly 30 years beginning in 1966. The Coast Guard announced its plan to close its facilities on the Island in 1995, and by 1996 all residents of the base had been relocated. In 1997 the Coast Guard moved its operations from the Island and transferred responsibility for its operation to the General Services Administration, ending the era of military occupation for protection of the New York Harbor.

What remained was a 172-acre island, steeped in history and located in a magnificent setting. Over the next decade, consideration for the Island's future and its use excited strong public debate. The two forts, Fort Jay and Castle Williams, were declared a 22-acre National Monument. The National Monument and the surrounding 70-acre campus of residential and institutional buildings dating from 1802 to 1940 and located north of Division Road are included in a coterminous National Historic Landmark District that is also a New York City Historic District and listed on the State and National Registers of Historic Places.

The South Island, approximately 80 acres south of Division Road, was created between 1901 and 1912 from material from the excavation of the Lexington Avenue subway line. The buildings in this part of the Island were constructed between the 1960s and the 1980s and included residential buildings, a school, a cafeteria, a bowling alley, a store, and a firehouse. With the exception of the buildings that The Trust uses as maintenance and operations facilities, some small buildings housing electrical equipment and the mothballed firehouse, which is used by FDNY to stage equipment and supplies, all buildings on the South Island are vacant, have been demolished, or will be demolished as funding becomes available.[1].

In January 2003, the federal government transferred the national monument to the National Park Service and the remaining 150 acres of the Island to the Governors Island Preservation and Education Corporation (GIPEC), which had been established in 2002 as a subsidiary of the Empire State Development Corporation (ESDC). In the transfer, the federal government

[1] In 2008 an Environmental Assessment Form was prepared and a Negative Declaration was issued for GIPEC's Enhanced Public Access Program, which included, among other things, demolition of the South Island buildings.

established a number of land use and historic preservation covenants and directed GIPEC to develop and adopt a Master Plan for the preservation, redevelopment, and use of Governors Island. The development and adoption of this Master Plan is further described below. In April 2010, Mayor Bloomberg and Governor Paterson agreed that the primary responsibility for the long-term development, funding and governance of Governors Island should reside with New York City; as of July 2010 that responsibility was transferred to the City and is now under the direction of The Trust.

The Trust, the successor entity to GIPEC, is a New York State not-for-profit corporation created by the City of New York that is responsible for the planning, redevelopment, and ongoing operations of 150 acres of Governors Island. The Trust's mission is to bring Governors Island back to life, making this island at the center of New York Harbor a destination with great public open space, as well as educational, not-for-profit and commercial facilities. With expanded visitation and unique public programs, investment in infrastructure and stabilization and planning and construction of an ambitious park and public space plan, The Trust is making progress to ensure that Governors Island is a resource for the people of the City of New York today and for the future.

C. PURPOSE AND NEED

The purpose of the Proposed Project is to bring Governors Island to life for the people of the City and State of New York. The creation of great new public open space would not only be an important public resource of its own, but would also make the Island more attractive for future development. The later phases of mixed-use development (reuse of existing buildings and new buildings) would fulfill The Trust's mission while both ensuring the Island's financial viability and meeting the requirements set forth in the transfer deed from the federal government.

Working in consultation with civic leaders and public officials, The Trust has articulated a multi-pronged strategy to bring Governors Island back to life. The four strategic objectives are:

- Expanded public access and signature early uses;
- Early creation of a new world-class park and public spaces;
- Public investment to stabilize the Island's historic resources and infrastructure; and
- Public and private mixed-use development, through a multi-year, multi-phase process.

The ultimate goal of the Proposed Project, as specified in the transfer deed, is to "…ensure the protection and preservation of the natural, cultural, and historic qualities of Governors Island, guarantee public access to this magnificent island, promote the quality of public education, and enhance the ability of the public to enjoy Governors Island and the surrounding waterways, thereby increasing the quality of life in the surrounding community, the City, the State, and the United States."

The redevelopment of Governors Island would also contribute to New York City's larger waterfront and Harbor District planning initiatives. The Proposed Project would complement other waterfront revitalization projects within the harbor area, including the East River Waterfront Esplanade and Piers, Brooklyn Bridge Park, and the redevelopment of Piers 7–12 in Brooklyn.

D. PROJECT SITE

The project site comprises the 150 acres belonging to The Trust as well as the marine slips at the Battery Maritime Building (BMB) operated but not owned by, The Trust. The Trust parcel includes all of the South Island as well as the portion of the North Island that is not owned by the National Park Service (see **Figure S-2**). Ferry service to the BMB in Lower Manhattan is provided from Soissons Dock and to Pier 6 in Brooklyn Bridge Park from Pier 101 or Yankee Pier. Infrastructure work related to the construction of the proposed new water mains to the island would occur at Sackett Street, Union Street, President Street, and Sullivan Street in Brooklyn and would be limited to trenching, pipe installation, and connection to the existing water system.

E. MASTER PLAN DEVELOPMENT

The federal deed transferring 150 acres to GIPEC stipulated requirements for public access, public space, and educational and cultural uses, and restricted other future uses, particularly residential use (except as otherwise permitted in the deed, such as student and faculty housing, which are considered educational uses), industrial use, and gambling. The most significant requirements are that at least 40 acres of the Island be developed as public open space and that 20 acres must be set aside for educational uses. GIPEC opened the Island to the public for the first time in 2003.

Immediately after taking control of the Island, GIPEC initiated a pre-planning effort as a first step in identifying appropriate future uses. This process, which included a broad outreach to civic groups, the public, agencies, and potential developers and tenants, developed project objectives and produced a development framework. The results of the pre-planning were incorporated into the Governors Island Land Use Improvement and Civic Project General Project Plan (GPP), which both the GIPEC and ESDC boards adopted in January 2006.

Once the GPP was adopted, GIPEC issued a Development Request for Proposals (RFP) for whole-island and component proposals in accordance with the GPP development principles. Although several developers and tenants from both commercial and not-for-profit sectors responded, no major proposals could be selected. The plans submitted either were vague, not financially viable, based on questionable market assumptions, or contained unrealistic public subsidy expectations. However, the RFP did yield a sound proposal, which became the Urban Assembly New York Harbor School, a New York City public high school which began operation in June of 2010 in the existing Building 550 located at the western end of Liggett Hall and within the Historic District.

Following the RFP process, GIPEC focused on planning for the expansion of public access, particularly by providing a major park and public spaces as a first step in a phased mixed-use development strategy and issued a Request for Qualifications in 2006. In 2007, GIPEC selected five teams to participate in a competition for the future public open space and park design. GIPEC selected a team of landscape architects and engineers, headed by West 8, to create a park and public space master plan. As noted above, in July 2010 the responsibility for 150 acres of the Island was transferred to the City under the direction of The Trust.

Since 2004, more of the Island has progressively been opened to the public, a greater variety of programming has been added, more frequent ferry service has been provided, and the hours of operation for the public spaces has been increased. In 2004, GIPEC opened a portion of the Historic District to the public and received 5,000 visitors. By 2007, the entire Historic District

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North Island (Coterminous Historic Districts)

South Island

Owned by the National Park Service

0 500 1000 FEET

SCALE

PROPOSED PHASED REDEVELOPMENT OF
GOVERNORS ISLAND

Existing Site Plan
Figure S-2

and a 1-mile loop (for bicycles and pedestrians) were open every Saturday and Sunday in the summer and the number of visitors rose to 55,000. In 2009, the entire 2.2-mile perimeter roadway was open, along with Picnic Point—a new 8-acre open space on the southern tip of the Island—and more than 275,000 people visited the Island. In 2010, more than 443,000 visitors used the Island to picnic, bike, walk, and participate in on-Island cultural and recreational programming. The Trust has made the Island available as a venue for unique and diverse programming including field and lawn sports; boating; concerts; lectures; and cultural, food, and art festivals.

F. DESCRIPTION OF PROPOSED PROJECT

The Proposed Project would allow for the phased redevelopment of the entire project site with park and public space development, infrastructure development, tenancies in historic buildings, and new development. Initial development on the project site would include the development of park and public space, which would follow the principles and renderings stated in the Park Master Plan. In addition to open space, initial development would include two major infrastructure improvements: (1) the construction of 12-inch water main(s) from Brooklyn to provide potable water to the Island, and (2) the replacement and repair of the seawall including the associated reconstruction and consolidation of stormwater outfalls. Later phases would include completion of the park and public space development; the retenanting of the currently vacant North Island historic buildings; and the development of new uses in two separate areas—development zones—on South Island (Later Phases-Island Redevelopment).

DESIGN APPROACH

The design approach to the Park Master Plan rests on an understanding of the Island's inherent attributes and its potential as a resource for the entire region. That understanding arises not only from an analysis of the natural and manmade physical characteristics of the Island and its extraordinary views, but also from an appreciation of how people, who have been able to visit in the warm months since 2003, experience and enjoy Governors Island. The Park Master Plan responds to the following core principles:

- **Transformation through Topography.** Although the North Island has a varied landscape with old trees and rolling topography, the South Island was created by excavation materials from the construction of the Lexington Avenue subway for use as a military base, and is uniformly flat. In particular, the South Island is exposed to intense maritime weather, with stunted trees and empty roads that would not create an interesting or exciting experience for the visitor. The first design principle is to create a true and lasting landscape with a rich array of experiences, views, and settings for trees and plants. Island demolition materials and off-site fill would be used to raise and sculpt the topography of South Island and create certain wetland areas. These changes are also intended to deflect some of the strong prevailing winds, provide a better environment for trees, and address the predicted effects of flooding and climate change so that the proposed park and public spaces would last for generations.
- **An Island Like No Other.** Several aspects of Governors Island make it unique—and these features are respected in the principle "An Island Like No Other." Its setting in the New York Harbor surrounds the Island with "vast water, big sky." From everywhere on the Island are views of the harbor, including the Statue of Liberty, Ellis Island, Lower Manhattan skyline, the East River bridges, Brooklyn, Staten Island, and New Jersey. Based on this, the

design approach is to preserve and enhance these views, from all around the edge of the island and from its interior.

The North Island is protected by its designation as a National Historic Landmark and New York City Historic District, and it contains a National Monument as well. The district's shady, "park-like" setting is very unusual for a city like New York. The design of the Park Master Plan is intended to animate this national treasure by restoring the historic intent of trees and plantings, highlighting the South Battery, and reviving the Parade Ground. The plan would add other amenities, such as seating, promenade railing and lighting, and would knit the North Island together with the Great Promenade. The Island's unique setting and features are planned to be enhanced by the details of design, which propose to reflect elements of the sea and the waters of the Harbor.

- **Carefree Island.** The trip to Governors Island, by boat, allows visitors to leave the big city behind. Visitors to the Island today remark that even an afternoon there feels like a vacation. This spirit is embodied in the principle, "Carefree Island." Keeping the unique quality of the historic district, the Park Master Plan proposes new arrival areas and buildings to welcome visitors, new lawns for sports (both formal and informal), picnicking or performances, areas to sit and relax, and art installations.
- **Sustainable and Feasible Design.** Sustainable principles are essential to the Park and Public Space Master Plan. The Park and Public Space Master Plan calls for new topography shaped around the elevation of the 100-year floodplain projected for the end of this century—to account for projected sea level rise, enrichment of soils, and plantings that focus on native as well as locally adapted species to provide sustainable habitats. Where practicable, the Proposed Project would reuse materials from demolished buildings and parking lots. Replacing acres of impervious surfaces with lawn, plantings and permeable paving would also reduce stormwater runoff and the urban heat island effect. Further, stormwater would be collected and managed on site to minimize runoff into the estuary. The stormwater would also be used for irrigation and to replenish the proposed Wetland Gardens at the South Prow.

  As the Proposed Project advances into detailed design, sustainability principals would focus on recycling, minimizing waste, and sustainability strategies for the specification, construction, operations and maintenance of the public spaces and park buildings.

  Feasibility has been a critical component of the planning and design of the Park and Public Space Master Plan, and it is anticipated to be essential to construction and operation, as well.
- **Ideas from New Yorkers**. Thousands of New Yorkers contributed ideas about what they would like to see in the park and public spaces during the master planning design process. They were asked to imagine a future for an island that had been off-limits to the public during its military use except for just one day a year. They were also asked to propose favorite activities for a new park and public spaces. Taking into account these challenges of history and access, The Trust and the design team sought new ways to encourage New Yorkers to participate in the design process. The goal was to listen and create an engaging public process supported by the Internet.

  The methods included: community meetings; online exhibition of competition proposals; outreach to recreational, civic and cultural groups; email suggestions; on-Island workshops imagining "a day in the park;" surveys of hundreds of Island visitors; a "photo booth" which allowed visitors to "picture yourself" in the new park and public spaces with backdrops of park renderings; visitor portraits posted on Flickr; exhibits in Manhattan and on Governors

Island; and subscriptions to a blog with weekly postings on the design team's progress. More than 1,900 New Yorkers of all ages made suggestions on Post It™ notes with markers and stamps as part of a summer 2008 on-Island exhibit. As a result, New Yorkers can see their ideas in the plan: hammocks for napping, habitat for birds, fields for sports, to name just a few. As the design process moves forward, the public will be invited to continue participating in the process to make the park and public spaces on Governors Island their own.

In addition to planning park and public space based on these five design principles, the Park Master Plan also includes two locations for development in future phases that would help make Governors Island financially self-sustaining.

DESCRIPTION OF PARK AND PUBLIC SPACE MASTER PLAN

The Park and Public Space Master Plan provides for the transformation of 87 acres of the Island (see **Figure S-3**) from an abandoned military base to a vibrant, open space destination for the region. As discussed above in Design Approach, the plan was developed to transform the Island into an attractive public space for the region and to accentuate the Island's inherent attributes—its extraordinary views, its historical landscape, and its unique vantage point on the Harbor.

The Park Master Plan envisions the following thirteen areas: Soissons Landing, Yankee Landing, the Great Promenade, South Battery, Parade Ground, Colonels Row, Nolan Park, Liggett Terrace, Hammock Grove, Play Lawn, The Hills, Liberty Terrace, and South Prow. Each of these is described below.

SOISSONS LANDING

The area upland of Soissons Dock, the arrival point for ferries from Manhattan to the North Island, would be regraded and repaved to enhance accessibility and to create a series of public plazas. The area would also include additional landscaping and orientation signing (see **Figure S-4a**).

YANKEE LANDING

Improvements to Yankee Landing, which is on the east side of the Island, would welcome future tenants and visitors from Brooklyn, Manhattan, and other points using the ferry to Yankee Pier (see **Figure S-4b**). A sheltered but unenclosed ferry waiting area would also be provided at this location.

THE GREAT PROMENADE

The Great Promenade, a 2.2-mile path around the perimeter of the Island, would be designed for walkers, bikers, runners, roller bladers, and limited vehicular traffic (see **Figure S-5**). New paving elements, lighting, way-finding, and guardrails would be consistent along the Promenade, integrating the Island's northern and southern portions. The Promenade would provide unparalleled views of the area around Governors Island, directing views towards the Lower Manhattan skyline, Brooklyn Bridge Park, Staten Island, the Statue of Liberty, Ellis Island, and New Jersey.

