A. INTRODUCTION

In accordance with City Environmental Quality Review (CEQR), this chapter presents and analyzes alternatives to the Proposed Actions. Under CEQR, alternatives selected for consideration in an Environmental Impact Statement (EIS) are generally those which have the potential to reduce, eliminate, or avoid adverse impacts of a proposed action while meeting some or all of the goals and objectives of the action.

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. The alternatives development process is outlined in Section B of this chapter.

CEQR requires the examination of a No Action Alternative, the alternative in which the Proposed Project would not be undertaken. The technical chapters of this EIS have described the No Action Alternative (referred to as "The Future without the Proposed Project") and have used it as the basis to assess the potential impacts and associated mitigation for the Proposed Actions. The following sections describe the No Action Alternative and then compare its likely impacts with those expected from the Proposed Project. This analysis considers potential effects in 2030 when development as a result of the Proposed Project is expected to be complete.

The Later Phases of the Proposed Project are 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. 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 US Coast Guard era). The specific future uses for the Later Phases-Island Redevelopment have not yet been proposed, defined, or designed and would likely the subject of a supplemental environmental review. However, for analysis purposes in this EIS, two options were identified—a University/Research option and a Mixed Use option. Chapters 3 through 21 of this EIS considered the potential environmental effects of these representative development programs relative to future no build conditions. Section D of this chapter compares their potential effects.

B. ALTERNATIVES DEVELOPMENT PROCESS

Immediately after taking control of the Island, the Governors Island Preservation and Education Corporation (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. In 2005, GIPEC issued a Request for Expressions of Interest to developers, and the responses were helpful in creating four island concepts in the development framework:

Minimum Build Island, Iconic Island, Innovation Island, and Destination Island. 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 an existing building.

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, the responsibility for 150 acres of the Island was transferred to the City in July 2010 under the direction of The Trust.

C. NO ACTION ALTERNATIVE

DESCRIPTION

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. This alternative essentially reflects conditions described as the "Future Without the Proposed Project" in Chapters 3 through 21. This analysis that follows compares conditions under the No Action Alternative to conditions with the Proposed Project in the 2030 analysis year.

LAND USE, ZONING, AND PUBLIC POLICY

Under the No Action Alternative, the Trust would continue with the previously-approved demolition of buildings on the Island. These sites and other areas of the Island that have not already been developed with open space or other uses would remain vacant and unused. Therefore, the No Action Alternative would not expand and improve publicly accessible open space or other uses that would enliven the Island and enhance the City's economy. The No Action Alternative would be inconsistent with the master plan for the Island and would also not advance the goals of PlaNYC. While the No Action Alternative would not result in adverse impacts on land use, zoning, and public policy, it would not achieve many of the benefits of the Proposed Project.

SOCIOECONOMICS

The No Action Alternative would allow for the previously approved demolition of vacant buildings on the North and South Island. These activities would not directly or indirectly displace residential or commercial uses nor result in impacts on a specific industry, and therefore, neither the Proposed Project nor the No Action Alternative would result in significant adverse impacts on socioeconomic conditions. However, since the No Action Alternative would

not allow for new development on the Island, it would not provide for the economic benefits that could be realized with the Proposed Project.

COMMUNITY FACILITIES

Like the Proposed Project, the No Action Alternative would not result in new residents on Governors Island. While the Proposed Project would result in more employees and visitors than the No Action Alternative, neither would result in significant adverse impacts from new demand for community facilities and services.

In either case, the Trust would maintain responsibility for police, fire, and emergency services, in cooperation with the New York City Police Department and the New York City Fire Department. As employment and visitation under the No Action Alternative would be lower than with the Proposed Project, it is expected that demand for such services would be less.

The Harbor School would continue to operate on the Island under the No Action Alternative. However, a new K-12 school would not be constructed. Therefore, the No Action Alternative would not achieve the benefits to public school capacity that would be realized with the Proposed Project.

OPEN SPACE

The No Action Alternative would not generate the substantial benefits in terms of open space resources that would be realized with the Proposed Project. 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. The No Action Alternative, however, would not increase the quantity or enhance the quality of open space on the Island and would not result in the direct improvements to open space that would be achieved with the Proposed Project.

