

**Fresh Kills Park East Park Roads
Draft Scope of Work to Prepare
a Supplemental Environmental Impact Statement**

A. INTRODUCTION

This is a Draft Scope of Work to prepare the Fresh Kills Park East Park Roads Draft Supplemental Environmental Impact Statement (DSEIS). This Draft Scope of Work has been prepared to provide the public, community representatives, and involved and interested City, State, and Federal agencies with the opportunity to comment on the technical analysis to be presented in the DSEIS, and the methodologies to be used in examining the potential for environmental impacts associated with the proposal to construct East Park roads, over or adjacent to Fresh Kills Landfill Section 6/7, thereby providing new road connections to Richmond Avenue. The DSEIS will be prepared in conformance with all applicable laws and regulations, including The Rules of Procedure for New York City Environmental Quality Review (CEQR), Executive Order No. 91 of 1977, Article 8 of the Environmental Conservation Law and State Environmental Quality Review Act (SEQRA) regulations (6 N.Y.C.R.R. Part 617), and the National Environmental Policy Act (NEPA). Preparation of the DSEIS will follow the guidance of the *CEQR Technical Manual* (October 2001). The Lead Agency in the preparation of the DSEIS is the New York City Department of Parks and Recreation (DPR).

Starting in 2002, the City of New York, led by the New York City Department of City Planning (DCP), conducted a master planning process for the transformation of Fresh Kills Landfill into public parkland over the subsequent 30 years. As a product of this extensive planning and community participation process, DCP, in collaboration with other City agencies, prepared an illustrative Draft Master Plan (DMP) for the Fresh Kills Park project. That Plan was analyzed in the Fresh Kills Park Draft Generic Environmental Impact Statement (DGEIS), which was issued in May 2008. The Final GEIS (FGEIS) will be issued in March 2009.

As part of the review of the DGEIS, based on comments received and consultation with the New York State Department of Environmental Conservation, it was determined by DPR that an SEIS would be prepared to focus on the proposed East Park roads for the purposes of providing a targeted and detailed analysis of these proposed roads as well as providing an examination of additional alternatives. Since this also requires a number of critical discretionary approvals from state and federal agencies, it is intended that the DSEIS address the environmental issues and concerns of these agencies through a coordinated environmental review under the direction of DPR.

A scoping meeting will be held to provide the public and all interested and involved agencies with the opportunity to comment on this "Draft Scope of Work to prepare a DSEIS." That public scoping meeting will be held from 7 PM to 9 PM on March 25, 2009, at P.S. 58, located at 77 Marsh Avenue on Staten Island. Subsequent to the scoping meeting, written comments will be accepted by the lead agency through April 25, 2009.

B. PROJECT DESCRIPTION

PROJECT SITE

The project site is the proposed East Park section of the planned Fresh Kills Park (see Figure 1). East Park encompasses Landfill Section 6/7, which is currently undergoing final closure construction, and the adjacent dry lowlands, drainage basins, and freshwater wetlands situated between the landfill and the Richmond Avenue boundary of Fresh Kills Park to the east. The project site and immediate vicinity have an extensive infrastructure system that is managed by the New York City Department of Sanitation (DSNY). This includes piping to collect landfill gas and leachate, service and haul roads, stormwater collection systems, and stormwater basins. These systems were described in detail in the Fresh Kills Park FGEIS. The description of these systems and operations will be represented in the SEIS and supplemented as necessary.

PROJECT BACKGROUND

SITE HISTORY

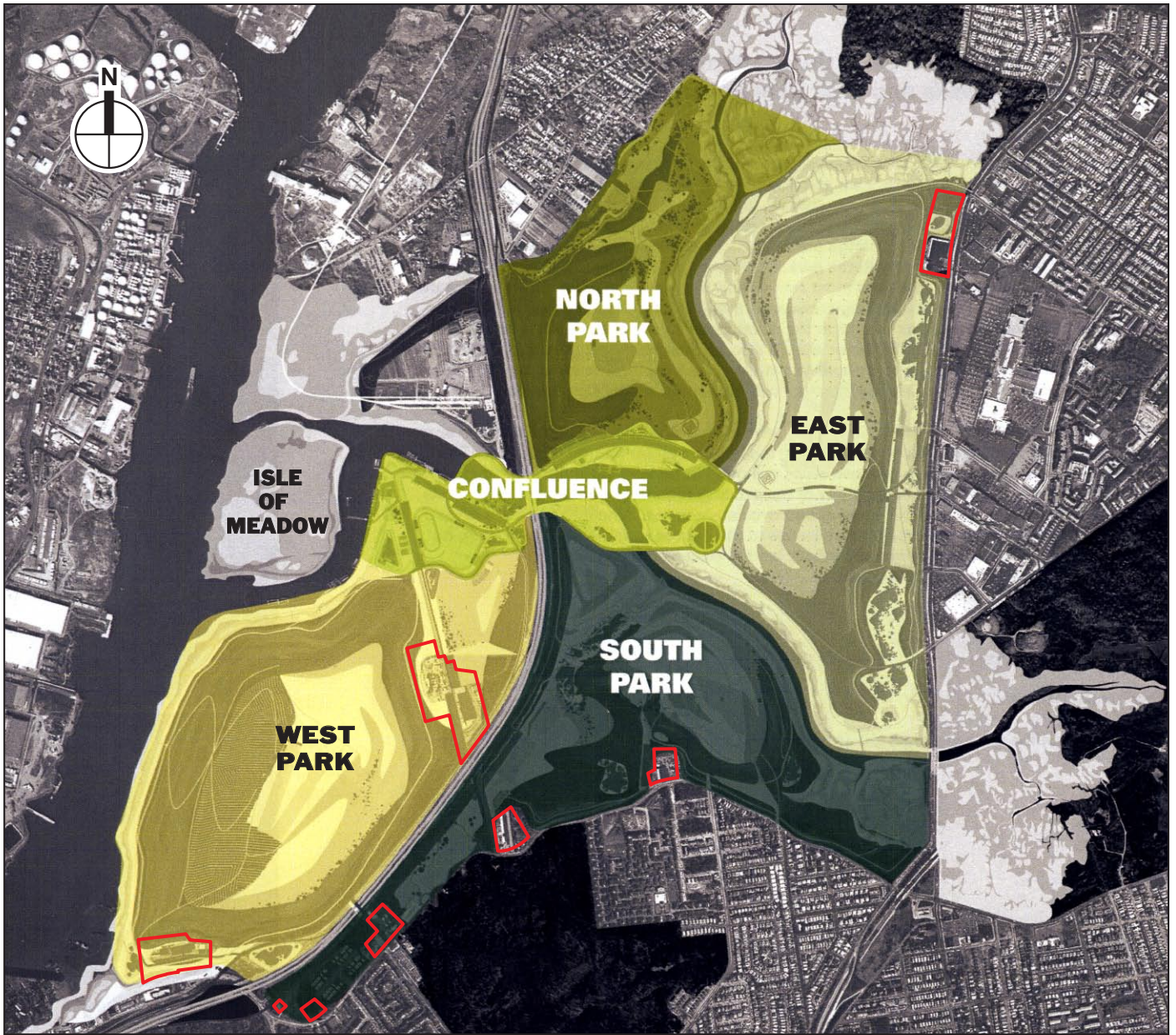
The Fresh Kills site in its natural state was primarily tidal creeks and coastal marsh. In 1948, to address its increasing solid waste disposal needs, the City of New York opened the Fresh Kills Landfill as part of a network of City landfills and related land reclamation projects. Over time, Fresh Kills became the largest landfill in the world, and was the principal landfill for household garbage collected in New York City. At its peak of operation, Fresh Kills Landfill received as much as 29,000 tons of trash per day. While the City had a number of operating landfills in the latter half of the 20th century, many were closed as new landfill and environmental regulations came into effect. By 1991, Fresh Kills was New York City's only operating landfill receiving residential garbage. The Fresh Kills Landfill, which lacked a State permit and operated under a Consent Order, was required by a 1996 State law to stop receiving additional waste by December 31, 2001, and it received the last barge of garbage on March 22, 2001. Landfill closure subsequently moved forward pursuant to a NYSDEC-approved Closure Plan and the Consent Order. After the World Trade Center attack of September 11, 2001, the landfill was temporarily used to accept materials from the World Trade Center site. No other materials were brought to Fresh Kills during this temporary suspension of the closure.

Today, much of the site is a highly engineered complex of man-made infrastructure and artificial landscape (see Figure 2). The disturbance to natural ecosystems and the effect of 50 years of landfilling has been significant, and much of the landfill only supports simple, homogenous ecologies. However, despite these conditions, Fresh Kills retains many ecological assets, including hundreds of acres of salt marsh and a significant network of tidal creeks. Moreover, the proximity to the Staten Island Greenbelt and the William T. Davis Wildlife Refuge offers a rich mix of species that can support Fresh Kills. These adjacent open spaces also create significant opportunities for open space linkages. For these reasons, the creeks and wetland habitats of Fresh Kills have been designated a Significant Coastal Fish and Wildlife Habitat by the New York State Department of State.

