Coney Island Infrastructure Improvements

Environmental Assessment Statement

Borough of Brooklyn, New York

CEQR No.: 11DEP045K

Lead Agency:

New York City Department of Environmental Protection

Assisted by:

AKRF, Inc.
440 Park Avenue South, 7th Floor
New York, NY 10016

Hydroqual/HDR
1200 MacArthur Blvd.
Mahway, NJ 07435

April 2012

City Environmental Quality Review
ENVIRONMENTAL ASSESSMENT STATEMENT FULL FORM
Please fill out, print and submit to the appropriate agency (see instructions)

PART I: GENERAL INFORMATION

PROJECT NAME Coney Island Infrastructure Improvements

1. *Reference Numbers*

CEQR REFERENCE NUMBER (To Be Assigned by Lead Agency)	BSA REFERENCE NUMBER (If Applicable)
11DEP045K	N.A.
ULURP REFERENCE NUMBER (If Applicable)	OTHER REFERENCE NUMBER(S) (If Applicable) (e.g., Legislative Intro, CAPA, etc.)
N.A.	N.A.

2a. *Lead Agency Information*

NAME OF LEAD AGENCY: New York City Department of Environmental Protection

NAME OF LEAD AGENCY CONTACT PERSON: Angela Licata, Deputy Commissioner

ADDRESS: 59-17 Junction Boulevard

CITY: Flushing | STATE: NY | ZIP: 11368

TELEPHONE: (718) 595-4398 | FAX: (718) 595-4479

EMAIL ADDRESS: alicata@dep.nyc.gov

2b. *Applicant Information*

NAME OF APPLICANT: New York City Department of Design and Construction

NAME OF APPLICANT'S REPRESENTATIVE OR CONTACT PERSON: Narayana Venugopalan, Assistant Commissioner

ADDRESS: 30-30 Thomson Avenue

CITY: Long Island City | STATE: NY | ZIP: 11101

TELEPHONE: 718-391-2283 | FAX: 718-391-2277

EMAIL ADDRESS: venugopa@ddc.nyc.gov

3. *Action Classification and Type*

SEQRA Classification

■ UNLISTED ☐ TYPE I; SPECIFY CATEGORY *(see 6 NYCRR 617.4 and NYC Executive Order 91 of 1977, as amended):*

Action Type *(refer to Chapter 2, "Establishing the Analysis Framework" for guidance)*

☐ LOCALIZED ACTION, SITE SPECIFIC ■ LOCALIZED ACTION, SMALL AREA ☐ GENERIC ACTION

4. *Project Description:*

The New York City Department of Design and Construction (DDC), on behalf of the New York City Department of Environmental Protection (DEP), is proposing to implement infrastructure improvements over approximately 248 acres in the Coney Island neighborhood, which is located in Brooklyn Community District 13 ("proposed project"). These improvements would be made in accordance with DEP's amended drainage plan (ADP) filed by DEP with the Brooklyn Borough President's Office on December 29, 2010.

The proposed project involves the enlargement of three existing outfalls, installation of new stormwater collection sewers, relocation and upgrade of distribution and trunk water mains, and relocation and upgrade of sanitary sewer lines along with the reconstruction of affected streets. Due to the drainage area's low-lying topography, the proposed stormwater collection sewers are wide and shallow, and therefore require the relocation of sanitary lines and water mains within certain segments of built streets. Construction of the proposed project will also require the relocation of utilities, as necessary, within the proposed project area. Finally, the proposed project includes the design and construction of a consolidated wetland restoration plan at Dreier-Offerman Park, in coordination with the New York City Department of Parks and Recreation (DPR), to address all permanent wetland impacts associated with the enlargements of existing stormwater outfalls.

4a. *Project Location: Single Site* *(for a project at a single site, complete all the information below)* See Attachment A, "Project Description," and C, "EAS Graphics," for a description of the proposed project area, maps, and zoning.

ADDRESS	NEIGHBORHOOD NAME	
See Attachment C for proposed project area graphics	Coney Island	
TAX BLOCK AND LOT: See Attachment C for proposed project area graphics	BOROUGH: Brooklyn	COMMUNITY DISTRICT: 13

DESCRIPTION OF PROPERTY BY BOUNDING OR CROSS STREETS: See Attachment C for proposed project area graphics

EXISTING ZONING DISTRICT, INCLUDING SPECIAL ZONING DISTRICT DESIGNATION, IF ANY: R5, R6, R6A, R7A, R7B, R7X, C3, C8-1, C7 M1-2, M2-1, and the Special Coney Island Mixed Use (CO) and Special Coney Island District (CI) special zoning districts as well as a number of commercial overlay districts

ZONING SECTIONAL MAP NO: 28d

4b. *Project Location: Multiple Sites* *(Provide a description of the size of the project area in both City Blocks and Lots. If the project would apply to the entire city or to areas that are so extensive that a site-specific description is not appropriate or practicable, describe the area of the project, including bounding streets, etc.)*

The proposed project area is approximately 248 acres in size.

5. *REQUIRED ACTIONS OR APPROVALS* *(check all that apply)*

City Planning Commission: YES ☐ NO ■

- ☐ CITY MAP AMENDMENT
- ☐ ZONING MAP AMENDMENT
- ☐ ZONING TEXT AMENDMENT
- ☐ UNIFORM LAND USE REVIEW PROCEDURE (ULURP)
- ☐ CONCESSION
- ☐ UDAAP
- ☐ REVOCABLE CONSENT
- ☐ ZONING CERTIFICATION
- ☐ ZONING AUTHORIZATION
- ☐ HOUSING PLAN & PROJECT
- ☐ SITE SELECTION—PUBLIC FACILITY
- ☐ FRANCHISE
- ☐ DISPOSITION—REAL PROPERTY

ZONING SPECIAL PERMIT, SPECIFY TYPE

- ☐ MODIFICATION OF
- ☐ RENEWAL OF
- ☐ OTHER

Board of Standards and Appeals: YES ☐ NO ■

- ☐ SPECIAL PERMIT

EXPIRATION DATE MONTH DAY YEAR

- ☐ VARIANCE (USE)
- ☐ VARIANCE (BULK)

SPECIFY AFFECTED SECTION(S) OF THE ZONING RESOLUTION

Department of Environmental Protection: YES ☐ NO ■

Other City Approvals: YES ■ NO ☐

- ☐ LEGISLATION
- ☐ FUNDING OF CONSTRUCTION; SPECIFY
- ☐ POLICY OR PLAN; SPECIFY
- ☐ LANDMARKS PRESERVATION COMMISSION APPROVAL (not subject to CEQR)
- ☐ 384(B)(4) APPROVAL
- ■ PERMITS FROM DOT'S OFFICE OF CONSTRUCTION MITIGATION AND COORDINATION (OCMD) (*not subject to CEQR*)
- ☐ RULEMAKING
- ☐ CONSTRUCTION OF PUBLIC FACILITIES
- ☐ FUNDING OR PROGRAMS; SPECIFY
- ☐ PERMITS; SPECIFY
- ■ OTHER; EXPLAIN **See Attachment A, "Project Description."**

6. ***State or Federal Actions/Approvals/Funding:*** YES ■ NO ☐ IF "YES," IDENTIFY

State Approvals: NYSDEC 401 Water Quality Certification; NYSDEC Tidal Wetlands Permit; NYSDEC SPDES MS4 Permit (Modification); NYSDEC SPDES General Permit for Stormwater Discharges from Construction Activity; Industrial SPDES Discharge Permit.
Federal Approvals: USACE Section 10, Construction in Navigable Waters; USACE Section 404, Dredging and Filling of Navigable Waters;Nationwide Permit 7–Outfall Structures and Associated Intake Structures
See also Attachment A, "Project Description," under "Permits and Approvals."

7. ***Site Description:*** Except where otherwise indicated, provide the following information with regard to the directly affected area. The directly affected area consists of the project site and the area subject to any change in regulatory controls.

GRAPHICS *The following graphics must be attached and each box must be checked off before the EAS is complete. Each map must clearly depict the boundaries of the directly affected area or areas, and indicate a 400-foot radius drawn from the outer boundaries of the project site. Maps may not exceed 11x17 inches in size and must be folded to 8.5x11 inches for submission.*

See Attachment C, "EAS Graphics," for all graphics.

- ■ Site location map
- ■ Sanborn or other land use map
- ■ Zoning map
- ■ Tax map
- ■ Photographs of the project site taken within 6 months of EAS submission and keyed to the site location map
- ■ For large areas or multiple sites, a GIS shape file that defines the project sites

PHYSICAL SETTING *(both developed and undeveloped areas)*

Total directly affected area (sq. ft.):	Type of waterbody and surface area (sq. ft.):	Roads, building and other paved surfaces (sq. ft.):
±2,102,500	**Coney Island Creek ±2,500 sq. ft.**	**±2,100,000**

Other, describe (sq. ft.):

8. ***Physical Dimensions and Scale of Project*** *(if the project affects multiple sites, provide the total development below facilitated by the action)*

Size of project to be developed: **The proposed project, including sewer installation and street reconstruction, is largely at or below grade, with the exception of the headwall portion of the proposed outfalls.** (gross sq. ft.)

Does the proposed project involve changes in zoning on one or more sites? YES ☐ NO ■

If 'Yes,' identify the total square feet owned or controlled by the applicant: **N.A.** Total square feet of non-applicant owned development: **N.A.**

Does the proposed project involve in-ground excavation or subsurface disturbance, including but not limited to foundation work, pilings, utility lines, or grading? YES ■ NO ☐

If 'Yes,' indicate the estimated area and volume dimensions of subsurface disturbance (if known):

Area: **±2,100,000** sq. ft. (width x length) Volume: **±80,000 cubic yards** cubic feet (width x length x depth)

Does the proposed project increase the population of residents and/or on-site workers? YES ☐ NO ■ Number of additional residents? Number of additional workers?

Provide a brief explanation of how these numbers were determined:

Does the project create new open space? YES ☐ NO ■ If Yes: (sq. ft)

Using Table 14-1, estimate the project's projected operation solid waste generation, if applicable: **N.A.** (pounds per week)

Using energy modeling or Table 15-1, estimate the project's projected energy use: **N.A.** (annual BTUs)

9. ***Analysis Year*** *CEQR Technical Manual, Chapter 2*

ANTICIPATED BUILD YEAR (DATE THE PROJECT WOULD BE COMPLETED AND OPERATIONAL):	ANTICIPATED PERIOD OF CONSTRUCTION IN MONTHS:
2015 (Phase 1A), 2019 (all phases)	**24 months (Phase 1A)**

WOULD THE PROJECT BE IMPLEMENTED IN A SINGLE PHASE? YES ■ NO ☐ IF MULTIPLE PHASES, HOW MANY PHASES: **3**

BRIEFLY DESCRIBE PHASES AND CONSTRUCTION SCHEDULE: **See Attachment B, "Impact Analyses," under "Construction."**

10. ***What is the Predominant Land Use in Vicinity of Project?*** *(Check all that apply)*

■ RESIDENTIAL ■ MANUFACTURING ■ COMMERCIAL ☐ PARK/FOREST/OPEN SPACE ☐ OTHER, Describe:

DESCRIPTION OF EXISTING AND PROPOSED CONDITIONS

The information requested in this table applies to the directly affected area. The directly affected area consists of the project site and the area subject to any change in regulatory control. The increment is the difference between the No-Action and the With-Action conditions.

	EXISTING CONDITION	NO-ACTION CONDITION	WITH-ACTION CONDITION	INCREMENT
Land Use				
Residential	Yes ☐ No ■	Yes ☐ No ■	Yes ☐ No ■	N.A.
If yes, specify the following				
No. of dwelling units				
No. of low- to moderate-income units				
No. of stories				
Gross Floor Area (sq. ft.)				
Describe Type of Residential Structures				
Commercial	Yes ☐ No ■	Yes ☐ No ■	Yes ☐ No ■	N.A.
If yes, specify the following:				
Describe type (retail, office, other)				
No. of bldgs				
GFA of each bldg (sq. ft.)				
Manufacturing/Industrial	Yes ☐ No ■	Yes ☐ No ■	Yes ☐ No ■	N.A.
If yes, specify the following:				
Type of use				
No. of bldgs				
GFA of each bldg (sq. ft.)				
No. of stories of each bldg.				
Height of each bldg				
Open storage area (sq. ft.)				
If any unenclosed activities, specify				
Community Facility	Yes ☐ No ■	Yes ☐ No ■	Yes ☐ No ■	N.A.
If yes, specify the following				
Type				
No. of bldgs				
GFA of each bldg (sq. ft.)				
No. of stories of each bldg				
Height of each bldg				
Vacant Land	Yes ■ No ☐	Yes ■ No ☐	Yes ■ No ☐	N.A.
If yes, describe	**Approximately 5,000 square feet of vacant City-owned land at West 21st Street**			
Publicly Accessible Open Space	Yes ■ No ☐	Yes ■ No ☐	Yes ■ No ☐	N.A.
If yes, specify type (mapped City, State, or Federal Parkland, wetland—mapped or otherwise known, other)	**Approximately 6,500 square feet of natural area within Calvert Vaux Park [1]**	**Approximately 6,500 square feet of natural area within Calvert Vaux Park**	**Approximately 6,500 square feet of natural area within Calvert Vaux Park**	N.A.
Other Land Use	Yes ■ No ☐	Yes ■ No ☐	Yes ■ No ☐	N.A.
If yes, describe	**City streets (±2,100,000 sq. ft.), City sewer easement (10,000 sq. ft.) [2]**			
Parking				
Garages	Yes ☐ No ■	Yes ☐ No ■	Yes ☐ No ■	N.A.
If yes, specify the following:				
No. of public spaces				
No. of accessory spaces				
Operating hours				
Attended or non-attended				

[1] **Site of proposed wetland restoration.**

[2] **City sewer easement at the proposed West 15th Street outfall site.**

	EXISTING CONDITION	NO-ACTION CONDITION	WITH-ACTION CONDITION	INCREMENT
Parking *(continued)*				
Lots	Yes ■ No □	Yes ■ No □	Yes ■ No □	
If yes, specify the following:	**+/- 75 (City school bus parking facility at the West 15th Street site)**	**+/- 75 (City school bus parking facility at the West 15th Street site)**	**+/- 75 (City school bus parking facility at the West 15th Street site)**	**N.A. (No changes in off-street parking are proposed)** [1]
No. of public spaces	**No public spaces**	**No public spaces**	**No public spaces**	**N.A.**
No. of accessory spaces	**No accessory spaces**	**No accessory spaces**	**No accessory spaces**	**N.A.**
Operating hours	**24 hours**	**24 hours**	**24 hours**	**24 hours**
Other (includes street parking)	■ Yes □ No	■ Yes □ No	■ Yes □ No	**N.A. (No changes in off-street parking are proposed)**
If yes, describe	**There is on-street parking along the project area streets, but no changes in the number of spaces or street parking regulations are proposed.**			
Storage Tanks				
Storage Tanks	Yes □ No ■	Yes □ No ■	Yes □ No ■	**N.A.**
If yes, specify the following:				
Gas/Service stations:	Yes □ No □	Yes □ No □	Yes □ No □	
Oil storage facility:	Yes □ No □	Yes □ No □	Yes □ No □	
Other; identify:	Yes □ No □	Yes □ No □	Yes □ No □	
If yes to any of the above, describe:				
Number of tanks				
Size of tanks				
Location of tanks				
Depth of tanks				
Most recent FDNY inspection date				
Population				
Residents	Yes □ No ■	Yes □ No ■	Yes □ No ■	**N.A.**
If any, specify number				
Briefly explain how the number of residents was calculated				
Businesses	Yes □ No ■	Yes □ No ■	Yes □ No ■	**N.A.**
If any, specify the following:				
No. and type				
No. and type of workers by business				
No. and type of non-residents who are not workers				
Briefly explain how the number of businesses was calculated				

[1] **City sewer easement at the proposed West 15th Street outfall site.**

Zoning*				
Zoning classification[1]	C3, M1-2	C3, M1-2	C3, M1-2	N.A.
Maximum amount of floor area that can be developed (in terms of bulk)	N.A. (city street or easement areas)	N.A. (city street or easement areas)	N.A. (city street or easement areas)	N.A.
Predominant land use and zoning classification within a 0.25-radius of proposed project	R5, R6, R6A, R7A, R7B, R7X, C3, C8-1, C7 M1-2, M2-1, and the Special Coney Island Mixed Use (CO) and Special Coney Island District (CI) special zoning districts as well as a number of commercial overlay districts	R5, R6, R6A, R7A, R7B, R7X, C3, C8-1, C7 M1-2, M2-1, and the Special Coney Island Mixed Use (CO) and Special Coney Island District (CI) special zoning districts as well as a number of commercial overlay districts	R5, R6, R6A, R7A, R7B, R7X, C3, C8-1, C7 M1-2, M2-1, and the Special Coney Island Mixed Use (CO) and Special Coney Island District (CI) special zoning districts as well as a number of commercial overlay districts	N.A.
Attach any additional information as may be needed to describe the project. If your project involves changes in regulatory controls that affect one or more sites not associated with a specific development, it is generally appropriate to include the total development projections in the above table and attach separate tables outlining the reasonable development scenarios for each site.				

**This section should be completed for all projects, except for such projects that would apply to the entire city or to areas that are so extensive that site-specific zoning information is not appropriate or practicable.*

[1] **Area of proposed outfalls only. There are multiple zoning districts in the City streets (see page EAS-1 for the proposed project area zoning).**

PART II: TECHNICAL ANALYSES

INSTRUCTIONS: For each of the analysis categories listed in this section, assess the proposed project's impacts based on the thresholds and criteria presented in the *CEQR Technical Manual*. Check each box that applies.

- If the proposed project can be demonstrated not to meet or exceed the threshold, check the 'NO' box.
- If the proposed project will meet or exceed the threshold, or if this cannot be determined, check the 'YES' box.
- For each 'Yes' response, answer the subsequent questions for that technical area and consult the relevant chapter of the *CEQR Technical Manual* for guidance on providing additional analyses (and attach supporting information, if needed) to determine whether the potential for significant impacts exists. Please note that a 'Yes' answer does not mean that EIS must be prepared—it often only means that more information is required for the lead agency to make a determination of significance.
- The lead agency, upon reviewing Part II, may require an applicant to either provide additional information to support the Full EAS Form. For example, if a question is answered 'No,' an agency may request a short explanation for this response.

		YES	NO
1.	***LAND USE, ZONING AND PUBLIC POLICY:*** *CEQR Technical Manual, Chapter 4*		
(a)	Would the proposed project result in a change in land use or zoning that is different from surrounding land uses and/or zoning? Is there the potential to affect an applicable public policy? If 'Yes,' complete a preliminary assessment and attach.		✓
(b)	Is the project a large, publicly sponsored project? If 'Yes,' complete a PlaNYC assessment and attach.		✓
(c)	Is any part of the directly affected area within the City's Waterfront Revitalization Program boundaries? If 'Yes,' complete the Consistency Assessment Form. **See Appendix A**	✓	
2.	***SOCIOECONOMIC CONDITIONS:*** *CEQR Technical Manual, Chapter 5*		
(a)	Would the proposed project:		
	• Generate a net increase of 200 or more residential units?		✓
	• Generate a net increase of 200,000 or more square feet of commercial space?		✓
	• Directly displace more than 500 residents?		✓
	• Directly displace more than 100 employees?		✓
	• Affect conditions in a specific industry?		✓
(b)	If 'Yes' to any of the above, attach supporting information to answer the following questions, as appropriate. If 'No' was checked for each category above, the remaining questions in this technical area do not need to be answered.		
(1)	***Direct Residential Displacement***		
	If more than 500 residents would be displaced, would these displaced represent more than 5% of the primary study area population?		✓
	If 'Yes,' is the average income of the directly displaced population markedly lower than the average income of the rest of the study area population?		✓
(2)	***Indirect Residential Displacement***		
	Would the expected average incomes of the new population exceed the average incomes of the study area populations?		✓
	If 'Yes,' would the population increase represent more than 5% of the primary study area population or otherwise potentially affect real estate market conditions?		✓
	If 'Yes,' would the study area have a significant number of unprotected rental units?		✓
	Would more than 10 percent of all the housing units be renter-occupied and unprotected?		✓
	Or, would more than 5 percent of all the housing units be renter-occupied and unprotected where no readily observable trend toward increasing rents and new market rate development exists within the study area?		✓

(3)	***Direct Business Displacement***		
	Do any of the displaced businesses provide goods or service that otherwise could not be found within the trade area, either under existing conditions or in the future with the proposed project?		✓
	Do any of the displaced businesses provide goods or services that otherwise could not be found within the trade area, either under existing conditions or in the future with the proposed project?		✓
	Or is any category of business to be displaced the subject of other regulations or publicly adopted plans to preserve, enhance, or otherwise protect it?		✓
(4)	***Indirect Business Displacement***		
	Would the project potentially introduce trends that make it difficult for businesses to remain in the area?		✓
	Would the project capture the retail sales in a particular category of goods to the extent that the market for such goods would become saturated as a result, potential resulting in vacancies and disinvestment on neighborhood commercial streets?		✓
(5)	***Effects on Industry***		
	Would the project significantly affect business conditions in any industry or any category of businesses within or outside the study area?		✓
	Would the project indirectly substantially reduce employment or impair the economic viability in the industry or category of businesses?		✓
3.	***COMMUNITY FACILITIES:*** *CEQR Technical Manual, Chapter 6*		
(a)	Would the project directly eliminate, displace, or alter public or publicly funded community facilities such as educational facilities, libraries, hospitals and other health care facilities, day care centers, police stations, or fire stations?		✓
(b)	Would the project exceed any of the thresholds outlines in Table 6-1 in Chapter 6?		✓
(c)	If 'No' was checked above, the remaining questions in this technical area do not need to be answered. If 'Yes' was checked, attach supporting information to answer the following, if applicable.	N.A.	N.A.
(1)	***Child Care Centers***		
	Would the project result in a collected utilization rate of the group child care/Head Start centers in the study area that is greater than 100 percent?	N.A.	N.A.
	If 'Yes,' would the project increase the collective utilization rate by 5 percent from the No-Action scenario?	N.A.	N.A.
(2)	***Libraries***		
	Would the project increase the study area population by 5 percent from the No-Action levels?	N.A.	N.A.
	If 'Yes,' would the additional population impair the delivery of library services in the study area?	N.A.	N.A.
(3)	***Public Schools***		
	Would the project result in a collective utilization rate of the elementary and/or intermediate schools in the study area that is equal to or greater than 105 percent?	N.A.	N.A.
	If 'Yes,' would the project increase this collective utilization rate by 5 percent from the No-Action scenario?	N.A.	N.A.
(4)	***Health Care Facilities***		
	Would the project affect the operation of health care facilities in the area?	N.A.	N.A.
(5)	***Fire and Police Protection***		
	Would the project affect the operation of fire or police protection in the area?	N.A.	N.A.
4.	***OPEN SPACE:*** *CEQR Technical Manual, Chapter 7*		
(a)	Would the project change or eliminate existing open space?		✓
(b)	Is the project located within an underserved area in the Bronx, Brooklyn, Manhattan, Queens, or Staten Island?		✓
(c)	If 'Yes,' would the proposed project generate more than 50 additional residents or 125 additional employees?		✓
(d)	Is the project located within a well-served area in the Bronx, Brooklyn, Manhattan, Queens, or Staten Island?		✓
(e)	If 'Yes,' would the project generate more than 350 additional residents or 750 additional employees?		✓