The Promenade would have two levels on the western side of the Island and at the southern end. At both of these locations, the lower levels of the Promenade would allow for biking or walking near the water's edge and serve limited vehicular traffic. The upper level on the west side of the

10.18.11

National Monument Boundary (Owned by the National Park Service)

North Island Coterminous Historic Districts

0 400 800 FEET
SCALE

PROPOSED PHASED REDEVELOPMENT OF
GOVERNORS ISLAND

Proposed Site Plan
Figure S-3

Soissons Landing **a**

Yankee Landing **b**

NOTE: FOR ILLUSTRATIVE PURPOSES ONLY

Soissons Landing and Yankee Landing
Figure S-4

Upper Level of Western Promenade **a**

Lower Level of Western Promenade **b**

Eastern Promenade **c**

NOTE: FOR ILLUSTRATIVE PURPOSES ONLY

Great Promenade
Figure S-5

Island would have trees and benches, and would terminate on the viewing roof of the Shell at Liberty Terrace (see Liberty Terrace description below). The upper level on the southern end would provide another resting area with benches and other seating (see South Prow description below).

SOUTH BATTERY

The South Battery, which is located towards the southern portion of the Historic District on the east side of the Island, was built in 1812 as a defense against enemy ships entering Buttermilk Channel. Around the historic fort is a 10,100-square-foot asphalt surface, which would be replaced with lawn, trees, shrubs, and seating areas (see **Figure S-6a**). This would create a new resting place along the Great Promenade, providing seating and amenities in a location that would showcase the historic fort.

PARADE GROUND

The Parade Ground is a 12-acre lawn located between Nolan Park and Colonels Row. This large open space is currently used for concerts, picnics, and recreational activities. This area would be improved to support both active and passive recreation. Towards the southern end of the Parade Ground, the lawn would be regraded and improved with two flat fields that would be large enough to allow soccer and other field sports (see **Figure S-6b**).

COLONELS ROW

Colonels Row includes a line of historic houses that look out toward Liggett Hall onto a flat, triangular open space surrounded by tall trees. This area would have limited improvements to support ongoing uses as a festival grounds and concert venue.

NOLAN PARK

Nolan Park is a four-acre lawn with mature trees, surrounded by wooden houses that date to 1810. This area would be enhanced with selective plantings and resetting and reconstructing existing brick paths to improve accessibility in keeping with historic preservation requirements.

LIGGETT TERRACE

From Colonels Row, visitors would walk through an arch to Liggett Terrace, a four-acre area south of Liggett Hall, the Island's largest building. The existing parking lot and lawn areas would be replaced with a public plaza with flower beds, labyrinthine hedges, fountains, public art, seating areas, concession stands, and children's play areas (see **Figure S-7**).

HAMMOCK GROVE

South of Liggett Terrace would be Hammock Grove (see **Figure S-8**). This area would be regraded to introduce a rolling terrain planted with dense groves of trees with paved paths providing access and circulation.

PLAY LAWN

The 12-acre Play Lawn would be the largest multi-purpose open space on the Island (see **Figure S-9**). This area would have two regulation-sized ballfields for active recreation like Little

South Battery **a**

Parade Ground **b**

NOTE: FOR ILLUSTRATIVE PURPOSES ONLY

Historic District: South Battery and Parade Ground
Figure S-6

Liggett Terrace **a**

Arch to Liggett Terrace **b**

NOTE: FOR ILLUSTRATIVE PURPOSES ONLY

Liggett Terrace
Figure S-7

Hammock Grove **a**

Path through Hammock Grove **b**

NOTE: FOR ILLUSTRATIVE PURPOSES ONLY

Hammock Grove
Figure S-8

a

b

NOTE: FOR ILLUSTRATIVE PURPOSES ONLY

Play Lawn
Figure S-9

League baseball, adult softball and soccer (see **Figure S-9a**). In addition to the ballfields, there would be smaller open spaces with rolling topography (see **Figure S-9b**).

THE HILLS

The Park Master Plan envisions four hills between 32 feet and 82 feet in height on the South Island, transforming the topography of the Island. The Hills would be planted with ground covers, shrubs, plants, and trees. In addition, there would be several pathways to explore the Hills. From the top of the Hills, broader views of the surrounding area would be available, with views of the Statue of Liberty, New Jersey, Lower Manhattan, the Brooklyn waterfront, and Staten Island (see **Figure S-10**).

LIBERTY TERRACE

Adjacent to the Great Promenade would be Liberty Terrace, a gathering area on the west side of the Island. A new structure, The Shell, would provide protected outdoor seating and space for a food concession. A new public restroom building would be located nearby. Other amenities at Liberty Terrace would include movable tables and chairs and benches (see **Figure S-11**).

SOUTH PROW

At the southern end of the Island, the Great Promenade would split into two levels. The lower level pathway would follow the edge of the Island and would be at grade with the eastern Promenade. This pathway would surround Wetland Gardens, a three-acre area with a variety of wetland plants (see **Figure S-12a**). A picnic area would be adjacent to Wetland Gardens.

Next to the upper level pathway would be the South Prow Overlook. This area, which would have benches and other seating, would be seven feet above Wetland Gardens (see **Figure S-12b**).

ISLAND REDEVELOPMENT

Island Redevelopment in addition to the open space development described above is expected to include the reuse of more than 1.35 million square feet in existing North Island historic buildings, and the development and construction of new buildings in the two future development zones on the South Island. At this time, no concrete proposals have been put forth for the redevelopment of these areas and, therefore, specific uses are not proposed, defined, or designed. For analysis purposes, it is assumed that the building reuse on the North Island and new development on the South Island would collectively total three million square feet of development (roughly equivalent to the total square footage of development on the Island in the U.S. Coast Guard era). It is assumed that new uses could include a variety of university, conference/hotel, office, accessory/service retail and restaurant, cultural, public school, and maintenance and support uses, consistent with the land use and historic reuse covenants imposed by the transfer deed from the Federal Government.

INFRASTRUCTURE IMPROVEMENTS

WATER MAINS

The existing water supply point to the Island runs through the Brooklyn Battery Tunnel and is non-potable. The Proposed Project includes construction of two 12-inch water mains from

10.4.11

The Hills **a**

Top of The Hills **b**

NOTE: FOR ILLUSTRATIVE PURPOSES ONLY

PROPOSED PHASED REDEVELOPMENT OF
GOVERNORS ISLAND

The Hills
Figure S-10

The Shell at Liberty Terrace **a**

Liberty Terrace **b**

NOTE: FOR ILLUSTRATIVE PURPOSES ONLY

Liberty Terrace
Figure S-11

Wetland Gardens **a**

South Prow Overlook **b**

NOTE: FOR ILLUSTRATIVE PURPOSES ONLY

South Prow
Figure S-12

Brooklyn to provide potable water to the Island. As detailed on **Figure S-13**, one route would be constructed from the north end of the Island to the Red Hook Container Terminal (on New York City-owned property) and connect to the NYCDEP water supply on Van Brunt Street via Sackett Street, Union Street, or President Street; the other route would extend from the south end of the Island and connect to the NYCDEP water supply in Conover Street via Sullivan Street. Both connections will require agreements and/or easements for the placement of the mains on the Brooklyn side of Buttermilk Channel and environmental permits for their construction from NYCDEP and NYSDEC. The new water mains would extend under Buttermilk Channel to the Island water infrastructure and distribution system in the vicinity of Building 85 on the North Island and near Half Moon Road on the South Island (see Figure S-2, above).

SEAWALL AND STORMWATER OUTFALLS

Governors Island is currently bounded by a continuous, 2.2-mile stone masonry seawall constructed on a shallow foundation. On the south and west sides of the Island, the seawall exhibits significant deterioration due to wave action generated by prevailing winds and harbor traffic prevalent on this part of the island. Additionally, 132 stormwater outfalls penetrate the seawall. At a number of these outfalls, deterioration of the stormwater infrastructure has contributed to the deterioration of the seawall, including on the more sheltered north and east sides of the island. The proposed action (see **Figure S-14**) would involve the replacement, reconstruction, rehabilitation, or repair of the seawall, as appropriate and as described below, and the reconstruction and consolidation of stormwater outfalls penetrating the seawall to reduce maintenance and inspection requirements and improve the overall integrity of the wall.

The proposed stormwater outfall work includes reconstruction of 28 stormwater outfalls, construction of one new stormwater outfall, and abandoning and sealing the remaining 104 outfalls. Outfall piping would either be abandoned in place and capped at the seawall penetrations and inlets, and sealed with concrete, or the piping would be excavated and removed. The seawall rehabilitation and stormwater outfall reconstruction activities would require authorization from the USACE under Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act of 1899, and from NYSDEC under Articles 25 and 15 of the Environmental Conservation Law, and Section 401 Water Quality Certification.

Sections of the seawall on the west side of the island and within the historic district would be rebuilt. The rebuilt sections would include the construction of a suitable wall foundation, replacement of general fill behind the wall with appropriate structural backfill, and reconstruction of the stone wall face to exhibit a similar appearance to the existing wall.

Sections of the seawall on the south and west side of the island and outside the historic district would be removed and replaced with a rip-rap revetment. This replacement is an economical alternative to rebuilding the existing wall and is consistent with current engineering and environmental practice.

The sections of the seawall on the north and east sides of the Island that do not warrant reconstruction would be rehabilitated or repointed as appropriate. Rehabilitation will occur at angles in the wall geometry where deterioration is more advanced and at locations where failures in the stormwater infrastructure have resulted in deterioration of the seawall. Rehabilitation would involve the partial removal of the seawall and unsuitable backfill and reconstruction of the wall using the same material pinned with reinforcement bars and with placement of suitable structural backfill. Existing stormwater outfalls that are no longer needed would be backfilled and sealed with grout.

10.12.11

Project Area

Governors Island National Monument

12″ *Existing Water Main*

12″ *Proposed Water Main*

PROPOSED PHASED REDEVELOPMENT OF
GOVERNORS ISLAND

Off-Island Existing and Proposed Water Mains
Figure S-13

10.18.11

NOTE: For Proposed New Outfall Locations Outside of Full Seawall Replacement and Revetment Areas, 50 Linear Feet of Full Seawall Rebuild is to be Included (Not Shown for Clarity)

North Island (Coterminous Historic Districts)

South Island

Owned by the National Park Service

Full Replacement

Rebuild

Minor Rehabilitation

Repointing Only

Revetment

Proposed Outfall Location

0 500 1000 FEET

SCALE

PROPOSED PHASED REDEVELOPMENT OF
GOVERNORS ISLAND

Proposed Seawall Rehabilitation Plan
Figure S-14

PROJECT PHASING

As discussed above, development of the Island would occur in multiple phases and would depend upon financing. It is anticipated that Phase 1 construction would begin in early 2012 and be completed by the end of 2013. Although at this time there is no schedule for funding for any portion of the Later Phases, it is assumed for purposes of analysis that construction of the Later Phases would begin after 2013 and be ongoing to 2030 as funding is obtained for portions of the park and as the development zones are constructed.

PHASE 1 (2013)

Phase 1 of the Proposed Project would involve the implementation of park and public space enhancements, focusing on key locations. The Trust considered alternative sets of initial improvements and selected a Phase 1 plan that would improve the Historic District including Soissons Landing, the South Battery and Liggett Terrace as well as construct approximately 23 acres of new open space in the center of the South Island to create Hammock Grove and the Play Lawn (see **Figure S-15**). In addition, Phase 1 would include construction of one or both of the 12-inch water mains from Brooklyn to provide potable water to the Island, and the repair and replacement of the Island's seawall, including the consolidation and upgrade of stormwater outfalls.

LATER PHASES (THROUGH 2030)

The Later Phases of the Proposed Project are expected to include the following (not necessarily listed in the order in which they might be implemented): (i) completion of the park and public spaces on the Island (Later Phases-Park and Public Spaces), (ii) reuse of more than 1.35 million square feet in existing historic buildings on the North Island, and (iii) development and construction of new buildings in the two future development zones on the South Island (see **Figure S-16**).

(i) Park and Public Spaces

The Later Phases-Park and Public Spaces would provide 32 acres of newly designed open space through the center and perimeter of the South Island (9 acres of which would be newly opened to the public). These open spaces include the creation of the Great Promenade at the perimeter of the Island, construction of Liberty Terrace including the Shell, Yankee Landing, the Hills, and South Prow.

The Later Phases-Park and Public Spaces would also include park maintenance facilities. The open space development of the Later Phases-Park and Public Spaces would occur as funding becomes available, and one or more of these components may be developed at a time. While this new open space would serve users of the Proposed Project and also function as a destination open space for the surrounding region, the creation of the proposed park and public spaces is not dependent on any future development that may occur in the specified development zones described below.

Island Redevelopment

(ii) North Island Historic Structures

More than 1.35 million square feet of potential redevelopment space is available in existing historic structures on the North Island (see Figure S-3, above). It is expected that some or all of this space would be retenanted in the Later Phases-Island Redevelopment stage of the Proposed

National Monument Boundary (Owned by the National Park Service)

Area Not included in Phase 1

0 400 800 FEET
SCALE

PROPOSED PHASED REDEVELOPMENT OF
GOVERNORS ISLAND

Phase 1 Development
Figure S-15

10.12.11

National Monument Boundary (Owned by the National Park Service)

Area Not included in Later Phases

0 400 800 FEET

SCALE

Later Phases

(Later Phases-Park and Public Spaces; Later Phases-Island Redevelopment)

Figure S-16

PROPOSED PHASED REDEVELOPMENT OF
GOVERNORS ISLAND

Project, although the future uses have not yet been specifically determined or defined. As part of this proposed reuse, historic buildings—including Liggett Hall—would be carefully restored. Restoration work would be reviewed and approved by LPC under the New York City Landmarks Law and/or OPRHP (as appropriate), pursuant to the *Governors Island Historic District Preservation and Design Manual.* The existing historic buildings associated with any previous housing-related and office-related uses are considered most conducive for future uses such as housing for students and faculty, as well as smaller classroom and office uses.

(iii) South Island Future Development Zones

Two future development zones totaling 33 acres have been delineated on the South Island in areas where existing buildings will be demolished. A 6.5-acre development zone is located on the west side of the Island facing New York Harbor, and a 26.5-acre development zone faces Buttermilk Channel and Brooklyn.

Although the future uses in these two areas have not yet been specifically proposed, determined, or defined, potential uses on the Island are limited by the land use and historic resource covenants contained in the transfer deed from the Federal Government. It is assumed that new buildings on the South Island could be designed to provide highly flexible academic (including dorms and faculty housing) and/or research institution space, lab space, or similar uses, and could become the academic and/or research institution heart of a university program or think tank. Likewise, a second major use could be as a conference center/hotel with hotel rooms, meeting rooms, and recreation facilities. It is anticipated that Yankee Pier would be the point of access.

The remaining portions of the South Island development zones (as well as the North Island vacant historic buildings) are expected to be used for some combination of not-for-profit offices, such as think-tanks or small organizations affiliated with academic and/or research institution uses; for-profit commercial office uses; offices for The Trust and Island contractors; maintenance and service space for Trust and Island operations; water transportation support uses (such as ferry offices); cultural uses including small galleries or museums; entertainment uses; other commercial uses; associated retail; and educational uses similar to the Urban Assembly New York Harbor School now located in the existing Building 550 in the Historic District.

G. PROPOSED ACTIONS

PHASE 1

In order to develop and construct Phase 1 of the Proposed Project, the City of New York is providing funding to The Trust. The funding approval is a discretionary action subject to CEQR.

The project will also require State Pollutant Discharge Elimination System (SPDES) permits from the New York State Department Environmental Conservation (NYSDEC) for wastewater and/or stormwater discharge issues as well as NYSDEC permits for in-water work, including Protection of Waters permit, Tidal Wetlands permit, and Section 401 Water Quality permit. These actions are subject to SEQRA. Phase I will also require nationwide and/or other permits from the United States Army Corps of Engineers (USACE) for in-water work; this action is subject to NEPA.