The City of New York, led by DCP, conducted a master planning process for the Fresh Kills Landfill that developed in the DMP and an Illustrative Park Plan (see Figure 3). This Plan, a reasonable worst-case development scenario (RWCDS) and preliminary engineering for the proposed park roads, served as the basis for the impact analyses conducted in the Fresh Kills Park FGEIS. For the purposes of developing the RWCDS, the proposed land uses and activities



----- Solid Waste Management Unit Area



 *DSNY Facility (or lands outside of proposed project)*

0 1000 2000 FEET
SCALE

described in the DMP were considered illustrative categories of park uses. To allow flexibility over the estimated 30 years of the Plan's implementation, the RWCDS accounted more generally for the types of habitat and recreational activities that may be implemented at the proposed Fresh Kills Park. These habitats and activities could vary from those currently presented in the DMP, given the potential for long-term changes in community or Citywide recreational needs, or innovations in landscape design, or storm water management techniques, for example. Therefore, the uses and activities proposed in the DMP were grouped into illustrative park-element categories of uses and activities. These groupings of park activities and uses are expected to result in similar environmental impacts, thereby allowing for a range of potential future uses and activities that would have similar impacts. It was assumed that during final design and development, uses or activities of equal or less intensity that fit into these element categories could be substituted without triggering the need for additional or supplemental environmental review. The FGEIS also includes a range of impact avoidance and mitigation measures to be included in the final designs and programming.

EAST PARK

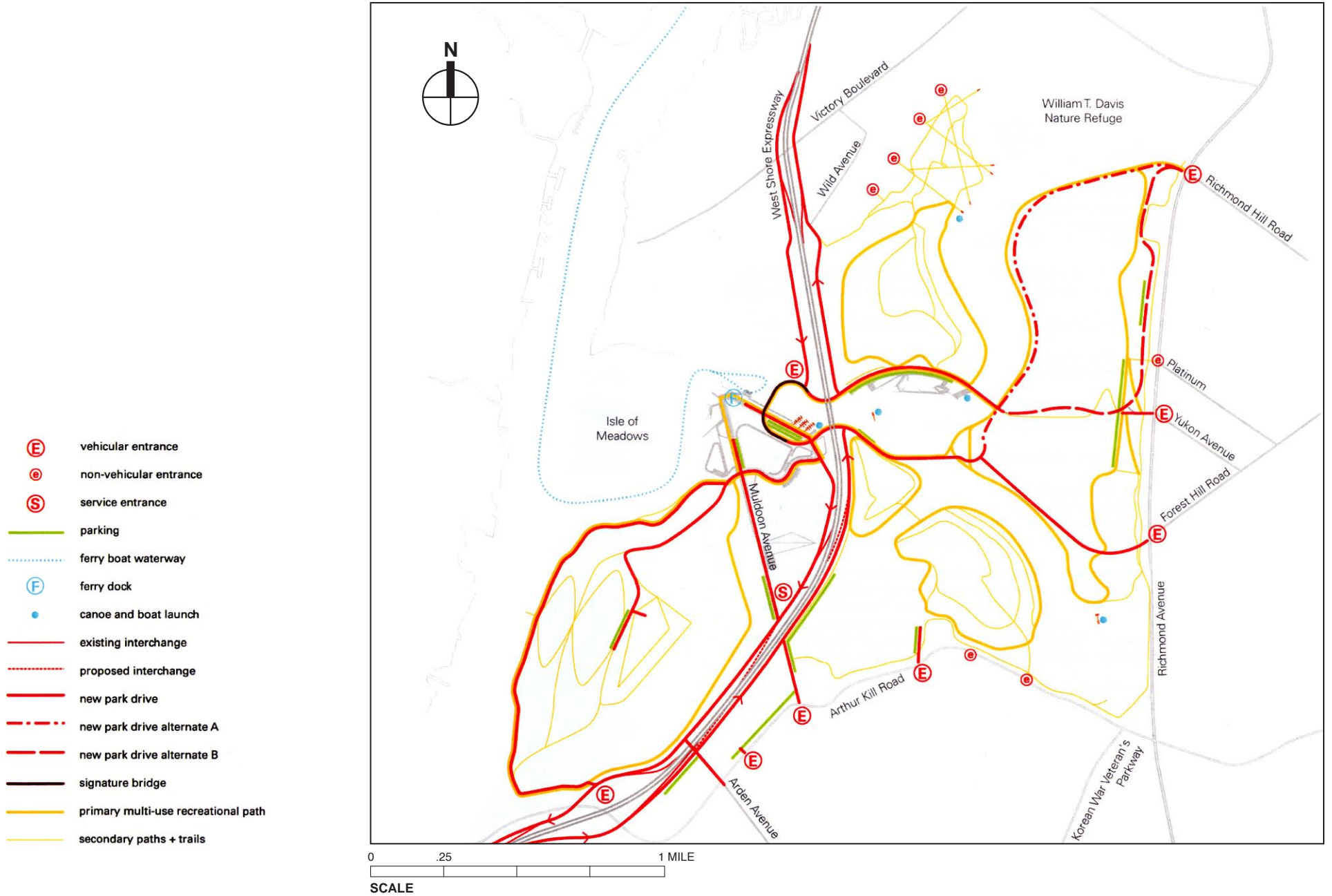
The DMP for the proposed Fresh Kills Park is based on the theme of "lifescape, a new park for New York City." Lifescape can be defined by three functional layers: program, habitat, and circulation. A diversity of cultural, athletic, and educational programming is planned for the site, as well as an ecological restoration composed of reclaimed wetlands, grasslands, and woodlands that would offer wildlife habitat as well as natural open spaces for park visitors. Park roads, secondary roads, and a network of foot, bicycle, and equestrian trails would allow a variety of access ways into and across the site. The Fresh Kills Park is intended to be a world-class park with a wide range of public spaces and facilities for social, cultural, and physical activity, for learning and recreation. The site is large enough to support many sports and programs that are unusual in the City. The completion of Fresh Kills Park will create a substantial amount of new parkland and a significant addition to the City park system.

Of the approximately 2,163 acre Fresh Kills Park site, East Park covers approximately 482 acres (or 22 percent of the site). The envisioned park uses within East Park include large open meadows for recreational uses along with vegetated spaces and spectacular views. East Park is also the portal for local vehicular access into the park from the east via Richmond Avenue (see Figure 4). It is intended to provide primarily landscape enhancement with created and improved wetlands as well as lowland forest. The man-made berm and ponds on the east side of the east mound represent an opportunity for new landscapes as well as hiking and walking trails. Along the sides and on top of the former landfill section, new landscape and forest areas would be created, with large meadows.

PURPOSE AND NEED

East Park is proposed to be the main entryway to the park from the east. To that end, it is important to have park road access into the site for vehicles, including private autos, buses, DSNY vehicles, as well as bicycle and pedestrian access. DPR's Fresh Kills Park Draft Master Plan states that the objectives of the vehicular circulation include:

- Optimizing connectivity within and beyond the site, facilitating both local and regional access to major destinations in the park and alleviating local traffic congestion;
- Allowing all areas of the park to be accessible to all people and compliant with American with Disabilities Act regulations;



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- Integrating vehicular park drives into the landscape, using curvilinear geometry to follow the contours and create slow (35 mph) scenic driving experiences;
- Enhancing the park experience with an extensive intermodal circulation network, including multi-use paths and trails, local bus connections, and a docking facility;
- Using the drives and pathways to help orient visitors in the park through varied materials, signage, and signature design, and providing pedestrian-friendly crossings; and
- Coordinating the implementation and operation of new drives, paths, and trails with ongoing maintenance and service needs associated with landfill closure.

To that end, the City proposes to construct road access into the site and provide connections between Richmond Avenue and the West Shore Expressway. Given the physical geography of the site, roads must cross East Park to provide that connection between Richmond Avenue and the West Shore Expressway.

The plan for roads across Fresh Kills is responsive to the well founded and clearly expressed wishes of the broad Staten Island community. The construction of roads through the Fresh Kills site is supported by the Staten Island Transportation Task Force, local Community Boards, and the Staten Island Borough President. The Staten Island Transportation Task Force, a group formed by the Mayor to address the borough's growing traffic congestion, has identified the construction of the Fresh Kills Park roads as one of its recommendations for relieving local traffic congestion in addition to transit enhancements, alternative transportation modes, and other road improvement projects that are being implemented and considered for the area.

With respect to the project purpose and need as it relates to transportation and pedestrian circulation, the proposed park roads are needed to:

- Provide access to the Park and various park uses that will be distributed over the 2,163-acre site, as depicted in the Draft Master Plan.
- Create connections between Richmond Avenue and the West Shore Expressway to reduce congestion along major arterials and minimize through traffic in residential neighborhoods.

PROVIDING PARK ACCESS

A fundamental goal of the park roads is to provide access into the park and to the various uses distributed through the park as envisioned in the Draft Master Plan. The primary roads are designed to provide vehicular access to those uses which will generate the greatest demand via connections to Richmond Avenue, as described below.¹

Driving through Fresh Kills Park will be a fundamental park experience for many drivers on Staten Island. The proposed roads would open the waterfront site to new public vistas along the park drive. The proposed roads are needed to provide access to the waterfront and water-dependent recreational uses.

¹ Text developed for this discussion is developed from the following reports: "Fresh Kills Landfill Traffic Planning Study, Alteration Mapping and Cost Estimate," Submitted to SIBP by URS, December 11, 2001; "Fresh Kills Landfill Traffic Planning Study, Highway Network Modeling and Sketch Planning Evaluation," Submitted to SIBP by URS, December, 2001; and "Fresh Kills Landfill Traffic Planning Study, Final Traffic Engineering Analysis Report," submitted to SIBP by URS, December, 2001.

Modification of Landfill Section 6/7 Final Closure Plan (2011)

By 2011, it is assumed that grading would be completed in accordance with the modified closure design. Interim uses in the graded areas could include walking trails.