		YES	NO
(f)	If the project is not located within an underserved or well-served area, would it generate more than 200 additional residents or 500 additional employees?		✓
(g)	If 'Yes' to any of the above questions, attach supporting information to answer the following: • Does the project result in a decrease in the open space ratio of more than 5%?		✓
	• If the project site is within an underserved area, is the decrease in open space between 1% and 5%?		✓
	• If 'Yes,' are there qualitative considerations, such as the quality of open space, that need to be considered?		✓
5.	***SHADOWS:*** *CEQR Technical Manual, Chapter 8.*		
(a)	Would the proposed project result in a net height increase of any structure of 50 feet or more?		✓
(b)	Would the proposed project result in any increase in structure height and be located adjacent to or across the street from a sunlight-sensitive resource?		✓
(c)	If 'Yes' to either of the above questions, attach supporting information explaining whether the project's shadow reach any sunlight-sensitive resource at any time of the year.	N.A.	N.A.
6.	***HISTORIC AND CULTURAL RESOURCES:*** *CEQR Technical Manual, Chapter 9*		
(a)	Does the proposed project site or an adjacent site contain any architectural and/or archaeological resource that is eligible for, or has been designated (or is calendared for consideration) as a New York City Landmark, Interior Landmark or Scenic Landmark; is listed or eligible for listing on the New York State or National Register of Historic Places; or is within a designated or eligible New York City, New York State, or National Register Historic District? If "Yes," list the resources and attach supporting information on whether the proposed project would affect any of these resources.		✓
7.	***URBAN DESIGN AND VISUAL RESOURCES:*** *CEQR Technical Manual, Chapter 10*		
(a)	Would the proposed project introduce a new building, a new building height, or result in any substantial physical alteration to the streetscape or public space in the vicinity of the proposed project that is not currently allowed by existing zoning?		✓
(b)	Would the proposed project result in obstruction of publicly accessible views to visual resources that is not currently allowed by existing zoning?		✓
(c)	If "Yes" to either of the questions above, please provide the information requested in Chapter 10.		✓
8.	***NATURAL RESOURCES:*** *CEQR Technical Manual, Chapter 11*		
(a)	Is any part of the directly affected area within the Jamaica Bay Watershed? If "Yes," complete the Jamaica Bay Watershed Form.		✓
(b)	Does the proposed project site or a site adjacent to the project contain natural resources as defined in Section 100 of Chapter 11? If "Yes," list the resources: Attach supporting information on whether the proposed project would affect any of these resources. ***See Attachment B, "Impact Analyses," under "Natural Resources."***	✓	
9.	***HAZARDOUS MATERIALS:*** *CEQR Technical Manual, Chapter 12*		
(a)	Would the proposed project allow commercial or residential use in an area that is currently, or was historically, a manufacturing area that involved hazardous materials?		✓
(b)	Does the proposed project site have existing institutional controls (e.g., (E) designations or a Restrictive Declaration) relating to hazardous materials that preclude the potential for significant adverse impacts?		✓
(c)	Does the project require soil disturbance in a manufacturing zone or any development on or near a manufacturing zone or existing/historic facilities listed in Appendix 1 (including nonconforming uses)?	✓	
(d)	Does the project result in the development of a site where there is reason to suspect the presence of hazardous materials, contamination, illegal dumping or fill, or fill material or unknown origin?	✓	
(e)	Does the project result in development where underground and/or aboveground storage tanks (e.g., gas stations) are or were on or near the site?	✓	
(f)	Does the project result in renovation of interior existing space on a site with potential compromised air quality, vapor intrusion from on-site or off-site sources, asbestos, PCBs or lead-based paint?		✓
(g)	Does the project result in development on or near a government-listed voluntary cleanup/brownfield site, current or former power generation/transmission facilities, municipal incinerators, coal gasification or gas storage sites, or railroad tracks and rights-of-way?		✓
(h)	Has a Phase I Environmental Site Assessment been performed for the site? If 'Yes,' were RECs identified? Briefly identify: ***Fill of unknown origin, manufacturing uses, spills***	✓	
(i)	Based on a Phase I Assessment, is a Phase II Assessment needed? **Yes. A Phase II Limited Corridor Investigation has been prepared and is summarized in Attachment B, "Impact Analyses," under "Hazardous Materials."**	✓	
10.	***WATER AND SEWER INFRASTRUCTURE:*** *CEQR Technical Manual, Chapter 13*		
(a)	Would the project result in water demand of more than one million gallons per day?		✓
(b)	Is the proposed project located in a combined sewer area and result in at least 1,000 residential units or 250,000 sq. ft. or more of commercial space in Manhattan or at least 400 residential units or 150,000 sq. ft. or more of commercial space in the Bronx, Brooklyn, Staten Island or Queens?		✓
(c)	Is the proposed project located in a separately sewered area and result in the same or greater development than that listed in Table 13-1 in Chapter 13?		✓
(d)	Does the proposed project involve development on a site five acres or larger where the amount of impervious surface would increase?		✓

		YES	NO
(e)	Would the proposed project involve development on a site one acre or larger where the amount of impervious surface would increase and is located within the Jamaica Bay Watershed or in certain specific drainage areas including: Bronx River, Coney Island Creek, Flushing Bay and Creek, Gowanus Canal, Hutchinson River, Newtown Creek, or Westchester Creek?		✓
(f)	Would the proposed project be located in an area that is partially sewered or currently unsewered?	✓	
(g)	Is the project proposing an industrial facility or activity that would contribute industrial discharges to a WWTP and/or generate contaminated stormwater in a separate storm sewer system?		✓
(h)	Would the project involve construction of a new stormwater outfall that requires federal and/or state permits?	✓	
(i)	If "Yes" to any of the above, conduct the appropriate preliminary analyses and attached supporting documentation. ***See Attachment B, "Impact Analyses."***	N.A.	N.A.
11. *SOLID WASTE AND SANITATION:* *CEQR Technical Manual, Chapter 14*			
(a)	Would the proposed project have the potential to generate 100,000 pounds (50 tons) or more of solid waste per week?		✓
(b)	Would the proposed project involve a reduction in capacity at a solid waste management facility used for refuse or recyclables generated within the City?		✓
12. *ENERGY:* *CEQR Technical Manual, Chapter 15*			
(a)	Would the proposed project affect the transmission or generation of energy?		✓
13. *TRANSPORTATION:* *CEQR Technical Manual, Chapter 16*			
(a)	Would the proposed project exceed any threshold identified in Table 16-1 in Chapter 16?		✓
(b)	If "Yes," conduct the screening analyses, attach appropriate back up data as needed for each stage, and answer the following questions:		
	(1) Would the proposed project result in 50 or more Passenger Car Equivalents (PCEs) per project peak hour? If "Yes," would the proposed project result in 50 or more vehicle trips per project peak hour at any given intersection? **It should be noted that the lead agency may require further analysis of intersections of concern even when a project generates fewer than 50 vehicles in the peak hour. See Subsection 313 in Chapter 16 for more information.	N.A.	N.A.
	(2) Would the proposed project result in more than 200 subway/rail or bus trips per project peak hour? If "Yes," would the proposed project result per project peak hour, in 50 or more bus trips on a single line (in one direction) or 200 subway trips per station or line?	N.A.	N.A.
	(3) Would the proposed project result in more than 200 pedestrian trips per project peak hour? If "Yes," would the proposed project result in more than 200 pedestrian trips per project peak hour to any given pedestrian or transit element, crosswalk, subway stair, or bus stop?	N.A.	N.A.
14. *AIR QUALITY:* *CEQR Technical Manual, Chapter 17*			
(a)	*Mobile Sources:* Would the proposed project result in the conditions outlined in Section 210 in Chapter 17?		✓
(b)	*Stationary Sources:* Would the proposed project result in the conditions outlined in Section 220 in Chapter 17? If 'Yes,' would the proposed project exceed the thresholds in the Figure 17-3, Stationary Source Screen Graph? (attach graph as needed)		✓
(c)	Does the proposed project involve multiple buildings on the project site?	N.A.	N.A.
(d)	Does the proposed project require Federal approvals, support, licensing, or permits subject to conformity requirements?	N.A.	N.A.
(e)	Does the proposed project site have existing institutional controls (e.g., (E) designations or a Restrictive Declaration) relating to air quality that preclude the potential for significant adverse impacts?	N.A.	N.A.
(f)	If "Yes," conduct the appropriate analyses and attach any supporting documentation.	N.A.	N.A.
15. *GREENHOUSE GAS EMISSIONS:* *CEQR Technical Manual, Chapter 18*			
(a)	Is the proposed project a city capital project, a power plant, or would fundamentally change the City's solid waste management system?	✓	
(b)	If "Yes," would the proposed project require a GHG emissions assessment based on the guidance in Chapter 18?		✓
(c)	If "Yes," attach supporting documentation to answer the following; Would the project be consistent with the City's GHG reduction goal?	N.A.	N.A.

YES	NO

16. *NOISE:* *CEQR Technical Manual, Chapter 19*			
(a)	Would the proposed project generate or reroute the vehicular traffic?		✓
(b)	Would the proposed project introduce new or additional receptors (see Section 124 in Chapter 19) near heavily trafficked roadways, within one horizontal mile of an existing or proposed flight path, or within 1,500 feet of an existing or proposed rail line with a direct line of sight to that rail line?		✓
(c)	Would the proposed project cause a stationary noise source to operate within 1,500 feet of a receptor with a direct line of sight to that receptor or introduce receptors into an area with high ambient stationary noise?		✓
(d)	Does the proposed project site have existing institutional controls (e.g., E-designations or a Restrictive Declaration) relating to noise that preclude the potential for significant adverse impacts?		✓
(e)	If "Yes," conduct the appropriate analyses and attach any supporting documentation.	N.A.	N.A.
17. *PUBLIC HEALTH:* *CEQR Technical Manual, Chapter 20*			
(a)	Would the proposed project warrant a public health assessment based upon the guidance in Chapter 20?		✓
18. *NEIGHBORHOOD CHARACTER:* *CEQR Technical Manual, Chapter 21*			
(a)	Based upon the analyses conducted for the following technical areas, check 'Yes' if any of the following technical areas required a detailed analysis: Land Use, Zoning, and Public Policy; Socioeconomic Conditions; Open Space; Historic and Cultural Resources; Urban Design and Visual Resources; Shadows; Transportation; Noise.		✓
(b)	If "Yes," explain here why or why not an assessment of neighborhood character is warranted based on the guidance in Chapter 21, "Neighborhood Character." Attach a preliminary analysis, if necessary.	N/A	N/A
19. *CONSTRUCTION IMPACTS:* *CEQR Technical Manual, Chapter 22* Would the project's construction activities involve (check all that apply):			
	• Construction activities lasting longer than two years;	✓	
	• Construction activities within a Central Business District or along an arterial or major thoroughfare;	✓	
	• Require closing, narrowing, or otherwise impeding traffic, transit or pedestrian elements (roadways, parking spaces, bicycle routes, sidewalks, crosswalks, corners, etc);	✓	
	• Construction of multiple buildings where there is a potential for on-site receptors on buildings completed before the final build-out;		✓
	• The operation of several pieces of diesel equipment in a single location at peak construction;	✓	
	• Closure of community facilities or disruption in its service;		✓
	• Activities within 400 feet of a historic or cultural resource; or	✓	
	• Disturbance of a site containing natural resources.	✓	

If any boxes are checked, explain why or why not a preliminary construction assessment is warranted based on the guidance of in Chapter 22, "Construction." It should be noted that the nature and extent or any commitment to use the Best Available Technology for construction equipment or Best Management Practices for construction activities should be considered when making this determination.

Attachment B, "Impact Analyses," provides a full examination of potential impacts from construction, under the section "Construction Impacts."

20. *APPLICANT'S CERTIFICATION*

I swear or affirm under oath and subject to the penalties for perjury that the information provided in this Environmental Assessment Statement (EAS) is true and accurate to the best of my knowledge and belief, based upon my personal knowledge and familiarity with the information described herein and after examination of pertinent books and records and/or after inquiry of persons who have personal knowledge or such information or who have examined pertinent books and records.

Still under oath, I further swear or affirm that I make this statement in my capacity as the

New York City Department of Design and Construction of **New York City Department of Environmental Protection**

APPLICANT/SPONSOR — NAME OF THE ENTITY OR OWNER

the entity which seeks the permits, approvals, funding or other governmental action described in this EAS.

Check if prepared by: ☐ APPLICANT/REPRESENTATIVE or ☑ LEAD AGENCY REPRESENTATIVE (FOR CITY-SPONSORED PROJECTS)

N. Venugopalan, Assistant Commissioner — APPLICANT/SPONSOR NAME:

SIGNATURE: FOR AL

Angela Licata, Deputy Commissioner — LEAD AGENCY REPRESENTATIVE NAME:

DATE: 4/4/12

PLEASE NOTE THAT APPLICANT MAY BE REQUIRED TO SUBSTANTIATE RESPONSES IN THIS FORM AT THE DISCRETION OF THE LEAD AGENCY SO THAT IT MAY SUPPORT ITS DETERMINATION OF SIGNIFICANCE.

PART III: DETERMINATION OF SIGNIFICANCE (To Be Completed By Lead Agency)

INSTRUCTIONS:
In completing Part III, the lead agency should consult 6 NYCRR 617.7 and 43 RCNY §6-06 (Executive Order 91 of 1977, as amended) which contain the State and City criteria for determining significance.

1. For each of the impact categories listed below, consider whether the project may have a significant effect on the environment. For each of the impact categories listed below, consider whether the project may have a significant adverse effect on the environment, taking into account its (a) location; (b) probability of occurring; (c) duration; (d) irreversibility; (e) geographic scope; and (f) magnitude.

	Potential Significant Adverse Impact	
IMPACT CATEGORY	**YES**	**NO**
Land Use, Zoning, and Public Policy		✓
Socioeconomic Conditions		✓
Community Facilities and Services		✓
Open Space		✓
Shadows		✓
Historic and Cultural Resources		✓
Urban Design/Visual Resources		✓
Natural Resources		✓
Hazardous Materials		✓
Water and Sewer Infrastructure		✓
Solid Waste and Sanitation Services		✓
Energy		✓
Transportation		✓
Air Quality		✓
Greenhouse Gas Emissions		✓
Noise		✓
Public Health		✓
Neighborhood Character		✓
Construction Impacts		✓

2. Are there any aspects of the project relevant to the determination whether the project may have a significant impact on the environment, such as combined or cumulative impacts, that were not fully covered by other responses and supporting materials? If there are such impacts, explain them and state where, as a result of them, the project may have a significant impact on the environment. | | ✓

3. ***LEAD AGENCY'S CERTIFICATION***

Deputy Commissioner	NYC Department of Environmental Protection
TITLE	LEAD AGENCY
Angela Licata	For AL
NAME	SIGNATURE

☐ **Check this box if the lead agency has identified one or more potentially significant adverse impacts that MAY occur.**

☐ Issue ***Conditional Negative Declaration***

A ***Conditional Negative Declaration*** **(CND)** may be appropriate if there is a private applicant for an Unlisted action AND when conditions imposed by the lead agency will modify the proposed project so that no significant adverse environmental impacts would result. The CND is prepared as a separate document and is subject to the requirements in 6 NYCRR Part 617.

☐ Issue ***Positive Declaration*** and proceed to a draft scope of work for the Environmental Impact Statement.

If the lead agency has determined that the project may have a significant impact on the environment, and if a conditional negative declaration is not appropriate, then the lead agency issues a ***Positive Declaration***.

NEGATIVE DECLARATION (To Be Completed By Lead Agency)

Statement of No Significant Effect

Pursuant to Executive Order 91 of 1977, as amended, and the Rules of Procedure for City Environmental Quality Review, found at Title 62, Chapter 5 of the Rules of the City of New York and 6NYCRR, Part 617, State Environmental Quality Review, the [ ] assumed the role of lead agency for the environmental review of the proposed project. Based on a review of information about the project contained in this environmental assessment statement and any attachments hereto, which are incorporated by reference herein, the [ ] has determined that the proposed project would not have a significant adverse impact on the environment.

Reasons Supporting this Determination

The above determination is based on information contained in this EAS that finds, because the proposed project:

No other signficant effects upon the environment that would require the preparation of a Draft Environmental Impact Statement are foreseeable. This Negative Declaration has been prepared in accordance with Article 8 of the New York State Environmental Conservation Law (SEQRA).

TITLE	LEAD AGENCY
NAME	SIGNATURE

A. OVERVIEW OF PROPOSED PROJECT

The New York City Department of Design and Construction (DDC), on behalf of the New York City Department of Environmental Protection (DEP), is proposing to implement infrastructure improvements over approximately 248 acres in the Coney Island neighborhood, which is located in Brooklyn Community District 13 ("proposed project"). These improvements would be made in accordance with DEP's amended drainage plan (ADP) filed with the Brooklyn Borough President's Office on December 29, 2010 (see **Figure C-1**). The general boundaries of the proposed project area are Coney Island Creek to the north, Coney Island Boardwalk to the south, West 8th Street to the east and West 21st Street to the west.

The proposed project area includes the ADP area described above which covers the Coney Island Redevelopment area. The City Planning Commission (CPC) approved the rezoning of this area in July 2009 for the purposes of facilitating the redevelopment of the Coney Island waterfront with amusement and other uses. The proposed project area currently consists of small, medium and high-density residential uses; a mix of light industrial and parking uses along Coney Island Creek; commercial uses along the avenues (Neptune, Mermaid and Surf Avenues); and the famous Coney Island amusement center near the Boardwalk (i.e., south of Surf Avenue). There are also private and public open spaces throughout the proposed project area.

The objective of the proposed project is to improve stormwater drainage within the 248-acre project area and upgrade the sanitary sewer system in accordance within the ADP. The proposed project involves the reconstruction and enlargement of three existing outfalls, installation of new stormwater collection sewers, relocation and upgrade of distribution and trunk water mains, and relocation and upgrade of sanitary sewer lines along with the reconstruction of affected streets (see **Figure C-1**). Due to the drainage area's low-lying topography, the proposed stormwater collection sewers are wide and shallow, and therefore require the relocation of sanitary lines and water mains within certain segments of built streets. Construction of the proposed project will also require the relocation of utilities, as necessary, within the proposed project area. Finally, the proposed project includes the design and construction of a consolidated wetland restoration plan at Calvert Vaux Park to address all permanent wetland impacts associated with the reconstruction and enlargement of three existing stormwater outfalls.

The streets affected by the proposed project include (from west to east, see also **Figure C-1**): West 25th Street between the Boardwalk and Mermaid Avenue (about 1,500 linear feet); West 24th Street between the Boardwalk and Mermaid Avenue (about 1,500 linear feet); West 23rd Street between the Boardwalk and about ½ block north of Mermaid Avenue (about 1,900 linear feet); West 22nd Street between Ocean Way and about ½ block north of Mermaid Avenue (about 1,900 linear feet); West 21st Street between the Boardwalk and Coney Island Creek (about 2,200 linear feet); West 20th Street between the Boardwalk and Neptune Avenue (about 2,100 linear feet); West 19th Street beginning from a location just south of Surf Avenue and

extending north to Neptune Avenue (about 1,700 linear feet); West 18th Street beginning from a location just south of Surf Avenue and extending north of Neptune Avenue; Cropsey Avenue/West 17th Street between Surf Avenue and Hart Place (about 2,000 linear feet); West 16th Street between Wonder Wheel Way and Hart Place (about 2,100 linear feet); West 15th Street between Wonder Wheel Way and Hart Place (about 2,100 linear feet); Stillwell Avenue between Wonder Wheel Way and Coney Island Creek (about 2,100 linear feet); West 12th Street between Wonder Wheel Way and Coney Island Creek (about 1,600 linear feet); and West 10th Street between Wonder Wheel Way and Surf Avenue (about 400 linear feet). The area also includes a sewer easement (located just south of West 8th Street) situated between the Boardwalk and Surf Avenue (about 400 linear feet). The total linear feet of street that would be improved with the proposed project is 43,000 feet (or about 8.5 miles).

The three stormwater outfalls to be enlarged and related tributary drainage areas are as follows (see also **Figure C-8**):

- **West 21st Street Outfall (Sub-drainage Area A).** This sub-drainage area is approximately 115 acres in size. General boundaries are the midblock between Cropsey Avenue (or West 17th Street) and West 16th Street on the east, the Boardwalk to the south, just west of West 25th Street on the west, and Coney Island Creek to the north. Most of this area is occupied by medium and high-density residential uses including New York City Housing Authority (NYCHA) housing developments, commercial uses along Neptune and Mermaid Avenues, private open spaces within multi-family housing courtyards and Department of Parks and Recreation (DPR) parkland.
- **West 15th Street Outfall (Sub-drainage Area B).** This sub-drainage area is approximately 57 acres in size. General boundaries are the midblock between Cropsey Avenue (or West 17th Street) and West 16th Street on the west, the Boardwalk to the south, the midblock between Stillwell Avenue and West Street on the east, and Coney Island Creek to the north. Most of this area is occupied by medium-density residential uses, commercial uses along Neptune, Mermaid, and Surf Avenues and the amusement area between Surf Avenue and the Boardwalk, including the Cyclones baseball stadium.
- **West 12th Street Outfall (Sub-drainage Area C).** This sub-drainage area is approximately 76 acres in size. General boundaries are the midblock between Stillwell Avenue and West Street on the west, the boardwalk to the south, a portion of Luna Park Houses and just west of West 8th Street on the east, and Coney Island Creek to the north. Most of this area is occupied by medium and high-density residential uses (including Luna Park Houses), commercial uses along Neptune, Mermaid, and Surf Avenues and within the amusement area situated between Surf Avenue and the Boardwalk, and private open spaces within multi-family housing courtyards.

