

SUMMARY OF FRESH KILLS PARK

GENERIC ENVIRONMENTAL IMPACT STATEMENT

A. PREFACE

This document has been prepared to provide a general overview of the Generic Environmental Impact Statement prepared for the Fresh Kills Park project.

An Environmental Impact Statement (EIS) is prepared to promote informed decision-making by government agencies by making detailed information concerning potential significant environmental impacts available to both agency leaders and the public. Environmental impact statements are reports that outline the predicted environmental effects of a particular action or project. Contrary to a widespread misconception, the law does not prohibit harming the environment, but merely requires that the prospective impacts be understood and disclosed in advance and a plan proposed for mitigation. An Environmental Impact Statement is not an approval but is a document that discloses the potential environmental impacts.

The environmental analysis is required so that decision-makers can be informed when reviewing permits and applications. For the Fresh Kills Park project, these permits and applications will likely include the application for mapping the park and other associated actions under the City's Uniform Land Use Review Procedure (ULURP), regulatory permits and approvals from the New York State Department of Environmental Conservation, and other related permits associated with developing the Park. The detailed list of intended permits and approvals is listed in the Project Description of the Draft Generic Environmental Impact Statement.

Given the long-term nature of development of the Fresh Kills Park, a "Generic" EIS was deemed most appropriate. At this time, the City has not yet determined the specific uses for all areas of the future park. As such, a Generic EIS provides for the flexibility to allow for detailed programmatic decisions to be made in the future. Any projects that deviate from the plan analyzed in the Generic EIS or have the potential to create greater environmental impacts from those disclosed in the Generic EIS will require additional environmental review.

B. PROJECT DESCRIPTION

The City of New York, with the New York City Department of Parks and Recreation (DPR) as lead agency, is proposing the development of Fresh Kills Park. The project site is an approximately 2,200-acre City-owned property, the majority of which is Fresh Kills Landfill and mostly under the jurisdiction the New York City Department of Sanitation (DSNY). (This land area does not include the DSNY Waste Transfer Station or borough garage facilities.) The project site is located in the southwest portion of Staten Island and within both Staten Island Community Boards 2 and 3. The eastern boundary of the project site is Richmond Avenue, the Arthur Kill shoreline forms the site's western boundary, the southern boundary is Arthur Kill Road, and the West Shore Expressway (New York State Highway Route 440) bisects the project site.

For many years, Fresh Kills Landfill operated as the City's principal municipal solid waste landfill, receiving household, commercial, and municipal solid waste and construction and demolition debris between 1948 and 2001. A state law passed in 1996 mandated that solid waste landfill operations cease at Fresh Kills by December 31, 2001; landfilling subsequently ended on March 22, 2001. Since then, the Fresh Kills Landfill was only temporarily used for the disposal of materials after the attacks of September 11, 2001. Large portions of the site are defined by four solid waste landfill sections—identified as 3/4, 2/8, 6/7, and 1/9. With the cessation of solid waste disposal operations at Fresh Kills Landfill, DSNY is completing final closure construction at Fresh Kills. The project site also includes lands

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that are essentially undeveloped and contain no landfill-related facilities or monitoring equipment. These include, for example, natural areas, such as the Isle of Meadows.

Total acreage of the proposed Fresh Kills Park is 2,163 acres of publically accessible parkland and roadways. This includes 1,433 acres that will be newly mapped as parkland as well as a number of acres that are already mapped parkland but not publically accessible. There would be approximately 7 miles of new park roadways. Upon completion, Fresh Kills Park would be the City's second-largest park (after Pelham Bay Park in the Bronx), and would be more than double the size of the Staten Island Greenbelt. The magnitude of the proposed project is made even more complex by its location on what is the City's largest municipal solid waste landfill, which has at least 30 more years of management and monitoring to ensure that the landfill does not adversely impact the environment, the surrounding neighborhoods or, assuming approval of the proposed project, the proposed park users. That being said, it is expected that park development would take many decades, and would continue through 2036. The proposed park has five key planning areas: North Park, South Park, East Park, West Park, and the Confluence (see Figure 1). Park implementation in North Park and South Park is expected in the earlier phases of the project (through 2016), along with proposed park roads to provide access. Development in East Park and West Park, as well as the Confluence, and completion of the circulation plan are longer-term initiatives.

The proposed park would feature recreational fields; landscaped areas and enhanced ecological habitats; new park roadways, including a new connection with the West Shore Expressway and a signature bridge across the Fresh Kills waterway; water access for motorized and non-motorized craft; cultural, entertainment and commercial facilities (e.g., amphitheater, restaurants, event and banquet space); and the supporting park operations, maintenance facilities, and parking. The proposed park roadways would connect the park with Richmond Avenue on the east and the West Shore Expressway on the west, and vehicular access would be supported by the necessary service roads, parking, and transit facilities. Existing natural areas, such as the Isle of Meadows, would continue to be protected.

A draft of the Generic Environmental Impact Statement (GEIS) has been prepared to describe and analyze the potential environmental impacts of the proposed project. Since the proposed project is a major capital investment with a long-term, multi-phased implementation program, the GEIS analyzes park implementation through two phases of completion, with a 2016 interim analysis year and the full build out of the park assumed to be completed by 2036.