Connection to Yukon Avenue (2016)

This proposed connection from the Confluence to Richmond Avenue would provide a direct vehicular connection between Richmond Avenue and the Confluence across the central portion of East Park. It is a preferred near-term proposal because it is the most direct connection and can utilize existing roadbeds across Landfill Section 6/7.

Connection to Forest Hill Road (2036)

This proposed connection from the Confluence to Forest Hill Road would provide direct vehicular access to and across the southern portion of East Park. Moreover, this proposed segment of road would provide access from Richmond Avenue to the Confluence and all the uses proposed there.

Connection to Richmond Hill Road (2036)

This proposed connection from the Confluence to Richmond Hill Road would provide direct vehicular access to and across the northern portion of East Park. This proposed segment of road would also provide access from Richmond Avenue to the Confluence and all of those proposed uses.

ADDRESSING TRAFFIC NEED

Increasing Connectivity

There is an undeniable need to address traffic congestion on Staten Island. Traffic in this part of Staten Island is particularly heavy, and is only expected to deteriorate as western Staten Island continues to develop. In response to growing community concerns about traffic, the City of New York created the Staten Island Transportation Task Force which is multi-agency task force led by representatives from NYCDOT and DCP (also represented are local community boards, representatives, NYSDOT, the MTA and Port Authority). The Staten Island Transportation Task Force has identified the construction of the Fresh Kills park roads as one of its key recommendations for relieving local traffic congestion in addition to transit, alternative transportation modes, and other road improvement projects that are being implemented and considered for the area.

Located on the eastern edge of the site, Richmond Avenue is one of the principal arterials for north-south vehicular traffic through western Staten Island; traffic is heaviest in the stretch between the Staten Island Expressway and Arthur Kill Road. Richmond Avenue serves one of the busiest commercial hubs in the borough, providing access to the Staten Island Mall and other large retailers, and also provides regional transportation connections to the Staten Island Expressway and the West Shore Expressway via Victory Boulevard to the north and to the Korean War Veterans Highway to the South.

Minimizing Park Traffic Impacts

Given the existing heavy traffic patterns in the area, there is a known lack of operational capacity along Richmond Avenue. Therefore alternative routes that reduce congestion along Richmond Avenue without increasing traffic volumes in local neighborhoods are needed in order

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for the proposed park to move forward with minimal traffic impacts. With no public through road across Fresh Kills, there is a major local transportation need for a shorter travel distance across (rather than around) the approximately 4-square-mile, 2,200-acre site. While the proposed park would be served by publicly accessible roads for automobile and transit access into the park, the proposed connections to Richmond Avenue would simultaneously provide a through road across the site, thereby providing some measure of local traffic relief while reducing the impacts of park-generated traffic.

The proposed park roads would eliminate the need for vehicles to travel around Fresh Kills, (some 2,208 acres and 4 square miles), and through the local residential neighborhoods surrounding the Fresh Kills site in order to reach the West Shore Expressway. Lastly, by reducing travel time along the congested Richmond Avenue, the proposed roads would also provide the benefit of emergency access to both the Fresh Kills Park project, and across the site as well as secondary economic and community benefits with improved circulation.

PROPOSED EAST PARK CIRCULATION PLAN

The overall proposed Fresh Kills Park project would accommodate vehicular circulation throughout the park with the construction of approximately seven miles of new park drives including both primary and secondary roads (see Figure 5). The goal of the Plan is to bring the largest focus of users to the center of the site, to the Confluence, from which all five park areas could be easily accessed. In addition, smaller scale entrances are planned in the North, South, and Eastern Parks to allow for neighborhood access at the edges of the park.

In addition to the proposed roads, the DMP features more than 20 miles of specially designed paths and trails for bicyclers, mountain bikers, horseback riders, pedestrians, and hikers. Connections to the surrounding neighborhoods would be aided by numerous park entrances and two pedestrian overpasses, one of which would cross Richmond Avenue in the vicinity of Forest Hill Road.

Within East Park, it is proposed to develop a circulation plan as follows for two analysis years, 2016 and 2036.

2011

By 2011, it is assumed that grading would be completed in accordance with the modified closure design. Interim uses in the graded areas could include walking trails (see Figure 6).

2016

By 2016, it is assumed that the proposed Yukon Avenue connection would be completed (see Figure 7). This would provide a four-lane road, approximately 2,000 linear feet in length, across East Park that would connect Richmond Avenue on the east with the Confluence Loop Road in the center of the site. Once at the Confluence Loop Road, drivers could access the West Shore Expressway northbound or southbound as well as other areas of the park scheduled for completion by 2016.

2036

By 2036, two additional four-lane road connections would be provided, one to the north connecting to Richmond Hill Road, and one to the south, connecting to Forest Hill Road (see Figure 8). The road to the south at Forest Hill Road would cross a segment of Landfill Section

6/7 (approximately 2,200 linear feet across the landfill), and then an area of wetlands to the east (approximately 800 linear feet). This road would provide access to East Park as well as the Confluence Loop and the balance of the park and the West Shore Expressway (northbound and southbound by 2036).

To the north, a new connection would also be provided to Richmond Hill Road. This would involve a reconfiguring of the Yukon Avenue connection to provide a new intersection and a Richmond Hill Road. This connection would extend for a length of approximately 5,000 linear feet and would pass along the east bank of the existing drainage basins to the east of East Park.

Framework For Analysis

The DSEIS will provide a detailed framework of analysis. However, for the purpose of this scoping, the following general framework principles have been identified.

- The analysis will focus on the East Park road system. The DSEIS does not need to address the West Shore Expressway Roads or the Confluence Loop Park Roads (including the West Loop segment and the Signature Bridge) which have been adequately addressed in the FGEIS. It is, however, recognized that the West Loop segment and the Signature Bridge would require an additional SEIS at a future date;
- The DSEIS will rely on the FGEIS for technical data and background conditions, with the exception of technical areas where noted in this scope;
- The additional DSEIS analyses will be targeted toward the analysis at the East Park Road as proposed and their alternatives;
- Elements of the park assumed to be completed in 2011, 2016, and 2036 as stated in the FGEIS will be assumed as the background conditions to this analysis;
- Each chapter of the EIS will examine four analysis conditions: amending the final cover systems at Landfill Section 6/7 to provide grading for a potential roadbed, closure of Landfill Section 6/7 as designed under the approved plan, installation of the Yukon Crossing by 2016, and installation of the Forest Hill Road and Richmond Hill Road connections by 2036;
- No Build projects for the area will be similar to that presented in the FGEIS (no new major projects have been identified).

DISCRETIONARY REGULATORY APPROVALS

There are a number of City, state, and federal land use and environmental approvals that are necessary to implement the proposed East Park roads.

Listed below are the agencies that potentially have a discretionary action with respect to the proposed East Park roads (involved agencies) or an advisory role (interested agencies). All involved and interested agencies have been issued this Draft Scope of Work and requested to comment on its content. DPR will coordinate the project's environmental review with these agencies to ensure proper examination of environmental impacts with respect to their respective discretionary actions. This coordination will continue through the preparation of a FSEIS and the issuance of findings, which concludes the environmental review process.

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**Table 1
Involved and Interested Agencies**

Agency	Review Area Related to the Proposed Park Elements	Role In Review Process
City of New York		
New York City Department of Parks and Recreation	Leading the planning and development of the park	SEIS Lead Agency, applicant for permits and park mapping and park construction
New York City Planning Commission	Planning, Zoning, and Coastal Zone Consistency	Approval of City map and zoning amendments, coastal zone consistency
New York City Department of Design and Construction	Design and construction of capital improvements	Construction plans for roadways and infrastructure
New York City Department of Environmental Protection	Watershed management, hazardous materials, water and sewer mains, septic systems, air quality, natural resources	Approval of drainage plan for storm water management, best management practices, outlets, and sanitary sewer extensions, water supply connections, air quality permits (Title V)
New York City Department of Health and Mental Hygiene	Public health	Advisory review of public health issues and approval of sanitary systems and drainage plans
New York City Department of Sanitation	Compliance with existing permits and closure operations and consent order, and solid waste management operations	Approval of activities potentially affecting closure operations or maintenance and use of DSNY facilities
New York City Department of Transportation	Design and operation of City Streets	Road design and connections to existing City streets, parking, street lighting, and bicycle/pedestrian improvements as well as associated traffic and pedestrian mitigation. Potential applicant for roadway mapping
New York City Art Commission	Review of art, architecture and landscape architecture proposed for City-owned property	Approval of capital projects
New York City Landmarks Preservation Commission	Activities on or near sites of historic or archeological value	Advisory role in EIS process
New York City Office of Environmental Coordination	Coordinating agency for City Actions subject to CEQR	Advisory role in EIS process and coordination among City agencies
New York City Transit Authority	City bus and rail transportation	Advisory role in EIS process
Office of the Staten Island Borough President	Planning and environmental issues	Advisory role in EIS process
New York City Department of Cultural Affairs	Public art and cultural affairs funding and initiatives	Advisory role in EIS process
New York State		
New York State Department of Environmental Conservation	Landfill management, hazardous materials, water quality, tidal wetlands, rare and endangered species, air quality	Review of closure plans, Consent Order, activities in tidal wetlands or adjacent areas (Article 25), protection of waters (Article 15), or air emission permits (Part 201)
New York State Department of Health	Public health	Advisory review on public health issues
New York State Department of State	Coastal Zone Management	Coastal Zone Consistency for actions requiring Federal permits
New York State Department of Transportation	State Highways Access	Approval of connections to the West Shore Expressway (State Route 440)
New York State Office of Parks, Recreation and Historic Preservation	Designation and Protection of State and National Register Listed and Eligible buildings and places	Advisory role in federal permit review process pursuant to Section 106
Federal		
United States Army Corps of Engineers	Activities within federally regulated wetlands (tidal or freshwater) and protection of navigable waters	Wetland permits or authorizations (Section 404) and structures within navigable waters (Section 10)
United States Coast Guard	Structures over navigable waterways	Approval of structures in navigable waterways, to ensure no impacts on navigation
Environmental Protection Agency, Fish and Wildlife Service, National Marine Fisheries Service	Activities that affect wetlands	Advisory to Army Corps of Engineers during permit review