B. ELEMENTS OF THE PROPOSED PROJECT

AMENDED DRAINAGE PLAN

The proposed project involves various infrastructure improvements to provide the appropriate sanitary and stormwater drainage system within a large, built area of Coney Island. The specific elements to be designed and constructed as part of the proposed project include:

- Installation of new gravity flow stormwater collection sewers (in accordance with the ADP and DEP design standards) over an approximately 248-acre project area. The proposed stormwater collection sewers would include new catch basins designed to DEP

standards and equipped to capture and reduce floatables in the sewer system and Coney Island Creek, or the receiving waterbody.

- Relocation and upgrade of sanitary sewers and water mains within certain segments of the built streets as may be necessary to install the proposed storm sewers and meet current zoning conditions.
- Restoration and final paving of streets affected by sewer installation, and raising the elevation of a limited number of streets in accordance with the city map, as necessary.
- Restoration of tidal wetlands at Calvert Vaux Park, which would provide consolidated wetland restoration for each of the three outfall structures (see the discussion below).
- Replacement or relocation of existing utilities, as necessary, within built streets and reconstruction of the affected streets.
- Reconstruction and enlargement of three existing outfalls extending from the sub-drainage areas to Coney Island Creek. Specifically, the proposed reconstruction of the outfalls include:
    - Relocation and enlargement of the West 15th Street outfall. This would involve construction of a new single barrel 7-foot-wide by 5-foot-high outfall and new tide gate to Coney Island Creek at a location immediately east of the existing outfall and extending north from West 15th Street (see **Figure C-5b**). This proposed outfall would replace an existing 54-inch diameter stormwater outfall near the end of West 15th Street and would include reinforced concrete pipes supported by steel piles. The existing outfall would then be decommissioned with a steel sheet pile at the outlet.
    - Replacement and enlargement of the West 21st Street outfall. This would involve replacement of the existing outfall at that location with a twin double barrel 7-foot 6-inch wide by 7-foot-high box storm sewer outfall and new tide gate to Coney Island Creek at a location immediately north of and extending from West 21st Street. The proposed outfall would replace and enlarge an approximately 13-foot wide by 7-foot 6-inch high stormwater outfall at this location.
    - Installation of a new outfall at West 12th Street. This would involve construction of a new 7-foot-wide by 5-foot-high outfall and new tide gate to Coney Island Creek at a location immediately north of and extending from West 12th Street. The proposed outfall would be in addition to an existing 9-foot wide stormwater outfall currently at this location.

The tax blocks and lots crossed by each of the proposed outfalls along with ownership information are presented below in **Table A-1** and **Figures C-2**.

Table A-1
Block and Lots and Property Ownership for Proposed Outfall Locations

Outfall	Brooklyn Block	Lot	Ownership
West 21st Street	6992	8901	City of New York, Department of Citywide Administrative Services (DCAS)
West 15th Street	6997	158	City of New York, Housing Preservation and Development (HPD)
West 12th Street	7247	125	City of New York, Department of Small Business Services (SBS)
Source: New York City Department of Finance Tax Maps, 2011.			

PROPOSED CONSOLIDATED WETLAND RESTORATION PLAN

The proposed outfall sites are located along a developed waterfront with a mostly deteriorated and previously disturbed shoreline edge. Installation of the three proposed outfalls would require the permanent disturbance of about 2,500 square feet of unvegetated wetland area and 750 square feet of littoral zone wetlands (i.e., bottom sediments) within the adjacent creek. This permanent wetland disturbance is due to the proposed outfall structural components such as the outfall pipe, stone aprons and stabilizing stone. The proposed project includes wetland restoration for all three outfalls (i.e., a consolidated wetland restoration plan) at the City's Calvert Vaux Park that would address the permanent wetland impacts. With a replacement ratio of 2 to 1 for the disturbance of each wetland habitat, the total consolidated restoration area is projected to be about 6,500 square feet (see also Attachment B "Impact Analyses" under Natural Resources).

Under the proposed consolidated wetland restoration plan, intertidal wetlands would be created along the east shore of Calvert Vaux Park. The proposed restoration would build upon a DPR restoration project currently under construction along this shoreline (immediately to the northeast). The proposal would excavate up to approximately 6,500 square feet to create new wetland area that would be graded, stabilized and planted with *spartina alterniflora* that is known to thrive in the protected intertidal zones of this cove. Native trees and rises would be avoided to minimize tree clearing and excavation/grading and the restoration would be shaped to work within existing contours. A preliminary concept for the restoration is provided on **Figure C-6.**

The proposed plan does not encroach upon any lands within the coastal erosion hazard area mapped along the south shore of the park. It would also avoid any potential impacts or conflicts with proposed DPR recreational facilities such as the proposed bike path. Additionally, the proposed plan would not interfere with any mitigation previously agreed upon between DPR and NYSDEC for the reconstruction of Calvert Vaux Park (per Calvert Vaux Tidal Wetlands and Replacement Plan, May 8, 2009). The final wetland restoration design would be based upon additional information including site survey data with topography and trees, soils, and planting plans and developed through additional coordination with DPR. The extent of the restoration activities would also be subject to DEC approval as part of the permitting requirements for the three proposed Coney Island Creek outfall enlargements.

C. PURPOSE AND NEED

The objective of the proposed project is to improve stormwater drainage within the 248-acre proposed project area and upgrade the sanitary sewer system in accordance with the ADP and rezoning of the drainage area. Upgraded and new sanitary and stormwater infrastructure is

necessary to accommodate new residential, commercial and entertainment uses projected for the proposed project area, a portion of which was recently rezoned and approved by the CPC in July 2009 for the purposes of facilitating the redevelopment of Coney Island with amusement and other uses (see **Figure C-4** for rezoning area).

As part of the proposed project, new storm sewers throughout the proposed project area are to be installed to convey stormwater from the local streets to Coney Island Creek, thereby reducing flooding in the drainage area. Within the rezoning area, street grades are to be raised in order to allow first floor development projects to be sited at or above the 100-year floodplain elevation. Due to the proposed project area's low-lying topography, the proposed stormwater collection sewers are wide and shallow and construction will therefore require the relocation of sanitary lines, water mains and utilities, as necessary, within certain segments of built streets.

D. CONSTRUCTION SCHEDULE

Due to the large extent of the proposed project area and existing built conditions, the proposed project would be constructed as multiple capital projects over several years, beginning in fall 2012. All phases would begin construction at the outfall prior to installing upland infrastructure improvements. The phases of construction include outfall enlargements, upland infrastructure improvements and consolidated wetland restoration.

- Completion of the Phase 1 (West 15th Street outfall) final design is expected in July 2012. Construction is subsequently expected to begin in late 2012 and be completed in late 2014. Related upland infrastructure would include the installation of new stormwater collection sewers, relocation and upgrade of distribution and trunk water mains, relocation of utilities, as necessary, relocation and upgrade of sanitary sewer lines and reconstruction of affected streets. Thus, the duration of Phase 1 construction is expected to be about two years, including about three to four months of construction of the outfall.

- Final design of Phase 2a (West 21st Street outfall) is expected to be completed in August 2013 with construction beginning soon thereafter and completed by the end of 2015. Related upland infrastructure would include the installation of new stormwater collection sewers, relocation and upgrade of distribution and trunk water mains, relocation of utilities, as necessary, relocation and upgrade of sanitary sewer lines and reconstruction of affected streets. Thus, the duration of Phase 2a construction is expected to be about two years, including about three to four months of construction of the outfall.

- Final design of Phase 2b (West 12th Street outfall) is expected to be completed in April 2014 with construction beginning soon thereafter and completed by mid-2017. Related upland infrastructure would include the installation of new stormwater collection sewers, relocation and upgrade of distribution and trunk water mains, relocation of utilities, as necessary, relocation and upgrade of sanitary sewer lines and reconstruction of affected streets. Thus, the duration of Phase 2b construction is expected to be about two and a half years, including about three to four months of construction of the outfall. It is expected that the proposed consolidated wetland restoration for all three outfalls (including Phases 1 and 2a) would be performed at Calvert Vaux Park, which would also last approximately three to four months.

Completion of the storm sewer collection system within the upland streets would require a minimum of three additional phases. These phases would also include the relocation and upgrade of distribution and trunk water mains, relocation and upgrade of sanitary sewer lines, relocation of utilities, as necessary, and reconstruction of affected streets. Therefore, all outfall construction, adjacent

infrastructure improvements, and wetland restoration would be completed in 2017 with remaining upland construction expected to be completed in 2019. While the remaining upland construction may extend past the anticipated completion year in accordance with DEP's capital program and permitting and approval processes, the assessment of potential environmental impacts uses 2019 as the "build year." A detailed description of the proposed construction program is provided in Attachment B, "Impact Analyses."

E. ENVIRONMENTAL REVIEW, PERMITS AND APPROVALS

ENVIRONMENTAL REVIEW

This Environmental Assessment Statement (EAS) has been prepared in accordance with the requirements of both the City Environmental Quality Review Act (CEQR) and the State Environmental Quality Review Act (SEQRA). It has been prepared following the methodologies of the *CEQR Technical Manual* (2012), which were used to resulting from the proposed project.

PERMITS AND APPROVALS

This EAS has been prepared in support of the following applications and approvals to be obtained, as applicable, prior to the start of construction.

LOCAL (NEW YORK CITY)

- New York City Department of Parks & Recreation (DPR) for any construction work within a City park and forestry approvals.
- New York City Department of Transportation (DOT) street and sidewalk construction permit for the work in local streets.
- Approval from the New York City Department of Citywide Administrative (DCAS) to install the proposed outfalls across City waterfront property.

STATE (NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION, NYSDEC)

- Modification of DEP's MS4 SPDES Permit (NY0026239) for outfalls CI-664, CI-665, CI-639.
- Tidal Wetlands Permit for activities in tidal wetlands and tidal wetlands adjacent areas (Article 25).
- Water Quality Certification for the activities in state waters (protection of waters, Article 15, Section 401).
- State Pollution Discharge Elimination System (SPDES) General Permit for Stormwater Discharges from Construction Activity (GP-0-10-001). (This would be obtained by the contractor).
- Industrial SPDES Discharge Permit for any temporary dewatering during construction. (If necessary, this permit would be applied for by the project contractor.)
- Long Island Well Permit for groundwater pumping during construction. (If necessary, this permit would be applied for by the project contractor.)

FEDERAL (UNITED STATES ARMY CORPS OF ENGINEERS, USACE)

- Section 404 of the Clean Water Act (Waters of the United States) permit for the proposed installation of outfalls within tidal wetlands (dredging and filling activities) and the proposed tidal wetland restoration.
- Section 10 permit for structures in navigable waters.
- Nationwide Permit 7–Outfall Structures and Associated Intake Structures, which authorizes activities related to the construction or modification of outfall structures and associated intake structures would also apply to the proposed outfalls.

✷

Table of Contents

List of Tables

List of Figures

Find all figures in Attachment C:

✶

A. INTRODUCTION

As described in detail in Attachment A, "Project Description," the proposed project involves the reconstruction and enlargement of three existing outfalls, the installation of new stormwater collection sewers, the relocation and upgrade of distribution and trunk water mains, and the relocation and upgrade of sanitary sewer lines along with the reconstruction of affected streets (see **Figure C-1**). Due to the drainage area's flat topography, the proposed stormwater collection sewers are wide and shallow, and therefore require the relocation of sanitary lines and water mains within certain segments of built streets. Construction of the proposed project would also require the relocation of utilities, as necessary, within the proposed project area. Finally, the proposed project includes the design and construction of a consolidated wetland restoration plan at Calvert Vaux Park to address all permanent wetland impacts associated with the reconstruction and enlargement of three existing stormwater outfalls.

Provided below are the environmental impact analyses for the proposed project that have been prepared following the methodologies of the *CEQR Technical Manual* (2012). Figures referred to in this attachment (e.g., land use) are provided in Attachment C, "EAS Graphics."

B.1 LAND USE, ZONING, AND PUBLIC POLICY

This section examines the existing land use, zoning, and public policies that apply to the proposed project area, which includes the ADP drainage area, outfall sites and consolidated wetland restoration site. The analysis presents current land use conditions and identifies anticipated changes in land use, zoning, and public policy that are expected independent of the proposed project through the build year. The analysis then assesses any potential adverse impacts to land use, zoning, and public policy that would occur as a result of the proposed project, which includes the area within 400 feet of the proposed outfall sites and project area.

LAND USE

EXISTING CONDITIONS

ADP Drainage Area

The drainage area served by the three proposed outfalls is generally bounded by Coney Island Creek to the north, the Coney Island Boardwalk to the south, West 8th Street to the east, and West 27th Street to the west (see **Figure C-3)**. The drainage area is comprised of small, medium and high-density residential uses; a mix of light industrial and parking uses along Coney Island Creek; commercial uses along the avenues (Neptune, Mermaid and Surf Avenues); and the famous Coney Island amusement center near the Boardwalk (i.e., south of Surf Avenue). There are also private and public open spaces throughout the drainage area.

Luna Park Houses, a multi-story residential complex, is located at the eastern end of the drainage area. Additional large tracts of residential uses are present in the southwestern portion of the drainage area, including another high rise complex, Coney Island Towers. The low- and

medium-density housing is a mix of single-family housing and 2-5 family low and mid-rise residential buildings. Private open spaces and court yards are also common in the yards of the residential towers. Larger open space in the southern portion of the drainage area is comprised of parklands, including the Coney Island amusement area, the Abe Stark Sports Center, Steeplechase Amusement Park, Keyspan Park (the stadium of the Brooklyn Cyclones), Deno's Wonder Wheel Amusement Park and the Cyclone Rollercoaster, and the New York City Aquarium. The existing amusement area was recently renovated, rebuilt, and expanded, preserving important city landmarks, such as the Cyclone, while introducing new and improved indoor and outdoor amusements and concessions.

Commercial retail uses are common along Neptune, Mermaid and Surf Avenues. Larger individual commercial uses include a retail building at 1509 Hart Place in the northern portion of the drainage area and a retail shopping center at 1204 Neptune Avenue at the southwest corner of Neptune Avenue and West 12th Street. The balance of uses in the drainage area includes vacant land and surface parking, and light industrial uses with concentrations of auto-related uses.

Prominent public/institutional facilities within the drainage area include Our Lady of Solace Roman Catholic Church on West 17th Street, the Sea Crest Health Care Center, which fronts on the Boardwalk, a New York City Department of Homeless Services and the Human Resources Administration building on the west side of West 21st Street, P.S. 90 on the west side of West 12th Street, and Coney Island Hospital. The drainage area also includes two large community gardens – the El Jardin de Boardwalk (located on the Boardwalk at West 22nd Street adjacent to the former Dreamland Roller Rink) and a GreenThumb garden at the southeast corner of Mermaid Avenue and West 20th Street.

The Stillwell Avenue subway station, operated by Metropolitan Transportation Authority (MTA), is the largest transportation use entirely within the drainage area, located at the northeast corner of Stillwell and Surf Avenues. North of the station across Coney Island Creek is a large MTA rail yard, a portion of which is located within the drainage area.

At the edges of the drainage area uses include the Belt Parkway (north of Coney Island Creek), the Coney Island Atlantic Ocean Beach to the south, and residential uses to the east and west including larger tower residential buildings. A more detailed description of the uses within 400 feet of each of the proposed outfall sites is provided below.

Outfall Sites

The proposed West 21st Street outfall site is located on city-owned (Department of Citywide Administrative Services, DCAS), vacant waterfront land (Block 6992, Lot 8901) that fronts along Coney Island Creek at the northern terminus of West 21st Street). The site is currently overgrown and the shoreline has a degraded edge with derelict vessels. A large storm sewer extends across the site out into Coney Island Creek from the end of West 21st Street.

The 400-foot study area includes surface parking, auto-related, utility, industrial and residential uses, as well as mixed-use buildings and health care institutions (to the south and west of the proposed outfall site). Residential uses are comprised primarily of single-family homes with two-story, attached single-family homes along Neptune Avenue between West 21st and West 22nd Streets. Community facility uses include the Metropolitan Christian Center building at the southwestern corner of Neptune Avenue and West 20th Street, and Coney Island Hospital, located at the northwestern corner of Neptune Avenue and West 22nd Street. Behind the hospital

at the northern end of West 22nd Street along the Coney Island Creek waterfront is an industrial building used for construction services. Other industrial uses in the study area include a large self-storage facility at 2829 West 21st Street and a construction supply on the south side of Neptune Avenue between West 20th and West 21st Streets. A Verizon support facility is also located along the waterfront immediately east of the proposed outfall site. Auto-related uses include a gas station and a repair shop along Neptune Avenue. Additionally, the New York City Department of Sanitation (DSNY) operates a garage on the east side of West 21st Street as well as a parking lot for DSNY vehicles on the opposite side of the street.

The proposed West 15th Street outfall site is located on city-owned (Department of Housing and Preservation and Development, HPD) waterfront land also fronting on Coney Island Creek (Block 6997, Lot 158) at the northern terminus of Hart Place/West 15th Street. Uses on the site include surface parking for city school buses, although a request for proposal for the redevelopment of the site has been issued through HPD.

The 400-foot study area includes a mix of commercial, light industrial and parking/auto-related uses. Directly west of the proposed outfall location is the only residential use in the study area—a single-family residence fronting on Hart Place. West of that residence are two large commercial retail uses, which front on Hart Place and Coney Island Creek, and a large retail building (i.e., market) with associated parking, located across the creek (on the north side). A light industrial use (i.e., food importer/distributor) is located on West 15th Street south of the proposed outfall site. The remainder of the 400-foot study area for the West 15th Street outfall site is characterized predominantly by transportation uses, including the Belt Parkway and Stillwell Avenue Bridge over Coney Island Creek. Additionally, there are smaller auto-related uses, including an auto salvage yard, on the east side of Stillwell Avenue.

The proposed West 12th Street outfall location is located on city-owned (Department of Small Business Services, SBS) waterfront land (Block 7247, Lot 125) that is used for parking at the foot of West 12th Street. A privately operated parking lot is located immediately to the east, on the north side of Neptune Avenue, east of West 12th Street.

The 400-foot study area includes a mix of parking, auto-related and utility uses, and mixed commercial/institutional and residential uses. Just east of the West 12th Street outfall site is an auto-service facility, on the north side of Neptune Avenue. West of the site is Con Edison's Neptune Operations Center (and parking area) on the north side of Neptune Avenue, just west of West 12th Street. The Coney Island Health Center and a retail shopping center are located at the southwest corner of Neptune Avenue and West 12th Street. Luna Park Houses, a five-building Mitchell-Lama residential cooperative complex that houses approximately 6,000 residents, is located at the southeast corner of Neptune Avenue and West 12th Street.

Consolidated Wetland Restoration Site

Construction of the three proposed outfalls would require the permanent disturbance of about 2,500 square feet of unvegetated area and 750 square feet of the littoral zone (i.e., bottom sediments) within Coney Island Creek. Therefore, the proposed project includes a consolidated wetland restoration plan at Calvert Vaux Park to address the permanent impacts associated with construction activities at each of the outfall sites. Assuming a replacement ratio of 2 to 1 for the disturbance of vegetated salt marsh wetland habitat, the total consolidated restoration area would be about 6,500 square feet.

FUTURE WITHOUT THE PROPOSED PROJECT

ADP Drainage Area

In the future without the proposed project, it is possible that land uses within the ADP drainage area may change significantly. On the southern edge of the drainage area, a 20-block portion of Coney Island was rezoned in 2009 with the objective of facilitating the redevelopment of the Coney Island waterfront with amusement and other uses. The rezoning allows for a wider variety of uses including new market-rate and affordable housing, new hotels and restaurants, new amusements and entertainment uses, neighborhood retail stores, as well as connections from Surf Avenue to the beach and a continuous beachfront boardwalk and park with approximately 2,500 new housing units.

Since the *Coney Island Rezoning Final Environmental Impact Statement* (FEIS) was completed in 2009, most new development has occurred within the amusement area. However, with the rezoning, there is potential for substantial residential and commercial development to occur on several large tracts of vacant land along Surf Avenue over the next several years. **Table B-1** lists potential future developments in the drainage area through the build year. This includes the Coney Island Redevelopment Project, with 600,000 square feet of new development, as well as new office and retail uses on Stillwell Avenue totaling about 67,000 square feet of commercial space with 380 parking spaces, developed in accordance with current zoning. Two projects are currently under construction in the drainage area, including a six-story commercial building with a community facility at the southwest corner of Mermaid Avenue and West 20th Street, and a one-story commercial building with amusement uses at the southeast corner of Stillwell and Surf Avenues. West 21st Street will also be re-graded up to the elevation of the Boardwalk to accommodate development in this area.

A hydraulic study completed for the Coney Island Rezoning FEIS infrastructure assessment concluded that water and sewer infrastructure improvements would be needed to ensure capacity consistent with the proposed zoning conditions. As a result, an ADP was developed and necessary sewer upgrades were identified to account for zoning conditions and provide appropriate outlets for stormwater runoff, thereby minimizing potential for flooding, and conveyance of sanitary wastewater to the wastewater treatment plant for treatment.

Outfall Sites

In the future without the proposed project, it is assumed that land uses at the proposed outfall sites would remain unchanged. It is possible that the New York City Economic Development Corporation (EDC) Stillwell Avenue RFP Site (at the site of the proposed West 15th Street outfall) may be developed with a commercial office or retail use in the future without the proposed project and in accordance with the current zoning; however, at this time there is no formal development proposal for the site.