There are many City, State, and Federal land use and environmental approvals that are necessary to implement the proposed park. With respect to City approvals, the following actions are proposed:

- Amendment to the City map to establish as parkland those portions of this project site that are not currently mapped as parkland;
- Amendment to the City map to eliminate certain unbuilt paper and record streets;
- Amendment to the City map to map a public place to serve as the right-of-way for the future vehicular road system, which entails demapping a small portion of the existing mapped parkland;
- A zoning map amendment to assign a zoning district (M1-1) to the areas being de-mapped as park and simultaneously mapped as public place.

- A zoning map amendment to vacate the NA-1 zoning where it currently exists on the site; and
- A zoning text amendment to remove “Fresh Kills Park” from Section 105-941 of the current zoning text.

These actions are to be taken through the Uniform Land Use Review Procedure (ULURP) process at sometime in the near future. At the State level, approvals necessary for the proposed project include modifications to the Fresh Kills Landfill Final Closure Plan; potential amendments to the Order on Consent between NYSDEC and the City governing closure of Fresh Kills Landfill and/or Part 360 landfill closure approvals for end use; permits for activities in tidal wetlands and adjacent areas; protection of waters; and access to a State highway (Route 440). Federal approvals would apply to constructing structures over or in navigable waterways or activities in wetlands as delineated in accordance with U.S. Army Corps of Engineers (ACOE) procedures, which also includes a Coastal Zone Consistency review. Construction of the proposed Signature Bridge over the Fresh Kills waterway would also require approval of the U.S. Coast Guard.

Because the proposed park roads would pass through existing mapped parkland (portions of the project site are already mapped parkland), a State legislative action was approved for the alienation of parkland along these segments of proposed road corridors (Chapter 659 of the 2007 Laws of the State of New York).

As currently proposed, the near-term phases of construction include multiple segments of the park roads, North Park, most of South Park, and the accompanying habitat enhancement projects. These short-term projects are expected to be completed by 2016. Completion of the park is not expected until 2036. Long-term projects include completion of the East and West Parks, the central activity areas of the Point, and the completed park roads. During this time, in accordance with agreements between the City and State of New York and the permits and approvals issued to the City, DSNY must construct final closure at Landfill Sections 6/7 and 1/9, continue to maintain the landfill facilities and environmental control systems, and perform the required monitoring in accordance with the Fresh Kills Landfill Post-Closure Monitoring and Maintenance Operations Manual. To move the park project forward, DPR and DSNY must coordinate all phases of project design and construction in order to ensure compatibility between the continued operations of Fresh Kills Landfill post-closure facilities, monitoring, and maintenance, and the implementation of the proposed park.

FRAMEWORK FOR ENVIRONMENTAL REVIEW

To assess the potential environmental impacts of the proposed park, the Department of City Planning and the Department of Parks and Recreation developed a reasonable worst-case development scenario (RWCDs) that was presented in the *Fresh Kills Park Final Scope of Work to Prepare a Generic Environmental Impact Statement* as issued by DPR and DCP on August 31, 2006. This RWCDs was developed to cover the range of potential uses for impact analysis in the DGEIS including those both currently contemplated, as well as those that may arise as preferred uses over the next several decades as the park develops (see Figure 2). It is the objective of the RWCDs to allow flexibility in the project design and implementation while examining a range of possible uses in the GEIS. The RWCDs therefore identifies programmatic land uses and activities based on different land cover types and activities, including active recreational paved surfaces (for skateboarding, basketball), active recreational field surfaces (for baseball, soccer), active recreational indoor surfaces (for indoor track and field) commercial uses (retail and restaurants, cafés, banquet hall), natural habitats with public access (restored marshes with a boardwalk), meadows and forests (with paths), water

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recreation (kayaking and boating facilities), and an amphitheater for outdoor events. In addition, in order to understand the maximum impacts of the proposed circulation system, all park roads are assumed to be four-lane-wide roads. While the analyses presented in the GEIS are comprehensive based on the current RWCDs assumptions and designs, it is expected that subsequent environmental reviews, including supplemental environmental reviews, are likely to be necessary as project design advances to implementation.

ENVIRONMENTAL REVIEW PROCESS

The Draft GEIS has been prepared in conformance with applicable laws and regulations, including Executive Order No. 91, New York City Environmental Quality Review (CEQR) regulations, and follows the guidance of the *CEQR Technical Manual* (October 2001), as well as the State Environmental Quality Review Act (SEQRA) and its implementing regulations and guidelines, and the guidelines of the National Environmental Policy Act (NEPA). DPR is the lead agency preparing the GEIS with the assistance of DCP and other City agencies. The GEIS contains a description of the proposed project and its related actions, including the project site and its environmental setting; examines the short and long-term environmental impacts of the proposed project for the two analysis years; identifies any significant adverse environmental impacts; presents and analyzes alternatives to the proposed project; identifies the irreversible and irretrievable commitments of resources; and describes the mitigation measures necessary to minimize, eliminate, or avoid significant adverse environmental impacts that could occur with the proposed project. As stated above, implementation of the proposed park requires many discretionary actions, among them the City's Uniform Land Use Review Procedure (ULURP) procedures. The GEIS, which was certified as complete on May 16, 2008, has been prepared in support of the proposed project's ULURP application and related discretionary actions.