Under the No Action Alternative, Governors Island would continue to operate as it does today. There would be an increase in visitors to the Island, but there would be no change in the amount of open space. Therefore, the No Action Alternative would result in a lower open space ratio than would the Proposed Project, but neither alternative would result in significant adverse indirect effects on open space.

SHADOWS

The No Action Alternative includes the previously approved demolition of existing structures on the Island, but there would not be any new structures built. The No Action Alternative would result in less shadow coverage than the Proposed Project, and it would not result in significant adverse impacts on sun-sensitive resources.

HISTORIC AND CULTURAL RESOURCES

The No Action Alternative includes the previously approved demolition of existing buildings on the Island. The demolition activities and other proposed utility work that would be undertaken in within the National Historic Landmark and the coterminus Governors Island Historic District would be reviewed and approved by the New York City Landmarks Preservation Commission (LPC) and/or the New York State Office of Parks, Recreation, and Historic Preservation (OPRHP), as appropriate, to identify and avoid, minimize, or mitigate any potential impacts on archaeological resources. Therefore, the No Action Alternative would not result in significant adverse impacts on historic and cultural resources.

The Proposed Project would result in new development and the retenanting of historic structures on the Island that would be coordinated with LPC and/or OPRHP (as appropriate) to meet objectives of the Design Manual. These guidelines would be intended to create a harmonious relationship between the new buildings, the historic buildings and landscapes, and the new landscapes. Nonetheless, the potential effects of new construction and retenanting would not be known until designs have advanced. Under the No Action Alternative, there would not be new development or the retenanting of historic buildings on the Island. There would also be no new open space, and sites of existing buildings that have been and would be demolished would remain vacant. While the No Action Alternative would not directly impact historic resources, it offers limited potential to benefit historic resources through the revitalization and through the enhancement of their surroundings.

URBAN DESIGN AND VISUAL RESOURCES

URBAN DESIGN

The Proposed Project would reuse some of the buildings within the Governors Island Historic District. The No Action Alternative would not reuse buildings, and the North Island would not change substantially as compared to today. The unused buildings on this portion of the Island would remain vacant, and no changes to their surrounding landscaping or context are anticipated. Demolition of existing buildings on the South Island and limited buildings on the North Island would be completed. Therefore, the urban design of the South Island would change substantially, from a mix of vacant, deteriorating buildings and unused and underutilized open spaces, to a mix of open space uses and vacant land. Overall, the No Action Alternative would result in vacant, underused tracts of land and buildings on the Island, which would be detrimental to its urban design.

Under the No Action Alternative, the lighting, fencing, and paving treatments that are currently installed along the waterfront esplanade and adjacent roadway would not be replaced with a cohesive streetscape program for the Great Esplanade, which would be considered an enhancement to the Island's urban design. The proposed change to the South Island's topography (the Hills, Hammock Grove and Play Lawn) would not occur with the No Action Alternative; therefore, the area's wind characteristics would not improve and a better environment for trees and more shade opportunities would not be provided. The proposed improvements along the Great Esplanade—including at Liberty Terrace and the South Prow—would also not occur and would therefore provide no new open space opportunities.

VIEW CORRIDORS AND VISUAL RESOURCES

The Proposed Project includes park elements that would substantially enhance views from the Island. Under the No Action Alternative, improvements to the Great Promenade on both the North and South Island would not occur and would not serve to enhance the context of the Island's existing, panoramic views or the context of the visual resources on the North Island. On the South Island, there would be no creation of the two-level promenade areas at the South Prow and Liberty Terrace to expand the Island's current viewing opportunities. Because there would be no new buildings in the South Island development zones under the No Action Alternative, there would be no potential for this alternative to negatively affect off-Island view corridors.

NATURAL RESOURCES

Neither the No Action Alternative nor the Proposed Project would result in any significant adverse environmental impacts to floodplains and natural resources.

The previously approved demolition of existing structures on the Island would increase its impervious coverage under the No Action Alternative. Since no new structures would be completed, the No Action Alternative would have less pervious coverage than the Proposed Project; however, it would not provide for any new flood control measures on the Island.