Consolidated Wetland Restoration Site

In the future without the proposed project, it is assumed that land uses at the proposed location for consolidated wetland restoration (i.e., Calvert Vaux Park) would remain and that the benefits of the consolidated wetland restoration as part of the proposed project would not be realized.

Table B-1
Planned Developments in the Future without the Proposed Action

Name	Address/Location	Development Proposal	Build Year	Outfall Drainage Area
Coney Island Redevelopment Project	Multiple Sites	600,000 sq.ft. amusement/entertainment, 600 hotel rooms, 2,400 residential units, 320,000 sq.ft. retail (1)	2019	West 21st, 15th and 12th Street outfalls
EDC Stillwell Avenue RFP Site	Block 6697, Lots 158 and 187	67,422 sf commercial (11,237 sf retail and 56,185 sf office) and 381 parking spaces	N/A	West 15th/West 12th Street outfalls
Private	2002 Mermaid Ave/Block 7059, Lot 13	6-story commercial building with two stories of commercial space and 8 community facility units	2011	West 21st Street outfall
Private	3001 Stillwell Ave/Block 8694, Lots 5 and 421	1-story commercial building with assembly and amusement spaces	2012	West 12th Street outfall

Notes: [1] Incremental development over existing conditions through the build year. Includes streets proposed for grade changes per proposed amended drainage plan. There is no build year yet for the HPD site along Stillwell Avenue.

Sources: New York City Department of City Planning, May 2011; AKRF field investigation 6/9/11.

FUTURE WITH THE PROPOSED PROJECT

ADP Drainage Area

The proposed project would include the installation of new stormwater collection sewers, the relocation and upgrade of distribution and trunk water mains, relocation of utilities, as necessary, and the relocation and upgrade of sanitary sewer lines along with the reconstruction of affected streets. Due to the extent of the proposed project area, upland infrastructure in the ADP drainage area would be constructed as multiple capital projects over several years, with construction beginning in fall 2012.

The proposed project would not indirectly, or directly, displace any uses as a result of the proposed infrastructure improvements nor would it conflict with local land uses within the ADP drainage area. The proposed project would be beneficial to residents and visitors by improving stormwater drainage throughout a 248-acre area of Coney Island and upgrading sanitary sewers in accordance with the ADP. Therefore, the upland infrastructure improvements associated with the proposed project are not expected to result in potential significant adverse impacts to land use.

Outfall Sites

The proposed project involves the reconstruction and enlargement of three existing outfalls at West 21st Street, West 15th Street and West 12th Street, along Coney Island Creek. The proposed outfalls would be constructed on vacant, waterfront land under the jurisdiction of the City. Due to the extent of the proposed project area, the proposed outfalls would be constructed as multiple capital projects over several years, with construction beginning in fall 2012. The proposed project would not indirectly, or directly, displace any uses nor would it conflict with local land uses within the 400-foot study area around the proposed outfall sites. The proposed project would be beneficial to residents and visitors by improving stormwater drainage throughout a 248-

acre area of Coney Island and upgrading sanitary sewers in accordance with the ADP. Therefore, the three reconstructed and enlarged outfalls under with the proposed project are not expected to result in potential significant adverse impacts to land use.

Consolidated Wetland Restoration Site

The proposed project includes the design and construction of a consolidated wetland restoration plan at Calvert Vaux Park to address all permanent wetland impacts associated with the reconstruction and enlargement of three existing outfalls. The proposed project would not indirectly, or directly, displace any uses nor would it conflict with local land uses at Calvert Vaux Park along Coney Island Creek. The proposed consolidated wetland restoration would be beneficial to the ecology of the creek by providing increased saltmarsh habitat and improved water quality. Therefore, the consolidated wetland restoration associated with the proposed project is not expected to result in potential significant adverse impacts to land use.

ZONING

EXISTING CONDITIONS

ADP Drainage Area

The ADP drainage area is predominantly zoned for medium-density residential zoning districts, including R5 and R6 districts with commercial zoning or commercial overlay zoning along the avenues (see **Figure C-4**). R5 districts are characterized by both row-houses and larger scale development while R6 districts typically have small apartment buildings on small lots and tall, narrow buildings set back from the street on large lots. A large C7 commercial district is located in the southeastern portion of the drainage area, which covers the Coney Island Amusement area, and a C8-1 commercial district along Neptune Avenue between West 21st Street and Stillwell Avenue. The C7 zoning district is specifically designated for large, open amusement parks and enclosed entertainment facilities, and does not permit residential or community facility uses. C8-1 zones allow a range of commercial uses but are intended to be used by automotive-related uses including both sales and repair. C2-4 overlay districts, which are mapped as commercial overlays in order to meet local retail needs in residential districts, are found along Mermaid Avenue, reflecting existing commercial uses.

The drainage area includes the Special Coney Island District (SCID), which was established under the 2009 Coney Island Rezoning. The SCID is comprised of four sub-districts: Coney East, Coney West, Coney North, and Mermaid Avenue. Coney East is intended to preserve existing amusements and encourage new amusement, eating and drinking establishments and hotels. Zoning regulations in the Coney West, Coney North, and Mermaid Avenue sub-districts are intended to guide future residential and commercial development in underutilized areas. The SCID establishes density and height limits, parking requirements and bulk regulations, along with urban design requirements to preserve views of Coney Island's iconic structures and ensure that new development is consistent with neighborhood context and scale. The district also includes an Inclusionary Housing Program, which would allow an increase in the floor area of residential developments in exchange for below-market-rate housing for low, moderate and middle-income households.

Finally, the proposed project area also includes a Special Coney Island Mixed Use District north of Surf Avenue between Cropsey and Stillwell Avenues. This district (established February 2011) allows for the expansion of the residential and industrial use mix that characterizes this area.

Outfall Sites

The proposed project involves the reconstruction and enlargement of three existing outfalls at West 21st Street, West 15th Street and West 12th Street, along Coney Island Creek. The proposed West 21st Street outfall site is in a C-3 commercial district, which allows waterfront recreational activities in areas along the waterfront adjacent to residential areas. Both the proposed West 15th Street and West 12th Street outfall sites are in M1-2 manufacturing districts, which usually consist of multi-story lofts and one- or two story warehouses with light industry, such as auto storage and repair shops, and storage facilities.

Consolidated Wetland Restoration Site

The proposed project includes the design and construction of a consolidated wetland restoration plan at Calvert Vaux Park to address all permanent wetland impacts associated with the reconstruction and enlargement of three existing outfalls. The Calvert Vaux Park site is mapped parkland under the jurisdiction of DPR and therefore outside of the city zoning districts.

FUTURE WITHOUT THE PROPOSED PROJECT

ADP Drainage Area

In the future without the proposed project, it is assumed that there would not be substantive zoning changes in the drainage area. As mentioned above, portions of the drainage area were recently rezoned, including the Special Coney Island District (SCID), which was established under the 2009 Coney Island Rezoning, and a Special Coney Island Mixed Use District north of Surf Avenue between Cropsey and Stillwell Avenues. However, it is not expected that that additional rezonings would occur through the build year.

A hydraulic study completed for the Coney Island Rezoning FEIS infrastructure assessment concluded that water and sewer infrastructure improvements would be needed to ensure capacity consistent with the proposed zoning conditions. As a result, an ADP was developed and necessary sewer upgrades were identified to account for zoning conditions and provide appropriate outlets for stormwater runoff, thereby minimizing potential for flooding, and conveyance of sanitary wastewater to the wastewater treatment plant for treatment.

Outfall Sites

In the future without the proposed project, it is assumed that there would not be substantive zoning changes at the proposed outfall sites. It is possible that the EDC Stillwell Avenue RFP Site (at the site of the proposed West 15th Street outfall) may be developed in the future without the proposed project and in accordance with the current zoning; however, at this time there is no formal development proposal for the site.

Consolidated Wetland Restoration Site

In the future without the proposed project, it is assumed that there would not be substantive zoning changes at the proposed wetland restoration site (at Calvert Vaux Park) and that the benefits of the consolidated wetland restoration as part of the proposed project would not be realized.

FUTURE WITH THE PROPOSED PROJECT

ADP Drainage Area

The proposed project would include the installation of new stormwater collection sewers, the relocation and upgrade of distribution and trunk water mains, relocation of utilities, as necessary, and the relocation and upgrade of sanitary sewer lines along with the reconstruction of affected

streets. Due to the extent of the proposed project area, upland infrastructure in the ADP drainage area would be constructed as multiple capital projects over several years, with construction beginning in fall 2012. The proposed project would not require changes to existing zoning, nor would it conflict with existing zoning district regulations within the drainage area. The proposed project would be beneficial to residents and visitors by improving stormwater drainage throughout a 248-acre area of Coney Island and upgrading sanitary sewers in accordance with the ADP. Therefore, the upland infrastructure improvements associated with the proposed project are not expected to result in potential significant adverse impacts to zoning.

Outfall Sites

The proposed project involves the reconstruction and enlargement of three existing outfalls at West 21st Street, West 15th Street and West 12th, along Coney Island Creek. Due to the extent of the proposed project area, the proposed outfalls would be constructed as multiple capital projects over several years, with construction beginning in fall 2012. The proposed project would not require changes to existing zoning, nor would it conflict with existing zoning district regulations at the proposed outfall sites. The proposed project would be beneficial to residents and visitors by improving stormwater drainage throughout a 248-acre area of Coney Island and upgrading sanitary sewers in accordance with the ADP. Therefore, the three reconstructed and enlarged outfalls associated with the proposed project are not expected to result in potential significant adverse impacts to zoning.

Consolidated Wetland Restoration Site

The proposed project includes the design and construction of a consolidated wetland restoration plan at Calvert Vaux Park to address all permanent wetland impacts associated with the reconstruction and enlargement of three existing outfalls. The proposed project would not require changes to existing zoning, nor would it conflict with existing zoning district regulations at the proposed restoration site along Coney Island Creek and would be beneficial to the ecology of the creek by providing increased saltmarsh habitat and improved water quality. Therefore, the consolidated wetland restoration associated with the proposed project is not expected to result in potential significant adverse impacts to zoning.

PUBLIC POLICY

CONEY ISLAND DEVELOPMENT CORPORATION: CONEY ISLAND STRATEGIC PLAN

The Coney Island Development Corporation (CIDC) was created in September 2003 by the Mayor, the City Council, and the Brooklyn Borough President to implement a comprehensive planning process for Coney Island and institute a coordinated economic development strategy for the area. The CIDC released its Coney Island Strategic Plan in September 2005, which aims to transform Coney Island into a year-round entertainment destination, enhance the area's amusements and seaside attractions, and create a vibrant neighborhood that provides opportunities for all residents and visitors. It identifies seven distinct areas within Coney Island to enhance and foster new development:

- *Western Coney Island* (bounded by Neptune Avenue, Stillwell Avenue, Coney Island Beach, and West 37th Street, except where included in places below);
- *Surf Avenue* (from Ocean Parkway to West 37th Street);
- *Seaside Getaway* (bounded by Surf Avenue, KeySpan Park, the Boardwalk, and West 24th Street);
- *Beach and Boardwalk* (from Ocean Parkway to West 37th Street);

- *Steeplechase Plaza* (area between KeySpan Park and the Boardwalk, including Parachute Jump);
- *Amusement Area* (bounded by Surf Avenue, West 10th Street, the Boardwalk, and KeySpan Park);
- *Aquarium and Asser Levy Park* (bounded by Surf Avenue and Sea Breeze Avenue, Ocean Parkway, the Boardwalk, and West 10th Street).

The proposed project is consistent with the Coney Island Strategic Plan as it would improve stormwater drainage within the 248-acre project area and upgrade the sanitary sewer system in accordance with the ADP. Therefore, the proposed project is not expected to result in potential significant adverse impacts with respect to this public policy.

CONEY ISLAND CREEK URBAN RENEWAL AREA

Urban Renewal Areas (URA) are planned and administered by HPD and governed by an Urban Renewal Plan (URP), which defines the area's boundaries and specifies a land use plan and guidelines by which the URA sites are to be redeveloped. The Coney Island Creek URA encompasses a small area in the northern portion of the proposed project area generally bounded by Coney Island Creek to the north; Neptune Avenue to the south; Stillwell Avenue, Hart Place, and Cropsey Avenue to the east; and West 21st Street to the west. This city-funded, non-housing URA is intended to foster industrial development along the south bank of Coney Island Creek.

The proposed project is consistent with the Coney Island Creek URA because it would improve stormwater drainage within the 248-acre project area and upgrade the sanitary sewer system in accordance with the ADP, thereby supporting existing and potential future industrial and other uses in the proposed project area. It is also expected that the proposed West 15th Street outfall and the associated easement corridor at that site could be accommodated without any impact on the Coney Island URA. Therefore, the proposed project is not expected to result in potential significant adverse impacts with respect to this public policy.

CONEY ISLAND REZONING AND REDEVELOPMENT PLAN

In November 2007, DCP released the comprehensive plan and proposed rezoning for Coney Island. That plan is in accordance with the Mayor’s Strategic Plan announced in 2005 (discussed above) with the objective of making Coney Island a year-round entertainment destination with new commercial and housing development over an approximately 20-block area. The proposed project is consistent with the Coney Island Rezoning and Redevelopment Plan as it would improve stormwater drainage within the 248-acre project area and upgrade the sanitary sewer system in accordance with the ADP, thereby supporting the new development anticipated from the rezoning. Therefore, the proposed project is not expected to result in potential significant adverse impacts with respect to this policy.

NEW YORK CITY COMPREHENSIVE WATERFRONT PLAN

In March 2011, DCP released *Vision 2020: New York City Comprehensive Waterfront Plan*. An update of the 1992 Comprehensive Waterfront Plan, this plan articulates goals for the city’s waterfront and lays out strategies to achieve each goal. The proposed project would be consistent with and promote the following goals of the 2011 Comprehensive Waterfront Plan:

- Expand public access to the waterfront and waterways on public and private property for all New Yorkers and visitors alike.
- Enliven the waterfront with a range of attractive uses integrated with adjacent upland communities.

- Support economic development activity on the working waterfront.
- Improve water quality through measures that benefit natural habitats, support public recreation, and enhance waterfront and upland communities. Restore degraded natural waterfront areas, and protect wetlands and shorefront habitats.

The proposed project would not impact or conflict with any public access to the waterfront and would not impact water quality or natural resources along Coney Island Creek. Rather, the proposed project would support waterfront redevelopment in the Coney Island area of the city's waterfront, a major waterfront recreational area and public access point for the city's residents and visitors. The proposed project would also improve infrastructure that would support economic activity, jobs, and increased tax revenues on underutilized city waterfront property. Finally, the proposed project includes the design and construction of a consolidated wetland restoration plan at Calvert Vaux Park to address all permanent wetland impacts associated with the reconstruction and enlargement of three existing outfalls. This restoration would be beneficial to the ecology of the creek by providing increased saltmarsh habitat and improved water quality. Therefore, the proposed project is not expected to result in potential significant adverse impacts with respect to this policy.

WATERFRONT REVITALIZATION PROGRAM

The New York City Waterfront Revitalization Program (WRP), first adopted in 1982, encourages coordination among all levels of government to promote sound waterfront planning and requires consideration of the program's goals in making land use decisions. DCP administers the program, which is designed to balance economic development and preservation by promoting waterfront revitalization and water-dependent uses while protecting fish and wildlife, open space and scenic areas, public access to the shoreline, and farmland, and to minimize adverse changes to ecological systems and erosion and flood hazards.

Because the proposed project is located within the city's coastal zone, it is subject to review under the city's WRP. Therefore, this section reviews the applicable WRP policies and assesses the consistency of the proposed project with the applicable WRP policies. A completed WRP Consistency Assessment Form is also provided (see Appendix A).

As described in greater detail below, the proposed project is consistent with the city's WRP, especially with respect to policies that address infrastructure and development in the coastal zone, protection and restoration of coastal ecosystems (e.g., wetlands), protection of water quality, and minimizing coastal flooding and erosion impacts.

The proposed project would be consistent with and promote the following WRP Policies:

Policy 1: Support and facilitate commercial and residential redevelopment in areas well-suited to such development.

> The proposed project would not directly result in any new residential or commercial uses or redevelopment, nor would it induce any new development through the installation of new infrastructure. Installation of the proposed infrastructure would support existing commercial and residential development in the coastal zone as it would improve stormwater drainage within the 248-acre project area and upgrade the sanitary sewer system in accordance with the ADP. The proposed project would also support new residential and commercial development anticipated to result from the Coney Island Rezoning. Therefore, the proposed project would not result in potential significant adverse impacts to commercial and residential development and is consistent with this policy.

Policy 4: Protect and restore the quality and function of ecological systems within the New York City coastal area.

The proposed project would not adversely affect any vulnerable plant, fish, or wildlife species, rare ecological communities, or living aquatic resources. As described under "Natural Resources" and "Construction Impacts", baseline water quality conditions would not be significantly changed and water quality impacts would be negligible. The proposed project also includes a consolidated wetland restoration plan to address the permanent impacts associated with the reconstruction and enlargement of each outfall. The proposed consolidated wetland restoration would be beneficial to the ecology of Coney Island Creek by providing increased saltmarsh habitat and improved water quality. In order to avoid impacts due to construction-period activity, the proposed project includes measures to protect tidal wetlands from impacts during construction and to restore affected areas following construction (see "Construction Impacts"). Therefore, the proposed project would not result in potential significant adverse impacts on ecological systems and is consistent with this policy.

Policy 5: Protect and improve water quality in the New York City coastal area.

The proposed project would not have significant adverse impacts on local water quality during operation or construction of the three proposed outfalls and related upland infrastructure improvements. The proposed project would manage any direct or indirect discharges to waterbodies during construction through a Stormwater Pollution Prevention Plan (SWPPP) (see "Construction Impacts") and would not adversely impact water quality during operation (see "Natural Resources"). Therefore the proposed project would not result in potential significant adverse impacts and is consistent with this policy.

Policy 6: Minimize loss of life, structures, and natural resources caused by flooding and erosion.

The proposed project would improve stormwater drainage within the 248-acre project area and upgrade the sanitary sewer system in accordance with the ADP. All construction activities would be performed in accordance with NYSDEC's technical standards for erosion and sediment control (e.g. use of silt fences, hay bales, and containment booms) that would be implemented in accordance with a SWPPP in order to minimize potential erosion impacts. With these measures in place, no significant erosion impacts are expected. Therefore, the proposed project would not result in potential significant adverse impacts and is consistent with this policy.

PLANYC

In April 2007, the Mayor's Office of Long Term Planning and Sustainability released *PlaNYC: A Greener, Greater New York*. The plan includes policies to address a number of key challenges facing the city over the next twenty years including population growth; aging infrastructure; and global climate change. PlaNYC also sets forth a number of goals related to housing and redevelopment that seek to create new housing for almost a million more New Yorkers, while making it more affordable and sustainable. PlaNYC also identifies continued upgrade of the city's infrastructure, including strategies to reduce stormwater flows into the sewer system and preserving natural areas so that waterways can be used for recreation. The proposed project is consistent with PlaNYC as it would improve stormwater drainage within the 248-acre project area and upgrade the sanitary sewer system in accordance with the ADP without impacting water quality or natural resources, and would support growth and redevelopment, along with new housing. Therefore, the proposed project is not expected to result in potential significant adverse impacts with respect to this policy.

CONCLUSION

The proposed project would not displace or conflict with local land uses, nor would it require changes to existing zoning, or conflict with existing zoning district regulations. It would also be consistent with applicable public policies mentioned above. The proposed project would be beneficial to residents and visitors by improving stormwater drainage throughout a 248-acre area of Coney Island and upgrading sanitary sewers in accordance with the ADP. Therefore, the proposed project is not expected to result in potential significant adverse impacts on land use, zoning and public policy.

B.2 SOCIOECONOMIC CONDITIONS

Socioeconomic character is defined by elements such as the population, housing and economic activity of an area. In addition to determining whether a proposed project would directly or indirectly displace residents or businesses, the objective of the CEQR socioeconomic analysis is to disclose whether any changes created by the proposed project would have a significant impact on land use patterns, low-income populations, the availability of goods and services, or economic investment in a way that changes the socioeconomic character of the area. The proposed project would not result in any new development or conflict with existing uses in the proposed project area, nor would it generate new employees, or new residential or commercial uses. Moreover, the proposed project would not directly or indirectly displace any residential populations, businesses, institutions, or employees. Finally, the proposed project would be beneficial to residents and visitors by improving stormwater drainage throughout a 248-acre area of Coney Island and upgrading sanitary sewers in accordance with the ADP. Therefore, the proposed project is not expected to result in potential significant adverse impacts on socioeconomic conditions.

B.3 COMMUNITY FACILITIES AND SERVICES

The *CEQR Technical Manual* (2012) specifies that a community facilities analysis is needed if the potential exists for a project to have a direct or indirect effect on any community facilities. The proposed project would not directly or significantly increase the demand on services, affect any community facilities, nor would it generate any demands for community services. The proposed project would be beneficial to residents and visitors by improving stormwater drainage throughout a 248-acre area of Coney Island and upgrading sanitary sewers in accordance with the ADP. Therefore, the proposed project is not expected to result in potential significant adverse impacts on community facilities and services.

B.4 OPEN SPACE

An analysis of open space is conducted to determine whether or not a proposed project will have a direct or indirect impact to open space, as defined in the *CEQR Technical Manual* (2012). It also recommends a detailed open space assessment if a proposed project would add 200 residents or 500 employees to an area, or if a proposal would have a direct impact on an open space. The proposed project would not introduce new residents or employees to the proposed project area, nor would it directly or indirectly impact any open space. There are a number of open spaces throughout the proposed project area including city-owned parkland within the Coney Island Amusement area as well as the Coney Island Beach and Boardwalk. However, there is no public parkland adjacent to any of the three proposed outfall sites (the proposed West 21st Street site is separated by Coney Island Creek from Coney Island Boat Basin Park, which is located on the north side of the creek). The proposed upland infrastructure improvements would be below grade and would not have any direct or indirect impacts on these resources. In addition,

installation of the proposed infrastructure is not expected to result in any adverse impacts during construction (see also "Construction Impacts" below). The proposed project would not have any direct or indirect impacts on parkland and would be beneficial to residents and visitors by improving stormwater drainage throughout a 248-acre area of Coney Island and upgrading sanitary sewers in accordance with the ADP. Therefore, the proposed project is not expected to result in potential significant adverse impacts to open space.