PROJECT PURPOSE AND NEED

The purpose of the proposed Fresh Kills Park project is to create permanent public access and waterfront recreation facilities at the City's Fresh Kills property, along with extensive new landscapes. As a result of the use of the site over the past 50 years as a municipal solid waste landfill, the large waterfront City-owned parcel has been closed to the public. However, the cessation of municipal solid waste landfilling operations in 2001 opened the possibility of transforming this large City property into a unique and significant public open space for use by neighborhood residents, residents of Staten Island, the City of New York, the region as a whole, and national and international visitors to New York City. Transforming Fresh Kills Landfill into Fresh Kills Park marks a commitment by the City to create a vast new open space with extensive waterfront access with accompanying recreational and cultural amenities.

PLANNING AND DESIGN ASSUMPTIONS FOR THE GEIS IMPACT ANALYSES

DRAFT MASTER PLAN CONCEPTUAL PLAN

The Fresh Kills Park Draft Master Plan (March 2006) is based on the theme of "lifescape, a new park for New York City" and is defined by three functional layers: program, habitat, and circulation. The DMP considers diversity of cultural, athletic, and educational programming, as well as a landscaping plan that includes new landscapes that would

offer wildlife habitat, as well as natural open spaces for park visitors. A primary park circulation system for vehicles, as well as a network of foot, bicycle, and equestrian paths, would provide access for various transport modes throughout the park.

The DMP defines Fresh Kills Park by five designated planning areas: the Confluence (175 acres), which comprises primarily the Point (50 acres) and Creek Landing (20 acres), North Park (280 acres), South Park (415 acres), East Park (530 acres), and West Park (560 acres) areas. In addition, Fresh Kills has about 700 acres that include wetlands and waterways and natural areas (e.g., the Isle of Meadows).

VEHICULAR CIRCULATION PLAN

An essential component of the Fresh Kills Park project is a circulation plan that would provide both vehicle and pedestrian/bicycle access to and across the park (see Figure 3). The principal objectives of the roadway network are to provide:

- Access to the proposed park, including a Confluence Loop Park Road that would facilitate circulation within the central area of the park;
- Local access improvements and connections with the West Shore Expressway (Route 440), including two connections with Richmond Avenue, one in 2016 at Forest Hill Road and the other in 2036 at Richmond Hill Road.

The design intent of the park roads is that they be integrated to the natural setting while providing the dual functions of local traffic relief and access to the park while limiting environmental impacts and using the existing topography to the extent possible.

As examined in the GEIS, the road design features a four-lane park road that includes 11-foot-wide travel lanes, a flush four-foot textured median, and 6-foot shoulders. Although the decision on whether the road design will include two lanes or four lanes has not been finalized, the DGEIS conservatively assumes construction of four-lane park roads in order to analyze all possible impacts associated with this element of the project.

OTHER PLANS

Other plans proposed for the project include:

- An events programming plan to address event management issues (e.g., access and transportation) once an events program is developed;
- A soil management plan to provide the large volumes of soil, including soil to provide a new soil cover that provides safe public access, new landscapes, and a subbase for the proposed recreational surfaces, roads, and parking that will be required for the project (it is the overall objective of the City to provide the publicly accessible areas of the site with two feet of soil cover, where necessary, for the purpose of protecting public health and safety at the open spaces of the proposed park);

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- A landscape plan to protect and build upon these ecological assets of the site for the purposes of cultivating a diverse landscape within the park that would provide multiple environmental and park user benefits as well as enhancing the final cover on the landfill sections to provide a more ecologically productive habitat;
- A water access and recreation plan to provide water recreation and access opportunities for the public;
- A parking plan that calls for parking to be distributed throughout the park in a concept of tree-shaded “bosque parking” facilities, with a total of 1,199 permanent parking spaces proposed for 2016, and 1,873 spaces by 2036, with 1,544 overflow spaces;
- A non-vehicular circulation plan which proposes more than 20 miles of specially designed paths and trails for bicyclists, mountain bikers, horseback riders, pedestrians, and hikers and includes two pedestrian/bicycle bridges over roadways, and the accommodation of water access via numerous docks and launches along the creeks, as well as a small marina proposed in the Fresh Kills, west of the West Shore Expressway, where a ferry landing may also be provided;
- A stormwater management program designed to complement and enhance the aesthetics of the park, while also meeting the overall stormwater management objective of meeting park drainage needs while avoiding impacts to DSNY stormwater management infrastructure;
- A public transit plan that could include the modification by NYCT of its existing bus routes—specifically, the express bus routes that primarily operate via the West Shore Expressway and local routes along Richmond Avenue—to take advantage of new connections into the park;
- An infrastructure, energy, and sustainability plan to evaluate potential sustainable infrastructure and energy systems;
- A lighting plan which is expected to be consistent with the lighting of other large-scale parks within the city, with both low-scale, low-light light fixtures that provide ambient illumination, as well as unlit areas of the park and light shields to control the impacts of indirect light on the local nighttime environment;
- A signage plan that would, at a minimum, identify park boundaries using traditional DPR signage; water access and trails to the water; and areas of restricted or controlled access (see the discussion below); and would provide external and internal vehicular circulation guidance (e.g., access from the highway, directions to parking areas); and
- A plan to protect public health that would implement a key objective for the park; the provision of public access to the park while protecting the public health and safety of the park users and DPR staff.