NEW YORK CITY

- Department of Parks and Recreation (Lead Agency)
- Department of City Planning (involved)
- Department of Design and Construction (involved)
- Department of Environmental Protection (involved)
- Department of Health and Mental Hygiene (interested)
- Department of Sanitation (involved)
- Department of Transportation (involved)
- Art Commission (involved for early implementation projects only)
- Landmarks Preservation Commission (interested)
- New York City Office of Environmental Coordination (interested)
- New York City Transit Authority (interested)
- Office of the Staten Island Borough President (interested)
- Department of Cultural Affairs (interested)
- Staten Island Transportation Task Force (interested)

NEW YORK STATE

- Department of Environmental Conservation (involved)
- Department of State (involved)
- Department of Transportation (involved)
- Office of Parks, Recreation and Historic Preservation (interested)
- Department of Health (interested)
- Metropolitan Transportation Authority (interested)

FEDERAL

- United States Army Corps of Engineers (involved)
- United States Coast Guard (involved)
- United States Environmental Protection Agency (interested)
- United States Fish and Wildlife Service (interested)
- National Marine Fisheries Service (interested)

C. DSEIS SCOPE OF WORK

INTRODUCTION

As described above, the DSEIS for the Fresh Kills East Park Road Alignment will be prepared in conformance with all applicable laws and regulations, including CEQR, Executive Order No. 91 of 1977, SEQRA and NEPA regulations, and will follow the guidance of the *CEQR Technical Manual*, October 2001. Environmental review provides a means for decision makers to systematically consider the environmental impacts and consequences of a proposed action; the reasonable alternatives; and to identify and mitigate, where practicable, any significant adverse

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environmental impacts. The DSEIS will also be targeted to the technical areas specifically related to the proposed roads through East Park.

The first step in preparing the DSEIS is the public scoping process. “Scoping,” or creating the scope of work, is the process of identifying the environmental impact analysis and key issues that are to be studied in the DSEIS and the methods by which these impacts would be analyzed. The review of this public scope of work is the final step in that process. A number of the technical areas described in the *CEQR Technical Manual* will not need to be analyzed in the SEIS because the analysis would not change in scope or content from the analysis already provided in the Fresh Kills Park FGEIS. These technical areas include land use, zoning, and community character; socioeconomic conditions; community facilities and services; open space; and shadows. Therefore, these technical areas will be summarized in the DSEIS. Specific project elements to be disclosed and evaluated in detail in the DSEIS include:

- Excavation and fill operations (“cut and fill”) on the landfill (quantifying the amount of excavation from each significant activity).
- Management, storage, transport, and disposal of excavated material (specifying locations and management methods to be used).
- Fill operations and other activities in wetlands (mapping where impacts will occur).
- Stormwater and erosion and sediment controls.
- Surcharge and roadbed construction.
- Construction of through roads, park access roads, and paved public walkways and any new service roads (including specifics on construction of the Forest Hill Road connection viaduct).
- Road operation and maintenance.
- Increased public access to landfill areas.
- Impacts related to any required removal and relocation of landfill gas collection infrastructure related to roadbed construction.
- Impacts of construction of through roads, park access roads and paved public walkways (including impacts due to dust, vehicle emissions, and stormwater runoff).
- Impacts from road operation and maintenance (including dust, vehicle emissions, and stormwater runoff).
- Potential future impacts from special roadway maintenance or reconstruction activities related to subsidence, including potential for disturbance of adjacent or underlying landfill material.
- Potential impacts to the public from increased access to areas of landfill where sensitive infrastructure related to gas or leachate collection and management are located – specific areas that need to be off-limits and how public access would be regulated.

Sensitive receptors to be included in the DSEIS will include park users in existing built parks by the time of the project build year (e.g., Fresh Kills North and South Parks, LaTourette Park, William T. Davis Wildlife Refuge, neighboring uses including shopping malls), commercial locations, residential areas, and natural areas.

The analysis will also consider the impacts of the extended period that Landfill Section 6/7 would not be closed as a result of this proposal the potential impacts of that extended closure

which could include additional methane escaping from uncapped areas, leachate build up in uncapped areas, and potential erosion.

TASK 1: PROJECT DESCRIPTION

DESCRIPTION OF TASKS

The project description is the first chapter of the DSEIS. It introduces the reader to the proposed project and actions and sets the context for assessing project impacts. The chapter will contain a project identification; a description of the project location and boundaries; a statement of purpose and need for the proposed project, and a detailed description of the required actions and approvals necessary for project implementation, the roles of the involved and interested public agencies, and the Uniform Land Use Review Procedure (ULURP) and CEQR/SEQRA/NEPA processes. The project description chapter is important to understanding the proposed actions and project impacts, and gives the public and decision-makers a base from which to evaluate the proposed project and actions against the baseline or “No Build” condition. The role of the DSEIS as a full disclosure document to aid in decision-making will be identified, as will its relationship to all approval procedures. Among the major project elements to be presented in this chapter are:

- A list of all actions necessary for implementation of the East Park road alignment;
- Location map showing regional context;
- A roadway and circulation plan delineating primary and secondary roads, service roads, emergency access roads, as well as design parameters for bridges and culverts, and the applicable Federal, State, and City regulation pertaining to that design (e.g., AASHTO, NYCDOT and NYSDOT design standards); as well as conceptual details for roadways and proposed intersection (signalization, signage); and the projected jurisdiction and management of the proposed street system;
- Walkways and bikeways and the design standards that would apply at these park features including ADA requirements, standards at street crossings (including both signalized and unsignalized intersections), and accessory landscaping features;
- Transit stations and access for public and private buses;
- A summary of existing studies that establish the purpose and need to construct the proposed East Park roads for the purposes of alleviating traffic congestion, and the extent to which the proposed through roads will alleviate such congestion in the local street network;
- Location and width, as well as direction of traffic (one-way or two-way) and planned speed limit (e.g., 35 mph);
- Justification for proposed park access roads and paved public walkways in East Park;
- Description of the agencies responsible for maintenance and operation of the proposed roads;
- Design of roads in East Park for which current roadbed construction is proposed, including connections to roads or highways outside the Fresh Kills Park, including location and width, direction of traffic (one way or two-way), and planned speed limit;
- Maximum design of park access roads and paved public walkways (recognizing that the actual design may be reduced depending on Park uses that develop) for East Park;

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- Justification for having separate landfill service roads after closure of the Landfill, including the types of vehicles and frequency of traffic for the Yukon service road and other service roads;
- Description and graphics presenting the design of the proposed roads in East Park in the cumulative context of:
 - Existing Fresh Kills Landfill Service Roads and any changes proposed;
 - Planned Fresh Kills Park Access Roads (maximum design);
 - Planned Paved Public Walkways (maximum design);
 - Any new landfill service roads;
- Description of excavation and fill operations (“cut and fill”) on the landfill, including a quantified amount of excavation from each significant activity; and
- Description of the management, storage, transport and disposal of excavated material, including specific locations and management methods to be used;
- Description of fill operations and other activities in wetlands;
- Description of stormwater and erosion and sediment controls;
- Description of surcharge and roadbed construction;
- Description of road operations and maintenance;
- Description of restrictions to increased public access to landfill areas; and
- Description of the planned timing and phasing of the construction of the roads particularly as it relates to the final closure of landfill Section 6/7.

FRAMEWORK FOR ANALYSIS

The purpose of developing the framework for analysis as part of the project description is to establish the structure for the impact analyses of the DSEIS. This includes determining the analysis years, including existing conditions, the future conditions with and without the proposed project, and the incremental development changes generated as a result of the proposed actions.

The DSEIS analyses will be conducted for the road’s three Build years (the year in which the proposed project are expected to be completed), which, as described above, are 2011, 2016, and 2036. The list of other proposed projects and plans expected to be completed by the proposed analysis year (i.e., the “No Build list”) will be presented in this framework for analysis and used in the SEIS impact analyses. It is assumed for the purposes of this analysis that the No Build List would be similar to that presented in the FGEIS. It will be assumed for this analysis that the final cover at Landfill Section 6/7 (East Park) will have been recently completed as part of the No Build condition. An area of the disturbance will also be identified for the proposed road alignment and alternatives.