Other actions and approvals required for Phase 1 include:

- Review of the project actions in the Governors Island Historic District by LPC under the New York City Landmarks Law and/or OPRHP (as appropriate), pursuant to the *Governors Island Historic District Preservation and Design Manual*.
- New York City Department of Buildings (NYCDOB) building permit for public open space;
- NYCDOB review of construction within the 100-year flood plain;
- New York City Fire Department (FDNY) approvals for emergency and fire access and fire hydrants;
- Coastal Zone Consistency determination; and
- United States Coast Guard notification for maritime transport of construction materials.

LATER PHASES (LATER PHASES-PARK AND PUBLIC SPACES; LATER PHASES-ISLAND REDEVELOPMENT)

Since existing deed restrictions and existing zoning provide specific limitations on potential new land uses on the Island, it is anticipated that the future development proposed for the Later Phases-Island Redevelopment component would require rezoning and/or other land use changes on the Island. Such land use approvals will be subject to CEQR, and the level of environmental review required will be determined at the time such actions are sought.

The Later Phases could also require the following actions, which would be subject to SEQRA, CEQR, and/or NEPA:

- SPDES permits from NYSDEC, for wastewater and/or stormwater discharge issues (subject to SEQRA);
- NYSDEC permits for in-water work including Protection of Waters permit, Tidal Wetlands permit, and Section 401 Water Quality permit (subject to SEQRA);
- Nationwide and/or other permits from USACE for in-water work (subject to NEPA);
- Approval of capital funding (subject to CEQR).
- CPC land use approvals, including rezoning, special permits, modifications, and/or other authorizations (subject to CEQR);

Other potential future actions and approvals for the Later Phases could include:

- NYCDOB building permits for public open space and structures;
- NYCDOB review of construction within the 100-year flood plain;
- FDNY approvals for emergency and fire access and fire hydrants;
- NYSDEC air permits or approvals related to potential future research/academic laboratory uses;
- Review of the project actions in the Governors Island Historic District by LPC under the New York City Landmarks Law and/or OPRHP (as appropriate), pursuant to the *Governors Island Historic District Preservation and Design Manual*; and
- Coastal Zone Consistency determination.

H. FRAMEWORK FOR ENVIRONMENTAL ANALYSIS

SCOPE OF ENVIRONMENTAL ANALYSIS

As set forth in the Positive Declaration, the lead agency has determined that the Proposed Project may result in one or more significant adverse environmental impacts and, thus, has required preparation of a GEIS. This document applies methodologies and follows the guidelines set forth in the *CEQR Technical Manual*, where applicable. These are consistent with SEQRA and generally considered to be the most appropriate technical analysis methods and guidelines for the environmental impact assessment of projects in the City.

For each technical analysis in the GEIS, the assessment includes a description of (1) existing conditions, (2) an assessment of conditions in the Future without the Proposed Project, and (3) an assessment of conditions in the Future with the Proposed Project. Identification and evaluation of impacts of the Proposed Project are based on a comparison between conditions in the Future without the Proposed Project and conditions in the Future with the Proposed Project. Where significant adverse environmental impacts are identified, potential mitigation measures are proposed and analyzed. An important element of the GEIS is the analysis of alternatives that reduce or eliminate the significant adverse effects disclosed in the technical analyses; such alternatives also include a "No Action" alternative.

ANALYSIS YEARS

An EIS analyzes the effects of a proposed action on its environmental setting. Since a proposed action, if approved, would take place in the future, the action's environmental setting is not the current environment but the environment as it would exist at project completion. Therefore, future conditions must be projected. This prediction is made for a particular year, generally known as the "analysis year" or "build year," which is the year when the action would be substantially operational.

Implementation of the Proposed Project would be phased. As currently anticipated, Phase 1 construction would begin in early 2012 and be completed by the end of 2013. Although at this time there is no schedule for funding for any portion of the Later Phases, it is assumed for purposes of analysis that construction of the Later Phases would begin after 2013 and be ongoing to 2030 as funding is obtained for additional portions of the park and future development is accomplished, including retenancy of historic buildings on the North Island and new development in designated zones on the South Island.

DEFINITION OF STUDY AREAS

For each technical area in which impacts may occur, a study area is defined for analysis. This is the geographic area likely to be affected by the Proposed Project for a given technical area, or the area in which impacts of that type could occur. Appropriate study areas differ depending on the type of impact being analyzed. In general, the study area for the GEIS analyses includes the entire Island, including that portion of Governors Island owned by the National Park Service and not belonging to The Trust, and depending on the specific analysis, may also include the area within 400 feet of the ferry landing at Pier 6 in Brooklyn Bridge Park and the area within 400 feet of the Battery Maritime Building~~Pier 11 at the South Street Seaport~~.

DEFINING BASELINE CONDITIONS

EXISTING CONDITIONS

For each technical area assessed in the GEIS, the current conditions are first described. The assessment of existing conditions establishes a baseline—not against which the Proposed Project are measured, but from which future conditions are projected. The projection of future conditions begins with an assessment of existing conditions, because these can be measured and observed. Existing conditions are generally studied, where relevant, during the time periods that reasonable worst-case conditions would be expected with the Proposed Project. For example, the time periods when the greatest number of new vehicular, pedestrian, and transit trips to and from the ferry landings would occur are measured for the transportation analysis. The project impacts are then assessed for those same transportation peak periods. The description of existing conditions for the GEIS relies on the most current information and available data regarding the surrounding study areas.

DEFINITION OF FUTURE WITHOUT THE PROPOSED PROJECT

The future without the Proposed Project condition (the No Action or No Build condition) provides a baseline condition that is evaluated and compared with the incremental changes due to the Proposed Project. The future without the Proposed Project conditions are assessed for the same analysis years as the future with the Proposed Project, i.e., 2013 and 2030.

The future without the Proposed Project condition uses existing conditions as a baseline and adds to it changes known or expected to be in place at various times in the future. In the Future without the Proposed Project, Governors Island will continue to operate as it does today. Visitation is dependent on the ability to access the Island. Public outreach and enhancements in recent years have already made Governors Island a highly visited summer weekend destination, and at peak times, ferries already operate at capacity. Governors Island, through ramped-up programming and public outreach, has achieved very high and rising levels of visitation in the past several years, contributing to a rising baseline of visitation that would be anticipated to continue in the future without the Proposed Project. The Trust estimates that in the future without the Proposed Project, visitation would increase by approximately 40 percent, with annual visitation increasing to almost 614,000 and the number of visitors in the summer on a busy day[1] during the weekend would be approximately 17,684, respectively.

In the future without the Proposed Project, The Trust will undertake a number of projects that have undergone prior environmental review and approval separate from this Generic Environmental Impact Statement. This will include the demolition of all remaining buildings on the South Island. In addition, on the North Island, The Trust will demolish Buildings 309, 517, 148, 96, Wing O of Building 400 (Liggett Hall), two small non-historic additions to Building 400, and the swimming pool adjacent to Building 324.

Several routine projects to rehabilitate, repair, replace, and upgrade utility and waterfront infrastructure will also be undertaken in the future without the Proposed Project. The utility infrastructure work includes on-Island replacement and upgrade to meet current standards for the following services: domestic and fire protection water service; sanitary sewer; and electrical and telecommunications service. It also includes upgrades of electrical and telecommunications

[1] Defined as the 85th percentile of in-season visitation. In other words, the level of visitation that is higher than 85 percent of all other days.

service to the Island. The waterfront infrastructure work includes rehabilitation of both Pier 101 and Yankee Pier, and demolition of Tango Pier, and rehabilitation of the transfer bridges and fenders at both Soissons Dock and the BMB. All of these infrastructure projects are required to ensure that the existing level of public access and other current activities (such as the Harbor School) can be maintained, and are considered Type II actions under NYCRR §617.5, Type II actions are those that have been determined not to have a significant impact on the environment or are otherwise precluded from environmental review, and as such no determination of significance, EIS, or findings statement is required.

For many technical areas, the future without the Proposed Project condition incorporates known development projects in the study area that are likely to be built by the analysis years. This includes projects currently under construction or development that can be reasonably expected to occur due to the current level of planning and public approvals. Relevant future development projects that have been announced, are in an approval process, or are under construction, and proposals for rezoning and public policy initiatives likely to be built by 2013 and 2030 without the Proposed Project, are considered in the EIS analyses, as appropriate

The future without the Proposed Project analyses for some technical areas, such as transportation, also use a background growth factor to account for a general increase expected in the future. Such growth factors may also be used in the absence of known development projects. The future without the Proposed Project analyses must also consider other future changes that will affect the environmental setting. These could include technology changes, such as advances in vehicle pollution control and roadway improvements, and changes to City policies, such as zoning regulations.

DEFINING THE ACTION FOR ENVIRONMENTAL ANALYSIS

Plans for Phase 1 of the Park and Public Space Master Plan consist of a series of open space improvements and key infrastructure improvements expected to be complete by 2013. The Later Phases-Park and Public Spaces would provide 32 acres of newly designed open space through the center and perimeter of the South Island. In the Later Phases-Island Redevelopment, currently vacant North Island historic buildings would be retenanted and development of new uses would occur in two separate areas in the South Island totaling 33 acres. Although the land use and historic resource covenants contained in the transfer deed provides specific limitations on potential new land uses on the Island, these restrictions only provide a broad outline for future development. The Trust does not have any definite schedule or plans (except for the design of the park and public space) for the full future development of the Island beyond Phase 1 of the Park and Public Space Master Plan. **Table S-1** summarizes the project components by phase, funding commitments, and anticipated times of completion.

Table S-1
Summary of Phased Development of Governors Island

Phase	Project Components	Defined in detail in Master Plan	Funded	Build Year
Phase 1	Soissons Landing, South Battery, Parade Ground, Liggett Terrace, Hammock Grove, Play Lawn	Yes	Yes	2013
Later Phases-Park and Public Spaces	Yankee Landing, Great Promenade, The Hills, South Prow, Liberty Terrace, The Shell	Yes	No	In or before 2030
Later Phases-Island Redevelopment	Retenanting 1.35M SF of historic structures; 1.65M SF of new development in South Island development zones	No	No	In or before 2030

Full development of the Proposed Project is assumed for analysis purposes to be completed by 2030. The full development analysis will consider the full proposed Park and Public Spaces (including Phase 1 elements) as well as 3 million square feet of development including reuse of North Island historic structures and new buildings and uses in the development zones. Since the Later Phases would generate additional visits to the Island that would require changes in public access to the Island and would likely require new or increased transportation services and longer hours of operation, the full development analysis will account for these changes in population and access. The Trust estimates that annual Park and Public Space visitation from the full development of the Proposed Project would increase to approximately 1.89 million and the number of visitors in the summer on a busy day during the weekend and during the week would be approximately 21,690 and 7,998, respectively. As compared with visitation in the future without the Proposed Project, this would represent a 70 percent increase during the week, 23 percent increase during the weekend, and over 200 percent increase in annual visitation.

For the purposes of this analysis, the reuse of North Island buildings and the development of the two South Island development zones would result in three million square feet of new uses on the Island. The future uses for the Later Phases-Island Redevelopment have not yet been specifically proposed, defined, or designed. Therefore, to assist in the analysis of this component of the Proposed Project, two potential development scenarios have been identified that represent a possible range of new development that could occur. The first is a primarily University/Research option (URO) and the second is a primarily Mixed-Use option (MUO). These options are a generalized estimate based on the type and configurations of existing buildings, the underlying conditions of the Island itself, uses required and permitted under the deed, and the general level of inquiries received by The Trust for various uses on the Island. The range of uses is presented below in **Table S-2**.

The land uses identified in Table S-2 would also have different population characteristics. For example, faculty university housing uses would generate on-site residents whereas office uses would not. Other uses, including the park and open spaces, would generate workers and visitors that would access the island from the off-site ferry locations. Each chapter in the GEIS will identify a “reasonable worst-case development scenario” that could result in the worst environmental effect for that technical area. The reasonable worst-case development scenario will be based on the potential range of land uses and development presented in Table S-2.

Table S-2
Later Phases-Island Redevelopment Potential Development Scenarios
(North Island Historic Structures and South Island Future Development Zones)

Uses	University/Research Option (sf)	Mixed-Use Option (sf)
University		
Research	400,000	0
Academic	450,000	0
Housing - Faculty Housing [1] *(assumed as apartments, not dorms)*	200,000	1,650,000
Housing - Student Dorms [1]	850,000	450,000
Conference Center/Hotel	500,000	350,000
Office	175,000	60,000
Service Retail/Restaurant *(Not destination, accessory to other uses)*	75,000	75,000
Cultural *(Gallery, small museum)*	60,000	125,000
Public School (K-12)	150,000	150,000
Maintenance, Support, Other	140,000	140,000
TOTAL	**3,000,000**	**3,000,000**

Notes:
Does not include Park and Public Spaces (For Phase 1 and Later Phases open spaces, see "Project Description" above).
[1] All academic housing: contemplated to be residential uses ancillary to educational uses on- and/or off-island.

Since the potential programming for the Later Phases-Island Redevelopment component is not yet specified and their operations have not yet been planned, the analysis of the Later Phases-Island Redevelopment component will generally be less detailed than those provided for the Park and Public Spaces component. The analyses will focus on identifying potential environmental concerns associated with the potential uses identified in Table S-2 to the extent required under CEQR/SEQRA; further environmental review may be necessary for as yet undefined components of the Later Phases.

VISITATION ESTIMATES

The additional and improved public spaces planned for Phase 1 are not expected to materially affect overall visitation. The factors considered in arriving at this expectation are as follows:

- The open space additions and improvements are consistent with the nature of existing uses and other amenities that Governors Island has added or improved upon in recent years.
- Most of the open space improvements in both the North Island and the South Island are in areas already heavily programmed—either as part of the existing Public Access program or on limited-access fields for special events.
- Visitation is directly affected by number of operating days and hours and ferry capacity and frequency—none of which would be affected by Phase 1 open space improvements.
- At peak times, ferries already operate at capacity and increased ferry access is entirely dependent on the operating budget, which is not associated with the proposed Phase 1 improvements. There are no plans to increase ferry service before 2013.
- The Trust has aggressively programmed spaces and events to attract visitation to the Island, resulting in phenomenal growth in patronage over the years. It is expected that increases in

visitation will continue through 2013 with or without implementation of the Phase 1 improvements.

Increases in visitation have historically been driven by the last three points. Creative programming and publicity have attracted the visitors; and ferry service and expanding the open season have allowed the visitors to come to the Island. From 5,000 visitors the first year (2004), Governors Island received 443,000 in the summer of 2010 and was named the top destination in New York City in Time Magazine's "Summer 60" feature in 2011.

First GIPEC and then The Trust committed to welcoming a diverse array of interesting programs to the Island—concerts, food and cultural festivals, art exhibits and events, sculpture shows, fun for children and families, poetry readings, races, science experiments and Free Bike Fridays. Diverse highlights have included 1920s-themed lawn parties that draw thousands of fancy-dressing flappers and their fans; a Polo match that drew members of the British Royal Family and a crowd of socialites; and a partnership with Storm King to bring a dozen massive sculptures by world-renowned artist Mark di Suvero to the Island.