B.5 SHADOWS

The *CEQR Technical Manual* (2012) states that an assessment of shadows is generally necessary only for projects that would result in new structures or additions to existing structures of at least 50 feet in height. The proposed project would not result in any structures 50 feet in height or greater, nor would it result in any new shadows. Therefore, the proposed project is not expected to result in potential significant adverse from shadows.

B.6 HISTORIC RESOURCES

According to the *CEQR Technical Manual* (2012) a historic resources assessment is required if there is the potential to affect either archaeological or architectural resources. Projects that could affect archaeological resources and that typically require an archaeological assessment are those that involve ground disturbance, or below-ground construction and excavation in archaeologically sensitive areas. Projects that trigger an historic architectural resources assessment include new construction, demolition, or significant alteration to any historic building, structure, or object; a change in scale, visual prominence, or visual context of any historic building, structure, or object or landscape feature; construction, including but not limited to excavation, vibration, subsidence, dewatering, and the possibility of falling objects within the vicinity of a historic structure; additions to or significant removal, grading, or replanting of significant historic landscape features; screening or elimination of publicly accessible views of a historic structure; and the introduction of significant new shadows or significant lengthening of the duration of existing shadows over a historic landscape or on a historic structure with sunlight-dependent features. The assessment of potential impacts to archaeological and historic architectural resources is presented below.

ARCHAEOLOGICAL RESOURCES

The New York City Landmarks Preservation Commission (LPC) provided a technical review memorandum dated July 15, 2011 stating that the lots in the proposed project area, including the lots of the proposed outfalls (Block 6992, Lot 8901; Block 6997, Lot 158; and Block 7247, Lot 125), are not archeologically significant. Therefore, the proposed project would not result in potential significant adverse impacts to archaeological resources.

ARCHITECTURAL RESOURCES

There are a limited number of designated or potential historic architectural resources within the proposed project area, though none within 400 feet of the three proposed outfall sites. Resources that have been identified by LPC (correspondence dated July 19, 2011) elsewhere within the proposed project area include the Coney Island Pumping Station (Neptune Avenue); the Shore Theater and the Childs Building (Surf Avenue); and the Cyclone, Wonderwheel and Parachute Jump (near the Boardwalk). None of these resources would be affected by the proposed project. The proposed upland infrastructure improvements would be below grade and would not have any direct or indirect impacts on these resources. In addition, installation of the proposed infrastructure is not expected to result in any adverse impacts during construction (see also "Construction Impacts" below). The proposed project would be beneficial to residents and visitors

by improving stormwater drainage throughout a 248-acre area of Coney Island and upgrading sanitary sewers in accordance with the ADP. Therefore, the proposed project is not expected to result in any potential significant adverse impacts on historic architectural resources.

B.7 URBAN DESIGN AND VISUAL RESOURCES

The *CEQR Technical Manual* (2012) states that an assessment of potential impacts to urban design and visual resources is appropriate if a proposed project would result in structures that are substantially different in height, bulk, form, setbacks, size, scale, use, or arrangement from those that already exist in the proposed project area; or if a proposal would alter the form, arrangement, or use of blocks and streets that may then interrupt the general pattern of an area or jeopardize the consistency of street walls, curb cuts, pedestrian flow, or other streetscape elements. A visual resources assessment may also be appropriate when above-ground construction would limit or alter existing view corridors.

In addition to the three proposed outfalls, the proposed project would include the installation of new below-grade stormwater collection sewers, relocation and upgrade of distribution and trunk water mains, relocation of utilities, as necessary, relocation and upgrade of sanitary sewer lines and reconstruction of affected streets. With the exception of the outfall headwalls, the proposed sewers and related upland infrastructure improvements would be buried and not visible. The proposed headwalls along Coney Island Creek would be reconstructed and only partially visible in an area that is largely a developed industrial setting. There are also few, if any, public vantage points to the outfall location and the outfalls would be largely obscured.

Because sizable infrastructure would be installed in existing streets, it is expected that the proposed project would require the removal or pruning of street trees along sidewalks and street edges. Densities of street trees within the proposed project area are not uniform, as local streets tend to have more trees than the avenues, with densities varying even among certain streets (e.g., West 15th Street and West 20th Street have more trees than others). Every effort would be made to protect and replace street trees in their current location. In the case where street trees could not be replaced in their exact current location due to potential damage to DEP infrastructure, DEP would coordinate with DPR to identify the optimal location to plant replacement street trees. None of the proposed infrastructure improvements would change the form or arrangement of blocks, and the design of the street, sidewalks, and any streetscape elements to be reconstructed would be consistent with the existing urban design and visual resource pattern in the area. The proposed project would be beneficial to residents and visitors by improving stormwater drainage throughout a 248-acre area of Coney Island and upgrading sanitary sewers in accordance with the ADP. Therefore, the proposed project is not expected to result in potential significant adverse impacts to urban design or visual character.

B.8 NATURAL RESOURCES

INTRODUCTION

The proposed project involves the reconstruction and enlargement of three existing outfalls, the installation of new stormwater collection sewers, the relocation and upgrade of distribution and trunk water mains, and the relocation and upgrade of sanitary sewer lines along with the reconstruction of affected streets. Due to the drainage area's flat topography, the proposed stormwater collection sewers are wide and shallow, and therefore require the relocation of sanitary lines and water mains within certain segments of built streets.

The proposed project would also include the restoration of tidal wetlands to address permanent impacts. All three of the proposed outfall headwalls lie within littoral zone (LZ) tidal wetlands as designated by NYSDEC and are mapped by the by the National Wetlands Inventory (NWI) as

estuarine and deepwater habitats (E1UBL). Therefore, the proposed project requires federal and state permits and approvals; specifically, water quality certification under the Clean Water Act and authorization for construction within wetlands and waters of the United States.

The objectives of this assessment are to:

- Describe existing natural resources (i.e., wetlands, floodplains, terrestrial resources, water quality, aquatic biota, vegetation, wildlife, and threatened or endangered species) at the proposed outfall sites and in the ADP upland areas (i.e. tree surveys), and water quality within Coney Island Creek;
- Project natural resource conditions in the future without the proposed project; and
- Assess the potential effects to natural resources in the future with the proposed project.

METHODOLOGY

Potential impacts to natural resources from the proposed project were assessed based on existing conditions, site surveys, and existing literature research. For the purposes of this impact assessment, a 400-foot study area was delineated around each proposed outfall site, which was evaluated as part of the natural resources investigation (see **Figures C-5a**, **C-5b,** and **C-5c**). Land within 400 feet of the upland portions of the ADP area was also evaluated, which is similarly built streets developed with residential uses (including higher density residential uses) and commercial uses along the avenues (e.g. Surf, Mermaid, Neptune Avenues). To the south of the proposed project area, but within 400 feet, is the Coney Island Beach, which is actively used for recreation in the summer months (see **Figure C-3**).

In order to document existing conditions, a field visit to each location was conducted on March 18, 2011 and on September 21, 2011. In addition, a street tree survey along the proposed sewer corridors was conducted on October 16 and October 25, 2011. During these field investigations, ecological communities were surveyed at the proposed outfall sites, including documentation of existing species of flora and fauna. Existing conditions at the proposed outfall sites were also summarized from a literature and map review which included:

United States Geological Survey (USGS)—Topographic map for the Coney Island quadrangle;

- NYSDEC — Breeding Bird Atlas, Tidal Wetlands Maps, Amphibian and Reptile Atlas Project;
- Federal Emergency Management Agency (FEMA) — Flood Insurance maps (2007);
- United States Fish and Wildlife Service (USFWS) — National Wetland Inventory (NWI) maps and species listed under Section 7(a)(2) of the Endangered Species Act (ESA) for Kings County, NY.
- Ecological Communities of New York State (Reschke (1990), Edinger et al. (2002));
- National Oceanic Atmospheric Administration (NOAA) National Marine Fisheries Service (NMFS) Essential Fish Habitat (EFH); and
- Responses to requests for information on rare, threatened and endangered species or special habitats within the vicinity of the study area. These requests were submitted to NMFS and the New York Natural Heritage Program (NYNHP).
- Water quality analyses as analyzed in the *Water Quality Impact Assessment of the Coney Island Amended Drainage Plan Project* (HDR/Hydroqual, September 2011).

The future conditions without the proposed project were assessed by considering existing natural resources within the proposed project area, and assessing potential effects to these resources

from projects proposed within and adjacent to the proposed project area that are expected to occur independent of the proposed project.

EXISTING CONDITIONS

FLOODPLAINS

Figure C-9 presents the 100-year and 500-year floodplain boundaries for the proposed project area. As shown in the figure, the majority of the proposed project area is within either the 100-year or 500-year floodplain. The 100-year floodplain is the area with a 1 percent chance of flooding each year, and the 500-year floodplain is the area with a 0.2 percent chance of flooding each year. In all cases, the proposed outfall sites are within the 100-year floodplain.

New York City is affected by local flooding (i.e., flooding of inland portions of the city from short-term, high-intensity rain events in areas with poor drainage), fluvial flooding (i.e., when rivers and streams overflow their banks), and coastal flooding (i.e., long and short wave surges that affect the shores of the Atlantic Ocean, and waterbodies such as Gravesend Bay) and tidal flooding along tidally influenced rivers, streams, and inlets (FEMA 2007). Flooding within the proposed project area is the result of coastal flooding, which is caused by astronomic tides and meteorological forces (e.g., northeasters and hurricanes FEMA 2007).

WETLANDS

As shown in **Figure C-10**, NYSDEC has mapped Coney Island Creek as littoral zone (LZ) tidal wetlands in the vicinity of the proposed outfall sites. The LZ is "the tidal wetland zone that includes all lands under tidal waters which are not included in any other category. There shall be no LZ under waters deeper than six feet at mean low water." Pockets of NYSDEC-mapped coastal shoals are present within the creek. Coastal shoals are defined as "[t]he tidal wetland zone that at high tide is covered by saline or fresh tidal waters, at low tide is exposed or is covered by water to a maximum depth of approximately one foot, and is not vegetated" (New York State Tidal Wetlands Inventory, NYSDEC, 1976).

With respect to NWI wetlands, Coney Island Creek is mapped as estuarine subtidal waters with an unconsolidated bottom with a subtidal water regime (E1UBL) (see **Figure C-11**). This wetland type includes wetlands and deepwater habitats with at least 25 percent cover of particles smaller than stones (less than 6 to 7 cm) and a vegetative cover of less than 30 percent. The substrate is permanently flooded with tidal water.

Site specific wetlands observations are described below.

West 21st Street Outfall Site

The proposed West 21st Street outfall site contains a dilapidated timber bulkhead with sections that are missing in some locations (see **Figures C-12**, **C-13** and **C-14**). Where the bulkhead is missing, the shoreline is severely eroded, and concrete and demolition materials within the substrates of the upland portion of the site are exposed. A 13-foot by 7.5-foot wide egg-shaped outfall capped with concrete and riprap protrudes into the creek. A there is a section of steel adjacent to outfall, but much of the shoreline is deteriorated timber bulkhead, riprap, or eroding shoreline. Extensive debris including a motor boat, timber dock sections, and vehicles are present in the creek. Hydrophytic vegetation is limited to marsh elder and a patch of common reed (*Phragmites australis*), which are both present along the upper portion of the eroding bank, but there is no intertidal vegetation near the outfall.

On the north side of the creek, wetlands were restored as part of a commercial development. This included the removal of bulkheads, debris, floating docks, and pile supports. Stone riprap

was placed along the toe of the slope in re-graded areas to prevent erosion and then planted with predominately native trees, shrubs, and herbaceous plants (Allee King Rosen and Fleming, Inc. et al. 1999). Bayberry (*Myrica* sp.), beach plum (*Prunus maritima*), and switchgrass were observed in the intertidal areas of the study area during the March 18, 2011 field investigation.

West 15th Street Outfall Site

The shoreline of the creek along the proposed West 15th Street outfall site is comprised primarily of sand, stone, gravel, and remnants of asphalt and concrete debris (see **Figures C-15, C-16** and **C-17**). There is limited invasive vegetation and the shoreline is characterized by a narrow (approximately10 to 15 feet), steep, eroding bank that meets the creek where water depths at mean high water MHW are approximately 3 feet (NOAA 2009). There is an existing 54-inch storm sewer outfall immediately to the west of the proposed outfall site.

The northern bank of the creek is similar to the southern shoreline, with a narrow, steep, vegetated, eroding bank. There is also a large combined sewer overflow outfall and there is currently construction activity on the adjacent upland that appears to be associated with improvements to the Belt Parkway.

West 12th Street Outfall Site

The shoreline of the creek at this outfall site consists of sand, stone, gravel, and remnants of asphalt and concrete, and demolition debris (see **Figures C-18, C-19** and **C-20**). An existing timber bulkhead and outfall structure is present at the site (see **Figure C-20**), which is flanked by a newly resurfaced parking lot located to the east with riprap and a narrow strip of shoreline to the west. The narrow shoreline to the east of the outfall is comprised of sand, gravel, and stone with a few small patches (less than one square foot) of salt marsh cordgrass (*Spartina alterniflora*). The shoreline to the west of the outfall consists of bare substrates with small patches of salt marsh cordgrass located near the periphery of the proposed project area, though none are within the immediate vicinity of the existing outfall. Household litter was also observed in the vicinity of the MHW line.

As mentioned below under "Hazardous Materials," the Former Brooklyn Borough Gas Works (BBGW) remediation site is located on the northern bank of the Creek within the proposed project area. As part of the remediation, an "ecological buffer zone" was established along the northern Coney Island Creek shoreline following the removal of 60,000 cubic yards of contaminated sediment and backfilling with sediment-quality material within the creek bed. (This restoration is within the National Grid site.) This 50-foot-wide ecological buffer zone was designed to act as a transition area between the riparian zone of the creek and the upland portions of the former BBGW site (Stevenson Environmental Services, Inc. 2011). Following soil remediation within the creek, the wetlands and ecological buffer zone were planted with tidal emergent and transitional wetland species (Enviroscapes, 2011) including 106,900 square feet of erosion control blanket seeded with 100 percent switchgrass (*Panicum virgatum*). Observations of this remediation site, recorded from the West 12th Street outfall site during the September 2011 site visit, show that there is a dense swath of cordgrass along the shoreline with switchgrass dominant within the transition zone located slightly upslope.

TERRESTRIAL RESOURCES

The ecological community observed along the proposed sewer corridors would be described by Edinger et al. as, "Paved road/path: a road or pathway that is paved with asphalt, concrete, brick, stone, etc." which may include"…Sparse vegetation rooted in cracks in the paved surface." As part of the October 2011 field visits, a street tree survey was conducted along the proposed

sewer corridors. Each tree species and size was recorded and is provided in Appendix B. Site-specific terrestrial resources observations for each of the outfall sites are described below.

West 21st Street Outfall Site

The proposed West 21st Street outfall site is a vacant lot surrounded by an approximately10 foot-high chain link fence bordering the creek. This community is best described as an urban vacant lot as defined by Edinger et al. 2002. Bank erosion along the creek has resulted in soil slumping within portions of the site. Vegetation coverage is limited to the herbaceous layer with mugwort as the dominant species, along with asters (*Symphyotrichum* sp.), goldenrods (*Solidago* spp.), and common reed (*Phragmites australis*) present in smaller numbers.

The northern portion of the proposed project area, opposite the creek from the proposed outfall site, is comprised of buildings, parking lots, a walking path, and a vegetated buffer along the creek (see **Figures C-12, C-13** and **C-14**). As described above, this vegetated area was restored as part of a mitigation project for a commercial development, which included debris removal, site re-grading, and planting predominately native plant species. Species observed in the upland portions of this site during the March 2011 site investigation include American holly (*Ilex opaca*), eastern red cedar (*Juniperus virginiana*), black cherry (*Prunus serotina*), sumac (*Sumac* sp.), and white birch (*Betula* sp.).

West 15th Street Outfall Site

The upland adjacent to the proposed West 15th Street outfall site is a gravel parking lot. The creek shoreline is characterized by a steep embankment. Vegetation along the shoreline is limited to small trees (less than 6 inches diameter at breast height (DBH)) and saplings, and common herbaceous species tolerant of disturbance. Small trees and saplings include black locust, tree-of-heaven, mulberry (*Morus alba*), box elder (*Acer negundo*), and cherry (Prunus sp.) with a small amount of marsh elder and bush honeysuckle (*Lonicera* sp.) are scattered along the creek bank. Mugwort, daisy fleabane (*Erigeron strigosus*), Canadian horseweed (*Conyza canadensis*), biennial wormwood (*Artemisia biennis*) with pockets of dense Asiatic bittersweet (*Celastrus orbiculatus*), Japanese honeysuckle (*Lonicera japonica*), and Virginia creeper (*Parthenocissus quinquefolia*) are present in the herbaceous layer.

The proposed project area on both sides of the creek consists primarily of impervious surfaces and structural shoreline conditions associated with buildings, parking lots, and roadways. Portions of the uplands on the northern embankment were under active disturbance during the March 2011 field investigation (see **Figure C-16**). As shown in **Figures C-16** and **C-17**, areas outside of the disturbed area contain a narrow vegetative buffer with limited coverage of trees, shrubs, and herbaceous species. Overall, the terrestrial communities of this area are of low ecological value.

West 12th Street Outfall

As discussed above, the proposed West 12th Street outfall site consists of a recently resurfaced parking lot at street level with an existing outfall at the Coney Island Creek waterline. This ecological community would be described as a paved road path community by Edinger et al. 2002. Natural areas at the outfall site are limited to a narrow strip of sandy intertidal shoreline located to the east and west of the existing outfall that is backed by surface parking and other structures (see **Figures C-19** and **C-20**). Vegetation is sparse, with areas of exposed soil, rubble and other debris. Vegetation within the site is limited to common urban species. Black locust (*Robinia pseudoacacia*) seedlings (with a few less than 8-inch DBH black locust trees) and mugwort (*Artemesia vulgaris*) are the dominant species. Tree-of-heaven (*Ailanthus altissima*)

and catalpa seedlings are scattered throughout this area. Overall, the community has been subject to substantial human disturbance and is of low ecological value.

The southern waterfront of Coney Island Creek is primarily covered with impervious surfaces associated with buildings, parking lots, and roadways. The northern waterfront opposite the creek from the existing outfall includes the 16-acre former BBGW remediation site. As part of this remediation, approximately 16 acres of upland were seeded with a variety of grasses including 50 percent turf type tall fescue (*Festuca* sp.), 25 percent Kentucky bluegrass (*Poa sp*.), and 25 percent perennial rye grass (*Lolium* sp.) (Enviroscapes, Inc. 2011).

WILDLIFE

Birds

The New York State Breeding Bird Atlas is an ongoing project to document the presence of avian breeders throughout the state. The Coney Island area, including the proposed project area, is located in block 5849C. Natural areas within this block include the 85-acre Calvert Vaux Park, 26-acre Kaiser Park, Coney Island Creek Park, Coney Island Boat Basin, and 16-acre former BBGW site located across from the West 12th Street outfall site. Between 2000 and 2005, the New York State Breeding Bird Atlas recorded 20 species of potentially breeding birds within block 5849C. **Table B-2** lists the breeding bird species with the potential to occur in the proposed project area.

Table B-2
New York State Breeding Bird Data (2000-2005) for Block 5849C

Common Name	Scientific Name
Mallard*	*Anas platyrhynchos*
Ring-necked Pheasant	*Phasianus colchicus*
American Kestrel	*Falco sparverius*
Killdeer	*Charadrius vociferous*
Rock Pigeon	*Columba livia*
Mourning Dove	*Zenaida macroura*
Downy Woodpecker	*Picoides pubescens*
American Crow	*Corvus brachyrhynchos*
Fish Crow	*Corvus ossifragus*
Barn Swallow	*Hirundo rustica*
American Robin	*Turdus migratorius*
Gray Catbird	*Dumetella carolinensis*
Northern Mockingbird	*Mimus polyglottos*
European Starling	*Sturnus vulgaris*
Yellow Warbler	*Dendroica petechia*
Song Sparrow	*Melospiza melodia*
Northern Cardinal	*Cardinalis cardinalis*
Red-winged Blackbird	*Agelaius phoeniceus*
House Finch	*Carpodacus mexicanus*
House Sparrow*	*Passer domesticus*

Notes: (*) observed at one or more sites during the March 18, 2011 field investigation.
Sources: NYS Breeding Bird Atlas Block 5849C (2000-2005).

In addition to breeding birds, common urban-adapted passerine species would be expected to occur within the terrestrial habitats present in the proposed project area throughout the year (i.e., European starling [*Sturnus vulgaris*], house sparrow [*Passer domesticus*], house finch [*Carpodacus mexicanus*], and rock pigeon [*Columba livia*]). Due to the extensive marine waters downstream from the proposed outfall sites, and their proximity to extensive open water and marsh habitats within Jamaica Bay to the east, several species of waterfowl and shorebirds would also be expected to occur near the shoreline of the proposed outfall sites during migratory and wintering periods (i.e., Atlantic brant [*Branta bernicla*], bufflehead [*Bucephala albeola*], lesser scaup [*Aythya affinis*], red-breasted merganser [*Mergus serrator*]).

Birds observed along the shoreline of the proposed project area include Canada goose (*Branta canadensis*) and herring gull (*Larus argentatus*), some of which were perched on abandoned pier structures located in the Coney Island Creek by the proposed West 21st Street outfall site. In addition, house sparrow and mallard (*Anas platyrhynchos*) were observed at the proposed West 15th and West 21st Street outfall sites, respectively. The urban uses and the limited amount of shoreline within this area would not provide suitable forage and nesting habitat for waterbirds. However, the shoreline along the proposed West 12th and West 21st Street outfall sites and the parks in the vicinity of Coney Island Creek have the potential to provide suitable forage and nesting habitat for waterbirds.