TASK 2: LAND USE, ZONING, AND PUBLIC POLICY

This chapter will rely on the analysis performed for the Fresh Kills Park FGEIS and will supplement that information as necessary. It will assess any land use impacts of the proposed project and present land use information necessary for other tasks. It will set the regional context for the proposed roads, the location within the City of New York, the borough of Staten Island,

and the region as a whole, and provide a more detailed land use for the study area. Subtasks are as follows, for any elements not already disclosed in the GEIS:

- A. Describe the context of the project site within the City and the region, as well as its historical use and the planning history of the proposed project.
- B. Field survey the project site and surrounding study area. The study area will be defined during the analysis, but typically a detailed land use study area will extend approximately ½ mile from the boundary of the project site. The study area will include those neighborhoods with the greatest potential to be affected by development and implementation of the project with a more detailed analysis of land uses for the site and surrounding area.
- C. Identify, describe, and map the existing land use patterns and development trends for the project site and study area, including a detailed description of nearby commercial and waterfront uses and public access opportunities to the waterfront. Land use studies conducted for this area of Staten Island by DCP or other City agencies will also be referenced and described.
- D. Describe and map the existing zoning classifications of the project site and study area.
- E. Describe public policy as it applies to the project site and study area, with a particular emphasis on the Fresh Kills Park plan, the Waterfront Plan for Staten Island, and the City's waterfront zoning.
- F. Describe conditions that will exist in the future without the proposed project. Such changes in future conditions could include private development projects, public works projects, public agency plans for the relocation or upgrade of facilities, proposed zoning changes, and any other changes that are likely to occur by the Build years. Describe how future projects anticipated for the study area might affect land use patterns and development trends in the study area in the future without the project. Identify any pending zoning changes or other public policy actions that could affect land use patterns and trends in the study area.
- G. Assess the impacts of the proposed project on land use patterns and development trends, zoning, and public policy. Waterfront zoning and other public policies will also be discussed. This analysis will focus on issues of compatibility with surrounding land uses, consistency with zoning and other public policies, and compliance with waterfront zoning, policies, and plans.

TASK 3: HISTORIC RESOURCES

The purpose of this chapter is to assess whether the proposed project could affect any historic architectural or archaeological resources, either directly through construction activities or indirectly through alteration of the context or visual environment of the resources. This chapter will rely on the analysis and research conducted previously for the Fresh Kills Park FGEIS as contained in the Phase 1A report in Appendix B of the FGEIS. A review of the historic and architectural resources analysis in the FGEIS identified no such resources in the vicinity of the East Park Roads. Therefore, the focus of this analysis will be archaeological resources in the area of proposed road disturbance to the extent that any new analysis is necessary. Tasks within this chapter will be as follows:

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

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- B. Review the Phase 1A archaeological investigation to determine areas of potential archaeological sensitivity.
- C. Describe the potential for any changes to the APE and its archaeological and architectural resources in the future without the project.
- D. Assess the project's impacts on any archaeological resources.
- E. If necessary, develop mitigation measures (including identifying any necessary Phase 2 archaeological studies) to avoid or reduce any significant adverse impacts on architectural or archaeological resources.

TASK 4: URBAN DESIGN AND VISUAL RESOURCES

In the GEIS, the urban design and visual resources chapter evaluated the potential effects of the proposed park on urban design and visual resources. In the SEIS, the analysis of the proposed park roads will:

- A. Define a study area and describe the urban design characteristics and visual resources of the project area and adjacent areas, using photographs and other graphic material as necessary to identify critical features, use, bulk, form, and scale;
- B. Discuss specific relationships between the project area and the study area focusing on light, air, and views along Richmond Avenue;
- C. Describe the changes expected in the urban design and visual character of the study area resulting from the No Build Projects and will assume a study area of ¼-mile;
- D. Describe the potential changes that could occur in the urban design character of the project area in the future with the proposed project. Project images and/or other graphic material will be utilized, where applicable, to assess the potential effects on the study area's urban design and visual resources in the study area, including resources of visual or historic significance; and,
- E. Describe the potential changes, if any, that could occur in the urban design character and visual resources of the surrounding area and evaluate the significance of those changes.

TASK 5: NEIGHBORHOOD CHARACTER

Neighborhood character is an analysis that examines the combination of distinct community elements, including land use, zoning, socioeconomic conditions, urban design and visual resources, open space, historic resources, natural features, traffic, and noise, that together create neighborhood character. In the SEIS, the neighborhood character analysis will be limited to analysis of any new alternatives that were not already disclosed in the GEIS. Should additional analysis be necessary for any new alternatives, the SEIS analysis will be developed based on the following subtasks:

- A. The predominant factors that contribute to defining the character of the neighborhood will be summarized. Typically, this includes land use, socioeconomic conditions, traffic and noise levels, urban design features, and historic resources.
- B. Based on planned development projects, public policy initiatives, and planned public improvements, changes that can be expected in the character of the project site's surrounding neighborhoods in the future without the project will be described.
- C. The impact of the proposed East Park road alignment on neighborhood character will be assessed and summarized. This assessment will consider the benefits that the proposed

project will provide to the community, and also will summarize how the proposed project could affect local traffic patterns and what, if any, secondary effects (e.g., noise and air) this traffic could have on the community.

TASK 6: NATURAL RESOURCES

Under CEQR, a natural resource is defined as plant and animal species and any area capable of providing habitat for plant and animal species or capable of functioning to support ecological systems and maintain the City's environmental balance. The purpose of the natural resources chapter is to assess the potential effects of the proposed project on natural resources and the quality of surface waters within the project area. Baseline data for this chapter will rely on data collected for the Fresh Kills Park FGEIS.

Surface waters within the William T. Davis Wildlife Refuge, the Fresh Kills Creek system (Main, Richmond, and Fresh Kills Creeks), and the Arthur Kill will be included in this analysis. The extent of the analyses will depend on the types activity with the potential to affect natural resources either directly or indirectly as a result of the proposed project. The specific steps in this analysis are as follows:

- A. Summarize relevant information on existing water quality and sediment conditions for Main Creek, Richmond Creek, and waters in the vicinity of East Park. The description of existing water quality and sediment conditions will be based on existing information available from such sources as the New York-New Jersey Harbor Estuary Program, DEC, DASNY, New York City Department of Environmental Protection (DEP), and ACOE.
- B. Describe the existing natural resources habitats and features for the road corridors and adjacent areas. The existing aquatic and terrestrial resources will be characterized based on information compiled through literature review, from state and federal agencies, and from field investigations. Data gathered from field investigations for the FGEIS will be reviewed and verified and augmented with the information compiled from the literature and previously conducted studies as presented in the GEIS. The literature review will include the extensive body of existing information on aquatic resources, birds, and other wildlife and plant communities that has been prepared by agencies such as DPR, DEC, DEP, DSNY, the U.S. Fish and Wildlife Service (USFWS), the New York District of the ACOE as part of the New York and New Jersey Harbor Navigation Project, and the National Marine Fisheries Service (NMFS), as well as other sources. Federal, state, and local resource and regulatory agencies will also be contacted to identify any resources of concern within the project area. Habitats will be characterized based on the New York State Natural Heritage Program communities (January, 2002). Supplemental spring field investigations will also be performed to identify current and future conditions along the proposed road corridors.
- C. Provide an assessment of the future conditions for water and sediment quality within the project area in the future without the proposed project. This will consider future effects on water quality and sedimentation rates of in-water activities that may occur independently of the project.
- D. Assess the future conditions of the natural resources without the proposed project, considering potential effects of ongoing and proposed projects in the vicinity of the proposed project, such as the DSNY closure program for Landfill Section 6/7.
- E. Assess the potential effects of the proposed project on water and sediment quality. The assessment will consider potential water quality effects from project construction and operation, including potential water quality impacts associated with the construction and

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operation of the potential marina, construction of other proposed overwater structures and shoreline stabilization measures, and storm water runoff from the proposed project and potential effects to storm water quality resulting from vegetation management activities (i.e., application of herbicides, pesticides, and fertilizers).

- F. Assess the potential risk to aquatic biota from the resuspension of bottom sediments during construction and operation of the proposed project based on the summary of existing sediment conditions.
- G. Assess the potential effects of the proposed project on the terrestrial and aquatic biota within the project area using existing data as compared with the areas of impact under the proposed project. Issues to be addressed with respect to terrestrial organisms include potential habitat loss or modification; potential impacts to the harbor herons associated with the proposed project, such as increased recreational boat traffic, and other effects resulting from the increase in human activity that would result from the proposed project; shoreline habitat disturbed due to the construction of the proposed park facilities; habitat enhancement resulting from development of upland habitats, such as grassland, meadow, and woodland habitats, and wetland enhancement, restoration and creation; and potential impacts to upland and wetland resources associated with management of roadways and vegetation management (i.e., application of herbicides, pesticides and fertilizers). Assess the impacts on freshwater and tidal wetlands (e.g., impacts on total acreage, wetland quality, and habitat) based on CEQR guidelines and state SEQRA wetland impact guidelines as it relates to any impacts from new roads. This assessment will provide the following information:
- Specific wetlands that will be filled or lost;
 - Specific aquatic habitat that would be shaded;
 - Specific wetland areas that would be fragmented;
 - Specific aquatic habitats in which the natural flow would be impaired;
 - Potential impacts to fish and wildlife from the proposed project, including:
 - Wildlife “avoidance response” to roadways and traffic on East Park
 - Habitat fragmentation impacts (measure/quantify fragmentation based on review of proposed road and pathway system on East Park, including the proposed road connections between Richmond Avenue and the Confluence).
 - Habitat loss impacts (actual habitat to be specifically and clearly identified).
 - Impact of roadway lighting on wildlife and wildlife use of the area (based on review of entire proposed road and pathway system).
 - Potential impacts on wetlands, wildlife and vegetation (identifying specific areas affected) from:
 - Dust, noise, and pollution runoff from construction of roads and walkways.
 - Noise and pollution runoff from operation of roads, bridges and viaduct, including snow removal, road de-icing, and other maintenance activities.
 - Special maintenance or reconstruction activities on roads related to impacts of landfill subsidence, including potential for disturbance of adjacent or underlying landfill material.
- H. Based on the above, address issues related to aquatic organisms, including potential effects associated with temporary water quality changes during in-water construction activities, temporary loss of benthic organisms and habitat during any shoreline construction activities,

potential habitat enhancement from tidal wetland restoration and restoration of other shoreline areas, longer-term potential impacts to fish and benthos due to increased shading from overwater structures, loss of fish and benthic habitat due to new in-water structures, discharge of storm water and potential effects to storm water quality resulting from vegetation management activities (i.e., application of herbicides, pesticides, and fertilizers), and changes in aquatic habitat resulting from the development and operation of the potential marina or other marine facilities, including increased recreational boating activity, as well as access from land.