However, the annual increase in visitorship has declined over the three years of public access from 2008 to 2010 with rates of 140 percent, 100 percent, and 60 percent, and it is expected to slow over time to 10 percent, and finally 5 percent growth in 2013, leveling off at 614,000 visitors per year. Even without the proposed Phase I improvements, evolving and adapting programs will continue to attract visitors and cement the Island's place as a weekend haven for New Yorkers. Governors Island is already a unique park and public space defined by its evocation of summer vacation only a few minutes away from Lower Manhattan and Brooklyn on the ferry.

Without the proposed improvements, The Trust would nevertheless be able to use the same spaces for its public access program. In the Future with the Proposed Project the Island is transformed into an iconic Park and Public Space which draws visitors to its well designed and lushly planted landscapes, but in the Future without the Proposed Project The Trust will continue to use the existing, somewhat barren collection of lawns, fields, and parking lots as a highly flexible programmable space for a new burst of interesting public programs. In either case, visitors will continue to flock to the Island in increasing numbers—limited only by the capacity of the ferry services.

The Trust therefore projects visitorship to grow at the same rate with or without the Phase 1 improvements because ferry service presents the same primary constraint in both scenarios. The projected peak day visitorship is limited by the capacity of the ferries, which in both scenarios will continue on the current schedule during the current 18 weekend public access season. The improvements proposed in Phase 1, which will increase the publicly accessible Park and Public Space area from 70 to 93 acres while in turn reducing the flexible programming space (including eliminating the South Island fields used for large events), will support this trajectory but cannot increase it beyond the capacity of the ferry. In other words, visitation increases due to either new iconic landscape (Future with Proposed Project) or creative programming on flexible space (Future without Proposed Project), but in either case visitation is ultimately limited by the capacity of the ferry service.

MITIGATION

CEQR requires that any significant adverse impacts identified in the EIS be minimized or avoided to the fullest extent practicable, given costs and other factors. In the Draft GEIS, options for

mitigation can be presented for public review and discussion, without the lead agency having selected those for implementation. Where no practicable mitigation is available, the EIS must disclose the potential for unmitigated significant adverse impacts.

Where significant adverse impacts from the Proposed Project have been identified in this Draft GEIS, potential mitigation measures to minimize or eliminate the expected impacts have been examined. Where necessary, measures to further mitigate adverse impacts will be refined and evaluated between the Draft GEIS and Final GEIS, and the Final GEIS may therefore include more complete information and commitments on all practicable mitigation measures that may need to be implemented with the Proposed Project.

ALTERNATIVES

Alternatives to the Proposed Project were assessed as per CEQR and SEQRA, which require that a description and evaluation of the range of reasonable alternatives to an action be included in the EIS at a level of detail sufficient to allow a comparative assessment of the significant environmental impacts of these alternatives. If the environmental assessment and consideration of alternatives identify a feasible alternative that eliminates or minimizes adverse impacts while substantially meeting the project goals and objectives, the lead agency considers whether to adopt that alternative. CEQR and SEQRA require consideration of a "No Action Alternative," which compares environmental conditions that are likely to occur in the future without the Proposed Project with conditions that would occur in the future with the Proposed Project. In addition the two hypothetical development scenarios are compared with each other.

I. PROBABLE IMPACTS OF THE PROPOSED PROJECT

LAND USE, ZONING, AND PUBLIC POLICY

The Proposed Project would provide a major benefit to the people of New York City and the surrounding region by expanding and improving publicly accessible open space, allowing that open space to be used year around, and replacing vacant land and outmoded and underutilized buildings with active uses including new institutional, commercial, and other development. Overall, this analysis concludes that the Proposed Project would not result in significant adverse impacts with respect to land use, zoning, and public policy.

PHASE 1

Phase 1 would have a positive effect on land use by improving existing open spaces on the Island and opening new areas to public access. In particular, improvements to the North Island would include Soissons Landing, the South Battery, and Liggett Terrace. South Island improvements would create 23 acres of new open space—Hammock Grove and the Play Lawn—at the center of the Island. The proposed open space improvements would support the existing institutional and open space uses, including the Urban Assembly New York Harbor School and Governors Island National Monument; fulfill long-term public policies for the Island; and help achieve the City's waterfront and open space goals. Phase 1 would not require any changes to zoning and would be consistent with the deed restrictions that regulate development on the Island.

LATER PHASES

Upon completion of the Proposed Project, there would be additional open space improvements and up to 3 million square feet of development in retenanted historic structures on the North Island and new buildings within two designated development zones on the South Island. The Later Phases would provide 32 acres of newly designed open space through the center and perimeter of the South Island. Open spaces would include the Great Promenade (which circles the Island), Liberty Terrace, the Shell, Yankee Landing, the Hills, and the South Prow. Full development of 87 acres of park and public space would continue and expand on the open space uses on the Island. Taken together, the open space uses, new uses in the historic structures and in the development zones, and the existing National Monument would support each other by creating active and passive open spaces and enlivening the island with active, full-time uses. The Island's population is expected to increase from primarily weekend visitors to a far wider range of workers, students, residents, and visitors, all using the Island on a daily basis.

Full development would comply with the deed restrictions; it is anticipated that projects in the two designated development zones would require zoning and other land use approvals. Subsequent discretionary actions will require further environmental review, the extent of which will be determined at that time. As compared with Phase 1, full development of the Proposed Project would go further in fulfilling long-term public policies for the Island and would help achieve the City's waterfront and open space goals. In furtherance of City goals, the full development would also result in substantial economic development. Therefore, the Proposed Project would not result in significant adverse impacts with respect to land use, zoning, and public policy.

SOCIOECONOMIC CONDITIONS

The analysis below finds that the Proposed Project would not result in significant adverse socioeconomic impacts due to direct or indirect changes in residential and economic activity.

PHASE 1

Phase 1 would include park and public space enhancements on Governors Island and construction of one or both new water mains from Brooklyn to provide potable water to the Island. No direct residential, business, or institutional displacement would occur as a result of Phase 1. Since Phase 1 would not result in residential or commercial development, there would be no significant adverse impacts due to indirect residential or business displacement. Finally, Phase 1 would not result in direct displacement or any regulatory changes with the potential to affect conditions within a specific industry. Therefore, Phase 1 would not affect any of the socioeconomic issues of concern, and would not result in any significant adverse socioeconomic impacts.

LATER PHASES

Direct Residential Displacement

The full development of the Proposed Project would not directly displace any residential units. Therefore, there would be no significant adverse impacts from the full development of the Proposed Project due to direct residential displacement.

Direct Business and Institutional Displacement

Existing institutional uses on the Island include the offices of The Trust; the Lower Manhattan Cultural Council's (LMCC) artist studios and exhibit space; and the Harbor School, a New York City high school. Seasonal concessions accessory to the park and public space include the Water Taxi Beach entertainment and food concession, two bicycle rental concessions, and a kayak facility. None of these existing uses would be directly displaced by the Proposed Project. Therefore, there would be no significant adverse impacts from the full development of the Proposed Project due to direct business and institutional displacement.

Indirect Residential Displacement

Later Phases-Island Redevelopment would introduce more than 200 housing units (i.e., faculty housing), which would exceed the CEQR threshold for analysis of indirect residential displacement. The objective of the indirect residential displacement analysis is to determine whether the Proposed Project may either introduce a trend or accelerate a trend of changing socioeconomic conditions that may potentially displace a vulnerable population to the extent that the socioeconomic character of the neighborhood would change. Because the Island is not currently developed with residential uses, development resulting from the full development of the Proposed Project would not have the potential to cause indirect residential displacement on the Island. In addition, academic housing on the Island would not affect rents in existing off-Island residential areas since the Island is physically separated from other existing residential neighborhoods. Therefore, full development of the Proposed Project would not result in any significant adverse impacts due to indirect residential displacement.

Indirect Business and Institutional Displacement

Later Phases-Island Redevelopment would introduce more than more than 200,000 square feet of commercial development, which would exceed the CEQR threshold for analysis. The objective of the indirect business displacement analysis is to determine whether the proposed project may introduce trends that make it difficult for some categories of businesses to remain in the area.

The introduction of commercial development, and the users associated with that development, would not substantially alter the existing economic activities on the Island. The Proposed Project would bring residents, employees, students, and visitors to the Island. These new populations would likely result in higher demand for the types of seasonal concessions accessory to the park and public space (entertainment and food concession, and a kayak facility) currently offered, and any increases in rent would be offset by additional revenues generated by the new populations demand for these seasonal uses. Therefore, there would be no significant adverse indirect impacts to On-Island businesses as a result of the Proposed Project.

The arts have been an important part of the Island's redevelopment. In 2008, the Lower Manhattan Cultural Council was selected to run artist studios and exhibition space on the Island. LMCC does not currently pay rent for their space; and it is expected that this lease arrangement with The Trust will continue in the future. Also, the Harbor School would not experience indirect displacement pressure because the New York City Department of Education signed a 40 year lease for their current space in 2008. Therefore, there would be no significant adverse indirect impacts to On-Island institutions as a result of the Proposed Project.

In addition to the commercial development that would be introduced by the Later Phases-Island Redevelopment, 32 acres of open space would be introduced by the Later Phases-Park and

Public Spaces. The Later Phases-Island Redevelopment and Later Phases-Park and Public Spaces would result in increased visitation to the Island and an introduction of new residential and worker populations, resulting in increased foot traffic in the Off-Island Study Areas. Since there would be substantial foot traffic in these Off-Island Study Areas in the future without the Proposed Project, the Later Phases would not introduce a new economic activity to the Off-Island Study Areas, and full development of the Proposed Project would not result in indirect business and institutional displacement impacts. Therefore, full development of the Proposed Project would not have the potential to cause significant adverse impacts due to indirect business displacement.

Adverse Effects on Specific Industries

Full development of the Proposed Project would not result in direct displacement and it is not expected to include any regulatory changes with the potential to adversely affect conditions within a specific industry.

COMMUNITY FACILITIES

The improved and expanded open spaces, new development, and retenanted historic structures that would result from the Proposed Project, would attract new visitors and introduce new workers and residents to the Island, which could create new demands on publicly funded community facilities.

The Proposed Project would not result in any low-income and/or low- to moderate-income housing—the housing units for the MUO for the Later Phases-Island Redevelopment component of the Proposed Project would be faculty housing and dormitories associated with an educational institution. Therefore, the Proposed Project would not be expected to introduce children eligible for publicly funded child care and the Proposed Project would not result in any significant adverse impacts to child care facilities.

As described below, analyses of public elementary and middle schools, libraries, outpatient healthcare facilities, police protection services, and fire protection and emergency medical services were conducted. Overall, this analysis concludes that the Proposed Project would not result in any significant adverse impacts to community facilities and services.

PHASE 1

Phase 1 of the Proposed Project would improve existing open spaces and open new areas to public access on the Island. It would not add a new residential population to the Island or substantially increase the worker or visitor populations. Therefore, Phase 1 would not result in any significant adverse impacts to community facilities.

LATER PHASES

Full development of the Proposed Project, assuming the MUO for the Later Phases-Island Redevelopment, would create up to 3,441 dwelling units, comprised of approximately 1,941 faculty housing units and 1,500 student dormitory beds, which would introduce up to 5,071 new residents to the Island, where none currently exist. Full development of the Proposed Project would also introduce a new worker population and would increase visitation to the Island, which could place additional demands on police and fire protection services and emergency medical services (EMS). The Proposed Project would also include a new public school for grades K through 12 in the Later Phases-Island Redevelopment.

Public Schools

The proposed housing units would introduce up to 223 elementary school students, 78 middle school students, and 116 high school students,[1] and full development of the Proposed Project would include an approximately 150,000-square-foot public school for grades K–12, which could contain approximately 1,200 seats. This number of seats would accommodate all of the students generated by the Proposed Project and could provide additional capacity for off-Island students. Therefore, the Proposed Project would not result in any significant adverse impacts to public elementary and intermediate schools.

Libraries

The Later Phases-Island Redevelopment would introduce a residential population to the Island and would therefore generate demand for public library facilities in Brooklyn and Manhattan. Due to the geographic isolation of the Island, the new residential population would travel farther for library services than would typically be expected. The number of new residents added by the Proposed Project would be a small increase (2.7 percent) in the total catchment area population of the libraries that would serve the new Island population. Furthermore, because the Proposed Project's housing units would be associated with educational institutions, it is expected that the new residents would have access to private libraries associated with the affiliated academic institution(s) in addition to public libraries. Therefore, the Proposed Project would not result in significant adverse impacts to public library services.

Outpatient healthcare facilities

The Proposed Project would not affect the physical operations of, or access to and from, a hospital or public health clinic. It is expected that the new residential, worker, and visitor population that would be introduced by the full development of the Proposed Project would continue to have access to the outpatient healthcare facilities in the study area. Overall, the Proposed Project would not result in any significant adverse impacts to publicly funded healthcare facilities.

Police and Fire Protection Services

The Proposed Project would not directly affect the physical operations of, or access to and from, a precinct house. However, the residential, worker, and visitor population that would be introduced by the full development of the Proposed Project would result in additional demand for police protection services. Based on New York City Police Department (NYPD) policy, NYPD would continue to adjust its allocation of personnel and resources as the need arises. As the uses associated with the Later Phases-Island Redevelopment are specifically defined, The Trust would undertake further review and coordination with the NYPD to ensure the provision of police protection services. It is anticipated that further environmental review will be required for the Later Phases-Island Redevelopment, which could include consultation with the NYPD. Because the full development of the Proposed Project may necessitate the commitment of NYPD personnel, resources, or equipment to the Island, there would be the potential for a significant adverse impact related to police protection services, which would be further evaluated in future environmental review of the Later Phases-Island Redevelopment.

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[1] Dormitory units would not be expected to generate public school students, and therefore are excluded from the analysis of public schools.

The Proposed Project would not affect the physical operations of, or access to and from, a fire station house. However, the residential, worker, and visitor population that would be introduced by the full development of the Proposed Project would result in additional demand for fire protection and emergency medical services. The Fire Department of the City of New York (FDNY) does not allocate resources based on proposed or potential development, but continually evaluates the need for changes in personnel, equipment, or locations of fire stations and makes adjustments as necessary. As the uses associated with the Later Phases-Island Redevelopment are specifically defined, The Trust would undertake further review and coordination with the FDNY to ensure the provision of fire protection and EMS service to the Island's new population. Because the full development of the Proposed Project may necessitate the commitment of FDNY personnel, resources, or equipment to the Island, there would be the potential for a significant adverse impact related to fire protection and EMS services, which would be further evaluated in future environmental review of the Later Phases-Island Redevelopment.

OPEN SPACE

The full development of the Proposed Project would result in a substantial improvement to open spaces on the Island, and would create a unique new destination open space to serve the City and the region. The Proposed Project would transform Governors Island into an attractive public space for the region with a design that accentuates the Island's inherent attributes—its extraordinary views, its historical landscape, and its unique vantage point on the Harbor. This analysis finds that the Proposed Project would not result in any significant adverse indirect impacts on open space, but would have the potential for significant adverse direct effects on open space as a result of the Later Phases-Island Redevelopment component of the Proposed Project.

PHASE 1

Phase 1 of the Proposed Project would improve existing open spaces on the Island, open new areas of open space to the public, and would not alter residential, worker, or visitor populations compared with the future without the Proposed Project. In particular, Phase 1 would open 23 acres of new open space to the public and would greatly expand the active recreation facilities on the Island by creating approximately 19 acres of new active open space. Although Phase 1 would directly affect existing open space on the Island, the Proposed Project would improve the existing open space and therefore would not result in any significant adverse open space impacts.