Like the Proposed Project, the No Action Alternative would involve in-water construction for rehabilitation at Pier 101 and Yankee Pier, demolition of Tango Pier, and repairs to transfer bridges and fenders at Soissons Dock and the Battery Maritime Building. However, the No Action Alternative would not involve reconstruction of the sea wall. In either case, the effects of in-water construction would be localized and would not significantly impact aquatic resources or water quality.

As the No Action Alternative would not result in the development of new open spaces on the Island, it would not provide a benefit to natural resources by improving existing spaces and creating approximately 32 acres of new space. Since there would not be the creation of higher quality habitats, wildlife currently using the Island would not benefit, nor would additional wildlife species and individuals be attracted to the Island. There would also be no integration of sustainable design principles for the Island, which would limit the benefits of the Island's habitats into the future.

HAZARDOUS MATERIALS

In the No Action Alternative, all remaining buildings on the South Island and limited buildings on the North Island will be demolished. The Trust would also undertake several projects to rehabilitate, repair, replace, and upgrade utility infrastructure on the Island. Demolition and utility projects would involve subsurface disturbance and hazardous materials within buildings (such as asbestos-containing materials and lead-based paint). As with the Proposed Project, demolition and construction activities would be undertaken with health and safety measures that comply with applicable legal requirements (including New York State Department of Environmental Conservation [NYSDEC] regulations). As with the Proposed Project, the health and safety measures that would be implemented would avoid any significant adverse hazardous material impacts of the No Action Alternative.

WATER AND SEWER INFRASTRUCTURE

WATER SUPPLY

Increases in visitation to the Island under the No Action Alternative would increase water demand by 14 percent as compared with current conditions, which would be substantially less demand than with the Proposed Project. The No Action Alternative would not provide for the construction of one or both proposed new water mains to the Island, and potable water would continue to be transported by ferry. While the No Action Alternative would require substantially less demand for municipal water, neither the No Action Alternative nor the Proposed Project would result in significant impacts on the provision or distribution of New York City's water supply.

SANITARY SEWAGE

The Trust would continue to upgrade sewer infrastructure on the Island under the No Action Alternative. While the anticipated increase in visitation would increase sanitary sewer flows, the No Action Alternative would generate 616,534 fewer gallons per day of sanitary sewage than the Proposed Project. However, neither the No Action Alternative nor the Proposed Project would

result in substantial increases in the average daily sewage flows at the Red Hook Water Pollution Control Plant.

STORMWATER

Under the No Action Alternative, the previously-approved demolition of existing structures on the Island would continue. As there would be no new construction, the No Action Alternative would result in more vacant, unimproved land and less impervious coverage than the Proposed Project, but it would not provide for the stormwater controls that would be implemented as part of Proposed Project's Stormwater Pollution Prevention Plan. While the No Action Alternative would generate lower quantities of stormwater runoff than the Proposed Project, it would not have the potential to improve the quality of its runoff.

SOLID WASTE AND SANITATION SERVICES

Under the No Action Alternative and the Proposed Project, sanitation services would be provided by private carters. The No Action Alternative would generate approximately 55,000 pounds of solid waste per week (about 27 tons per week) on the Island, which would be 13 less truck loads of solid waste than the Proposed Project. However, since both alternatives would rely on private collection services, neither alternative would impact the municipal solid waste collection and management systems.

ENERGY

Like the Proposed Project, the No Action Alternative would not significantly affect the transmission or generation of energy, but the Trust would upgrade infrastructure to serve the Island. Although the No Action Alternative would result in lower demand, neither alternative would result in significant adverse energy impacts.

TRANSPORTATION

Under the No Action Alternative, visitation to the Island would increase, but there would be no change in the student and employee populations as compared with current conditions. Public access to the Island would continue to be restricted to weekends (Friday through Sunday). The projected increase in visitors would result in new vehicle, transit, and pedestrian trips to and near the Battery Maritime Building in Manhattan and Pier 6 in Brooklyn.