TASK 7: HAZARDOUS MATERIALS

This chapter will rely on data collected for the Fresh Kills Park FGEIS and will:

- A. Present background data and changes in the future without the proposed project relative to hazardous materials as developed for the Fresh Kills Park FGEIS.
- B. Determine any potential impact for the exposure to hazardous materials within the areas of soil disturbance proposed for roads and parking (and the associated infrastructure), as well as bikeways and trails. It is noted that the need for any work plans and site sampling collected for the Fresh Kills Park FGEIS will be subject to NYCDEP approval.

TASK 8: WATERFRONT REVITALIZATION PROGRAM

The project site is located entirely within the City's coastal zone. Actions subject to CEQR and SEQRA, such as the proposed project, that are within the designated boundaries of the coastal zone must be assessed for their consistency with the City's Local Waterfront Revitalization Program (LWRP). Adopted under the federal Coastal Zone Management Act of 1972, the LWRP is administered by City Planning Commission acting as City Coastal Commission. This task will involve a review of the 10 policies and assessment of the consistency of the proposed project with these policies, as described in the GEIS. This consistency determination will also be used in support of federal and state permits that are necessary for the proposed project.

TASK 9: INFRASTRUCTURE

The proposed project would not impact any sanitary storm sewers, electrical or gas lines, as previously identified and examined in the FGEIS. Therefore, the focus of this chapter will be to examine storm water runoff with the proposed roads and to consider the potential impacts on storm water drainage and the need for any additional improvements, as follows:

LANDFILL INFRASTRUCTURE

- A. Describe the existing landfill infrastructure at the site, including all landfill operations, haul roads, service roads, leachate (e.g., slurry wall and cover), and gas collection systems (see also "Stormwater Management," below).
- B. Discuss any modifications to these systems that would occur in the future without the proposed project.
- C. Describe the impacts of the proposed project on the landfill infrastructure which may include relocating, amending or modifying final cover closure systems as well as impact avoidance measures that would be employed to minimize or avoid their impacts due to the proposed roads.

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- D. Describe the existing DSNY stormwater drainage system and the amount of storm water generated by the site. The volumes of storm water will be calculated using standard rainfall events for Staten Island and acceptable for design analysis related to stormwater management at Landfill Section 6/7 (e.g., estimation of stormwater runoff using the NRCS TR-55 Method and evaluation of flows through open channels and culverts using NRCS TR-20 Method or an approved equivalent method).
- E. Describe the anticipated quantity of the storm water volumes and rates from the proposed roads.
- F. Describe any changes that are expected with respect to the DSNY stormwater systems in the future without the project.
- G. Describe the storm water management plan for the proposed project, and describe changes in the volume and quality of storm water runoff that would be expected to occur. Discuss the types of roadway runoff drainage that could be employed (i.e., best management practices). The channel and culvert geometry must be designed to convey the 100-year, 24-hour storm event, and the channel lining must be designed to resist erosive forces from a 25-year, 24-hour storm event. Average rainfall amounts for New York City (Staten Island) would be used.
- H. Summarize the potential storm water runoff impacts on water quality in local water bodies (e.g., Main and Richmond Creeks). The analysis will also be summarized in Task 10: Natural Resources (see the discussion above), for the purposes of assessing any indirect impacts on aquatic wildlife.
- I. Include a discussion and analysis of stormwater impacts related to road runoff and operations, soil erosion and sediment control practices, pollutant removal and runoff attenuation objectives.

TASK 10: TRAFFIC¹

The traffic analysis will utilize traffic analyses developed in the Fresh Kills Park FGEIS. As the FGEIS already addresses the traffic analysis for the proposed project and a number of alternatives, the SEIS will address traffic as it relates to the ability of the proposed project and the alternatives to address the purpose and need and will not reanalyze the entire traffic network. In the SEIS, new traffic analysis will be limited to the analysis of any newly proposed alternative alignments that offer intersection configurations that were not already considered in the GEIS. To the extent that analysis is required of new alternatives, the analysis will be performed as follows:

- A. Travel rates and characteristics will be identified for the various components of the proposed project through the research of standard references and published studies, such as the *ITE Trip Generation Manual* and park and recreational facility projects in the area. Applicable data developed from open space studies for the area will also be considered. A transportation scenario will be developed that considers the trip rates of the different possible uses and the functional feasibility of potential development sizes. Once the specific development components for the transportation analysis have been determined, future trips by mode,

¹ Since the proposed project would address roads only, it is assumed that no additional parking analysis is necessary.

- temporal distribution, and directional characteristic for each component will be projected. While annual visitation projections have been developed for the proposed park, the travel demand projections used for the EIS analyses are expected to be a conservatively higher annual total. The results developed from the above will set the framework based on which of the detailed transportation analyses will be conducted. It is assumed that trips specific to the open space uses will be developed for analysis. In addition, the new roadway connections are expected to result in traffic deliveries during the AM and PM commuter hours. Therefore, a traffic analysis for the project will be performed for the weekday AM, midday, and PM peak hours. In addition, an analysis will be performed for the Saturday midday and PM peak hours. If appropriate, seasonal variations will be factored into the travel demand projections, and reasonable linkages among the various uses within the proposed park will be presented. In addition, trips associated with No Build projects not developed as part of other approved studies and growth factors for background traffic will be identified. The travel demand will rely on the “Transportation Planning Factors” memo that is presented in the FGEIS (Appendix D).
- B. Define the traffic study area. This subtask will consider key access locations, major travel corridors, potential new roadway elements incorporated as part of the proposed project, and the anticipated levels of traffic attributed to the projected activities within the proposed park. It is anticipated that up to 6 intersections would comprise the primary study area.
 - C. Analyze existing traffic conditions. Based on the data presented in the Fresh Kills Park FGEIS, peak hour traffic volume networks and analysis parameters will be described. The capacity and operations of the roadway system will be analyzed using the *Highway Capacity Manual* methodology with the most recent version of the *Highway Capacity Software* (accepted by NYCDOT and NYSDOT) for City streets. Existing levels of service, volume-to-capacity ratios, and delays of lane groups, approaches, and overall intersections and ramp conditions will be determined for each analysis peak hour.
 - D. Analyze future No Build traffic conditions. A description of the 2016 and 2036 No Build traffic conditions will be presented based on the data presented in the Fresh Kills Park FGEIS. The projection of the future No Build conditions will account for the incremental traffic generated by development projects plus a background growth as recommended in the *CEQR Technical Manual*, (1.5 percent annually). As with existing conditions, this analysis will determine the future levels of service, volume-to-capacity ratios, and delays for each analysis peak hour, absent the proposed project.
 - E. Analyze future Build traffic conditions. Future traffic volumes along the proposed roads will be based on diversion analyses and park trip generation volumes for the 2016 and 2036 analysis years as presented in the Fresh Kills Park FGEIS. The vehicle assignments will be based on the proposed park road connections to Richmond Avenue. A traffic impact assessment of the proposed project will be performed by first assigning and mapping project-generated trips onto the study area and internal roadway traffic networks for each analysis period for the 2016 and 2036 analysis years. The project’s potential impact on v/c ratios, delays, and level-of-service will be evaluated, in accordance with the criteria established in the *CEQR Technical Manual*. If required, potential operational and physical mitigation measures will be evaluated to alleviate adverse conditions identified as part of the Build traffic analysis. These measures could include roadway geometry changes, new signal installations, signal timing modifications, and curbside regulation changes. This analysis

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would also compare the alignment of the proposed roadway with the roadway alignment as currently presented on the City map.

- F. Support air quality and noise analyses. Traffic inputs will be prepared for the analysis of air quality receptors in the study area. Volumes, speeds, and vehicle classifications will be provided for principal study area corridors. Average travel speeds, which are based on field measurements, will include time spent in queues. Noise analysis inputs will be prepared to include 24-hour volumes and classifications for existing, No Build, and Build conditions.
- G. Assess vehicular and pedestrian safety. Since the proposed project is anticipated to generate a substantial number of new vehicles to the surrounding area, an assessment of potential safety hazards is required. A review of the *CEQR Technical Manual* will be conducted to identify high accident locations within the traffic study area, and accident data for the most recent 3-year period will be obtained from NYSDOT. Based on a detailed review of the accident data and the findings of the traffic analyses, potential safety hazards will be identified and viable improvement measures will be recommended.

TASK 11: TRANSIT AND PEDESTRIANS

As the FGEIS already addresses the transit and pedestrian analysis for the proposed project and the alternatives, the SEIS will address transit and pedestrian only as it relates to the ability of the proposed project and the alternatives to address the purpose and need and will not revisit the entire transit and pedestrian analysis. In the SEIS, new transit and pedestrian analyses will be limited to any new proposed alternative alignments or intersection configurations that were not already considered in the GEIS.