C. EXPECTED BENEFITS OF THE PROPOSED PROJECT

The following are the expected benefits of the proposed project:

- The creation of new open spaces over a closed municipal solid waste landfill with new habitats and recreational facilities, complementing the predominantly residential and park uses in the study area;
- The expansion of on-site employment with private concessions and park maintenance and operations;

- The addition of significant mapped and publicly accessible open space to the area and the dramatic increase of recreational opportunities along and adjacent to the waterfront;
- The creation of a public streetscape across the site where none currently exists;
- The enhancement, through ecological restoration of both the environmental and aesthetic qualities of Fresh Kills and the softening of the visual presence of the landfill on the adjacent neighborhoods;
- The improvement of the character of the surrounding neighborhoods by the new recreational opportunities and waterfront access that would be provided;
- Consistency with City goals for revitalizing and providing public access in the coastal zone; and
- The implementation of sustainability measures to reduce demands for water and wastewater treatment.

D. IMPACT AVOIDANCE MEASURES AND MITIGATION

The potential for significant adverse impacts to occur in each of the analyzed technical areas has been summarized above. In many cases the proposed project has developed impact avoidance measures that have been written into the project design. Where significant impacts have been identified that extend beyond these impact avoidance measures, or where mitigation requires the approval of other agencies, in accordance with the *CEQR Technical Manual*, mitigation measures have been recommended and are presented below. Technical areas in the GEIS that require neither impact avoidance measures nor mitigation include socioeconomic conditions, community facilities, open space, shadows, air quality, and noise.

IMPACT AVOIDANCE MEASURES

- **Landfill Protections.** The proposed project would provide the public with the opportunity to more closely approach the surface features associated with the leachate management system, and park development may induce new loading conditions on the subsurface features. Preliminary measures could be adopted as part of the park design to provide an added layer of protection for public health and the environment.
- **Soil Conditions.** Soils imported onto the site will be required to meet Title 6 NYCRR Part 275 Environmental Remediation Program Soil Cleanup Objectives. Depending on the final design of each park element, it is the overall objective of the Department of Parks and Recreation to provide publicly accessible areas of the site with up to two feet of cover meeting the above-referenced standards for the purpose of providing a healthy environment and to protect health and safety throughout the park.
- **Land Use, Zoning and Community Character.** Ensure adequate buffers and secure buffers between open space uses and DSNY facilities on-site (flare stations, leachate treatment plant, and landfill gas plant) and off-site (District 2 and 3 garages and the Staten Island Waste Transfer Station, Yard Waste Composting Facility and Rock Crushing/Screening Fill Material Transfer Station Facility).
- **Historic Resources.** Final future designs and capital projects would ensure that West Park would not disturb the materials or compromise the setting, thus avoiding impacts to the area potentially eligible for listing on the S/NR.

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It is expected that future review of these designs would involve, at a minimum, coordination with DPR, Landmarks Preservation Commission, State Historic Preservation Office, and the general public.

- Urban Design and Visual Resources. In addition to physical separations (adequate and secure buffers between open space uses and DSNY facilities) there would also be decorative and landscaped separations to avoid any visual impacts.
- Natural Resources. There are a number of elements of the project that could be proposed to avoid impacts on natural resources. These include the following:
 - Nighttime Lighting. Careful design and planning of lighting arrays would minimize many significant adverse impacts associated with the proposed project in relation to wildlife activity.
 - Park Roads. Measures to reduce the potential for long-term adverse natural resources impacts include collection and treatment of stormwater runoff from roadways; low-impact roadway management techniques; using Best Management Practices (BMP) strategies; maintenance of hydrologic connections between water bodies; implementation of roadway operations and maintenance plans that include alternative strategies for de-icing and other techniques; incorporating wildlife underpass features; using viaducts where feasible to minimize impairment of wildlife movement under roadways; incorporating wildlife crossing warnings into roadway signage; monitoring wildlife/vehicle collisions to identify the need for additional measures; and managing access to avoid impacts to natural areas (e.g., Isle of Meadows, William T. Davis Wildlife Refuge).
 - Marine Structures and Overwater Shading. Measures to avoid impacts from shading include designing overwater structures to be multi-use facilities (to reduce overall number); locating them deep enough to avoid intertidal and shade impacts; and increasing ambient light transmission under piers and docks.
 - Wind Turbines. Measures for impact avoidance could include an evaluation of alternative locations to avoid wildlife collision risk by reducing the elevation of turbines, reducing the overall height of turbine structures or rotor heights, determining whether the proposed project could cease to operate at times (daily and seasonal) when birds and bats are placed at highest collision risks, and the consideration of locating fewer turbines within Fresh Kills Park.
 - Flood Hazard Areas. All habitable structures within the Fresh Kills project site that would be located within a special Flood Hazard Area, would have their first-floor flood elevations at least one foot above the 100-year flood level.
- Hazardous Materials. Vapor barriers and seals would be installed to avoid impacts from methane gas leaking into structures. The proposed project may also include utility seals for all utility conduits to prevent gas migration, as necessary.
- Infrastructure. To avoid stormwater impacts from increases in impervious surfaces and to protect receiving waters, individual stormwater best management practices (BMPs) would be used to enhance proposed park features, and provide water quality treatment and quantity management.