Mammals

Mammals with the potential to occur at the proposed outfall sites are expected to be typical urban species with a high tolerance for human disturbance, and would not be dependent upon habitats specific to the proposed outfall sites. Terrestrial areas of the proposed outfall sites are limited in size and would not be likely to support mammals other than small rodents (i.e., house mouse, Norway rat) and muskrat (*Ondatra zibethicus*), which could occur along the shoreline and aquatic habitats at each of the proposed outfall sites. No mammals were observed during the site investigations, nor were any muskrat dens visible at the proposed outfall sites.

Reptiles and Amphibians

The NYSDEC Amphibian and Reptile Atlas Project conducted a survey between 1990 and 1999 documenting the geographic distribution of New York's reptiles (i.e., turtles, snakes, lizards) and amphibians (i.e., frogs, toads, and salamanders). However, based on the urban and disturbed character of the ecological communities described above and the lack of breeding habitat (i.e., freshwater depressions and freshwater waterbodies), no reptiles or amphibians dependent on freshwater habitats are expected to occur at the proposed outfall sites. In addition, although the proposed outfall sites are located in close proximity to marine waters, the level of human use, disturbance, and lack of sandy habitats on and adjacent to the proposed outfall sites makes them unsuitable for eastern diamondback terrapin (*Malaclemys terrapin*) nesting activity. Thus, no reptiles or amphibians are expected to occur within the proposed project area.

Insects

The characteristics of insect communities are influenced by the presence of plants or plant communities, habitat complexity and microhabitat characteristics that result in subtle differences in biotic and physical conditions of the environment (Gullen and Cranston 2005). Due to the urban character of the proposed project area, and the relative lack of plant species coverage and diversity, insect diversity is expected to be commensurate with the existing plant populations. Although occasional use by common beneficial insects (i.e., bumblebees and honeybees) and/or highly visible migratory species (i.e., monarch [*Danaus plexippus*], mourning cloak [*Nymphalis antiopa*], red admiral [*Vanessa atalanta*], and question mark [*Polygonia interrogationis*]

butterflies) is possible, it is likely that the majority of the insect species with the potential to occur at the proposed outfall sites would be common to open, disturbed areas such as vacant lots, fields, railroad beds, and roadsides, similar to the ecological community at the proposed West 21st Street outfall site. Species known to occur within Kings County with the potential to occur at the proposed West 21st Street site include the common sootywing (*Pholisora catullus*), wild indigo duskywing (*Erynnis baptisiae*), cabbage white (*Pieris rapae*), cecropia silkmoth (*Hyalophora cecropia*) (Opler 2006) and the common bumblebee (*Bombus impatiens*). Although these species would also have the potential to occur at the proposed West 12th and West 15th street outfall sites, they would likely be restricted to transients due to the limited availability of vegetated habitats.

AQUATIC RESOURCES

Water Quality

Title 6 of the NYCRR Part 703 includes surface water standards for each Use Class of New York surface waters. Coney Island Creek has Use Classification I saline surface waters. The best uses for Class I waters are for primary and secondary contact recreation. Water quality should be suitable for fish propagation and survival. Standards for I waters are listed in **Table B-3**.

Table B-3:
New York State Water Quality Standards for Use Class I

Parameter	I
Fecal Coliform (per 100mL)	Monthly geometric mean shall not exceed ≤ 2,000 Colonies/100mL from 5 or more samples.
Total Coliform (per 100mL)	Monthly geometric mean shall not exceed ≤ 10,000 colonies/100 milliliters (mL) from 5 or more samples
Dissolved Oxygen (DO) (mg/L)	≥4.0 mg/L
pH	Normal range shall not be extended by more than 0.1 of a pH unit.
Source: NYSDEC, 1999.	

The City of New York has monitored New York Harbor water quality for over 90 years through its Harbor Survey Program. NYCDEP evaluates surface water quality of four designated regions: Inner Harbor Area, Upper East River-Western Long Island Sound, Lower New York Bay-Raritan Bay, and Jamaica Bay. The proposed outfall sites are located in the Lower New York Bay-Raritan Bay monitoring region (NYCDEP 2004).

Data from the Harbor Survey indicate that water quality has improved significantly throughout the NY/NJ Harbor Estuary since the 1970s as a result of construction, upgrades, and operational improvements to regional treatment plants. All of the city's treatment plants have been upgraded to include secondary treatment. Water quality improvements include reductions in fecal and total coliform concentrations and significant increases in DO concentrations. The presence of coliform bacteria in surface waters indicates potential health impacts from human or animal waste. Elevated levels of coliform can result in the closing of bathing beaches and shellfish beds.

The concentration of DO in the water column is a universal indicator of overall water quality health and aquatic viability. Sufficient levels of oxygen are needed for the survival of marine life

and for preventing nuisance conditions, such as hydrogen sulfide odors produced from the anaerobic decay of organic material in sediments. Oxygen concentrations in coastal waters depend on a variety of interrelated chemical, physical, and biological factors, such as salinity, temperature, photosynthesis, and respiration. Hypoxic conditions (DO < 3.0 mg/L), which can severely stress or kill aquatic organisms, are often common in the New York region.

High levels of nutrients (ammonia, nitrates/nitrites) can lead to excessive plant growth (a sign of eutrophication) and depletion of DO. Concentrations of the plant pigment chlorophyll-*a* in water can be used to estimate productivity and the abundance of phytoplankton. Chlorophyll-*a* concentrations greater than 20 micrograms per liter (µg/L) are considered suggestive of eutrophic conditions.

Coney Island Creek is a marine waterbody that is about 2 miles long and 900 feet wide at its mouth and 150 feet wide at the head. It receives inputs from a large combined sewer outfall and 10 other separate stormwater outfalls. Data on the aquatic conditions are available from a number of sampling programs that were undertaken to determine the baseline conditions in the Creek as part of an overall examination of the potential effects of combined sewer overflow (CSO) abatement and other water quality improvement studies for this waterway. It is the summary conclusion of these studies that Coney Island Creek is a highly stressed waterbody. This is the result of a number of factors including its industrial history, the impacts of urban development along the shoreline and throughout the watershed, and CSO and urban runoff discharges. The configuration of the creek, particularly in its narrow and shallow headwater reach, also exacerbates poor water quality conditions due to restricted water exchange with Lower New York Bay (DEP 2007c) and the outlet of the Creek at Gravesend Bay.

Coney Island Creek is identified on New York State's Final 2007 Section 303(d) list of impaired waters (DEC 2007b). The 303(d) list identifies waters that do not support their appropriate uses (in this case Class I). This list requires development of a Total Maximum Daily Load (TMDL) for pollutants or other restoration strategies to reduce the input of the specific pollutant(s) that restrict water body uses and to restore and protect such uses. In September 2008, DEP released the Coney Island Creek Waterbody/Watershed Facility Plan (WWFP) report, which summarized the ecological conditions in the creek and methods for abating CSO impacts on the creek, including the Avenue V pumping Station and Force Main, currently under construction. The WWFP built upon initiatives that were first identified in the Coney Island Creek CSO Facility Planning Project (1993) and the Modified CSO Planning Report (April 2003), among other studies completed over prior decades.

Temperature, Salinity and Dissolved Oxygen

Average surface water temperatures in Coney Island Creek range from 23.0 to 23.5°C (73.4 to 74.3°F, Hydroqual 2004). Salinity concentrations at various monitoring stations also range from 12.9 to 22.8 parts per thousand (ppt). This wide range in salinity is a result of the substantial and varied runoff sources discharging to the creek, including the existing outfalls, as well as salinity inputs, which are limited to tidal exchange with Lower New York Bay. These sources result in an overall lower salinity value in Coney Island Creek as compared to salinity levels within Lower New York Bay. (Coney Island Creek receives nearly 290 million gallons per year of CSO discharge and another 1,486 million gallons per year of urban stormwater (DEP 2007).

DO data sets that have been compiled for the creek, including data collected for the 1993 Coney Island CSO Facility Plan, show that DO concentrations are particularly impaired in the headwaters. The 2004 data set show that nearly all of the sampled DO concentrations at the head of the creek were below the 4.0 mg/L standard. These exceedances of the standard diminish

toward the middle of the creek. The mouth of the creek, near Gravesend Bay, was generally above the standard with the exception of the influences of wet weather events.

Coliform

The presence of coliform bacteria in surface waters indicates potential health impacts from human or animal waste, and elevated levels of coliform can result in the closing of bathing beaches and shellfish beds. Based on 2004 data (Hydroqual), mean fecal coliform levels did often meet Class I use standards at the mouth of Coney Island Creek. However, both dry-weather and wet-weather mean fecal coliform data, collected from the mid/inner segments of the Creek, indicate that water quality in Coney Island Creek is severely impaired for fecal coliform. Sampling identified fecal coliform bacteria levels as high as 88,000 colonies/100 mg/L during wet-weather sampling. In addition, dry-weather fecal coliform levels are also reported to be high (NYCDEP 2007d).

Sediment Quality

Sediments in the New York Harbor Estuary often contain evidence of contamination due to the developed density and industrial history of the region. Although sediment quality also appears to have improved in recent decades, pockets of highly contaminated sediment persist, particularly in historically contaminated areas that experience less water exchange with open waters. As part of a 1993 Coney Island Creek CSO Facility Planning Project, sediment samples were collected from eight stations for analysis of United States Environmental Protection Agency (USEPA)-designated priority pollutants. Eleven of the 13 priority pollutant metals, 11 priority pollutant organic compounds, (10 of which were semi-volatile, consisting of polynuclear aromatic hydrocarbons (PAHs)), and two pesticides were detected in the sediments of the creek. The most likely sources of PAHs originate from sewage and industrial effluents, petroleum spills, combustion of fossil fuels, urban runoff, atmospheric deposition, and groundwater (NYCDEP 2008).

The remediation of the former BBGW manufactured gas plant site was conducted in September 2006 and involved dredging approximately 60,000 cubic yards of contaminated sediment from Coney Island Creek in the vicinity of the West 12th Street outfall (on the north side of the creek) and backfilling and capping the area with clean material (Stevenson Environmental Services, Inc. 2011). Other than that project, limited sediment testing data is available to verify the degree and extent of any contamination that may be present along the shoreline in the underwater sediments of Coney Island Creek.

Aquatic Biota

Aquatic resources of Coney Island Creek in the vicinity of the proposed outfall sites include estuarine and marine habitats ranging from very shallow intertidal mudflats to deeper waters of approximately 16 feet (NOAA 2009). The following sections describe the general aquatic biology that would be expected in the waters of Coney Island Creek. As discussed in greater detail below, the range of aquatic species and density of population (specifically with respect to infauna and epifauna) is higher at the mouth of the creek where it connects with the open waters of Gravesend Bay. This finding is consistent with aquatic conditions at many of the "dead-end" basins in New York City where there is the greater influence of tidal flushing at the mouth of a creek or basin.

Primary Producers

Phytoplankton are microscopic plants whose movements within the system are largely governed by prevailing tides and currents. Light penetration, turbidity, and nutrient concentrations are important factors in determining phytoplankton productivity and biomass. Diatoms such as

Skeletonema costatum and *Thalassiosira* spp. generally dominate the phytoplankton community, with lesser contributions from dinoflagellates and green algae (Brosnan and O'Shea 1995). While nutrient concentrations in most areas of the Harbor Estuary are very high, low light penetration has often precluded the occurrence of phytoplankton blooms. A DEP study conducted in 1993 found a total of 40 phytoplankton taxa in Coney Island Creek. Similar to the rest of the Harbor Estuary, diatoms were the dominant class of phytoplankton. Dinoflagellates and chryptophytes were also common. The species collected in the greatest concentrations were *Skeletonema costatum*, *Asterionella japonica* (diatom), *Chroomonas* sp. (cryptophte), *Cryptomonas* sp. (cryptophyte), *Amphidinium* sp. (dinoflagellate), and *Rhizosolenia fragilissima* (diatom). In addition, three toxic species of dinoflagellates were collected from Coney Island Creek: *Prorocentrum micans* and *Dinophysis norvegica*, associated with diarrhetic shellfish, and *Prorocentrum minimum*, associated with toxic shellfish poisoning (DEP 2008).

Limited light penetration in the creek along with the influences of prior disturbance also restricts the presence and distribution of submerged aquatic vegetation (SAV) in the Harbor Estuary. Benthic macroalgae are large multicellular algae that are important primary producers in the aquatic environment. Species of macroalgae that occur in the Harbor Estuary include sea lettuce, green fleece, and brown algae (*Fucus* spp.) (PBS&J 1998). These species would be expected in the waters within the vicinity of the proposed outfall sites. However, no SAV was observed in the vicinity of the three proposed outfall sites during any of the site investigations.

Zooplankton

Zooplankton are an integral component of aquatic food webs. They are primary grazers on phytoplankton and detritus material and provide a major food source for fish. Crustacean taxa are the most abundant group of zooplankton collected throughout the Harbor Estuary. The most dominant species include the copepods *Acartia tonsa, Acartia hudsonica*, *Eurytemora affinis*, and *Temora longicornis*, with each species being prevalent in certain seasons (Stepien et al. 1981, Lonsdale and Cosper 1994, Perlmutter 1971, Lauer 1971, Hazen and Sawyer 1983). In Coney Island Creek, a total of 20 zooplankton taxa are known to be present, including copepods *Acartia tonsa* and *Acartia hudsoni*a. However, polychaete larvae, *barnacle nauplii*, *Cladocerans* sp. and the copepod *Tortanus discaudatus* are the most dominant species (DEP 2008).

Benthic Invertebrates

Benthic invertebrates inhabit the sediments and surfaces of submerged objects such as rocks, pilings, or debris. They are important to the energy flow of aquatic systems because they consume detrital and suspended organic matter and, in turn, are an important food source for fish and waterfowl. Benthic invertebrates include organisms that are retained on a 0.5 millimeter (mm) screen (macroinvertebrates) and smaller forms (nematodes and harpacticoid copepods). Some of these animals live on top of the substratum (epifauna) and some within the substratum (infauna). Substrate type (rocks, pilings, sediment grain size, etc.) are the primary factors influencing benthic invertebrate communities. Secondary factors include currents, wave action, predation, succession, and disturbance.

The major groups of benthic invertebrates collected in the Harbor Estuary include aquatic earthworms (oligochaetes), segmented worms (polychaetes), snails (gastropods), bivalves, barnacles, cumaceans, amphipods, isopods, crabs, and shrimp (EEA 1988, EA Engineering Science and Technology 1990, Coastal 1987, and PBS&J 1998). A 2003 DEP study of Lower New York Bay, Coney Island Creek, and Sheepshead Bay found that nematodes and annelids (Oligochaetes, *Streblospio benedicti*) dominate the benthic invertebrate community. Copepods were observed in Coney Island Creek, but not in the Lower New York Bay and Sheepshead Bay. Mollusks (*Nucula proxima* and *Crepidula plana*) were observed in substantial numbers in

Sheepshead Bay and Lower New York Bay. The greater species diversity observed in Sheepshead Bay (17 taxa) than the Lower New York Bay (23 taxa) is likely due to higher water exchange occurring within the lower bay (DEP 2008).

The wide range of bottom habitats within the Harbor Estuary supports a range of shellfish and crustaceans species. These include, but are not limited to the blue mussel (*Mytilus edulis*), northern quahog (*Mercenaria mercenaria*), softshell clam (*Mya arenaria*), American oyster (*Crassostrea virginica*), the blue crab (*Callinectes sapidu*s), and the horseshoe crab (*Limulus polyphemus*). These species utilize a wide range of habitats, from hard surfaces such as pier structures, used by mussels, to sand or mud substrates more suited for blue crabs. The shoreline of Coney Island Creek consists of fill materials, riprap, wooden bulkheads, and abandoned pier structures, which provide substrates that can support this epibenthic community. In a 2001 study, nine taxa were identified in Coney Island Creek, including common sea grape (*Molgula manhattensis*), blue mussels, barnacles, crabs, polychaetes, bryozoans, and cnidarians (DEP 2008).

It was the finding of the 2008 Coney Island Creek WWFP that, based on the survey data compiled to date, the relative abundance and diversity of species in the benthic community of Coney Island Creek is low with a high proportion of pollutant tolerant organisms. The primary species were annelid worms or a combination of annelied worms and nematodes. Mollusks were only collected near the mouth of the creek. Epifauna including mussels, barnacles, crabs, polycheates, bryzoans, and cnidarians have also been observed in the creek. The collected data also indicated greater use of the upper water column as compared with the benthic zone, which was presumably related to less favorable conditions in the benthic area where low DO could inhibit aquatic use. The lack of available hard substrate was also noted as a limitation in benthic richness.

Fish

The Harbor Estuary supports significant habitat—including spawning ground, migratory pathway, nursery, and foraging areas—for a diverse population of marine, estuarine, anadromous, and catadromous fish species (USACE 1999). Over 101 fish have been sighted in the Harbor Estuary (USFWS 1997). A 1991 study showed that marine species comprise the majority (70 percent) of the population with the highest diversity found in the waters with the highest salinities (USFWS 1997), such as Lower New York Bay. Common marine species occurring throughout the Harbor Estuary include red hake (*Urophycis chuss*), weakfish (*Cynoscion regalis*), windowpane (*Scophthalmus aquosus*), and winter flounder (*Pleuronectes americanus*). Estuarine species amount to approximately 10 percent of the population and tend to occur in waters with lower salinity concentrations (USFWS 1997). Widespread estuarine species consist of resident mummichog (*Fundulus heteroclitus*), hogchoker (*Trinectes macalatus*), bay anchovy (*Anchoa mitchelli*), and white perch (*Morone americana*) populations; these species were found in the 1991 study to be the most abundant (USFWS 1997). Important recreational fish species include, but are not limited to weakfish (*Cynoscion regalis*), bluefish (*Pomatomus saltatrix*), scup (*Stenotomus chrysops*), striped bass, and winter flounder (USFWS 1997).

Lower New York Bay supports significant habitat for shellfish and the marine, estuarine, and anadromous fish species mentioned above. Situated in the transition zone where northeast and southeast Atlantic waters meet, Lower New York Bay provides habitat for both cold and warmwater species. As a result, over 90 species of fish have been recorded for Lower New York Bay (USACE 2004). Year-round residents include silversides, killifish, white perch, and bay anchovies (DEP 2008). Many of these species are important prey items for seasonally abundant piscivorous fish (e.g., blue fish, striped bass). Adult and juvenile bluefish, scup, weakfish, winter flounder, and red hake depend on Lower New York Bay during different portions of their life histories. As part of a CSO Facility Planning study conducted in 1994, nine species of fish were

collected in Lower New York Bay near Coney Island Creek, and three species in the creek itself, including northern kingfish (*Menticirrhus saxatilis*), striped bass (*Morone saxatilis*), and Atlantic silverside (*Menidia menidia*). A 2001 ichthyoplankton study within Lower New York Bay identified 15 taxa of fish eggs and larvae in the near-shore area of Lower New York Bay and 14 taxa within Coney Island Creek. Abundant species included bay anchovy, winter flounder, and windowpane (DEP 2008). Sampling as part of the CSO Planning Project (1994) identified no fish as the head of the creek, one silverside mid-creek, and unquantified populations of northern kingfish and striped bass at the mouth of the creek . Overall, it was the conclusion of the study that the diversity and abundance of fish species in the creek is low.

Aquatic Mammals

Seventeen species of marine mammals have been observed in the Harbor Estuary or in the immediate vicinity offshore. The harbor seal (*Phoca vitulina*), grey seal (*Halichoerus grypus*), and bottlenosed dolphin (*Tursiops truncates*) are known to occur in Lower New York Bay (USACE 1999). The harbor seal is the most common seal species in the region. Although harbor seals are often resident species of the Harbor Estuary, they are most abundant between November and May. There are 25 major haul-out sites (i.e., where the seals haul themselves onto land) in the region, some of which occur in Lower New York Bay. Harbor seals feed on herring, mackerel, squid, flounder, green crabs, mussels, cod, and whiting. Grey seal pups and juveniles are occasional transient visitors to the Harbor Estuary, generally between the months of January and April (USACE 1999). Bottlenose dolphins are also occasionally observed in inshore waters (USFWS 1997). Six federally endangered or threatened aquatic mammals are known to occur in New York waters. These species include blue whale, finback whale, humpback whale, northern right whale, sei whale, and sperm whale (USACE 1999). However, the occasional sighting of cetaceans in the Harbor is generally associated with individuals that are likely to be unhealthy and/or lost (USACE 1999) and none of these aquatic mammals would be expected in Coney Island Creek.

Essential Fish Habitat

Coney Island Creek is within the Hudson River Estuary Essential Fish Habitat (EFH) that is situated between NOAA/NMFS 10' x 10' square with coordinates (North) 40°40.0' N, (East) 73°50.0' W, (South) 40°30.0' N, (West) 74°00.0' W. This area that includes the Atlantic Ocean, western Rockaway Beach, western Jamaica Bay, Rockaway Inlet, Barren Island, Coney Island (except for Norton Point), Paerdegat Basin, Mill Basin, southwest of Howard Beach, Ruffle Bar, and several smaller islands. This area has been identified as EFH for 21 species of fish. **Table B-4** lists those species and their life stages. While Coney Island Creek is within this EFH area, use by EFH species is expected to be limited in light of the overall condition of the aquatic environment and based on the sampling that has been performed to date.