LATER PHASES

Public access would be provided throughout the year, rather than just during the summer as is the case currently and in the future without the Proposed Project. The Later Phases-Island Redevelopment component of the Proposed Project would introduce new residential (faculty and students living in dormitories), worker, commuter student, and visitor population to the Island.

Direct Effects

As with Phase 1, the open space improvements in the Later Phases-Park and Public Spaces would directly affect existing open space on the Island, but they would not have the potential to result in any significant adverse direct impacts. The full development of the Proposed Project would result in a substantial improvement to open spaces on the Island, and would create a unique new destination open space to serve the City and the region. However, the Later Phases-

Island Redevelopment component of the Proposed Project would result in adjacent development, which could directly affect the future open space through increased shadows or other conditions. When the uses associated with the Later Phases-Island Redevelopment are specifically defined, The Trust would undertake further review to determine whether they could result in direct effects to the Island open space. Because this analysis cannot rule out the possibility for direct effects on the future park and public spaces, there would be the potential for significant adverse impacts related to direct effects on open space, which would be further evaluated in future environmental review of the uses associated with the Later Phases-Island Redevelopment.

Indirect Effects

All open space ratios except the active ratio would remain well above City open space planning goals, indicating that the Island open space would be sufficient to serve the future open space user population and that the new users would not diminish the Island's ability to serve as a regional open space destination (see **Table S-3**). The full development of the Proposed Project would create approximately 20 acres of new active open space, with almost all of it in place upon completion of Phase 1. As a result, the active open space ratio would increase from 1.0 acres per 1,000 residents and visitors in the future without the Proposed Project to 1.4 acres in the future with the Proposed Project. The new open spaces would more than offset the active open space demand created by the new user groups from the Proposed Project. Although the active open space ratio would not meet the City open space planning goal of 2.0 acres per 1,000 residents and visitors, the Proposed Project would greatly expand the active open space facilities on the Island. In addition, the amount of active open space on the Island may be increased if necessary to serve the needs of a future residential population. Future options could include new active areas within the park and public spaces or the incorporation of active open space within the development zones.

Table S-3
Open Space Ratios Summary

Ratio	City Open Space Goals	Open Space Ratios		
		Existing Conditions	Future Without the Proposed Project	Future With the Proposed Project
Total/Residents and Visitors	2.5	6.6	4.8	4.4
Passive/Residents and Visitors	0.5	5.3	3.8	3.1
Active/Residents and Visitors	2.0	1.3	1.0	1.4
Passive/Workers and Students	0.15	116.8	116.8	15.2

Notes: Ratios in acres per 1,000 people.

The Proposed Project would also provide a wide range of active and passive facilities to serve the varying open space needs of the different user populations that would be introduced (residents, workers, commuter students, and visitors). New play areas and sports fields would provide active recreation space for residents and visitors of all ages, and new and improved passive open space areas would be developed to serve the passive recreation needs of the residential, worker, commuter student, and visitor populations. The Proposed Project would also not be expected to create consistent open space demands on open spaces near the ferry landings, nor would it diminish the ability of these open spaces to serve their user populations.

Overall, the Proposed Project would not result in any significant adverse indirect impacts on open space.

SHADOWS

PHASE 1

Phase 1 of the Proposed Project would not result in any new structures and, therefore, would not cause any adverse shadow impacts. However, it would improve some existing areas (such as the paved area at Soissons Landing) and create new open space areas that would become sun-sensitive open spaces.

LATER PHASES

The Later Phases-Park and Public Spaces would also not result in any tall structures but would add to the inventory of sun-sensitive open spaces.

The Later Phases-Island Redevelopment would likely result in new shadows on portions of the open spaces created or improved by the Proposed Project. Open spaces and any sun-sensitive historic resources that are near the development zones and to their east, north, and west would be more likely to experience project-generated shadows than those farther away or directly south of the development zones. If the affected open spaces were not created by the Proposed Project, it is possible that some incremental shadows from development zone structures would be considered to have significant adverse impacts. On the other hand the North Island open spaces and historic resources that are farther away from the development zones (i.e., north of Liggett Hall) would likely be only minimally affected by project-generated shadows, although this would depend on the height, location, and configuration of the structures that are eventually built in the development zones. The design and programming of the proposed Park and Public Spaces would reflect the expected sunlight and shadow conditions at each location, to address potential shadow effects. Additionally, the two development zones would be planned and developed to minimize shadow impacts on the Island's open spaces. Shadows cast by new buildings could affect utilization of these open spaces, particularly in the cooler weather months. In any case, it is expected that there would be further review of shadows when the development is actually proposed because it is very likely to require land use actions that are subject to environmental review by the City Planning Commission or the Board of Standards and Appeals.

HISTORIC AND CULTURAL RESOURCES

PHASE 1

Phase 1 of the Proposed Project would not be expected to have significant adverse impacts on historic and cultural resources. The design for the Phase 1 park and public space improvements within the Historic District would be reviewed and approved by Landmarks Preservation Commission (LPC) under the New York City Landmarks Law and/or the New York State Office of Parks, Recreation & Historic Preservation (OPRHP). The proposed landscaping work within the Historic District would be consistent with the guidelines for new landscaping in the *Governors Island Preservation and Design Manual*, and changes to Colonels Row Green, Nolan Park, and the Parade Ground would not adversely affect the character-defining elements of those features. In particular, the improvements to the Parade Ground for active recreation would not significantly affect the overall appearance of this character-defining element of the Historic District or its visual appearance as an open lawn.

Since Phase 1 of the project would occur on or within in close proximity to contributing elements of the Governors Island Historic District and the Governors Island National

Monument, a construction protection plan (CPP) would be developed—based on the requirements stipulated in the New York City Department of Buildings (DOB) *Technical Policy and Procedure Notice* (TPPN) *#10/88*—to ensure that historic structures and landscape elements within 90 feet of construction activities would not be inadvertently affected during construction. The CPP would need to be reviewed and approved by LPC and/or OPRHP (as appropriate). Furthermore, construction of the Proposed Project would be conducted in accordance with the guidelines of the Design Manual and with the New York City Landmarks Law.

Since Phase 1 of the Proposed Project would not alter any buildings in the Historic District, it would not be expected to have an adverse contextual effect on historic resources in the surrounding area, including adjacent portions of the Governors Island Historic District and the Governors Island National Monument.

LATER PHASES

The parks and open space improvements to be developed on the Island during the Later Phases of the Proposed Project are not anticipated to have significant adverse visual or contextual effects on architectural resources. The design for the park and public space improvements that are located within the Historic District, including plans for the new open canopy ferry shelter at Yankee Landing, would be reviewed and approved by LPC under the New York City Landmarks Law and/or OPRHP (as appropriate), pursuant to the Design Manual.

As in Phase 1 of the Proposed Project, a CPP would be developed for the Later Phases of the Proposed Project to ensure that historic structures and landscape elements within 90 feet of construction activities would not be inadvertently affected during construction.

At this time, the uses associated with the Later Phases of the Island's redevelopment, including for the North Island historic buildings and the two South Island development zones, are not specifically proposed, defined, or designed and their operations have not yet been planned. Details are not available regarding the renovations of any buildings within the Historic District; nor are they available regarding the siting, height, massing, design, or materials of the buildings to be developed on the South Island in the Later Phases-Island Redevelopment of the Proposed Project. Given the lack of plans to review, it is not possible at this time to determine whether the full development of the Proposed Project would or would not be inconsistent with the character of the Governors Island Historic District or the Governors Island National Monument. The Trust intends to develop design guidelines for the South Island's two development zones. These guidelines would be intended to create a harmonious relationship between the new buildings, the historic buildings and landscapes, and the new landscapes. These guidelines shall also take into account potential shadow impacts resulting from the new buildings to the existing historic properties and character-defining landscape features. Further, when such development has been planned and designed, it is anticipated that it would require land use actions that would be subject to CEQR, and the associated future environmental review would take into account potential impacts to historic resources.

URBAN DESIGN AND VISUAL RESOURCES

PHASE 1

Phase 1 of the Proposed Project would not result in any significant adverse impacts to urban design. The proposed work would enhance the context of buildings within the Governors Island Historic District that are adjacent to project areas; create new open spaces and enhance

connections between open spaces; and improve existing streetscape elements. The Proposed Project would not result in any adverse changes to building types, arrangements, or uses, streetscape elements, open spaces, natural resources, or wind or sunlight characteristics.

Phase 1 of the Proposed Project would not obstruct or significantly affect any existing view corridors or visual resources.

LATER PHASES

Along with the Phase 1 project elements described above, the full development of the Proposed Project through 2030 would be anticipated to have the following effects on urban design and visual resources.

Any reuse of buildings within the Governors Island Historic District in the Later Phases of the Proposed Project would require compliance with the guidance of the Design Manual. While the potential uses of buildings in this area could be different from historic uses, they would be an improvement over the current vacancies. The types and arrangements of the buildings in this area, and their relationship to surrounding open spaces and natural resources, would not change with the Proposed Project. Therefore, this element of the Proposed Project would not result in a significant adverse impact to urban design.

The lighting, fencing, and paving treatments that are currently installed along the waterfront esplanade and adjacent roadway are not notable or unique to Governors Island. Therefore, the replacement of these elements with a cohesive streetscape program for the Great Promenade would be considered an enhancement to the Island's urban design. The proposed improvements along the Great Promenade—including at Liberty Terrace and the South Prow—would provide new open space opportunities and would not result in a significant adverse change to the Island's building types, arrangements, or uses, natural resources, or wind or sunlight characteristics.

The proposed change to the South Island's topography (the Hills) would be anticipated to improve the area's wind characteristics and—by providing a better environment for trees—create more shade opportunities.

The potential siting, height, massing, design, and materials of the buildings to be developed on the South Island have not yet been developed or designed. Given the lack of plans to review, it is not possible at this time to determine whether the proposed redevelopment—alone or in combination with the new topography of the Hills—would or would not negatively affect the context of the neighboring buildings and open spaces on the North Island. It is anticipated that design guidelines will be developed for the South Island development zones. These guidelines would be intended to create a harmonious relationship between the new buildings on the South Island, the historic buildings and landscapes on the North Island, and the new landscapes. Further, when such development has been planned and designed, it is anticipated that it would require zoning and other land use actions that would be subject to CEQR, and the associated future environmental review would take into account potential impacts to urban design.

The proposed improvements to the Great Promenade on both the North and South Island would enhance the context of the Island's existing, panoramic views and the context of the visual resources on the North Island. On the South Island, the creation of the two-level promenade areas at the South Prow and Liberty Terrace would expand the Island's current viewing opportunities. The North Island's significant view corridors are all oriented to the north, east, and west; therefore, the proposed creation of the Hills on the South Island would not obscure any

significant view corridors from the North Island. In summary, the Proposed Project would not have a significant adverse effect on the North Island's view corridors.

The potential siting, height, massing, design, and materials of the buildings proposed for the South Island have not yet been developed or designed. Therefore, at this time it is not possible to determine whether this proposed redevelopment would or would not negatively affect the context of the visual resources on the North Island or views of the North Island from these off-Island areas to the north, east, and west. When such development has been planned and designed, it is anticipated that it would require zoning and other land use actions that would be subject to CEQR and the associated future environmental review would take into account potential impacts to view corridors and visual resources.

NATURAL RESOURCES

The Proposed Project would not result in any significant adverse environmental impacts to floodplains and natural resources. The Proposed Project would provide a benefit to natural resources by improving existing open spaces and creating approximately 32 acres of new open space, which would increase the diversity and quality of habitats available on Governors Island. These higher quality habitats would benefit wildlife currently using the Island as full time and seasonal residents, and attract additional wildlife species and individuals, in particular birds during the spring and fall migration. Due to its geographic position along the Atlantic migration routes of many bird species, Governors Island has the potential to be a valuable stopover habitat for migrants passing through the metropolitan area. The integration of sustainable design principles for the proposed park and open space areas would ensure that these newly created open spaces and habitats would continue to benefit natural resources into the future. These design principals include reshaping the topography of the Island around the projected 100-year flood elevation to maintain sufficient separation between the root zone of planted trees and projected saltwater levels, and planting vegetation tolerant of salt spray and elevated salinity levels within the wetlands created as part of the Proposed Project.

The decrease in the total amount of impervious surfaces within the project site would decrease the discharge of stormwater to the Upper New York Bay. The implementation of measures that would be part of the post-construction stormwater management measures incorporated into the Stormwater Pollution Prevention Plans (SWPPP) would further reduce discharge of stormwater to the Upper Bay and improve its quality. Incorporation of the Park Master Plan's proposed sustainable design measures, such as controlling the application of fertilizers and use of non-toxic pest and disease control for plants, could also minimize the potential for the operation of the park and open spaces to affect the quality of stormwater discharged to the Upper Bay.

PHASE 1

Construction and operation of Phase 1 of the Proposed Project would not have the potential to result in any significant adverse impacts to existing terrestrial plant and wildlife communities, floodplains, wetlands, water quality, aquatic biota in the Upper New York Bay, or threatened or endangered species. Most of the Phase 1 elements of the Proposed Project are located at an elevation above the 100-year flood elevation. With the implementation of erosion and sediment control measures that would be specified in a SWPPP, stormwater discharged during construction of Phase 1 would not result in significant adverse impacts to littoral zone tidal wetlands, or to water quality, or aquatic biota of the Upper Bay. While the rehabilitation of the seawall and reconstruction of the stormwater outfalls would have the potential to result in

increases in suspended sediment, these increases would be localized and temporary and would be minimized through the use of measures to contain suspended sediments. Therefore, these in-water construction activities would not result in significant adverse impacts to water quality or aquatic biota of the Upper Bay.

While the consolidation of the stormwater outfalls from 132 to 29 would generally result in an increase in the in the diameter of the outfall and increased flow capacity, the overall stormwater runoff peak flows from the Island would decrease because of the total decrease in impervious surfaces, which would also improve the quality of the stormwater discharged. Because stormwater runoff would discharge to a tidal body of water—Upper New York Bay—the increase in flows at each of the modified outfalls would have a negligible effect on the water quality or aquatic resources of the Bay. Additionally, the riprap installed at the toe of the rehabilitated seawall would be designed to prevent scour at the base of the seawall and dissipate the flow of stormwater discharged through the consolidated stormwater outfalls, minimizing the potential for resuspension of bottom sediment during discharge of stormwater. The implementation of measures that would be part of the post-construction stormwater management measures incorporated into the SWPPP would further reduce discharge of stormwater to the Upper Bay and improve its quality. Therefore, discharge of stormwater would not have the potential to result in significant adverse impacts to water quality or littoral zone tidal wetlands of the Upper Bay.

During some of the seawall rehabilitation and stormwater outfall reconstruction activities, removal of bottom sediment and existing riprap at the toe of the seawall would adversely affect aquatic biota through the loss of aquatic habitat and possibly some benthic invertebrate individuals. However, these adverse impacts would be minimal and would be offset through the restoration of aquatic habitat achieved through the replacement of approximately 0.7 miles of existing seawall with riprap revetment. By removing the seawall and relocating the new headwall landward of the existing seawall location, it is anticipated that more fill material would be removed than would be placed as riprap at the toe of the seawall for scour protection and dissipation of stormwater discharged through the consolidated stormwater outfalls, resulting in a net benefit to aquatic resources. Additionally, the stone riprap would increase the diversity of aquatic habitats along the shoreline of the Island and it is expected to be quickly colonized by encrusting organisms and benthic macroinvertebrates. The construction of one or both of the proposed 12-inch diameter water mains under Buttermilk Channel using Horizontal Directional Drilling (HDD) would not result in any in-water construction activities and would not affect aquatic resources within Buttermilk Channel. Upland disturbance associated with the construction of the water mains would occur within developed urban areas with limited habitat for wildlife. Therefore, temporary disturbance that would occur during the water main construction would not result in adverse impacts to natural resources.