- Traffic and Parking. To avoid future impacts at all the locations that would provide access to the project site and to ensure that proper traffic patterns and intersection designs are implemented, DPR will continue to coordinate with NYCDOT. DPR would also actively participate in the Staten Island Task Force, which was created to address traffic issues on Staten Island. DPR would also institute a traffic monitoring program.
- Transit and Pedestrians. NYCT could modify its existing bus routes to take advantage of the proposed Forest Hill Road connection into the park, and could amend the existing bus service and expand bus routes to include new stops within the park boundaries and Arthur Kill Road and Richmond Avenue. DPR would work with New York City Department of Transportation to ensure that adequate sidewalk conditions are provided along the perimeter of the park, as well as to ensure that adequate street conditions exist along the roads that lead to the park, particularly the major park entrances and those specifically located along Arthur Kill Road.
- Construction. Measures to avoid impacts during construction would include:
 - Coordinate with DSNY Closure Activities at Landfill Sections 6/7 and 1/9;
 - Protect DSNY infrastructure during construction;
 - Use a Construction Protection Plan to protect the Sleight Family Cemetery;
 - Use a Stormwater Pollution Prevention Plan;
 - Implement strategies to limit wildlife impacts, including a Site-Specific Erosion and Sediment Control Plan (ESCP) and a Natural Resources Protection Plan;
 - Implement a Construction Monitoring Program that would minimize potential impacts during in-water construction, protect groundwater and surface water, and enforce protections for rare, threatened, and endangered species;
 - Perform project-specific subsurface investigations and, if necessary, remediation to avoid impacts from hazardous materials during construction;
 - Use a Construction Health and Safety Plan;
 - Perform environmental surveys during construction in accordance with applicable federal, state, and local regulations and guidelines;
 - Minimize solid waste during construction;
 - Use regional roads during construction, possible barging of soils, and possible nighttime construction to avoid traffic impacts; and
 - Use Ultra-Low Sulfur Diesel fuel, electric engines, and new equipment; locate large emission sources away from sensitive uses, implement dust control measures to avoid air quality impacts during construction; shield noisy equipment from local neighborhoods, perform proper maintenance on construction equipment, and general adherence to the City Noise Control Code to avoid noise impacts during construction.

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- **Public Health Protections.** Appropriate sub-slab venting systems and/or vapor barriers would be used in the design of all buildings and structures at the project site. Modifications to the post-closure monitoring and maintenance plan or an additional monitoring plan developed by DPR may be necessary. Increased signage would also be an important component of the park's public health protection program. An integrated pest management approach that would take into consideration park usage and consider the least-toxic methods of controlling pests would be used. To avoid impacts from the West Nile Virus, DPR would begin coordination efforts with DOHMH relative to the control of mosquitoes in accordance with that plan at sites within the proposed Fresh Kills Park.

MITIGATION MEASURES

The measures below are presented as mitigation measures, as they require additional regulatory approvals or are outside the jurisdiction of DPR to implement.

- **Archaeological Resources.** A Phase 1A study prepared for this project concluded that portions of the project site are sensitive for pre-contact and historic-period archaeological resources. As project design progresses, it is recommended that individual construction projects be reviewed by an archaeologist to determine if the project could impact any archaeologically sensitive areas identified in the Phase 1A. If it is determined that impacts are possible, further investigation such as Phase 1B archaeological testing would be necessary to identify the presence or absence of archaeological resources.
- **Natural Resources.** The project would include activities in wetlands such as park roads, viaducts, and bridges that would directly impact wetland as either direct impacts (e.g., filling a portion of the Fresh Kills to widen the roadway under the West Shore Expressway), or indirect impacts (e.g., shading of Main Creek beneath the proposed pedestrian bridges).

The Fresh Kills Park plan proposes to protect and enhance the condition and value of the wetland systems under both present and proposed future conditions, while mitigating the adverse impacts to wetlands resulting from construction of park roads and bridges.

Proposed project wetland activities include enhancement of degraded wetlands, restoration of significantly altered wetlands, and creation of new wetland habitats. Tidal wetland restoration would include enhancement and expansion of the existing tidal wetlands. Restoration and expansion of the existing freshwater wetlands present within the project site would occur, with possible creation of additional wetland habitats within existing stormwater management basins. Conditions of existing but degraded wetlands would be enhanced.

- **Traffic and Parking**

2016

The traffic analysis results show that in the 2016 Build Conditions, the weekend midday peak hour would have the highest number of impacted intersections with eighteen (18), followed by weekday PM and weekday midday peak hours with fifteen (15) and thirteen (13) impacted intersections, respectively. The Saturday PM peak hour would have twelve (12) impacted intersections. The weekday AM peak hour would have the fewest number of impacted intersections under the 2016 Build conditions with eleven (11). A traffic mitigation plan was therefore developed to address these impacts.

For the 2016 analysis year, the proposed mitigation would mitigate the majority of the traffic impacts that are expected with the proposed project. The remaining intersections would have lane groups that would remain unmitigable.

2036

The traffic analysis results also show that in the 2036 Build conditions, the weekday PM and weekend midday peak hours would have the highest number of impacted intersections with twenty-four (24), followed by the weekend PM peak hour with twenty-two (22) impacted intersections. The weekday AM and weekday midday peak hours would have the fewest number of impacted intersections under the Build 2036 conditions with twenty (20) each. A traffic mitigation plan was therefore developed to address these impacts.

For the 2036 analysis year, the proposed mitigation would mitigate most of the traffic impacts that are expected with the proposed project. The remaining intersections would have lane groups that would remain unmitigable.