Table B-4

Essential Fish Habitat Species Designated for the Inner Portion of Coney Island Creek

Species	Eggs	Larvae	Juveniles	Adults
Whiting (*Merluccius bilinearis*)	X	X	X	
Red hake (*Urophycis chuss*)	X	X	X	
Winter flounder (*Pseudopleuronectes americanus*)	X	X	X	X
Windowpane flounder (*Scophthalmus aquosus*)	X	X	X	X
Atlantic sea herring (*Clupea harengus*)			X	X
Monkfish (*Lophius americanus*)	X	X		
Bluefish (*Pomatomus saltatrix*)			X	X
Atlantic butterfish (*Peprilus triacanthus*)		X	X	X
Atlantic mackerel (*Scomber scombrus*)			X	X
Summer flounder (*Paralichthys dentatus*)		X	X	X
Scup (*Stenotomus chrysops*)	X	X	X	X

Black sea bass (*Centropristis striata*)			X	X
King mackerel (*Scomberomorus cavalla*)	X	X	X	X
Spanish mackerel (*Scomberomorus maculatus*)	X	X	X	X
Cobia (*Rachycentron canadum*)	X	X	X	X
Clearnose skate (*Raja eglanteria*)			X	X
Little skate (*Leucoraja erinacea*)			X	X
Winter skate (*Leucoraja ocellata*)			X	X
Sand tiger shark (*Carcharias taurus*)		X[(1)]		
Dusky shark (*Carcharhinus obscurus*)		X[(1)]		
Sandbar shark (*Carcharhinus plumbeus*)		X[(1)]	X	X

Notes: [(1)] None of these species have a free-swimming larval stage; rather they are live bearers that give birth to fully formed juveniles. For the purposes of this table, "larvae" for sand tiger and sandbar sharks refers to neonates and early juveniles.
Source: National Marine Fisheries Service. "Summary of Essential Fish Habitat (EFH) Designation" posted on the internet at: http://www.nero.noaa.gov/hcd/STATES4/conn_li_ny/40307350.html

ENDANGERED, THREATENED, AND SPECIAL CONCERN SPECIES

Requests for information on rare, threatened, or endangered species in the immediate vicinity of the proposed project area were submitted to NMFS and NYNHP on April 12, 2011. According to the list of threatened or endangered species for Kings County posted by the USFWS and reviewed on April 12, 2011, the endangered shortnose sturgeon (*Acipenser brevirostrum*) has the potential to occur within the waters of Kings County. However, in correspondence dated April 21, 2011, NMFS stated that while a shortnose sturgeon population occurs in the Hudson River, no species listed by NMFS occur in Coney Island Creek (Colligan 2011).

In correspondence dated April 28, 2011, NYNHP stated that it does not have records of rare or state-listed wildlife or plant species, significant natural communities, or other significant habitats on or within the vicinity of the proposed project area (Pietrusiak 2011).

Although not cited in the NYNHP correspondence, the state endangered peregrine falcon (*Falco peregrinus*), which occurs within New York City year-round, has the potential to occur within the study area (DEP 2011). Peregrine falcons nest on ledges and small shallow caves on high cliff walls, man-made platforms, or in urban areas on bridges and tall buildings. In the New York City area, courtship occurs in February and March, with egg laying in April and May. Peregrine falcons typically return to the same nest every year; in the New York City area, nesting occurs almost exclusively on bridges, buildings, and other man-made structures. On December 19, 2007, an adult peregrine falcon was observed on top of the non-operational Parachute Jump, within the proposed project area; this suggests that peregrine falcons may forage in the area during the non-breeding season (AKRF et al. 2009).

NATURAL RESOURCES POLICIES AND PROGRAMS

Wetlands Transfer Task Force

New York City Local Law 83 of 2005 established a temporary Wetlands Transfer Task Force (WTTF) to evaluate the technical, legal, economic, and environmental transferability of city-owned wetlands to the jurisdiction of DPR. A total of 3,537 acres of city-owned property containing both wetlands and adjacent upland habitat were evaluated including parcels located along Coney Island Creek. In September 2007, the WTTF report was released setting forth recommendations for each parcel. Properties were assigned a "no change," "special review" or "transfer" designation. The report recommended the transfer of 82 properties totaling 255.3 acres to DPR and 12 acres to DEP. All Coney Island wetlands properties were assigned a "no change" or "special review" designation and were not recommended for transfer. Upland and shoreline properties of the proposed outfall sites located in Block 7247 Lot 125 (West 12th Street) and

Block 6997 Lot 158 (West 15th Street) were included in the evaluation and were recommended for "special review" (WTTF 2007).

As a response to the WTTF efforts, the city formed an interagency wetlands policy task force to study gaps in existing state and federal wetlands laws and issues related to the protection of the city's wetlands (PlaNYC 2008). As a result of this work, the interagency wetlands task force issued a white paper entitled, "New York City Wetlands: Regulatory Gaps and Other Threats" in January 2009, which stated that the city's local regulations contain gaps that may leave important remaining wetlands vulnerable to direct and indirect pressures. The white paper identifies and suggests general approaches to addressing these gaps. However, before the city can address the costs and benefits of these approaches, it must first develop basic information about the number, size, and value of the remaining unprotected wetlands.

Final decisions regarding the WTTF recommendations are to be made by the mayor (WTTF 2007). As of August 2008, three properties had been transferred and DPR had initiated requests to transfer 34 additional properties. The remaining 45 parcels will require further action (i.e., surveys, signing, security, debris removal, etc.) prior to transfer to DPR. In total, 111"special review" parcels were identified. The review of the parcels will be undertaken by an agency that is currently administering the parcel or another agency on a case by case basis. Until the work is complete, city-owned wetlands properties cannot be transferred without the knowledge of DPR. A determination about the transfer of many of the properties may be contingent on the outcome of ongoing discussions about wetlands policies in the city and mitigation opportunities. Wetlands evaluated, but not yet transferred, will be assessed for suitability in the future (PlaNYC 2009).

City-Wide Long Term CSO Control Planning Project and Coney Island WWFP

The USEPA National CSO Strategy of 1989 requires states to eliminate dry weather overflows of sewers, meet federal and state water quality standards for wastewater discharges, and minimize impacts on water quality, plant and animal life, and human health. New York City committed $1.5 billion for construction of CSO abatement facilities over the period from 1998 to 2008, which should result in future improvement in coliform, DO, and floatables levels in open waters and tributaries of the Harbor Estuary. The city also recently completed improvements to its wastewater treatment plants, which should lead to further decreases in coliform counts and floatables levels.

As required by USEPA's CSO Control Policy, NYCDEP initiated its Long Term Control Plan (LTCP) Project in 2004. The LTCP Project will integrate CSO Facility Planning and the Comprehensive City-Wide Floatables Abatement Plan, and incorporate ongoing Use and Standards Attainment Program (USA) Project work. The LTCP Project monitors and assures compliance with applicable Administrative Consent Orders between DEC and New York City for the CSO Abatement Program. Additionally, DEP plans to increase identification and control of pollutants of concern, including mercury, PCBs, and solvents. The Drainage Basin Specific and City-Wide LTCP that have been developed are intended to further control CSO discharges.

As discussed in "Aquatic Resources," Coney Island Creek is listed on the New York State 1998 Section 303(d) list as an impaired water body and was scheduled for total maximum daily load (TMDL) limitations. However, the Final 2010 Section 303(d) list of impaired waterbodies includes the list of waters that are impaired but no longer require TMDL development. The waterbody was delisted because other required measures (such as improvements to the wastewater treatment plants), resulting from the implementation of a Consent Order signed by NYSDEC and DEP in 2005, are expected to restore the water body. The 2005 Consent Order directed the city to develop and submit a WWFP for Coney Island Creek to address CSO

discharges by June 2007 and submittal of a Drainage Basin Specific LTCP for these same watersheds by August 2012. As part of this plan, DEP is proposing to upgrade and rehabilitate the Avenue V Pumping Station to meet CSO abatement requirements, pumping station capacity and flow conveyance requirements established by NYSDEC, and to comply with the USEPA Final CSO Policy. DEP would increase wet weather flow capacity at the pumping station from approximately 30 million gallons per day (mgd) to 80 mgd. The WWFP for Coney Island Creek was approved by NYSDEC on July 15, 2009 (NYSDEC 2009).

State and Regional Projects

The Hudson-Raritan Estuary Ecosystem Restoration Study (HRE) is a cooperative project being led by USACE and the Port Authority of New York and New Jersey (PANYNJ) with involvement from USEPA, USFWS, NOAA, National Resource Conservation Service (NRCS), New Jersey Department of Environmental Protection (NJDEP), New Jersey Department of Transportation (NJDOT), NYSDEC, New York State Department of State (NYSDOS), DEP, DPR, and the New Jersey Meadowlands Commission (NJMC). The study identifies the actions needed to restore the Hudson-Raritan Estuary. The study area for the program includes the tidally influenced portions of all rivers and streams that empty into and ecologically influence the Harbor Estuary (a total of eight planning regions). As part of this effort, in 2009, the draft HRE Comprehensive Restoration Plan (CRP) was released. The draft CRP presents an ecosystem approach to restoration of the Harbor Estuary, guidance for selecting specific projects, measurable objectives called target ecosystem characteristics (TECs), and tracking for program performance (USACE 2004). The draft plan lists 296 habitat acquisition and/or restoration sites that were identified through the Harbor Estuary Program and the HRE Ecosystem Restoration Study. Potential restoration activities, including the TECs that may be applicable are briefly described for each site. Calvert Vaux Park, located along Coney Island Creek and the Lower Bay, is approximately a half mile from the proposed project area and has been identified as a representative site for salt marsh and habitat restoration (USACE 2009). A location at this site has been identified to carry out the consolidated restoration plan associated with the proposed project proximate to current DPR restoration.

THE FUTURE WITHOUT THE PROPOSED PROJECT

In the future without the proposed project, with the exception of water quality, the natural resources conditions described above are expected to remain essentially unchanged. Some improvement in water quality is expected in local water quality as the Avenue V pumping station comes on line and allows for greater treatment capacity in the systems. In the project area upland, it is expected that some portion of the Coney Island Rezoning and Redevelopment Plan, 19-block area of Coney Island will be developed with new commercial, entertainment and housing projects. In addition, Coney Island Creek Urban Renewal Area (URA), which is intended to foster industrial development along the south bank of Coney Island Creek, encompasses a small area in the northern portion of the proposed project area. These redevelopment sites are largely previously disturbed and it is not expected that their development would significantly alter the natural resources conditions of the proposed project area.

PROBABLE IMPACTS OF THE PROPOSED PROJECT

Provided below is an impact assessment of the permanent impacts of the proposed project with respect natural resources. Impacts that would occur during the construction period are presented under the section “Construction Impacts.”

FLOODPLAINS

A significant portion of the proposed project area is located within the 100-year floodplain (see **Figure C-9**). However, installation of the proposed outfalls and upland infrastructure would not adversely affect the floodplain or exacerbate flooding conditions in the area. Rather, the proposed project would be beneficial to residents and workers by improving stormwater drainage within the 248-acre project area and upgrading the sanitary sewer system in accordance with the ADP. Therefore, the proposed project is not expected to result in potential significant adverse impacts to floodplains.

WETLANDS

The proposed outfall sites are located along a developed waterfront with a mostly deteriorated shoreline edge. The proposed outfalls would terminate near the existing bulkhead and would extend out from the base of the outfall, requiring only limited disturbance of in-water habitat for the proposed headwalls. There is no submerged aquatic vegetation or other higher quality wetland habitats at the outfall sites.

Table B-5
Area of Tidal Wetland Impact for the Proposed Outfalls

Outfall	Linear Feet Below the Mean Water Line	Additional Width of Pipe (feet)	Estimated Area of Permanent Impact From Outfall Structure (square feet)	Width of Outfall Corridor (feet)	Estimated Area of Temporary Wetland Impact From Construction Easement Area) (square feet)
West 21st Street	50 (a)	6 feet (1)	- +/- 950 sq.ft. (3)	45 feet	+/- 1,500 sq.ft.
West 15th Street	40 (b)	7 feet (2)	- +/- 850 sq.ft. (3)	45 feet	+/- 1,500 sq.ft.
West 12th Street	75 (a)	7 feet (1)	- +/- 1,450 sq.ft. (3)	45 feet	+/- 1,500 sq.ft.

Notes: (a) Preliminary estimates based on field observations and aerial photography. (b) Based on preliminary project designs, DDC, March 2012.
Sources: (1) Capital Project Initiation, DEP, January 2012; (2) Preliminary design, DDC, March 2012; 3) includes stone rock apron at each site (250 sq.ft.)

Installation of the three proposed outfalls would require the permanent disturbance of about 2,500 square feet of unvegetated wetland area and 750 square feet of littoral zone wetlands (i.e., bottom sediments) within the adjacent creek. This permanent wetland disturbance is due to the proposed outfall structural components such as the outfall pipe, stone aprons and stabilizing stone. The proposed project includes wetland restoration for all three outfalls (i.e., a consolidated wetland restoration plan) at Calvert Vaux Park that would address the permanent wetland impacts. With a replacement ratio of 2 to 1 for the disturbance of each wetland habitat, the total consolidated restoration area is projected to be about 6,500 square feet (see **Table B-5**).

Under the proposed consolidated wetland restoration plan, intertidal wetlands would be created along the east shore of Calvert Vaux Park. The proposed restoration would build upon a DPR restoration project currently under construction along this shoreline (immediately to the northeast). The proposal would excavate up to approximately 6,500 square feet to create new wetland area that would be graded, stabilized and planted with *spartina alterniflora* that is known to thrive in the protected intertidal zones of this cove. Native trees and rises would be avoided to minimize tree clearing and excavation/grading and the restoration would be shaped to work within existing contours. A preliminary concept for the restoration is provided on **Figure C-6**.

The proposed plan does not encroach upon any lands within the coastal erosion hazard area mapped along the south shore of the park. It would also avoid any potential impacts or conflicts with proposed DPR recreational facilities such as the proposed bike path. Additionally, the proposed plan would not interfere with any mitigation previously agreed upon between DPR and NYSDEC for the reconstruction of Calvert Vaux Park (per Calvert Vaux Tidal Wetlands and Replacement Plan, May 8, 2009). The final wetland restoration design would be based upon additional information including site survey data with topography and trees, soils, and planting plans and developed through additional coordination with DPR. The extent of the restoration activities would also be subject to DEC approval as part of the permitting requirements for the three proposed Coney Island Creek outfall enlargements.

The proposed project would have only a limited direct impact on wetlands and would include a consolidated wetland restoration plan. As described below under "Construction Impacts," all areas affected by construction of the outfalls would be restored following construction. Specifically, areas to be cleared for construction of the outfalls would be covered and revegetated as part of the proposed project and considered temporary construction impacts. Therefore, the proposed project is not expected to result in potential significant adverse impacts to on wetlands.

AQUATIC RESOURCES[1]

A detailed assessment of potential water quality impacts with the operation of the proposed stormwater outfalls was modeled for both short duration storm events as well as long-term impacts on overall water quality of the creek based on the recurring discharges from the outfalls. The modeling assessment was performed at multiple stations within the creek in order to determine if the proposed project and, specifically, the three proposed outfalls, would result in any water quality impacts on Coney Island Creek. As the proposed discharges would be separate stormwater discharges only, the analyses focused on the primary pollutants of concern associated with stormwater including dissolved oxygen (DO), total suspended solids (TSS), total nitrogen (TN), total phosphorous (TP), chlorophyll-a (Chl-a), biochemical oxygen demand (BOD), total coliform, fecal coliform, copper, lead, and zinc and total polyaromatic hydrocarbons (TPAHs). The study also compared the net change in these parameters between existing conditions and future conditions with the proposed project.

Under modeled conditions, the proposed outfalls would not significantly change DO levels over current conditions. Class I DO levels would continue to be met at the mouth of the creek, occasionally dipping below the 4.0 mg/L standard in the bottom waters during the summer, while the surface waters generally remain above the standard for most of the year. Currently, summer DO levels at the head and mid-range stations within the creek can experience declines below the standard for short durations. This condition would continue and not be exacerbated by the proposed project. TSS would not change based on comparison between the baseline and proposed scenarios. New York State does not have applicable water quality criteria for TPAH. In addition, TN, TP, BOD and Chl-a do not have applicable water quality standards but can ultimately affect DO levels. Therefore, the impact of these constituents can be assessed through the DO analysis, which concludes essentially no difference between the baseline and proposed scenarios for DO in all areas of Coney Island Creek. Applicable Class I water quality standards for copper, lead, and zinc would be attained for the proposed discharge scenario. Class I water quality standards were exceeded for total and fecal coliform in both the baseline and projected

[1] The analysis presented below is summarized from the report, "Water Quality Impact Assessment of the Coney Island Amended Drainage Plan Project," prepared by HDR/Hydroqual for NYCEDC, September 2011.

cases. The baseline enterococci reference standard was also exceeded in both the baseline and projected cases. However, projected bacteria levels for those constituents would experience no further exceedences under the projected scenario. In short, baseline water quality conditions would not be significantly changed and the water quality impact would be negligible. Therefore, the proposed project is not expected to result in potential significant adverse impacts to water quality.

AQUATIC BIOTA

The proposed project would permanently remove some limited benthic (subtidal) habitat in the footprint of the three proposed outfalls, or about 0.02 acres. Impacts on primary producers resulting from this minimal impact, such as phytoplankton, as well as zooplankton and macroinvertebrate populations, would be negligible. Benthic invertebrates would also be expected to recolonize this site shortly after construction is completed. The proposed project also includes a consolidated wetland restoration plan, which would provide replacement habitat for such aquatic resources. In addition, as stated above, no significant adverse water quality impacts are expected during operation of the proposed outfalls. No potential significant impacts to the aquatic biota community are expected with respect to shellfish and finfish resources. Therefore, the proposed project is not expected to result in potential significant adverse impacts on aquatic biota.

ESSENTIAL FISH HABITAT

As described above, significant impacts are not expected to occur with respect to EFH areas identified for Coney Island Creek, given that use by EFH species would be limited due to the overall condition of the aquatic environment. Additionally, no significant adverse impacts on water quality would occur that could indirectly impact the EFH. Therefore, the proposed project is not expected to result in potential significant adverse impacts on EFH resources.

TERRESTRIAL RESOURCES

Because sizable infrastructure would be installed in existing streets, it is expected that the proposed project would require the removal or pruning of street trees along sidewalks and street edges. Densities of street trees within the proposed project area are not uniform, as local streets tend to have more trees than the avenues, with densities varying even among certain streets (e.g., West 15th Street and West 20th Street have more trees than others). Every effort would be made to protect and replace street trees in their current location. In the case where street trees could not be replaced in their exact current location due to potential damage to DEP infrastructure, DEP would coordinate with DPR to identify the optimal location to plant replacement street trees.

The proposed outfall sites and upland infrastructure are either within developed streets, or a developed or previously disturbed parcel. Thus, there would be no clearing of vegetative or wildlife habitats other than the street trees (discussed above). Therefore, the proposed project is not expected to result in potential significant adverse impacts on terrestrial natural resources.

ENDANGERED, THREATENED, AND SPECIAL CONCERN SPECIES

The USFWS and NYNHP indicate that no federal or state listed or proposed threatened, endangered, or special concern plant or animal species or habitats are present within the proposed project area. Moreover, the proposed project would not result in any significant adverse impacts to water or sediment quality, nor would it result in a significant loss of fish habitat or benthic invertebrates. With the proposed project, the available forage area for the adult Peregrine Falcon (described above) would remain unchanged and the proposed project would not adversely impact any foraging opportunities for this species. Therefore, the proposed project

is not expected to result in potential significant adverse impacts on endangered, threatened or special concern species.

NATURAL RESOURCES PROGRAMS AND POLICIES

The proposed project would not result in significant adverse impacts to wetlands, plant communities, wildlife, water quality, or the aquatic biota of Coney Island Creek. The proposed consolidated restoration would be sited on property at Calvert Vaux Park that has been identified for restoration in the Calvert Vaux Tidal Wetlands and Replacement Plan (DPR, May 8, 2009) and would expand upon DPR's current restoration on the eastern shoreline of Calvert Vaux Park. The proposed project would not conflict the Coney Island WWFP, LTCP, or Hudson-Raritan Estuary Ecosystem Restoration Study. Therefore, the proposed project is not expected to result in potential significant adverse impacts to natural resources programs and policies.

B.9 HAZARDOUS MATERIALS

INTRODUCTION

The *CEQR Technical Manual* (2012) states that the potential for significant impacts related to hazardous materials can occur when (1) elevated levels of hazardous materials exist on a site; (2) an action would increase pathways to their exposure; or (3) an action would introduce new activities or processes using hazardous materials and the risk of human or environmental exposure is increased. In order to determine the potential for hazardous materials concerns or possible contamination posed by nearby properties, a Phase 1 Corridor Assessment Report[1] was prepared by DDC's Bureau of Environmental and Geotechnical Services. This report is based on site reconnaissance along the project corridor, a review of government regulatory databases, photographic documentation of properties considered to be of environmental concern and preparation of a report identifying sites or issues considered to be of potential environmental concern. If environmental concerns are identified then sampling is performed. If that sampling identifies the presence of hazardous materials in the soil or groundwater then measures are recommended to avoid impacts. Provided below is a summary of the Corridor Assessment Report, the testing that was performed, and the measures that would be implemented for this project. The conclusions presented below are based on information gathered from a Phase I Corridor Assessment Report prepared in April 2011 and a Phase II Limited Subsurface Corridor Investigation Report prepared in November 2011for the proposed project.

CORRIDOR ASSESSMENT REPORT

A Phase I Corridor Assessment Report[2] was prepared for the proposed project area for the purposes of determining the potential for environmental conditions of high or moderate risk as it relates to hazardous materials. Preparation of the report involved field investigations and reconnaissance to document current property uses along the proposed project corridors (i.e., along the proposed sewer corridors and outfall sites), review of Sanborn fire insurance maps to document historical uses and a review of government regulatory databases to identify potential impacts from properties adjacent to and surrounding the corridor. Land uses along the corridor

[1] The text below is summarized from "Phase 1 Corridor Assessment Report for Storm, Sanitary Sewers and Water Mains in the Coney Island Area, Brooklyn, NY" prepared by Louis Berger & Associates, Engineers for DDC, April 25, 2011.

[2] Final Phase I Corridor Assessment Report for Storm, Sanitary Sewers and Water Mains in the Coney Island Area, Brooklyn, New York, DDC Project No. CONISPH01, prepared for DDC by Louis Berger Associates, April 25, 2011.

consist of small, medium and high-density residential uses; a mix of light industrial and parking uses along Coney Island Creek; commercial uses along the avenues (Neptune, Mermaid and Surf Avenues); and the famous Coney Island amusement center near the Boardwalk (i.e., south of Surf Avenue). There are also private and public open spaces throughout the proposed project area.

The Corridor Assessment Report identified a number of potential sources of soil and/or groundwater contamination in the study area including manufacturing uses, dry cleaners, gas stations, auto-repair shops, transportation and rail uses, oil storage, truck parking and storage, and construction operations. These uses are located throughout the proposed project area and it is noted the that the proposed West 15th and West 12th Street outfall sites also include bus and vehicle parking and industrial uses in the immediately surrounding area. It is also expected that the outfall sites contains urban fill of an unknown origin.