Grading, construction, and landscaping activities associated with Phase 1 would directly impact wildlife due to loss of habitat, for those individuals unable to find suitable available habitat nearby. However, the majority of the wildlife species currently using the habitats on Governors Island are extremely common to urban areas and tolerant of disturbances and therefore Phase 1 would not result in significant adverse impacts to their populations by the loss of some individuals. In the North Island, the replacement of existing asphalt surfaces with lawn and shade trees at Soissons Landing, the South Battery, Liggett Terrace and the Battery would have the potential to result in indirect impacts to wildlife individuals such as avoidance of certain habitat areas due to increased human activity, noise, vibrations, or construction equipment during land disturbing activities. However, the species occurring in these areas are primarily

limited to grey squirrels and non-native, invasive birds that are highly tolerant of urban habitats and would be unlikely to be highly disturbed by these activities. The replacement of asphalt surfaces with pervious vegetated green space would improve habitat conditions for native birds and other wildlife. The flower beds to be planted as part of Phase 1 would also provide nectar sources for butterflies and bees. The creation of Hammock Grove and Play Lawn would benefit terrestrial wildlife, particularly birds, by increasing forest cover on the Island.

LATER PHASES

Construction and operation of the full development of the Proposed Project would not have the potential to result in any significant adverse impacts to existing terrestrial plant and wildlife communities, floodplains, wetlands, water quality, or aquatic biota in the Upper New York Bay. The Later Phases-Park and Public Spaces would result in beneficial effects on plants and wildlife on and around the Island.

Portions of the park and open space elements to be developed in the South Island would be located within the current 100-year floodplain. Fill material would be added for the construction of the Later Phases-Park and Public Spaces to raise the elevation above the projected future 100-year flood elevation. The design of any new buildings within the development zones for the Later Phases-Island Redevelopment would have to be consistent with the New York City Building Code requirements for construction within the 100-year floodplain.

With the reduction in impervious cover and implementation of erosion and sediment control measures and the stormwater management measures that would be specified in the SWPPP, stormwater discharged during construction of the full development of the Proposed Project would not result in significant adverse impacts to littoral zone tidal wetlands, or to water quality, or aquatic biota of the Upper Bay.

The construction of the Great Promenade would not result in the loss of wildlife habitat but would have the potential to disturb waterfowl present offshore during fall and winter. However it is expected that these birds would be able to avoid construction areas and move into similar nearby habitats. The construction of Liberty Terrace, the Hills, and South Prow would result in the loss of disturbed areas that are of limited value for wildlife. Therefore, construction of these elements would result in minimal impact to natural resources. The construction of Liberty Terrace and the Hills would have the potential to result in indirect impacts to wildlife individuals using the open space areas created in the nearby Hammock Grove and Play Lawn (completed in Phase 1), such as avoidance of certain habitat areas due to increased human activity, noise, or construction equipment during land disturbing activities. However, because similar habitats would be available elsewhere on the Island, significant adverse impacts to wildlife would not occur as a result of construction of the Later Phases-Park and Public Spaces. The development zones on the South Island largely overlap with currently developed areas. Therefore, little existing open space habitat would be modified or lost by future construction activities within these areas with the exception of an area of intermittently mowed, occasionally overgrown lawn south of Division Road in which native birds were observed. However, loss of this small habitat dominated by non-native plant species would not result in significant adverse impacts on the populations of these species. Therefore, full development of the Proposed Project would not result in significant adverse impacts to existing terrestrial plants and wildlife.

The proposed development of the Hills would enhance the Island's native plant diversity and likely provide habitat for native wildlife, particularly migrating birds. Governors Island currently lacks suitable stopover habitat for most migratory landbird species, and the trees, understory

shrubs and herbaceous ground cover planned for the Hills would likely improve stopover refueling conditions for migrants on the Island. The South Prow would create the only wetland habitat on Governors Island. This approximately 3-acre created wetland would be fed by brackish groundwater as well as stormwater and would be designed to withstand flooding. Plantings would include native wetland species tolerant of salt spray and elevated salinity levels. Despite its small size, the wetland could provide breeding habitat for some wetland-associated birds that are tolerant of human activity, which would likely be high during the peak summertime visitation period. Such species include red-winged blackbird, gray catbird, song sparrow, and common yellowthroat. The wetland may also provide a stopover site for these birds and additional species such as northern waterthrush, marsh wren, and swamp sparrow migrating through the region. The proposed wetland plantings would likely attract dragonflies, butterflies, and bees.

HAZARDOUS MATERIALS

Previous studies identified the potential for subsurface contamination and hazardous materials in buildings (such as asbestos-containing materials [ACM] and lead-based paint) at the project site, as follows:

- The historical military uses included warehouses; barracks; arsenals; hospitals; a golf course; offices; an airstrip; potential plane storage and maintenance; and a railroad with a rail yard, locomotive house, ash pit, and locomotive repair spit. The historical site uses may have involved the use and storage of various chemicals, petroleum (including numerous storage tanks, the majority of which have been closed and removed), pesticides, and herbicides.
- Governors Island was historically listed in regulatory databases as a generator of hazardous waste—this was associated with the military uses on the Island.
- Petroleum spills affecting soil and/or groundwater were identified at the project site, and were remediated as part of the USCG base closure activities and closed by NYSDEC.
- A subsurface investigation conducted in 2011 throughout the project site identified: subsurface contamination generally reflective of urban fill materials (e.g., elevated metal and semi-volatile organic compound [SVOC] concentrations); the presence of pesticides and/or PCBs in soil in portions of the site, likely due to fill materials and/or historical uses; and evidence of apparent low-level residual petroleum contamination in soil and/or groundwater in portions of the project site.
- Historical records identified the potential for the presence of buried ordnance beneath the project site.
- Based on the age of the on-site buildings, lead-based paint; ACM; and polychlorinated biphenyl (PCB)-containing fluorescent lighting fixtures, electrical equipment and hydraulic equipment may be present.

To avoid significant adverse impacts, the following measures would be undertaken prior to and during construction of the Proposed Project (in both the new park and open space areas and the development zones):

- All subsurface soil disturbance would be performed in accordance with existing procedures relating to potential unexploded ordnance, including the use of ground-penetrating radar prior to conducting excavation.

- During all dewatering required during subsurface work, water would be discharged in accordance with NYSDEC State Pollutant Discharge Elimination System (SPDES) permitting requirements. If necessary, the water would be pretreated prior to discharge.
- All excavated soil and fill materials requiring off-site disposal would be handled and disposed of in accordance with applicable regulatory requirements. Should contaminated soil and/or petroleum tanks be encountered, applicable regulatory requirements (e.g., those relating to spill reporting and tank registration) would be followed to address removal of the tanks and any associated soil or groundwater contamination.
- Any tanks that would be disturbed by excavation activities would be closed and removed, along with any contaminated soil, in accordance with applicable requirements including NYSDEC spill reporting requirements. If historical tanks are discovered, they would be properly registered, if required, with NYSDEC and/or the New York City Fire Department. The NYSDEC Petroleum Bulk Storage record and Spill Prevention, Countermeasure and Control Plan (SPCC) would be kept updated with the status of the tanks.
- All such disturbance would be performed in accordance with a NYCDEP-approved Remedial Action Plan (RAP) and Construction Health and Safety Plan (CHASP), the scope of which would be based on the findings of the existing studies. The RAP would provide the appropriate clean fill importation criteria and criteria for allowable reuse of excavated site soils (whether in the uppermost layer of landscaped areas or elsewhere), handling, stockpiling, testing, transportation, and disposal of excavated materials, including any unexpectedly encountered contaminated soil and petroleum storage tanks, in accordance with applicable regulatory requirements. The CHASP would ensure that subsurface disturbance is performed in a manner protective of workers, visitors to the Island, and the environment.

With these measures, the Proposed Project would not result in any significant adverse impacts related to hazardous materials.

WATER AND SEWER INFRASTRUCTURE

The improved and expanded open spaces, new development, and retenanted historic structures that would result from the Proposed Project would attract new visitors and introduce new workers and residents to the Island, which could create new demands on the City's water and wastewater sewer infrastructure. An increase in pervious surfaces in the future with the Proposed Project would decrease the total amount of stormwater runoff on the Island.

PHASE 1

As part of Phase 1 of the Proposed Project, one or both of the new water mains are proposed to be constructed to provide potable water to the Island. The proposed 12-inch diameter water main(s) would provide water from Brooklyn under the Buttermilk Channel and would connect into the Island's existing water infrastructure. The Phase 1 open spaces, in and of themselves, are not expected to necessarily materially affect visitation to the Island, but this analysis assumes that the existing water demand on the Island would be a new demand on the City's water system after the installation of the water main(s) because drinking water is currently provided on the Island by means of delivered bottled water.

Phase 1 improvements to the park and public spaces on the Island would include the installation of an irrigation system for approximately 22.94 acres of the Island. The proposed irrigation of approximately 22.94 acres would result in an additional water demand of 131,446 gallons per

day (gpd). Therefore, the total water demand for Phase 1 is estimated to be 314,645 gpd, which includes irrigation plus the water demand for existing uses on the Island. There would be no change in sanitary sewage generated as compared with conditions in the future without the Proposed Project because sanitary sewage generated from the community facility/commercial uses and park visitors would not change and irrigation flows are assumed to not be discharged to the sewer system. In addition, the Phase 1 open space improvements and enhancements would result in a decrease in the amount of impervious surface on the Island, and therefore result in a decrease in the total amount of stormwater runoff. The Trust would also modify the storm sewers, which would result in an overall reduction in the total number of stormwater outfalls. There are currently 132 existing stormwater outfalls serving the island. Many of these outfalls serve small catchment areas less than one acre. The proposed work includes reconstruction of 28 outfalls, construction of one new outfall and abandoning and sealing the remaining seawall outfall penetrations. This improvement, which would be undertaken as part of the seawall rehabilitation, would reduce the total number of outfalls from 132 to 29. Therefore, Phase 1 would not result in any significant adverse impacts on the water supply or wastewater conveyance and treatment infrastructure. Due to the reduction of impervious surfaces and a net decrease of stormwater outfalls, Phase 1 would not result in any significant adverse impacts on the quality of stormwater runoff.

LATER PHASES

The full development of the Proposed Project would result in an increased demand on the City's water supply and the wastewater conveyance and treatment infrastructure.

The water demand for the full development of the Proposed Project would be approximately 1,461,116 gpd. The New York City water supply system delivers 1.1 billion gallons per day (bgd), therefore the Proposed Project would result in a 0.13 percent increase in demand on the system. Furthermore, the water demand includes estimated irrigation flows for the month of peak irrigation demand (July). Irrigation flows would be lower in other months, and it is expected that irrigation would not occur every day; therefore the Proposed Project's water demand would be lower during those times. While full development of the Proposed Project would result in an increase in water demand, the new 12-inch water mains constructed as part of Phase 1 would provide adequate water supply. Therefore, it is expected that there would be adequate water service for the full development of the Proposed Project and there would be no significant adverse impacts on the City's water supply.

The incremental sewage generation by the full development of the Proposed Project, when compared with the future without the Proposed Project would be 616,534 gpd. This incremental volume would be 2.2 percent of the average daily flow at the Red Hook Wastewater Treatment Plant (WWTP) and would not result in an exceedance of the Red Hook WWTP's capacity, because of the small increase of sanitary flow to the combined sewer system. Based on extensive discussions between The Trust and NYCDEP, the conveyance infrastructure between the force main and WTTP is also sufficient to handle project-generated flows. Therefore, based on the potential development scenarios analyzed, the incremental sanitary sewage generation would not be expected to create a significant adverse impact on the City's sanitary sewage treatment system.

The full development of the Proposed Project would result in a decrease in the total amount of impervious surfaces from 52 percent to 41 percent of the 150-acre site. As a result, the full development of the Proposed Project would result in increased infiltration of stormwater and

decreased stormwater runoff to the New York Harbor. In addition, in accordance with NYSDEC SPDES General Permit for Stormwater Discharges from Construction Activity (GP-0-10-001), an SWPPP consisting of both temporary erosion and sediment controls and post-construction stormwater management practices would be prepared prior to commencing any construction activities associated with the Later Phases. The erosion and sediment control practices would be implemented during construction activities to minimize the potential for sediment laden runoff into the adjacent water bodies. The project site would incorporate post-construction stormwater control measures that would be designed to meet the requirements of the SWPPP and would improve the quality of stormwater runoff. The implementation of these measures as part of the Proposed Project would result in the overall improvement of stormwater runoff.

At this time, the uses associated with the Later Phases-Island Redevelopment are not specifically proposed, defined, or designed and their operations have not yet been planned. In the future, when the specific uses for the Later Phases-Island Redevelopment are identified and designed, it is anticipated that additional environmental review will be required. At that time, in coordination with NYCDEP, the Trust will commit to creating a best management practices (BMP) Concept Plan that would identify potential BMPs that would achieve an overall stormwater release rate of 0.25 cubic feet per second (cfs) or 10 percent of the allowable flow rate (whichever is greater).

Calculations from the NYCDEP flow volume matrix for the full development of the Proposed Project identified an approximately five- to six-time increase in the amount of sanitary flow discharge to the combined sewer system located in Brooklyn as compared with existing conditions. Full development of the Proposed Project, as a result of the Later Phases-Island Redevelopment component, could result in appreciable increases in sanitary flows to the combined sewer system in Brooklyn However, the uses associated with the Later Phases-Island Redevelopment are not specifically proposed, defined, or designed and their operations have not yet been planned. When such development has been planned and designed, it is anticipated that it would require zoning and other land use actions that would be subject to CEQR and the associated future environmental review would take into account potential impacts on sanitary and stormwater drainage and management.

SOLID WASTE AND SANITATION SERVICES

For the Proposed Project, it is anticipated that The Trust for Governors Island (The Trust) would collect solid waste for the park and public space (both Phase 1 and later phases) and a private carter would collect solid waste generated by future development. In both cases a private trucking service would remove the solid waste. In accordance with the City's Solid Waste Management Plan, the Proposed Project would also comply with the City's recycling program.

PHASE 1

Phase 1 of the Proposed Project would generate approximately about 28 tons of solid waste per week. In comparison, the No Build condition will generate about 27 tons of solid waste per week. Compared with the 13,000 tons per day that private carters currently handle, it is expected that private carters would have sufficient capacity to accommodate the additional waste generated by Phase 1 of the Proposed Project. Therefore, Phase 1 of the Proposed Project would not result in any significant adverse impacts to solid waste and sanitation services.

LATER PHASES

Full development of the Proposed Project would result in a net increase of approximately 130 tons of solid waste per week compared to conditions in the future without the Proposed Project, all of which is anticipated to be removed by a private trucking service. Given that a truck can haul about 10 tons of solid waste, full development of the Proposed Project would require 13 additional truck trips per week off the Island than the No Build condition. Compared with the 13,000 tons per day that private carters currently handle, it is expected that private carters would have sufficient capacity to accommodate the additional waste generated by the full development of the Proposed Project. Therefore, full development of the Proposed Project would not result in any significant adverse impacts to solid waste and sanitation services.

ENERGY

There would be no potential for significant adverse impacts on energy because the Proposed Project would not significantly affect the transmission or generation of energy. Upon completion, the Proposed Project would comply with the *New York City Energy Conservation Construction Code*. In compliance with the code, the basic designs of all buildings would incorporate the required energy conservation measures, including meeting the code's requirements relating to energy efficiency and combined thermal transmittance.