E. ALTERNATIVES TO THE PROPOSED PROJECT

Four alternatives were selected for comparison with the proposed project. These include the No Action Alternative, the Two-Lane Park Road Alternative, an Alternative Road Alignment (west of Landfill Section 6/7), and a Lesser Impact Alternative. A summary of the impacts under each alternative follows.

NO ACTION ALTERNATIVE

The No Action Alternative provides a baseline against which impacts of the proposed project may be compared. It is assumed in the No Action Alternative that the proposed actions are not implemented. This alternative essentially reflects conditions discussed as the “Future Without the Proposed Project” through the analysis years 2016 and 2036.

While the No Action Alternative would not have the short-term construction impacts of the proposed project or adverse impacts on hazardous materials or wetlands that require mitigation, it would also not provide the significant land use, open space, natural resources, circulation and urban design benefits associated with the proposed project, nor would it fulfill the City’s goals for revitalizing the site and providing public access to the coastal zone.

TWO-LANE PARK ROAD ALTERNATIVE

The two-lane park road alternative assumes a narrower roadway comprising two 12-foot travel lanes, with a 4-foot textured median, and 6-foot shoulders. The combination of median, lane, and shoulder widths under the two-lane road alternative would allow for passing stalled vehicles, such that a single stopped vehicle does not block an entire direction of travel. The shoulders would also contribute to improved sight distance along the inside of curved roadway segments and help keep the roadside clear of hazards.

Environmental impacts associated with the two-lane alternative would be less in magnitude than under the four-lane alternative. For example, the smaller road footprint would have less impact along the Richmond Avenue berm. While the base of the roadway embankment would be approximately 80 percent as wide as the four-lane at the basin crossings, along the berm the narrower two-lane width would still represent 50 percent less distance beyond the service road footprint and into the basins. Thus, less clearing of woodlands and impacts on wetlands would occur.

The traffic analysis shows that the park roads under this alternative would have similar impacts as the four-lane road with respect to functionality and impacts on the surrounding street network. Thus, the traffic analyses indicate that the Four-Lane design provides no greater relief to local traffic congestion than the Two-Lane Alternative.

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Preliminary costs were developed for the proposed park roads as well as improvements to the West Shore Expressway. The cost of the two-lane park road alternative is 36 percent (or \$64 million) less than the cost of the four-lane road proposal.

With regard to the landfill closure cover system, the horizontal extent of the road embankments under the Two-Lane Alternative would be less than under the Four-Lane design. Under the Four-Lane design the wider embankments would apply more weight to the landfill cover and the underlying waste and soils, which could result in a lower degree of stability and increased stress on the closure system's geomembrane layer.

ALTERNATIVE ROAD ALIGNMENT (WEST OF LANDFILL SECTION 6/7)

Three alternative alignments were examined for the proposed Richmond Hill Road Connection. All these proved to be less desirable than the eastern corridor alignment analyzed in the GEIS for the following reasons:

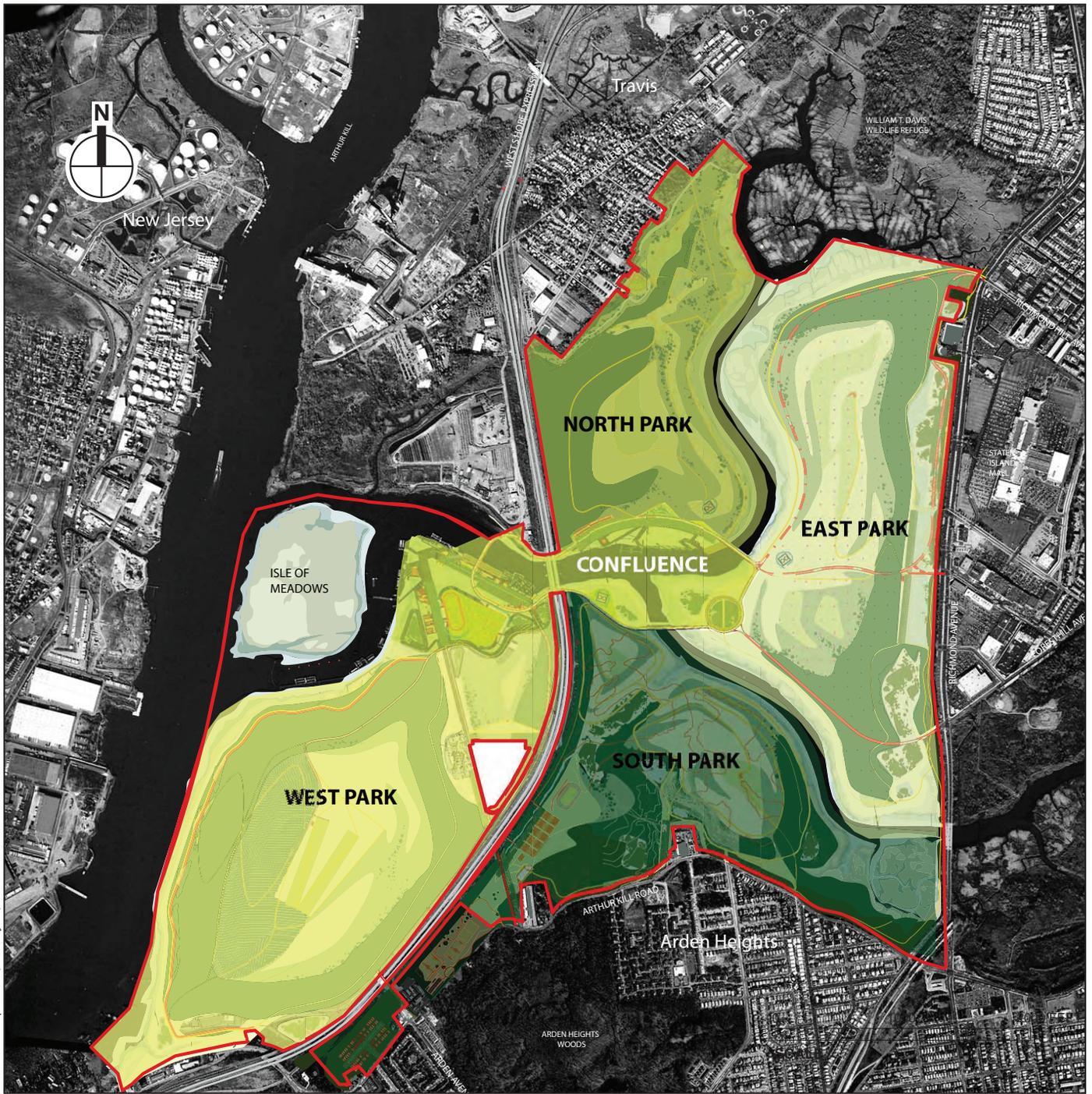
- The on-landfill alignment pushes the road well up the landfill, conflicting with views from North Park and William T. Davis Wildlife Refuge, which is a condition that runs counter to the park goal of leaving this northern section pristine and natural;
- The on-service road scenario proves to be the least desirable, as it consistently conflicts with critical landfill infrastructure and seriously compromises landfill maintenance and operation requirements; and
- The off-landfill alignment at the base of the landfill section would potentially impact 14 acres of tidal wetlands and adjacent areas, of which about half is assumed to be tidal wetlands of Main Creek and associated with William T. Davis Wildlife Refuge.