TRAFFIC

The new vehicle trips from increased park visitation and from other proposed developments in Manhattan and Brooklyn would result in increased volumes at study area intersections as compared to today, but there would be fewer vehicle trips than with the Proposed Project. Completion of Phase 1 and the Later Phases-Park and Public Spaces would result in significant impacts at intersections near the Battery Maritime Building and Pier 6; and measures have been identified to fully mitigate these impacts. The Later Phases-Island Redevelopment may result in significant adverse traffic impacts beyond those identified for the Phase 1 and Later Phases-Park and Public Space components. None of these impacts would occur with No Action Alternative.

PARKING

The increase in visitation to the Island under the No Action Alternative would increase demand for on- and off-street parking in Lower Manhattan and Brooklyn. As with the Proposed Project, it is expected that there would be adequate capacity in Lower Manhattan to meet this demand. In

Brooklyn, the Proposed Project is likely to result in a shortfall of parking; however, with the No Action Alternative, there is projected to be adequate capacity to meet future demand.

TRANSIT

The Proposed Project would substantially increase ridership at subway stations in Lower Manhattan and Brooklyn, which could increase congestion during peak periods. With both the No Action Alternative and the Proposed Project, all station stairways, control elements, and escalators would continue to operate at acceptable levels, except for the escalators at the main entrance to the South Ferry-Whitehall station. The full development of the Proposed Project, including the Later Phases-Island Redevelopment, would potentially result in significant adverse transit impacts. These impacts would not occur with No Action Alternative.

PEDESTRIANS

The 2030 analysis of the Proposed Project identified two crosswalk locations that would be significantly impacted by increased pedestrian activities associated with the park uses; however, measures have been identified to fully mitigate these impacts. Although a detailed analysis has not been prepared for the potential development of new uses and retenanting of historic structures on the Island, these activities would likely generate a substantial number of new pedestrian trips near ferry landings in Lower Manhattan and Brooklyn and could result in additional impacts on pedestrian circulation. Under the No Action Alternative, visitation to the Island would increase, which would also increase pedestrian activities in Lower Manhattan and Brooklyn. However, the No Action Alternative would generate fewer pedestrian trips and likely less congestion at sidewalks, corners, and crosswalks than the Proposed Project.

AIR QUALITY

The No Action Alternative would result in lower emissions from new vehicle trips and building uses than the Proposed Project. However, neither the No Action Alternative nor the Proposed Project would result in significant adverse impacts to air quality.

GREENHOUSE GAS EMISSIONS

The No Action Alternative would result in lower emissions from new vehicle trips and building uses than the Proposed Project. However, neither the No Action Alternative nor the Proposed Project would result in significant adverse impacts to greenhouse gas emissions. Unlike the Proposed Project, the No Action Alternative would not reduce the Island's vulnerability to storm surges by designing new topography on the island at 4 feet above the current 1-in-100 year flood levels.

NOISE

The No Action Alternative would not result in new uses on Governors Island, and therefore, unlike the Proposed Project, there would not be potential noise impacts from a new school or other proposed development.

PUBLIC HEALTH

Like the Proposed Project, the No Action Alternative would not result in significant unmitigated adverse impact on air quality, water quality, hazardous materials, or noise. Therefore, the No Action Alternative would have no adverse impacts on public health.

CONSTRUCTION

Under the No Action Alternative, there would be construction associated with previously approved uses on Governors Island. Like the Proposed Project, these construction activities would have potential impacts on park use, socioeconomic conditions, cultural resources, hazardous materials, transportation, air quality, noise, vibration, water quality and natural resources, and rodent control. However, as the No Action Alternative would involve less construction activities over a shorter timeframe, the duration and intensity of its potential impacts would be less intrusive than for the Proposed Project.

NEIGHBORHOOD CHARACTER

The No Action Alternative would result in minimal changes in the neighborhood character of Governors Island or off-Island areas, but it would also not result in any neighborhood character 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.