Should additional analysis be necessary, the scope includes the following:

- A. Assess transit service in the study area. This will include a description of area train (Staten Island Rapid Transit) and bus routes, typical service frequencies, and ridership levels.
- B. Assess bicycle and pedestrian conditions. The focus of this effort will be describing the local bike and pedestrian conditions with an emphasis on access, circulation, and safety considerations.
- C. Assess non-motorized transport. For the anticipated uses, it is expected that there could be many individuals accessing the proposed park via bicycles, rollerblades, skateboards, and other non-motorized means. In addition to the projection of future activities associated with the proposed project, an assessment of future bikeway plans and potential access and linkage with adjacent systems, such as Greenbelt and Staten Island Greenway, will be conducted.
- D. Describe the transit access demands of the proposed project. This would include a description of any proposed improvements that would allow bus, shuttle bus, or ferry access to the site. Assess the potential for any impacts on the City's transit systems.

The transit and pedestrians analysis would also rely on the "Transportation Planning Factors" memo of the FGEIS (Appendix D) described above with respect to travel characteristics for transit, pedestrians, and bicycle users.

TASK 12: AIR QUALITY

The FGEIS addressed the traffic-generated air quality analysis for the proposed project and the alternatives. This SEIS will address traffic-generated air quality as it relates to the ability of the

proposed project and the alternatives to address the purpose and need and will not reanalyze the entire proposed park. In the SEIS, traffic generated air quality analysis will be limited to the analysis of any newly proposed alternative alignments that offer intersection configurations that were not already considered in the GEIS.

Should traffic-generated air quality be deemed necessary for any new alternatives not previously disclosed in the GEIS, the scope will:

- A. Determine appropriate CO background levels for the study area from data collected by DEC monitoring stations and recommended backgrounds adjusted for future years by DEP. Calculate the methodology and input parameters needed to compute emission source strengths based on project data. Compute vehicular emissions using EPA's MOBILE6.2 emissions model using the most current DEP-supplied information and guidance.
- B. Examine air quality impacts based on updated air quality data for the area as a whole. Collect and summarize existing ambient air quality data for the study area. Determine receptor locations for microscale analysis based on locations of point sources, their proximity to gathering areas, and intersections analyzed in the traffic study area. Selection of final receptor locations will be determined based on the results of the traffic analysis. It is assumed that up to three intersections will be analyzed. Compare expected changes in traffic volumes with the *CEQR Technical Manual* screening threshold. Analyze multiple receptor sites at the intersections selected for detailed analysis, in accordance with CEQR guidelines.
- C. Analyze input data for the mobile source analysis based on volumes and speeds, and prepare vehicle classifications as part of the traffic task above for the peak hours. At each microscale receptor site, maximum 1- and 8-hour CO concentrations for existing conditions, the future years without the project, and the future years with the project. Analyses will be conducted for two peak traffic periods with one Build alternative. Impact analyses will be based on comparing existing and future CO pollutant levels with National Ambient Air Quality Standards (NAAQS) to determine compliance with standards and applicable *de minimis* criteria, and with one another to determine trends and, more important, project impacts.
- D. Projected CO levels will be compared in the future with and without the proposed project with NAAQS. Predicted levels with and without the project will be compared to determine project impacts. If necessary, the DEP PM_{2.5} *de minimis* criteria for CO will be used as the guidance value for determining impacts.
- E. The connection to the interchange will include a mesoscale (area-wide) air quality analysis by computing pollutant burdens for the study area. Pollutant burdens represent the total expected quantities of pollutant emissions for the region for a known time period. Pollutant burdens for annual quantities of CO, volatile organic compounds (VOCs), and nitrogen oxides (NO_x)—primary air pollutants related to motor vehicle exhaust—will be calculated for emissions from changes in vehicular activity within the roadway network. Vehicular pollutant burdens will be computed based on the most recent EPA mobile source emission estimating procedures and the vehicle miles traveled (VMT) for the analysis years.
- F. The proposed project also will be evaluated to determine its consistency with the applicable portion of the SIP.
- G. Qualitatively assess potential impacts to future park users from any residual ambient odors, through a discussion of design measures to minimize fugitive odors from the landfill, and potential exposure to visitors from landfill infrastructure or No Build activities.

TASK 13: NOISE

As the FGEIS already addressed the noise analysis for the proposed project and the alternatives, the SEIS will address noise as it relates to the ability of the proposed project and the alternatives to address the purpose and need and will not reanalyze the entire proposed park. In the SEIS, noise analysis will be limited to the analysis of any newly proposed alternative alignments that offer intersection configurations that were not already considered in the GEIS. Should additional analysis be deemed necessary, the scope shall be:

For the noise analysis, there are two major areas of concern: the effect of noise from project-generated vehicular traffic on the local community; and acceptability of ambient noise levels in the proposed park, in particular the natural resources receptors. Existing noise levels in the area immediately adjacent to the project site reflect the level of activity (particularly vehicular activity) in the area. Autos and trucks along with noise generated by aircraft flyovers, mechanical equipment, and people going about their normal business all contribute to the total ambient noise levels. While a large number of truck trips that previously used local roadways when the landfill was functioning have been eliminated, the proposed project would result in a major park with a wide variety of facilities, including some facilities that may result in significantly increased traffic volumes (compared with existing traffic volumes) on some roadways. The effects of these increases in traffic volumes on ambient noise levels will be assessed as part of the noise task.

Existing and future noise levels, both with and without the proposed project, will be examined to determine conformance with CEQR criteria. The existing and future noise levels will include, as appropriate, references to DSNY's ongoing sanitation operations, including the two district garages, the leachate treatment plant, the landfill gas recovery plant, the rail-based waste transfer station, the rock crushing and screening operation, and the composting facility, as well as ongoing landfill closure operations. In conformance with the *CEQR Technical Manual* requirements, aircraft noise will be separated from vehicular and other noise sources for purposes of determining project impacts. In addition, the *CEQR Technical Manual* requires the use of the L_{eq} and L_{10} noise descriptors for vehicular noise analyses. Our measurement program and analyses will be performed in a manner to satisfy these requirements. In terms of the effects of the proposed project on community noise levels, the CEQR noise criteria considers a 3 dBA increase in noise to be a significant impact. To achieve a 3 dBA increase in noise level from traffic, there would have to be approximately a doubling of traffic (and/or a significant increase in the number of trucks). In the unlikely event that the project results in a significant community noise impact, mitigation measures will have to be examined.

In terms of noise levels in the proposed park, the CEQR exposure criteria requires that noise levels in parks not exceed 55 dBA L_{10} . When new parks are proposed, if the noise level exceeds 55 dBA L_{10} , the park is considered to have a significant noise impact on park users, and noise mitigation must be explored and considered. An analysis of noise levels within the proposed park will be provided based on any potential impacts due to the roadways and the proposed roads. Specific subtasks are as follows:

- A. Select appropriate noise descriptors. Appropriate noise descriptors would be used to describe the noise environment and the impact of the proposed project will be selected. The L_{10} , and $L_{eq(1)}$ levels will be examined.

- B. Select receptor locations. These sites would include sensitive locations within East Park. Selection of the receptor sites for noise will be based on the proposed traffic alignments and patterns.
- C. Determine existing noise levels. Existing noise levels will be determined primarily by field measurements. Where necessary, measurements will be supplemented by mathematical model results to determine an appropriate base of existing noise levels.
- D. Determine future noise levels without the proposed project for the Build analysis years. Determine noise levels without the proposed project using the Federal Highway Administration's Traffic Noise Model (TNM) model, proportional modeling techniques, or other approved analysis methodologies.
- E. Determine future noise levels with the proposed project for the Build analysis years. At each receptor location identified above, noise levels with the proposed project for the Build analysis years will be determined using TNM, proportional modeling techniques, or other approved analysis methodologies.
- F. Compare noise levels with standards, guidelines, and other criteria, and impact evaluation. Existing noise levels and future noise levels with and without the proposed project will be compared with various noise standards, guidelines, and other noise criteria, including CEQR noise impact criteria.
- G. Examine mitigation measures. Recommendations of measures to attain acceptable noise levels and to reduce noise impacts to within acceptable levels will be developed, if needed.

TASK 14: CONSTRUCTION IMPACTS

This chapter will assess construction-related impacts of the construction of the through roads, park access roads, and paved public walkways, and describe the construction phasing and sequencing. It will provide an estimate of activity on-site and would examine the following:

- Impacts from excavation, storage and transport of excavated material related to roadbed construction for park roads on East Park:
 - Chemical releases, including methane
 - Odors.
 - Dust and vehicle emissions.
 - Stormwater impacts.
- Other impacts during the planned roadbed construction for Through Roads:
 - Dust and vehicle emissions.
 - Stormwater impacts.
- Impacts related to any required removal and relocation of landfill gas collection infrastructure related to roadbed construction.
- Impacts of construction of Through Roads, Park Access Roads and Paved Public Walkways (dust, vehicle emissions, stormwater and other runoff).
- Impacts from road operation and maintenance (dust, vehicle emissions, stormwater and other runoff).

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- Potential future impacts from special roadway maintenance or reconstruction activities related to subsidence, including potential for disturbance of adjacent or underlying landfill material.
- Potential impacts to public from increased access to areas of landfill where sensitive infrastructure related to gas or leachate collection and management are located – specific areas that need to be off-limits and how public access will be regulated.