LESSER IMPACT ALTERNATIVE

This alternative examines the potential impacts of less intensive programming for the park and a reduced roadway network. Under this alternative, the park would not include any recreational areas, amenities, cultural/educational facilities, banquet halls, restaurants, etc., and would consist of completing the closure of the landfill and subsequently landscaping the project site. The roadways proposed with the proposed project would also not be constructed.

While the Lesser Impact Alternative would not have the short-term construction impacts of the proposed project or adverse impacts on hazardous materials or wetlands that require mitigation, this alternative would also not provide the significant public open space, active recreation, and roadway circulation benefits associated with the proposed project. It would also not provide the project goals of opening Fresh Kills Park to waterfront access for the public and redeveloping an underutilized City waterfront property as a significant recreational and cultural amenity for the community.

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 Fresh Kills Project Site Boundary

0 1700 FEET
SCALE

FRESH KILLS PARK, MASTER PLAN

REASONABLE WORST CASE DEVELOPMENT SCENARIO

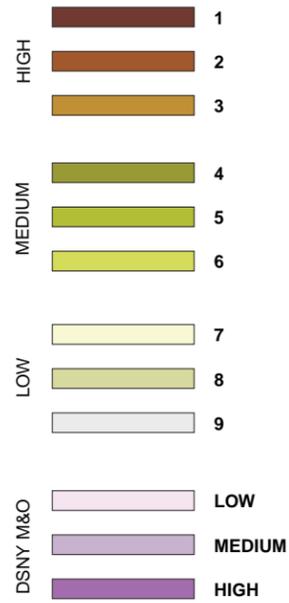
PROGRAM INTENSITY ZONES

- 1 **Active Recreational-Indoor**
Active recreational uses that occur indoors and would require the construction of buildings.
Ancillary Facilities
Structures that are ancillary to park operations.
Commercial/Concession
Commercial or retail uses requiring the construction of buildings.
Energy/Infrastructure
Uses that could be created on the site to produce energy to offset envisioned energy needs for the park site or to provide a source of energy for sale for revenue generation.
Parking
Public parking, assumed to be constructed using semi-porous surfaces.
Public
Visitors centers/informational kiosks for way finding and educational uses.
 - 2 **Active Recreational-Constructed Surface**
Active recreational uses that occur outdoors on constructed surfaces. No structured seating for visitors assumed. No accessory buildings required.
Event Space
Entertainment uses that could occur on permeable or semi-permeable surfaces. No accessory buildings required.
Transportation
New roadways and bridges, and roadways and bridges to be improved.
 - 3 **Water Recreation and Access**
Water-related active recreational uses. Assumed to require the construction of new in-water structures such as piers, docks, and overlooks.
 - 4 **Active Recreational-Field Sports**
Active recreational uses that occur outdoors and require the construction of playing fields. Playing fields are assumed to be permeable. Structured seating for visitors assumed.
 - 5 **Passive Recreation**
Passive recreational uses that occur outdoors on permeable surfaces. Related structures include decks and piers.
Cultural
Uses with a cultural or educational component. This category includes uses that could occur on permeable surfaces (e.g., open fields), as well as uses that could require the construction of buildings.
 - 6 **Linear Recreation**
Active recreational uses that occur outdoors and would be limited in area to linear, paved paths.
 - 7 **Habitat with People**
New habitat to be created, or existing habitat to be enhanced, which includes the potential for use by the public. Related structures include boardwalks, decks, and [paved or unpaved] trails. No accessory buildings.
 - 8 **Art Feature**
Constructed elements that are not related to a defined use but are aesthetically interesting. Not assumed to generate auto, transit, or pedestrian trips.
 - 9 **Habitat without People**
New habitat to be created, or existing habitat to be enhanced, which would not have the potential for public use. In some cases these areas would be fenced off or otherwise made inaccessible. Habitat would be protected and left undisturbed. No accessory buildings.
 - 10 **DSNY Maintenance and Operations - Municipal Services**
Services related to ongoing DSNY operations at the Fresh Kills site. Assumed as part of the baseline condition and not to generate new traffic or impacts.
- Parkland Boundary