TRANSPORTATION

PHASE 1

The Trust has aggressively programmed spaces and events to attract visitation to the Island, resulting in phenomenal growth in patronage in early years, with slightly less dramatic increases in recent years. It is expected that such increases in visitation will continue through 2013 with or without the Phase 1 open space improvements. However, with the improvements, visitors would be able to enjoy the Island's well designed and lushly planted landscapes, instead of the continual programmed use of somewhat barren collection of lawns, fields, and parking lots. In either case, visitors are expected to continue to flock to the Island in increasing numbers—limited only by the capacity of the ferry services, which is entirely dependent on the operating budget of The Trust and not associated with the proposed Phase 1 improvements. Therefore, Phase 1 of the Proposed Project would not result in any incremental trips or changes in the provision of public access to Governors Island and it would not have the potential for any transportation-related impacts.

PHASE 1 AND LATER PHASES-PARK AND PUBLIC SPACES

Phase 1 and the Later Phases-Park and Public Spaces would not result in any significant adverse transit, parking, or pedestrian safety impacts. Increased trip-making resulting from additional visitation drawn to the completed Later Phases-Park and Public Spaces and more regular and increased ferry service to the Island from the BMB and Pier 6 portals, however, is expected to result in significant adverse traffic impacts at two approaches/lane groups: (1) westbound approach at South Street and Old Slip during the weekday midday peak hour near the BMB; and (2) eastbound approach at Joralemon Street and Furman Street during the weekday PM peak hour near Pier 6. The mitigation analyses show that both of these impacts can be mitigated with minor adjustments to existing signal timings. For pedestrian operations, significant adverse impacts were identified at two crosswalks: (1) south crosswalk at State Street and the M15

+SelectBusService (SBS) Bus Loop at Peter Minuit Plaza during the weekday midday and PM peak periods; and (2) west crosswalk at State Street and Whitehall Street during the weekday midday and PM peak periods, both near the BMB. As detailed later in "Mitigation," the first impact can be mitigated with modification of the existing signal to more efficiently process pedestrian flow across low-conflicting vehicular traffic volumes. The second can be mitigated by widening the existing crosswalk by one foot. In addition, a widened sidewalk in front of the Manhattan ferry portal at the BMB would be necessary to adequately accommodate the projected visitation demand. In front of the BMB, there is currently a narrow sidewalk. During peak visitation, The Trust regulates visitor queuing using part of the roadway adjacent to the BMB and deployment of traffic control agents. With Phase 1 and Later Phases-Park and Public Space, increased visitation (especially during weekend days) and year-round access are expected. Therefore, in addition to operational measures, The Trust is expected to evaluate physical improvements to address pedestrian access and circulation needs along the frontage of the BMB, which would become more pertinent over time, taking into consideration Governors Island visitors, New York City Department of Transportation's (NYCDOT) Slip 5, and the BMB's planned hotel, restaurant, and catering facility (redevelopment project that is planned to be completed in the future without the Proposed Project), to ensure that the projected pedestrian activities can be adequately accommodated. The Trust would continue to regulate visitors until a design plan has been implemented. With modest increases in peak hour vehicular and pedestrian traffic projected for locations near the BMB and Pier 6, Phase 1 and Later Phases-Park and Public Spaces are not expected to result in any significant adverse pedestrian safety impacts. Nonetheless, to improve vehicular and pedestrian safety, pedestrian safety signs, such as "Turning Vehicles Yield to Pedestrians" and/or School Advance Warning assemblies are recommended for installation at the Court Street intersections with Atlantic Avenue and Livingston Street.

PHASE 1, LATER PHASES-PARK AND PUBLIC SPACES, AND LATER PHASES–ISLAND REDEVELOPMENT

The full development of the Proposed Project, which includes Phase 1, Later Phases-Park and Public Space, and Later Phases–Island Redevelopment components, would substantially increase vehicular, transit, pedestrian, and parking demand during the weekday and weekend peak periods. Significant adverse impacts would likely result, beyond those identified as part of the quantitative analyses presented for the Phase 1 and Later Phases-Park and Public Space components. The evaluation of these impacts and the identification of potential mitigation measures would be the subject of future environmental review(s) when the programming of the Later Phases–Island Redevelopment becomes more defined.

AIR QUALITY

PHASE 1

Phase 1 of the Proposed Project would improve existing open spaces and open new areas to public access on Governors Island (the Island) and would not result in the development of new buildings. It would not result in a significant number of new vehicle or ferry trips or other significant changes. Therefore, Phase 1 would not result in a significant adverse impact on air quality.

LATER PHASES

Based on the traffic analysis conducted for the Later Phases-Park and Public Spaces, the number of peak hour trips at any one intersection is expected to be below the *CEQR Technical Manual* screening analysis thresholds. Therefore, the Later Phases-Park and Public Spaces would not have the potential for significant adverse impacts on air quality from the projected additional vehicle trips. The radiant heating system for the Shell that would be developed in the Later Phases-Park and Public Spaces would not have the potential for significant adverse impacts on air quality. Nor would the maximum predicted pollutant concentrations, and concentration increments from on-road transportation be likely to exceed the relevant guidance thresholds and ambient air quality standards. Ferry operations could have the potential to significantly affect pollutant concentrations locally in areas adjacent to the ferry landings; however, with appropriate site design and/or emission mitigation measures, significant adverse impacts on air quality can be avoided.

Since the specific future uses for the Later Phases-Island Redevelopment have not been proposed, defined, or designed, it is not possible to perform a detailed air quality analysis of potential transportation impacts from the full development of the Proposed Project. Therefore, the potential for impacts from transportation emissions is assessed qualitatively. Any new buildings constructed as part of the Later Phases-Island Redevelopment would require heat and hot water systems, which would likely use natural gas or oil as fuel. While a detailed assessment of these sources is not possible since the specific use and design of these buildings have not been determined, the assessment approach for future environmental review is described and reasonable measures that could be implemented to avoid the potential for significant adverse impact are identified. The public school, research, or university laboratories that could be included in the Later Phases-Island Redevelopment can be designed to avoid the potential for significant adverse impact on air quality in the event of an accidental chemical spill. The design and operational measures that may be required would be reasonable and typical for laboratory facilities.

At such time when the Later Phases-Island Redevelopment has been planned and designed, it is anticipated that it would be subject to CEQR, and that the associated future environmental review would take into account analyses of potential air quality impacts from the full development of the Proposed Project.

GREENHOUSE GASES

The building energy use and transportation associated with the Proposed Project (Phase 1 and Later Phases combined) would result in approximately 52,761 metric tons of carbon dioxide equivalent (CO_2e) emissions per year with the URO, which was determined to result in more GHG emissions than the MUO, due to the more intensive energy consumption expected from academic and research uses, and the greater number of total projected vehicle trips. Emissions from Phase 1 stem only from transportation to and from the Proposed Project since Phase 1 would not include any new buildings. As the number of trips to and from the Proposed Project in the Later Phases would far exceed the number of trips in Phase 1, emissions for Phase 1 would be well below the calculated emissions for the full project.

The Master Plan has accounted for the projected 2-foot sea level rise reducing the Island's vulnerability to storm surges as compared with existing conditions, by designing the new topography on the island for Phase 1 at 4 feet above the current 1-in-100 year flood levels,

including an additional 2 feet to elevate tree roots above saltwater levels during severe storms. In addition, saltwater tolerant plant species will be used in low lying areas where practicable.

The Later Phases-Island Redevelopment has not yet been designed in detail. However, the final design will incorporate design measures such as raising the grade and/or protective measures such as storm barriers and sealed critical infrastructure designed to accommodate a 2-foot increase in the 1-in-100 year storm level by the end of the century, or the most recent appropriate level based on the best information available at the time final designs are made. As detailed local climate change projections become available and are adopted into the City's infrastructure design criteria, such criteria would be incorporated into the Later Phases-Island Redevelopment component of the Proposed Project.

The vast majority of the greenhouse gas emissions would be associated with building use and with ferry service which would need to be expanded to accommodate the uses in the Later Phases. The Development Areas will be designed to incorporate climate resilience and energy efficiency measures in the future when undertaking detailed design. The Trust and/or future applicant will analyze the climate resilience of the Development Areas and the GHG emissions from building and the ferry service in the Later Phases as part of future environmental review, and will ensure that the implementation of the Later Phases are developed in a manner consistent with the GHG reduction goal.

NOISE

PHASE 1

Phase 1 of the Proposed Project would not result in noise level increases at any sensitive noise receptors. Noise levels at the new, publicly accessible open space included in Phase 1 would be expected to exceed the CEQR 55 dBA $L_{10(1)}$ guideline for outdoor areas requiring serenity and quiet, as is also the case at these areas under existing conditions and conditions in the future without the Proposed Project. However, such noise levels would be comparable to or less than noise levels in other open space areas in New York City. Consequently, Phase 1 of the Proposed Project would not result in any significant adverse noise impacts.

LATER PHASES

Full development of the Proposed Project could potentially include a new public school (and associated playground) as part of the Later Phases-Island Redevelopment. Noise generated by the proposed school playground may result in substantial noise level increases at some open space areas on the Island, depending on the specific location of the proposed school. Consequently, the school playground could potentially result in a significant adverse noise impact if it is located immediately adjacent to an open space area. The specific future uses for the Later Phases-Island Redevelopment have not yet been proposed, defined, or designed at this time. Therefore, these potential noise impacts will be analyzed in greater detail in further environmental reviews associated with any future rezoning actions. Buildings associated with the Later Phases-Island Redevelopment located within 20 feet of the proposed school playground would require up to 31 dBA of window/wall attenuation depending on the specific location and land uses of the buildings. These attenuation requirements would be analyzed in greater detail in further environmental reviews. Noise levels at the new, publicly accessible open space included the Later Phases-Park and Public Spaces would be expected to exceed the CEQR 55 dBA $L_{10(1)}$ guideline for outdoor areas requiring serenity and quiet, as is also the case at these

areas under existing conditions and conditions in the future without the Proposed Project. However, such noise levels would be comparable to or less than noise levels in other open space areas in New York City.

PUBLIC HEALTH

Public health is the effort of society to protect and improve the health and well-being of its population. The *CEQR Technical Manual* states that a public health assessment is typically appropriate if a project would result in significant unmitigated adverse impacts on air quality, water quality, hazardous materials, or noise. As analyzed in this GEIS, Phase 1 and the Later Phases-Park and Public Spaces component of the Proposed Project would not result in significant unmitigated adverse impacts for any areas of technical analysis. Therefore, a full assessment of potential impacts on public health is not necessary, and Phase 1 and the Later Phases-Park and Public Spaces would not result in any significant adverse impacts on public health.

Since the uses associated with the Later Phases-Island Redevelopment are not specifically proposed, defined, or designed, their operations have not yet been planned. When such development has been planned and designed, it is anticipated that it would require zoning and other land use actions that would be subject to CEQR, and the associated future environmental review would take into account potential impacts to public health.

NEIGHBORHOOD CHARACTER

The neighborhood character of Governors Island is defined predominantly by its unique setting in New York Harbor, geographic isolation, historic structures and landscape, seasonal open space uses and associated visitor population, sweeping views of the harbor, and the unique distinction between the North Island and the South Island. This analysis finds that the Proposed Project would have a noticeable effect on the neighborhood character of the Island, but this change would be beneficial and not adverse.

PHASE 1

Phase 1 would not have the potential to result in significant adverse impacts in any of the technical areas that contribute to neighborhood character, nor would it have the potential to result in a combination of moderate effects that cumulatively could affect neighborhood character. In fact, Phase 1 would be expected to have a positive effect on neighborhood character by improving existing open spaces on the Island, opening new areas to public access, and enhancing the connections between existing open spaces. It would also provide necessary infrastructure to support the open space, institutional and seasonal accessory concession uses on the Island. Phase 1 would not result in the construction of any substantial buildings nor would it alter any buildings in the Historic District or have an adverse contextual effect on historic resources nearby. Therefore, Phase 1 of the Proposed Project would not result in any significant adverse impacts to neighborhood character.

LATER PHASES

The Later Phases-Park and Public Spaces would have a positive effect on the neighborhood character of Governors Island. Open space uses are an important contributing element to the Island's character, and the park and public spaces component of the Proposed Project would enhance open space uses on the Island and substantially complete the transformation of the

South Island from underutilized space into high quality, publicly accessible open space. In combination with Phase 1, the Later Phases-Park and Public Spaces would create a world class park by opening new areas to public access, and enhancing the connections between existing open spaces. Moreover, the Later Phases-Park and Public Spaces component would expand the Island's current opportunities for panoramic views by improving the promenade. The unique distinction between the North Island and the South Island would be preserved, as the South Island would be redeveloped with a major new park and public space while the North Island would retain its historic features and college campus-like character. The Later Phases-Park and Public Spaces component of the Proposed Project in combination with Phase 1 would not result in any significant adverse impacts to neighborhood character.

The full development of the Proposed Project, including the Later Phases-Island Redevelopment, would result in a noticeable change to the neighborhood character of the Island. However, it is expected that this change would be beneficial and not adverse. The character of Governors Island would continue to be defined by its unique setting in New York Harbor, geographic isolation, historic structures and landscape, open space uses, and sweeping views of the harbor. The Later Phases-Island Redevelopment would improve neighborhood character by introducing appropriate uses in place of underutilized land and vacant buildings and enlivening the site with new residential, worker, student, and visitor populations. The development proposed for the Island would not adversely impact existing uses or proposed open space uses, and would instead incorporate existing historical features and existing and proposed open space resources. The Proposed Project would restore and retenant the historic buildings in the North Island, which would complement the historic nature of the National Monument. Furthermore, Island open spaces would accommodate the new populations on the Island and would continue to serve as a destination open space for the region.

However, it is not possible at this time to determine whether the full development of the Proposed Project, including the Later Phases-Island Redevelopment, would result in significant adverse impacts to shadows, urban design and visual resources, historic resources, transportation, or noise that would have the potential to affect the neighborhood character of the Island. It is anticipated that future environmental review would assess the potential impacts to neighborhood character due to potential impacts in these technical areas as a result of the full development of the Proposed Project.

CONSTRUCTION

Potential construction impacts on park use, socioeconomic conditions, cultural resources, hazardous materials, transportation, air quality, noise, vibration, water quality and natural resources, and rodent control were analyzed for the Proposed Project. At this time, the development for the Later Phases–Island Redevelopment has not yet been specifically proposed, defined, or designed. Therefore, it is not possible to perform detailed construction analyses for all relevant areas of concern associated with the Later Phases–Island Redevelopment component.

- **Park users.** Construction activities are noisy, can create dust, cause air emissions, and generate heavy equipment and truck traffic. The Trust would institute a number of measures to minimize the effects on park users. While some park users would find their park experience disrupted to some degree, these measures would minimize the disruption during construction of Phase 1 and the Later Phases-Park and Public Spaces, each with a less than

two-year duration of construction. Therefore, construction would not result in a significant adverse impact on park users.