D. REDEVELOPMENT ALTERNATIVES

As described in Chapter 1, “Project Description,” The Trust has developed a Park and Public Space Master Plan. In accordance with the Master Plan, currently vacant North Island historic buildings (with a total of 1.35 million square feet) would be retenanted and development of new uses would occur in two separate areas in the South Island totaling 33 acres (referred to here as the Later Phases-Island Redevelopment). The full development analysis would include 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.

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 in this Generic Environmental Impact Statement. The first is a primarily University/Research option and the second is a primarily Mixed-Use option. These options do not represent any existing plans or proposals for the island; rather, they 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 22-1**.

The following sections compare the potential environmental effects of the proposed Later Phases-Island Redevelopment programs based on preliminary analysis presented in Chapters 3 through 21. This comparison section is for informational purposes as the two scenarios are not typical alternatives under CEQR, and the ultimate program for development of the Island may vary in terms of the programming of uses.

Table 22-1:
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.

- ***Land Use, Zoning, and Public Policy:*** Both options could provide for up to 3,000,000 square feet of development on the Island, including the retenanting of historic structures and new construction on the South Island. Whereas the University/Research option would include 850,000 square feet of academic uses, the Mixed Use option would not. The other mix of uses would be the same for both options, but the allocations would differ. Under the University/Research option there would be more student housing, a larger conference center hotel, and more office space than in the Mixed Use option. The University/Research option would also result in less faculty housing and a smaller cultural facility than the Mixed Use option. Both options would provide for a K-12 public school, retail space, and maintenance and support space of equal sizes.

  Either option for the Later Phases-Island Redevelopment would comply with the deed restrictions for the Island; 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. Full development of the Later Phases-Island Redevelopment 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, both options would also result in substantial economic development, and neither would result in significant adverse impacts with respect to land use, zoning, and public policy.

- ***Socioeconomic Conditions:*** The Mixed Use option would result in a higher residential population than the University/Research option, but it would also result in fewer employees. In any case, neither option for the Later Phases-Island Redevelopment would directly displace residents or businesses on the Island since these uses would occupy vacant buildings or vacant land. Both options could introduce more the 200 dwelling units on the Island for academic purposes. Because the Island is not currently

developed with residential uses, development of either option 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. Similarly, the development of commercial space on the Island would not result in significant indirect effects on businesses since it would not displace or alter the characteristics of existing business operations on or off-Island. Overall, neither of the Later Phases-Island Redevelopment options would result in significant adverse impacts on socioeconomic conditions.

- ***Community Facilities:*** Both Later Phases-Island Redevelopment options would increase the population of Governors Island, and both would provide for a new public school. The new uses on the Island would generate demand for community facilities and services. Although the Mixed Use option would result in greater demand for such services as it would produce more dwelling units (faculty housing and dormitories), neither option would result in significant adverse impacts on community facilities and services.
- ***Open Space:*** Both options for 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. Both options would also increase demand for open space on the Island as compared to no new development. However, the Mixed Use option would result in a higher residential population and, therefore, a greater demand for open space resources than the University/Research option.
- ***Shadows:*** New construction associated with either option for 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 South Island development zones and to their east, north, and west would be more likely to experience project-generated shadows than those farther away or directly to the south. 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 South Island development zones (i.e., north of Liggett Hall) would likely be only minimally affected by new shadows, although this would depend on the height, location, and configuration of the structures that are eventually built in the development zones.
- ***Historic and Cultural Resources:*** Both Later Phases-Island Redevelopment options would result in new construction on the South Island and the retenanting of historic structures on the North Island. Under either Later Phases-Island Redevelopment option, construction activities on the North Island have the potential to disturb archaeological resources, but there is no archeological sensitivity within the development zones on the South Island. The design and implementation of renovations to historic structures would be undertaken in consultation with LPC and/or OPRHP (as appropriate). 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. It is not possible at this time to determine whether the Later Phases-Island Redevelopment options would or would not be inconsistent with the character of the Governors Island

Historic District or the Governors Island National Monument. However, it is not anticipated that the potential effects of Later Phases-Island Redevelopment on historic resources would vary substantially under either option.