Program Intensity Zones

Categorical Scale:

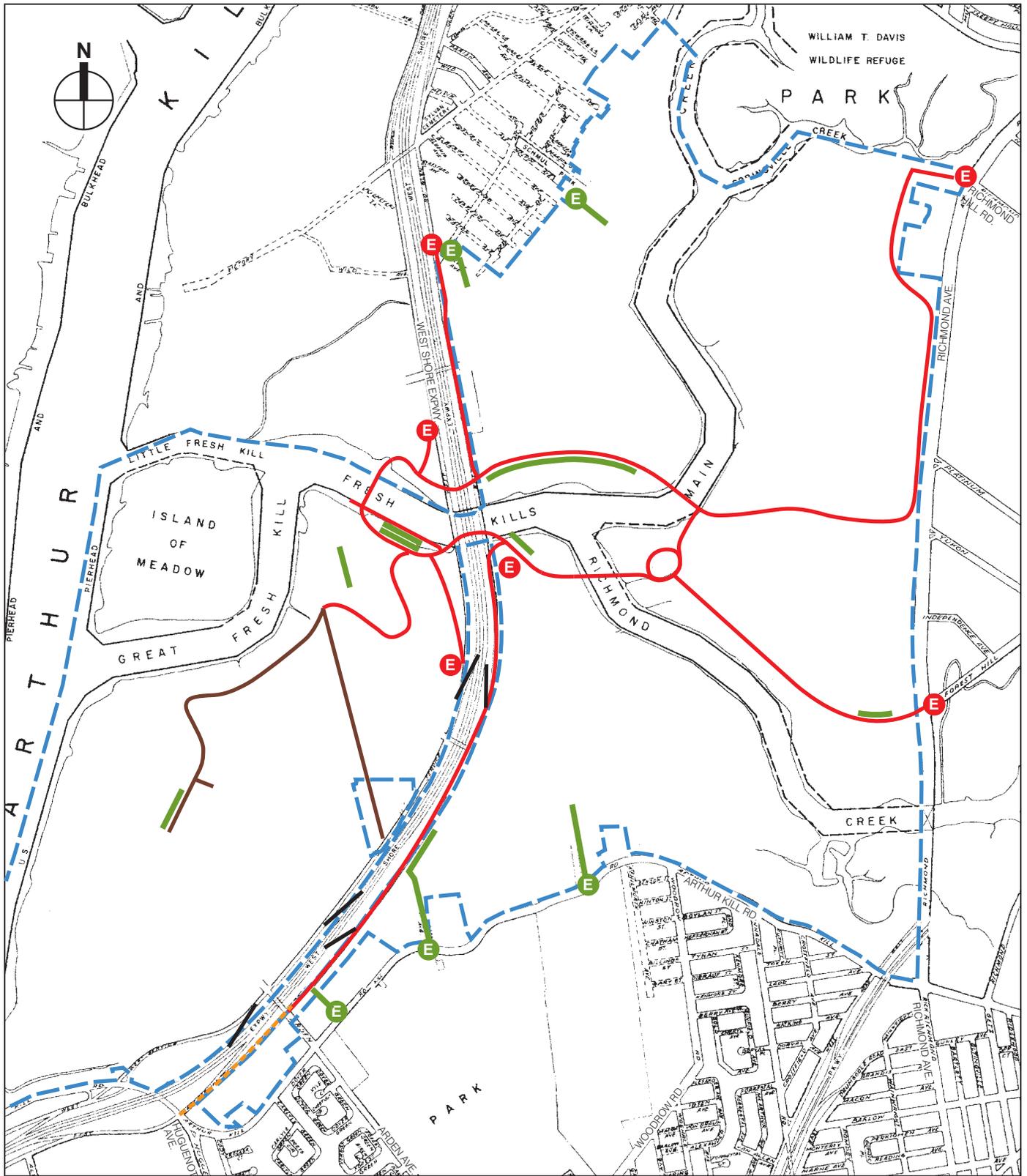
Program uses are classified into three primary intensity zones, high, medium and low. Each primary category has three levels of intensity.



— Fresh Kills Project Site Boundary



Source: Field Operations, February 22, 2008



- - - Fresh Kills Project Site Boundary
- Parking
- E Park Road Entrance/Exit
- E Parking Lot Entrance
- Park Road
- - - No Build Project (NYS DOT)
- Service Road
- WSE Ramp

0 500 1000 FEET
SCALE