If it is determined that a significant traffic impact could occur during construction based on a qualitative analysis, a quantified analysis for construction-period traffic and air quality would be prepared. Technical areas to be analyzed include:

- A. Defining the sensitive receptors to construction related potential air, noise, and odor impacts to include park users, neighboring users of the shopping mall and other commercial locations, residential areas, and natural resources- habitats (aquatic and terrestrial) and wildlife
- B. Construction Phasing and Existing Closure Plan—The coordination of road construction with ongoing landfill closure activities (existing infrastructure impacts, monitoring impacts, etc.) and the prevention of interference with existing landfill infrastructure monitoring and operations activities will be described, including impacts related to any required removal and relocation of landfill gas collection infrastructure related to roadbed construction).
- C. Soil Erosion and Sediment Control Plan—Discuss techniques for reducing soil erosion and sedimentation during project construction. Storm water discharges during construction and operation of the proposed project would be managed with an approved storm water pollution prevention plan (SWPPP) and conformity with established regulatory programs, which will be described in the SEIS, to minimize potential impacts to water quality and aquatic organisms. This would include an assessment of any pollutants generated by potentially exposing former landfill/cover materials.
- D. Contaminated Materials—Plans for the identification, collection, and mitigation of solid waste and/or hazardous materials uncovered during construction will be described.
- E. Traffic—Qualitatively consider temporary closures of traffic lanes or sidewalks, project any impacts on other transportation services during the various phases of construction, and identify the increase in vehicle trips from construction workers, equipment, and soil deliveries.
- F. Water Quality—Methods to prevent any water quality degradation will be described.
- G. Air Quality—Qualitatively discuss mobile source emissions from construction equipment and worker and delivery vehicles, fugitive dust emissions, including particulates, including a qualitative discussion of noise impacts along with project measures to minimize impacts.
- H. Noise—Construction noise levels and any resulting impacts on adjacent land uses will be analyzed, including a description of the requirements for noise control under the recently amended New York City Noise Code.
- I. Natural Resources Protections—As appropriate, discuss the other areas of environmental assessment for potential construction-related impacts. This could involve such approaches as flagging the limits of construction to protect tidal and freshwater wetlands.
- J. Odor Impacts- Construction related odor impacts on adjacent sensitive receptors will be qualitatively described.

TASK 15: PUBLIC HEALTH

The public health chapter will rely on data and conclusions from the Fresh Kills Park FGEIS. In accordance with the *CEQR Technical Manual*, this chapter will examine in detail the proposed locations of public access and the available surface water, ground water, and air monitoring data to determine if there is the potential for any adverse public health impacts resulting from public access. The subtasks are as follows:

- A. Provide a brief overview of the site history in terms of location/timing of solid waste filling and existing and proposed closure/control systems, and a preliminary environmental site assessment (Phase I) of the portions of the project site that were not filled with solid waste.
- B. Determine whether the current control systems (e.g., multi-layer cap and gas/leachate collection systems) are sufficient (in terms of potential additional exposure to hazardous materials) to allow the type of public access envisioned for each element of the park Plan. Describe these additional exposures qualitatively and, if possible, quantitatively, using existing landfill gas data and the most recent air monitoring data. Where these additional exposures have the potential to be significant, determine use restrictions for certain areas (e.g., on-mound or near passive vents) and how public access will be regulated or upgrades to the systems (e.g., enhanced gas collection) or changes to the scope or schedule of particular elements to allow the element without the potential for significant adverse impacts. Where no combination of use restrictions, control system upgrades, or element modifications avoid the potential for significant adverse impacts, examine those exposures in more detail.
- C. The existing Fresh Kills Landfill has a number of pollution control facilities, including leachate treatment facilities, landfill gas flares, passive vents, and a landfill gas processing and recovery system. A detailed discussion of these systems will be presented to describe the measures currently in place and proposed to minimize emissions of air toxic compounds and leachate generated by the closed landfill. A review will be undertaken to identify previous studies that characterized emissions or ambient levels of air toxic compounds and/or odors from the landfill. The purpose of this review will be to obtain information that can be used to assess potential exposures to visitors to the proposed park. The conclusions of the May 2000 Agency for Toxic Substances Disease Registry (ATSDR) report will be discussed.
- D. Determine what, if any, impacts to public health may be present with the proposed project and what protections may be necessary for public safety during the overlapping phases of landfill closure and park accessibility. This analysis would examine the following:
 - Compatibility of the proposed project with landfill's approved Post Closure Care Plan.
 - Analysis of the short and long-term settlement of the mounds and the potential for differential settlement.
 - Potential future impacts from special roadway maintenance or reconstruction activities related to subsidence, including the potential for disturbance of adjacent or underlying landfill cover materials.
 - Specific description (including maps/graphics) and analysis of impacts of surcharging/roadbed construction and roads on the Landfill's leachate management system.
 - Specific description (including maps/graphics) and analysis of impact of surcharging/roadbed construction and roads on the Landfill's landfill gas management system.

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- Specific description (including maps/graphics) and analysis of impact of surcharging/roadbed construction and roads on the Landfill's stormwater drainage design and stormwater management system.
 - Potential impacts to the public from increased access to areas of landfill where sensitive infrastructure related to gas or leachate collection or management are located, specific areas that need to be off limits and how they will be regulated.
 - Specific analysis of impact of surcharging and roadbed construction on slope stability (both veneer and global) of the Landfill.
 - Specific analysis of impact of long-term road operation on slope stability of the Landfill.
 - Analysis of the types and extent of reconstruction or repair actions to be taken if Through Road is affected by differential settlement, including impact of such work on Landfill cover system and other infrastructure.
- E. Determine any potential impact of proposed infrastructure on existing landfill infrastructure in place to protect the public from potentially hazardous materials located below ground.

TASK 16: ALTERNATIVES

CEQR and SEQRA require the examination of alternatives that compare the impacts of the proposed project with those alternatives. It is assumed that a number of alternatives will also be analyzed in the SEIS and compared to the proposed project (see the description above). The proposal as well as the alternatives will need to be examined in the context of:

- Their consistency with Fresh Kills Landfill closure requirements and potential for delays in the landfill closure schedules in the Consent Order;
- Their ability to minimize adverse environmental impacts; and
- Their ability to address the traffic need (which in turn should be clarified in the FGEIS or SEIS, given confusing statements in the Fresh Kills Park Road Alternatives Report of January 2008, which appear to contradict the need for the through roads to alleviate existing traffic).

Alternatives to be analyzed will also be finalized by the Lead Agency as project impacts become identified. Among the alternatives that will be considered are building the roads as the City proposes, other reasonable designs that reduce adverse impacts, and a No Action Alternative. Alternatives that are expected to be analyzed in the DSEIS include:

- The proposed project;
- A No Action Alternative that assumes only the completion of the approved landfill closure design and no implementation of the proposed East Park road alignment;
- Alternatives that could potentially reduce or eliminate potential effects of the proposed project (this alternative would be developed after completion of the DSEIS impact analyses);
- Limited Action Alternative that assumes no through road—this would include the completion of the landfill closure, and implementation of the Fresh Kills Park, but without through roads on East Park (connections to the West Shore Expressway and the Confluence Loop only);
- A two-lane road alternative; and
- Project alternatives that meet the project's goals and objectives through alternative roadway alignments or phasing schedules, which are expected to include:

- The Staten Island Borough President’s Alternative presented in comments on the DGEIS;
- A Yukon Avenue Connection Only Alternative; and
- Alternate phasing (i.e., waiting for the completion of the closure work to begin roadway construction).

The alternatives analysis will compare the alternatives examined in this chapter with the proposed project, and will include dimensions and configuration details that will analyze those impacts with respect to the need to prevent, reduce, or avoid impacts in key technical areas, including:

- Odors and air emissions.
- Production of leachate.
- Runoff.
- Hazards for landfill slope stability.
- Adverse impacts on wetlands and wildlife.
- Habitat fragmentation, such as using the types of passages at wetland crossings (i.e., bridges rather than small culverts) to maximize the ability of wildlife to cross safely and easily.

The comparison will also examine the alternative’s capacity to meet the goals and objectives of the project sponsor.

TASK 17: IMPACT AVOIDANCE AND MITIGATION MEASURES

The Fresh Kills Park FGEIS included an extensive “Impact Avoidance and Mitigation Measures” chapter. For the SEIS, where significant project impacts have been identified in Tasks 2 through 15, mitigation measures will be described to minimize or eliminate those impacts. These measures would be developed and coordinated with the City, state, and federal agencies, as appropriate. Among the impact avoidance and mitigation measures that may be necessary are measures to avoid impacts to wildlife, fish, wetlands, and vegetation. For those impacts where impacts cannot be avoided, the SEIS will present a range of mitigation projects to offset impacts to wildlife, fish, wetland habitat, and vegetation. Where impacts cannot be mitigated, they would be described as unavoidable adverse impacts.

TASK 18: UNAVOIDABLE ADVERSE IMPACTS

Any significant impacts for which no mitigation can be put forth or implemented will be presented as unavoidable adverse impacts.

TASK 19: GROWTH-INDUCING ASPECTS OF THE PROPOSED ACTION

Describe any growth-inducing aspects of the proposed roads plan, focusing on whether it is expected to trigger development in the area.

TASK 20: IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES

This chapter summarizes impacts in terms of the loss of environmental resources, both in the immediate future and the long term.