- ***Urban Design and Visual Resources:*** Any reuse of buildings within the Governors Island Historic District in the Later Phases-Island Redevelopment would require compliance with the guidance of the *Governors Island Preservation and Design Manual* (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 either of the Later Phases-Island Redevelopment options. The potential siting, height, massing, design, and materials of the new buildings to be developed for the Later Phases-Island Redevelopment have not yet been developed or designed. Therefore, it is not feasible to determine whether there would be any potential differences in the potential urban design or visual resources impacts of the University/Research or Mixed Use development options.
- ***Natural Resources:*** Neither of the Later Phases-Island Redevelopment option would have the potential to result in significant adverse impacts to existing terrestrial plant and wildlife communities, floodplains, wetlands, water quality, or aquatic biota in the Upper New York Bay. The design of any new buildings within the development zones 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 would not result in significant adverse impacts to littoral zone tidal wetlands, or to water quality, or aquatic biota of the Upper Bay. Because ample habitat would be available elsewhere on the Island, significant adverse impacts to wildlife would not result from construction in the development zones. 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 be expected to significantly affect the overall populations of these species on the Island.
- ***Hazardous Materials:*** There would be no measurable difference in potential impacts of the Later Phases-Island Redevelopment options with respect to hazardous materials. Under each option, demolition and construction activities would be undertaken with health and safety measures that comply with applicable legal requirements (including New York State Department of Environmental Conservation [NYSDEC] regulations). These measures would avoid any significant adverse hazardous material impacts of the Later Phases-Island Redevelopment options.
- ***Water and Sewer Infrastructure, Solid Waste and Sanitation Services, and Energy:*** The University/Research option for Later Phases-Island Redevelopment would result in higher demand for potable water, sanitary sewage treatment, solid waste removal, and energy than the Mixed Use option. Since both options would result in similar building sizes and resultant impervious cover, they would generate like amounts of stormwater runoff.

- ***Transportation:*** Based on current and future no build projections of traffic, parking, transit, and pedestrian conditions, it is anticipated that both Later Phases-Island Redevelopment options would result in significant impacts on transportation facilities in Lower Manhattan and Brooklyn. Since the University/Research option results in more person and vehicle trips than the Mixed Use option, the number and severity of its impacts would likely be greater. It is anticipated that mitigation measures could be developed to alleviate many of the impacts of either option.
- ***Air Quality:*** Any new buildings constructed as part of either Later Phases-Island Redevelopment option 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 at this time, there are reasonable measures that could avoid the potential for significant adverse air quality impacts from building operations. The public school, research, or university laboratories that could be included in the Later Phases-Island Redevelopment can also be designed to avoid the potential for significant adverse impact on air quality in the event of an accidental chemical spill. While the specific effects of Later Phases-Island Redevelopment options on air quality standards is not known, the University/Research option is likely to result in higher mobile source emissions since it would generate more vehicular traffic than the Mixed Use option.
- ***Greenhouse Gas Emissions:*** While the specific effects of the Later Phases-Island Redevelopment options on air quality standards is not known, the University/Research option is likely to result in higher greenhouse gas emissions since it would generate more vehicular traffic than the Mixed Use option. In addition, although the Later Phases—Island Redevelopment has not yet been designed in detail, 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.
- ***Noise:*** Under either option, the proposed school playground could potentially result in a significant adverse noise impact if it is located immediately adjacent to an open space area. In either option, buildings that are not in close proximity to the proposed school playground would not require any specific amount of window/wall attenuation. Both options would also have the potential for mobile source noise impacts resulting from increased ferry service.
- ***Public Health:*** It is not expected that the Later Phases-Island Redevelopment options would result in significant unmitigated adverse impact on air quality, water quality, hazardous materials, or noise. Therefore, neither option would have significant adverse impacts on public health.
- ***Construction:*** Both Later Phases-Island Redevelopment options have the potential to result in significant impacts during construction. Such impacts could result from the transport of construction materials and noise generated by construction activities. The extent and duration of such impacts would depend upon the ultimate design for the Later Phases-Island Redevelopment. Therefore, it is not feasible to determine whether there would be any potential differences in the construction impacts of the University/Research or Mixed Use development options.

- ***Neighborhood Character:*** 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. ✷