- **Socioeconomics.** Construction of the Proposed Project would create direct benefits on the economy from expenditures on labor, materials, and services over the course of the construction period. Construction would also result in substantial indirect and induced economic effects. The construction activity would also generate tax revenues for New York City and State. In addition, the Proposed Project would generate income taxes, and corporate and business taxes from direct, indirect, and induced activity. There would be no significant adverse impacts on socioeconomic conditions due to construction.
- **Historic and cultural resources.** Construction of the Proposed Project would require subsurface disturbance in multiple areas within the North Island. The protocol for all excavations planned within the Historic District, within areas of identified or potential archaeological sensitivity or adjacent to the seawall, would be as follows. Any planned excavations in these areas will be accompanied by construction plans and an archaeological work plan from an accredited archaeologist, to be reviewed and approved by LPC and/or OPRHP. Upon completion of the pre-approved excavation within these areas, an archaeological summary report will be sent to LPC and/or OPHRP. LPC and/or OPRHP will be informed immediately if any artifacts are identified during excavations at any location within the Historic District.

  The South Island is not considered to be potentially archaeologically sensitive, and thus the construction activities that would occur on this portion of the Island would not affect archaeological resources. Furthermore, LPC and OPRHP have determined that two proposed water main alignments would not affect archaeological resources within Brooklyn or Buttermilk Channel.

  Since both Phase 1 and the Later Phases of the Proposed Project would occur on or within in close proximity to contributing elements of the Governors Island Historic District, a CPP would be developed—based on the requirements stipulated in DOB *Technical Policy and Procedure Notice* (TPPN) *#10/88*—to ensure that historic structures and landscape elements within 90 feet of construction activities would not be inadvertently affected during construction. The CPP would need to be reviewed and approved by LPC and/or OPRHP (as appropriate). Furthermore, construction of the Proposed Project would be conducted in accordance with the guidelines of the Design Manual. The Proposed Project's CPP also would include stipulations to ensure that the off-Island potential resource at 43 Ferris Street would not be inadvertently affected during construction activities for the proposed water mains.
- **Hazardous materials.** Impacts during construction of any component of the Proposed Project would be avoided by preparing a site-specific the RAP and CHASP for implementation during construction and submitted to NYCDEP for review and approval. The RAP would provide the appropriate clean fill importation criteria and criteria for allowable reuse of excavated site soils (whether in the uppermost layer of landscaped areas or elsewhere), and handling, stockpiling, testing, transportation, and disposal of excavated materials, including any unexpectedly encountered contaminated soil and petroleum storage tanks, in accordance with applicable regulatory requirements. The CHASP would ensure that subsurface disturbance is performed in a manner protective of workers, others on the Island, and the environment. With these measures, construction of the Proposed Project would not result in any significant adverse impacts related to hazardous materials.

- **Transportation.** Construction worker trips would be concentrated in off-peak hours and would not represent a substantial increment during peak travel periods. Based on surveys of construction workers, they would travel primarily by public transportation, with a smaller percentage by private auto. The construction workers would likely travel to the Island from the Battery Maritime Building or Brooklyn. However, certain construction companies could arrange travel to the Island from different locations, using commercial vessels. The sites where workers would gather for transportation on other commercial vessels could be located throughout the metropolitan area. No one locality would experience a concentration of constructions workers gathering during construction of Phase 1 and the Later Phases-Park and Public Spaces, each with a less than two-year duration of construction. Therefore, no significant adverse impacts on vehicular traffic are expected from construction workers during construction of Phase 1 and the Later Phases-Park and Public Spaces. The construction of the Later Phases-Island Redevelopment would likely require longer construction periods and substantially more construction workers and deliveries, which may result in significant adverse transportation impacts. These impacts and potential mitigation measures will be assessed as part of future environmental reviews when details on the Later Phases-Island Redevelopment components become more defined.

  Like vehicular traffic, the public transit lines that workers would use are scattered throughout the metropolitan area, and no one subway or bus line would experience all workers using it. Therefore, no significant adverse impacts on public transit facilities are expected. Certain contractors may choose to stock pile construction materials at off-Island locations before transporting them to the Island. The trucks would come to the location over a period of days or weeks, and most likely, no contractor would try to accumulate a barge load of construction materials in one day. These stock-piling locations would be spread throughout New York Harbor, and no one location would be used for all Governors Island construction materials. Therefore, no significant adverse impacts are expected to be caused by the truck movement of construction materials. It is anticipated that waterborne transportation would be the primary means of moving construction workers, materials, and equipment to Governors Island during construction of the Proposed Project. The maritime trips generated by construction on Governors are expected to be limited to ferries and water taxis for the workers, and tug-assisted barges for equipment and materials. The number of daily trips to Governors Island for construction is expected to be minimal compared with the existing trips and would not add significantly to the waterborne traffic in New York Harbor. Therefore, no significant adverse impacts on marine traffic are expected as a result of construction of the Proposed Project.

- **Air quality.** Much of the fugitive dust generated by construction activities consists of relatively large particles, which are expected to settle within a short distance from the construction sites and not significantly impact any nearby buildings or people. All appropriate fugitive dust control measures, including watering of exposed areas and dust covers for trucks, would be employed during construction of all components of the Proposed Project. These measures would prevent fugitive dust from resulting in a significant adverse impact. To ensure that construction on Governors Island results in the lowest feasible diesel particulate matter (DPM) emissions, an emissions reduction program for all construction activities associated with the Proposed Project would be implemented. These measures would prevent engine emissions from resulting in a significant adverse impact.

- **Noise and vibration.** Construction noise is regulated by the New York City Noise Control Code and by the U.S. Environmental Protection Agency (USEPA) noise emission standards

for construction equipment. In addition, appropriate low-noise emission level equipment and operational procedures would be used. Compliance with noise control measures would be included in the contract documents as material specifications and by directives to the construction contractor. Noise, while being intrusive for short periods of time during certain construction activities, would not result in a significant adverse impact. Given the locations of construction on Governors Island, no significant adverse impacts caused by vibration are expected.

- **Water quality and natural resources.** In-water construction activities for the Proposed Project that result in sediment disturbance have the potential to cause short-term adverse impacts to water quality. However, the effects would be temporary and would be localized to the immediate vicinity of the seawall reconstruction. Any increase in suspended sediment or any contaminants released to the water column would be expected to dissipate shortly after the completion of the sediment-disturbing activity and would not be expected to result in significant adverse impacts to water quality.

  Implementation of erosion and sediment control measures and stormwater management measures, as part of the SWPPP, during construction of the Proposed Project would minimize potential impacts to water quality associated with stormwater runoff during land-disturbing activities that would occur in upland areas. Implementation of the SWPPP would also minimize potential significant adverse impacts to aquatic biota from the discharge of stormwater during construction of the upland project elements. The temporary increase in suspended sediment associated with in-water construction activities resulting in sediment disturbance is expected to be localized and of limited duration. While the localized increase in suspended sediment may cause fish to temporarily avoid the area where bottom disturbing activities are occurring, the affected area would be expected to be small and similar suitable alternative habitats would be available. The noisiest activity associated with the in-water construction would occur only for short periods of time, and individual fish would not be expected to be exposed to potentially dangerous sound pressure levels long enough to result in mortality. The use of work barges would generally be limited to that area in direct proximity to the seawall being repaired. Therefore, the extent of disturbed area for the benthic environment would be limited and the time of disturbance of short duration. Overall, during construction of the in-water project elements, temporary increases in suspended sediment, noise, and loss of bottom habitat and benthic macroinvertebrates unable to move from the area of activity would not be expected to result in significant adverse impacts to aquatic biota of Upper New York Bay.
- **Rodent control.** Construction contracts would include provisions for a rodent (mouse and rat) control program. During the construction phase, as necessary, the contractor would carry out a maintenance program. Coordination would be maintained with appropriate public agencies.

ALTERNATIVES

The consideration of alternatives has been central to the planning of Governors Island. Alternative proposals have been considered for both the programming and design of the facilities and open space on the Island. These planning efforts, including extensive public input, led to the selection of a Master Plan that incorporates elements of various proposals. Two alternatives are analyzed in this GEIS. The first, the No Action Alternative, is required by CEQR, and describes a future in which the Proposed Project would not be undertaken. The second alternative is the Redevelopment Alternatives, which includes two options—a University/Research option and a

Mixed-Use option. The alternatives analysis compares the potential effects of these options with each other.

NO ACTION ALTERNATIVE

The No Action Alternative assumes that the Proposed Project is not implemented. There would be no new park or open space development, no new tenancies in historic buildings, and no new development. However, visitation to the Island would continue to increase. The No Action Alternative would result in minimal changes on Governors Island or off-Island areas, but it would also not result in any associated benefits. The No Action Alternative would not result in significant impacts on land use, zoning, and public policy; socioeconomic conditions; open space; historic and cultural resources; urban design and visual resources; shadows; transportation; or noise. The No Action Alternative would also not replace underutilized land and vacant buildings with new uses that would enliven the Island with new residential, worker, student, and visitor populations. Whereas the Proposed Project would create a new, unique neighborhood for New York City, the No Action Alternative would not.

REDEVELOPMENT ALTERNATIVES

Both options for the Later Phases-Island Redevelopment would provide for a mix of uses on the Island and create a new, unique neighborhood for New York City. The University/Research option would create a college campus, housing for its students and staff, and supporting institutional and retail uses for its students, faculty, and staff. The Mixed Use option would not develop a new campus on the Island, but it would provide housing for faculty and students of an off-Island institution. In either case, the Later Phases-Island Redevelopment would replace underutilized land and vacant buildings with new uses that would enliven the Island. Both would result in a noticeable change in the character of the Island, but this change would be positive and not adverse. When the Later Phases-Island Redevelopment has been better defined, it is anticipated that a supplemental environmental review would be undertaken. The potential effects of the Later Phases-Island Redevelopment would be studied in detail and mitigation measures would be identified as appropriate.

MITIGATION

Where significant adverse impacts are identified, mitigation to reduce or eliminate the impacts to the fullest extent practicable is developed and evaluated. However, since the programming of the Later Phases-Island Redevelopment has not been specifically proposed, defined, or designed, the potential for significant adverse impacts will be identified and disclosed, along with feasible mitigation measures, in future environmental review. For Phase I and Later Phases-Parks and Public Spaces, the only significant adverse impacts identified were transportation-related, as discussed below.

TRAFFIC

Two approaches/lane groups were predicted to experience significant adverse traffic impacts in the Build condition. **Table S-4** summarizes the recommended mitigation measures that are subject to review and approval by NYCDOT. With these mitigation measures in place, all of the impacted intersection approaches/lane groups would operate at the same or better service conditions as the No Build condition.

Table S-4
Recommended Traffic Mitigation Measures

Intersection	AM Peak Hour	Midday Peak Hour	PM Peak Hour
Signalized Intersections			
South Street/Old Slip	No Changes	Shift one second of green time from the NB/SB phase to the WB phase.	No Changes
Joralemon Street/ Furman Street	No Changes	No Changes	Shift one second of green time from the SB phase to the EB/WB phase.
Notes: L = Left Turn, T = Through, R = Right Turn, EB = Eastbound, WB = Westbound, NB = Northbound, SB = Southbound.			

PEDESTRIANS

Although the south crosswalk at the intersection of Peter Minuit Plaza and State Street operates with an exclusive pedestrian phase (20 seconds out of the 90-second total cycle length), the traffic volumes through this crosswalk are minimal (i.e., approximately 10 eastbound right-turning vehicles per hour). By allowing pedestrians to cross the south crosswalk during the east-west green traffic signal phase (Phase A), it would add 37 seconds of pedestrian crossing time with minimal effect on turning vehicles, and would improve the LOS at this crosswalk from LOS E to LOS B during both midday and PM peak 15-minute periods. In addition, widening the west crosswalk at State Street and Whitehall Street by one foot would improve the LOS at this crosswalk to acceptable levels during the midday and PM peaks when compared with the No Build condition.

Therefore, with the above described mitigation measures, the Proposed Project would not result in any significant adverse pedestrian impacts under the Build condition.

UNAVOIDABLE SIGNIFICANT ADVERSE IMPACTS

Unavoidable significant adverse impacts are defined as those that meet the following two criteria: (1) there are no reasonably practicable mitigation measures to eliminate the impacts; and (2) here are no reasonable alternatives to the proposed project that would meet the purpose and need of the action, eliminate the impact, and not cause other or similar significant adverse impacts. As discussed above in “Transportation,” the completion of the Later Phases-Park and Public Spaces component of the Proposed Project would result in two significant adverse traffic impacts and two significant adverse pedestrian impacts. However, all of these impacts could be fully mitigated.

The uses associated with the Later Phases-Island Redevelopment are not specifically proposed, defined, or designed and their operations have not yet been planned. When such development has been planned and designed, it is anticipated that it would require zoning and other land use actions that would be subject to CEQR. The associated future environmental review may identify significant adverse impacts, some of which may be unavoidable.

GROWTH-INDUCING ASPECTS OF THE PROPOSED PROJECT

The *CEQR Technical Manual* indicates that an analysis of the growth-inducing aspects of a proposed project is appropriate when the project: (1) adds substantial new land use, new

residents, or new employment that could induce additional development of a similar kind or of support uses, such as retail establishments to serve new residential uses; and/or (2) introduces or greatly expands infrastructure capacity.

Phase 1 of the Proposed Project would improve existing open spaces on the Island, open new areas of open space to the public, construct one or both of the new water mains to provide potable water to the Island, and repair and replace the Island's seawall, including the consolidation and upgrade of stormwater outfalls. The new and improved open spaces would not alter residential, worker, or visitor populations compared with the future without the Proposed Project, and therefore would not have the potential to induce additional development. The new water main(s), repair and replacement of the seawall, and stormwater outfall consolidation project are necessary to support the future redevelopment of the Island contemplated by the Proposed Project and would not expand infrastructure capacity in other areas of the City.

The full development of the Proposed Project, including the Later Phases-Park and Public Spaces and the Later Phases-Island Redevelopment, would result in the completion of the park and public spaces and additional redevelopment on the Island, including the retenanting of the currently vacant North Island historic buildings and the development of new uses in two separate development zones on South Island. The full development of the Proposed Project would result in a substantial change to land use on the Island, and would introduce new residents, workers, students, and visitors to the Island. However, because the Island is physically separated from other existing neighborhoods, it would have limited potential to induce additional development off of the Island.

The uses associated with the Later Phases-Island Redevelopment are not specifically proposed, defined, or designed and their operations have not yet been planned. When such development has been planned and designed, it is anticipated that it would require zoning and other land use actions that would be subject to CEQR, and the associated future environmental review would take into account the potential growth-inducing aspects of the development proposed at that time.

IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES

There are a number of resources, both natural and built, that would be expended in the construction and operation of the Proposed Project. These resources include the materials used in construction; energy in the form of gas and electricity consumed during construction and operation of the Proposed Project; and the human effort (i.e., time and labor) required to develop, construct, and operate various components of the Proposed Project. The resources are considered irretrievably committed because their reuse for some purpose other than the Proposed Project would be highly unlikely. The Proposed Project constitutes an irreversible and irretrievable commitment of the Island as a land resource, thereby rendering land use for other purposes infeasible, at least in the near term. However, these commitments of land resources and materials are weighed against the public purpose and benefits of the Proposed Project: to create a major new public open space to serve the City and surrounding region, replace vacant land and underutilized buildings with active uses, fulfill long-term public policies for the Island, and meet the requirements set forth in the deed from the federal government. In turn, the Proposed Project would provide a major benefit to the people of New York City.

The uses associated with the Later Phases-Island Redevelopment are not specifically proposed, defined, or designed and their operations have not yet been planned. When such development has been planned and designed, it is anticipated that it would require zoning and other land use

actions that would be subject to CEQR, and the associated future environmental review would consider the irreversible and irretrievable commitment of resources associated with the development proposed at that time. ✷