A review of regulatory databases identified a total of 196 sites with the potential for contributing hazardous material impacts along the proposed project corridor. Among those sites, 186 located within or near the corridor were determined to be "low risk" with respect to potential environmental impacts. These sites were classified low risk for the following reasons:

- The documented evidence of a petroleum release with response action and regulatory agency closure;
- Historical documentation did not reveal required environmental conditions in connection with structures/processes with the potential to impact the adjacent corridor;
- No visual evidence suggesting negative impacts along the corridor or surrounding area; and
- Relatively remote location of sites with potential environmental concerns in relation to the Corridor.

Therefore, the final conclusion of the Phase I Corridor Assessment Report was that based on "Risk Criteria Protocol" established by DDC and review of the above databases, 67 sites along the project corridor were categorized as having a "High" risk with respect to potential impact on the proposed project and 74 sites were categorized as having a "Moderate" risk for hazardous materials conditions. The moderate and high-risk conditions were then further investigated to assess the potential for soil conditions to have been impacted by hazardous materials.

SUBSURFACE CORRIDOR INVESTIGATION[1]

Based on the above identification of potential sources of hazardous materials within the proposed project area (i.e., high and moderate risk sites), a Phase II Subsurface Corridor Investigation was performed for the purposes of sampling soil and groundwater at selected locations along the corridor to determine if there were issues or concerns related to hazardous materials. The investigation consisted of:

- Thirty one soil borings (SB) to a depth of approximately 10 feet below grade, a soil sample from each of the borings submitted for laboratory analysis (e.g., analysis for Volatile Organic Compounds [VOCs], Semi-Volatile Organic Compounds [SVOCs], Target Analyte List [TAL] Metals, Polychlorinated Biphenyls [PCB]) including waste characterization samples; and
- Installation of 6 temporary wells with a groundwater sample from each well.

[1] Final Phase II Corridor Investigation Report for Storm and Combined Sewers in Brookville Boulevard, Queens, New York, DDC Project No. SEQ200526, prepared for DDC by Weston Solutions of New York, Inc., January 24, 2011.

In order to evaluate the subsurface soil and groundwater quality, laboratory analytical results were compared to the regulatory standards of the NYSDEC, USEPA, and DEP for their sanitary/combined and storm sewer effluent limit concentrations. The following is a summary of those results:

- There was visual and olfactory evidence of possible petroleum contamination at SB15 and SB22.
- The corridor contained about 5 feet of non-native fill materials in the vicinity of SB 07, SB09, SB21 and SB29.
- VOCs were detected above NYSDEC applicable standards at SB22 and SB06.
- Several SVOCs were detected above NYSDEC applicable standards at SB06, SB07, SB21, SB24, SB26, SB29.
- Elevated concentrations of metals were identified (e.g., copper, lead, manganese) in SB06, SB07, SB16, SB21, SB23, SB24, SB26 through SB30.
- Elevated concentrations of certain pesticides were identified in SB13, SB14, SB17, SB22, and SB29.
- No hazardous waste characteristics were identified.
- Groundwater is generally at 6 feet below grade and no exceedances of DEP Sewer Discharge Criteria were reported.

CONCLUSIONS

Based upon the above results, it is concluded that the proposed project should include the following:

- Due to the presence of metals, pesticides, SVOCs and VOCs at concentrations above NYSDEC SCO's and SSCO's, dust control procedures are recommended during excavation activities to minimize the creation and dispersion of fugitive airborne dust. It is therefore recommended that a Community Air Monitoring Plan (CAMP) be developed in accordance with NYSDEC's Division of Environmental Regulations (DER)-10 during construction at the outfall sites. These regulations would require real-time monitoring for VOC's and particulate matter (dust) at the downwind perimeter of each of the proposed outfall sites when certain activities are in progress at locations of potential contamination. Therefore, the CAMP provides a measure of protection for the local community against potential airborne contaminants that may result from project construction. The requirements of the CAMP are also reviewed for compatibility with any requirements from the New York State Department of Health (NYSDOH).
- Due to the presence of metals, pesticides, SVOCs and VOCs at concentrations above NYSDEC SCO's and SSCO's, construction documents should identify provisions and a contingency for managing, handling, transporting and disposing of soils that are impacted by non-hazardous petroleum products, VOCs, SVOCs and metals. Based on these construction documents, the contractor should be required to submit a "Materials Handling Plan," and to identify the specific protocols and procedures that would be used to manage soil in accordance with applicable regulations. The "Materials Handling Plan" should also include protocols and procedures for managing free product and characteristic hazardous waste which may potentially be encountered.
- Before commencing with excavation activity, the contractor should submit a site-specific construction health and safety plan (CHASP) addressing the concerns identified that will meet the requirements set forth by the Occupational Safety and Health Administration

(OSHA), NYSDOH, and any other applicable regulations to DEP for review and approval. The CHASP should identify the possible locations and risks associated with the potential contaminants that may be encountered during the excavation activities, and the administrative and engineering controls that would be utilized to mitigate concerns. The CHASP should be submitted to DEP for review/approval. Soil disturbance should not occur without DEPs written approval of the CHASP.

- If de-watering is necessary during construction (this is expected due to the presence of shallow groundwater) and discharge into the city sewer system is necessary, then a DEP Sewer Discharge Permit must be obtained prior to the start of any de-watering activities. Given the potential for contamination in the local groundwater, sampling for DEP Sewer Discharge Criteria should therefore be performed as necessary and required and additional groundwater testing would verify groundwater conditions and the need for any pre-treatment requirements.

With these measures in place, the proposed project is not expected to result in potential significant adverse impacts due to hazardous materials.

B.10 WATER AND SEWER INFRASTRUCTURE

WATER SUPPLY

The proposed project would not introduce any new development with new residents or employees, nor would it increase water supply demands. The objective of the proposed project is to improve stormwater drainage within the 248-acre project area and upgrade the sanitary sewer system in accordance with the ADP. The proposed project involves the reconstruction and enlargement of three existing outfalls, installation of new stormwater collection sewers, relocation of utilities, as necessary, relocation and upgrade of distribution and trunk water mains, and relocation and upgrade of sanitary sewer lines along with the reconstruction of affected streets. Therefore, the proposed project is not expected to result in potential significant adverse impacts to the city's water supply system.

STORM AND SANITARY DRAINAGE

As stated above, the proposed project would not introduce any new development with residents or employees that would add demands on the city's stormwater or sanitary drainage system. Thus, no increase in sewage generation is expected, and the proposed project would not result in any significant adverse impacts to wastewater and sewerage treatment infrastructure. The proposed project would be beneficial to residents and visitors by improving stormwater drainage throughout a 248-acre area of Coney Island and upgrading sanitary sewers in accordance with the ADP. Therefore, the proposed project is not expected to result in potential significant adverse impacts to storm and sanitary infrastructure.

B.11 SOLID WASTE AND SANITATION SERVICES

The *CEQR Technical Manual* (2012) identifies a significant impact to solid waste and sanitation Services when a project generates 50 tons of solid waste or more per week. The proposed project would not introduce any new residents or employees and no increase in solid waste generation is expected. Therefore, the proposed project is not expected to result in potential significant adverse impacts to solid waste or sanitation services.

B.12 ENERGY

An assessment of potential impacts to energy, according to the *CEQR Technical Manual* (2012)

considers the "project's consumption of energy and, where relevant, potential effects on the transmission of energy that may result from the project." The proposed project would not generate any additional demand for energy. While additional energy demand would be generated during the construction phase, any increase in energy use would be negligible and temporary. Therefore, the proposed project is not expected to result in potential significant adverse impacts to the consumption or supply of energy.

B.13 TRANSPORTATION

TRAFFIC

The impact methodology guidelines of the *CEQR Technical Manual* (2012) state that for projects generating more than 50 new vehicular trips due to new residential development or commercial buildings, the potential for traffic impacts should be analyzed. The proposed project would install new infrastructure but would not generate new vehicular trips, nor would it open new streets that would create any permanent traffic diversions, modify any traffic patterns, turning lanes, or traffic flows (the need for any temporary limited traffic diversions during construction is discussed below under "Construction Impacts"). Long-term, positive impacts of the proposed project would include the reconstruction of streets where the new sewer system would be installed, resulting in improved road conditions. Therefore, the proposed project is not expected to result in potential significant adverse impacts to traffic.

PARKING, TRANSIT AND PEDESTRIANS

The proposed project does not include any changes in local on-street parking regulations nor would it result in the permanent loss of any on-street parking. It would not impact any transit facilities or services, result in added pedestrians and would not adversely impact sidewalks or crosswalks. The proposed project would be beneficial to residents and visitors by improving stormwater drainage throughout a 248-acre area of Coney Island and upgrading sanitary sewers in accordance with the ADP. Therefore, the proposed project is not expected to result in potential significant adverse impacts to parking, transit or pedestrians.

B.14 AIR QUALITY

As described in the *CEQR Technical Manual* (2012) an air quality analysis is appropriate if a proposed action would result in direct or indirect impacts on ambient air quality. Direct impacts are defined as emissions generated by stationary sources, such as fuel burned on-site for heating, ventilation or air conditioning (HVAC) systems. The proposed project does not include any new HVAC emission sources. Therefore the proposed project is not expected to result in potential significant adverse impacts to air quality due to stationary sources.

Indirect air quality impacts involve emissions generated by mobile sources, such as motor vehicles traveling to and from the site of the proposed project. The proposed project would not generate new vehicular trips (see "Transportation" above and "Construction Impacts" below). Therefore, the proposed project is not expected to result in potential significant adverse impacts to air quality due to mobile sources.

B.15 GREENHOUSE GAS EMISSIONS

The *CEQR Technical Manual*(2012) recommends a greenhouse gas analysis for projects being analyzed where the project size is greater than 350,000 gross square feet, or projects that have unique energy demands (e.g., power plants, major modifications in transportation). The proposed project does not include any developed square footage nor would it have any measureable

energy demand during its operation. In addition, it would not result in any mobile or stationary sources of air emissions. Therefore, the proposed project is not expected to result in significant adverse impacts related to greenhouse gasses.

B.16 NOISE

According to the *CEQR Technical Manual* (2012) a detailed noise study may be required for stationary noise sources if the proposed project would cause the source to operate within the line of site and 1,500 feet of a receptor (see "Construction Impacts" below). The proposed project would not generate new traffic and therefore no significant increase in noise levels due to mobile sources would occur. The proposed project would also not result in the introduction of any new stationary sources of noise or introduce a new sensitive noise receptor. Therefore, the proposed project is not expected to result in potential significant adverse noise impacts.

B.17 PUBLIC HEALTH

The *CEQR Technical Manual*(2012) identifies that a public health assessment may be warranted if it is determined if "an unmitigated significant adverse impact is identified in other CEQR analysis areas, such as air quality, water quality, hazardous materials, or noise." As discussed in previous sections, the proposed project would not result in unmitigated impacts upon completion. Therefore, the proposed project is not expected to result in potential significant adverse impacts to public health. In addition, any hazardous materials, air quality emissions or noise encountered during construction would be handled in accordance with federal, state, and local regulations (see "Construction Impacts" below).

B.18 NEIGHBORHOOD CHARACTER

A neighborhood character impact assessment is an evaluation of potential impacts on the elements that collectively define a neighborhood. According to the *CEQR Technical Manual* (2012), these elements typically include land use, urban design and visual resources, socioeconomics, traffic, air quality, and noise. As described in greater detail above, the proposed project would not result in any significant adverse impacts with respect to these neighborhood elements. Moreover, the proposed project would be beneficial to residents and visitors by improving stormwater drainage throughout a 248-acre area of Coney Island and upgrading sanitary sewers in accordance with the ADP. Therefore, the proposed project is not expected to result in potential significant adverse impacts to neighborhood character.

B.19 CONSTRUCTION IMPACTS

The proposed project involves the reconstruction and enlargement of three existing outfalls, the installation of new stormwater collection sewers, the relocation and upgrade of distribution and trunk water mains, and the relocation and upgrade of sanitary sewer lines along with the reconstruction of affected streets (see **Figure C-1**). Due to the drainage area's flat topography, the proposed stormwater collection sewers are wide and shallow, and therefore require the relocation of sanitary lines and water mains within certain segments of built streets. Construction of the proposed project would also require the relocation of utilities, as necessary, within the proposed project area. Finally, the proposed project includes the design and construction of a consolidated wetland restoration plan at Calvert Vaux Park to address all permanent wetland impacts associated with the reconstruction and enlargement of three existing stormwater outfalls. All outfall construction activities would be within an existing city street or, with respect to the proposed outfalls, across existing city-owned and previously disturbed property.

PROJECT PHASING

Due to the extent of the proposed project area, the proposed outfalls and related upland infrastructure and consolidated wetland restoration would be constructed as multiple capital projects over several years, with construction beginning in fall 2012. All outfall construction, adjacent infrastructure improvements, and wetland restoration would be completed in 2017 with remaining upland construction expected to be completed in 2019. While the remaining upland construction may extend past the anticipated completion year in accordance with DEP's capital program and permitting and approval processes, the assessment of potential environmental impacts uses 2019 as the "build year."

Phase 1

The duration of Phase 1 construction is expected to last about two years, beginning in late 2012 and ending in late 2014. Construction of the proposed outfall would begin prior to the upland infrastructure improvements and would last three to four months. This includes a new single barrel 7-foot-wide by 5-foot-high outfall and new tide gate to Coney Island Creek at a location immediately east of the existing outfall and extending north from West 15th Street (see **Figure C-5b**). This proposed outfall would replace and enlarge an existing 54-inch diameter stormwater outfall near the end of West 15th Street and would include reinforced concrete pipes supported by steel piles. Phase 1 upland infrastructure improvements along West 15th Street and a portion of Surf Avenue include the installation of new gravity flow stormwater collection sewers, the relocation and upgrade of distribution and trunk water mains, relocation of utilities, as necessary, and the relocation and upgrade of sanitary sewer lines along with the reconstruction of affected streets.

It is expected that construction activities would overlap. The general duration of the activities for the proposed outfall and related upland infrastructure is expected to be as follows:

- Project initiation and staging—45 days;
- Installation of storm sewers and street reconstruction—730 days;
- Outfall and headwall construction—120 days;
- Onsite landscaping and wetland restoration —45 days; and
- Final finishes and close out—30 days.

Phase 2a

The duration of Phase 2a construction is expected to last just over two years, beginning in summer 2014 and ending in fall 2016. Construction of the proposed outfall would begin prior to the upland infrastructure improvements and would last three to four months. This would involve replacement of the existing outfall at that location with a new twin double barrel 7-foot 6-inch wide by 7-foot-high box storm sewer outfall and new tide gate to Coney Island Creek at a location immediately north of and extending from West 21st Street (see **Figure C-5a**). The proposed outfall would replace and enlarge an approximately 13-foot wide by 7-foot 6-inch high stormwater outfall and would include reinforced concrete pipes supported by steel piles. Phase 2a upland infrastructure improvements along West 21st Street and portions of Neptune, Mermaid and Surf Avenues would include the installation of new gravity flow stormwater collection sewers, the relocation and upgrade of distribution and trunk water mains, relocation of utilities, as necessary, and the relocation and upgrade of sanitary sewer lines along with the reconstruction of affected streets.

It is expected that construction activities would overlap. The general duration of the activities for the proposed outfall and related upland infrastructure is expected to be as follows:

- Project initiation and staging—45 days;

- Installation of storm sewers and street reconstruction—720 days;
- Outfall and headwall construction—120 days;
- Landscaping and wetland restoration —45 days; and
- Final finishes and close out—30 days.

Phase 2b

The duration of Phase 2b construction is expected to last about two and a half years, beginning in fall of 2014 and ending in spring 2017. Construction of the proposed outfall would begin prior to the upland infrastructure improvements and would last three to four months. This would involve construction of a new 7-foot-wide by 5-foot-high outfall and new tide gate to Coney Island Creek at a location immediately north of and extending from West 12th Street (see **Figure C-5c**). The proposed outfall would be in addition to an existing 9-foot-wide stormwater outfall currently at this location and would include reinforced concrete pipes supported by steel piles. Phase 2b upland infrastructure improvements along Stillwell Avenue and portions of West 12th Street would include the installation of new gravity flow stormwater collection sewers, the relocation and upgrade of distribution and trunk water mains, relocation of utilities, as necessary, and the relocation and upgrade of sanitary sewer lines along with the reconstruction of affected streets.

It is expected that construction activities would overlap. The general duration of the activities for the proposed outfall and related upland infrastructure is expected to be as follows:

- Project initiation and staging—45 days;
- Installation of storm sewers and street reconstruction—910 days;
- Outfall and headwall construction—120 days;
- Onsite landscaping and wetland restoration —45 days; and
- Final finishes and close out—30 days.

Future Phases

All outfall construction, adjacent infrastructure improvements, and wetland restoration would be completed in 2017 with remaining upland construction expected to be completed in 2019. While the remaining upland construction may extend past the anticipated completion year in accordance with DEP's capital program and permitting and approval processes, the assessment of potential environmental impacts uses 2019 as the "build year." Remaining upland infrastructure improvements throughout the proposed project area would include the installation of new gravity flow stormwater collection sewers, the relocation and upgrade of distribution and trunk water mains, relocation of utilities, as necessary, and the relocation and upgrade of sanitary sewer lines along with the reconstruction of affected streets. Therefore, the outfall phases of construction would be completed in 2017, with the remaining construction expected to be completed in the build year in at least three phases.

Consolidated Wetland Restoration Site

The proposed consolidated wetland restoration would involve limited construction activities associated with regrading, removal of rubble and debris, and installation of wetland plants, that would improve the shoreline of Calvert Vaux Park. Principal activities during construction are expected to include equipment such as backhoes for excavation and dump trucks for the delivery and removal of materials. Use of lighter duty vehicles and hand-held equipment would be used during the final landscaping and finishing work. This work is expected to last approximately 90-120 days.

CONSTRUCTION ACTIVITIES

For each of the three proposed outfalls and related upland infrastructure, the major activities in construction include:

- Mobilization and construction staging;
- Partial and phased in-street work with lane closing (and some possible street closings during the work day) for the installation of the proposed storm sewers, water mains, utilities and sanitary lines, including street excavation, installation of pipes, backfilling of trenches, and final paving and surfacing (it is assumed this construction would progress at about 40 to 80 feet per day);
- Clearing the easement right-of-way, excavation and installation for the three proposed outfalls and headwalls;
- Dredging and in-water construction activities in the area of the outfall headwalls for the three proposed outfalls, which would include: installation of a turbidity curtain; installation of a cofferdam to allow dewatering pumps to remove water from the construction area; a portable sediment tank to capture sediments from dewatering operations; mechanical dredging with dredge spoils transported in a sealed/watertight container and disposed of at a NYSDEC-approved upland disposal facility. Any dredge material for off-site disposal would undergo chemical analyses to satisfy requirements of the disposal facility and would be disposed in accordance with federal, state and local regulations (no dewatering effluent from the dredging operation would be discharged directly to waters);
- Onsite landscaping and wetland restoration for temporary impacts at outfall sites;
- Street tree pruning and street tree removal and replacement if necessary with in the project area; and
- Consolidated wetland restoration at Calvert Vaux Park for the permanent impacts from the proposed outfall improvements.

Principal activities during construction of the proposed storm sewers and three proposed outfalls are expected to include the use of heavy equipment such as backhoes and small cranes, pile driving, concrete and dump trucks for the delivery and removal of materials, tractor trailers to deliver materials, pavement cutters and pavers. Use of lighter duty vehicles and hand held equipment would principally be used during the landscaping and planting work at the consolidated wetland restoration site.

Construction activities are expected to take place Monday through Friday, between 7:00 AM and 4:00 PM in accordance with city laws and regulations. Any work between 4:00 PM and 6:00 PM would require approval per NYC Noise Code. Construction staging for the upland work in local streets is expected to be in the street itself, which would be subject to DOT permits and approval; the contractor may also secure a local property for temporary construction staging (e.g., storage of materials, parking of vehicles). Construction staging for the proposed outfalls may occur within existing city-owned property (such as the vacant city land at the West 21st Street outfall site), within the city sewer easement (e.g., the West 15th Street outfall sewer easement), in the parking lane along the adjacent street (e.g., Neptune Avenue at the West 12th Street outfall site), or at an off-site location to be determined by the contractor. Construction staging for the proposed consolidated wetland restoration is expected to be within Calvert Vaux Park near the site of the proposed restoration, in an area to be identified in coordination with DPR.

The analysis below examines the potential for impacts during construction as a result of the proposed project.

LAND USE, ZONING AND PUBLIC POLICY

ADP DRAINAGE AREA

The proposed project involves the installation of new stormwater collection sewers, the relocation and upgrade of distribution and trunk water mains, relocation of utilities, as necessary, and the relocation and upgrade of sanitary sewer lines along with the reconstruction of affected streets within ADP drainage area. Construction impacts from the proposed project would be typical for a sewer installation project in the right-of-way. The proposed project is expected to proceed along (and within) city streets at a pace of about 40-80 feet per day. Construction impacts from the proposed upland infrastructure would not conflict with local land uses, nor would it require changes to existing zoning, or conflict with existing zoning district regulations. It would also be consistent with applicable public policies, and would be temporary and short in duration. The proposed project would be beneficial to residents and visitors by improving stormwater drainage throughout a 248-acre area of Coney Island and upgrading sanitary sewers in accordance with the ADP. Therefore, the proposed project is not expected to result in potential significant adverse impacts on land use, zoning or public policy during construction.

OUTFALL SITES

The proposed project involves the reconstruction and enlargement of three existing outfalls at West 21st Street, West 15th Street and West 12th Street, along Coney Island Creek. The proposed outfalls would be constructed on vacant, waterfront land under the jurisdiction of the city. During construction, it is expected that there would be disruptions to local traffic as well as noise and other short-term impacts associated with construction activities. Construction work for the proposed outfalls would occur within mapped city streets at the West 21st and West 12th Street outfalls sites, and within a 45-foot sewer easement at the West 15th Street outfall site. As the proposed outfall sites are either vacant city land (West 21st Street outfall site) or used for surface parking (West 15th and West 12th Street outfall sites), construction of the proposed project is not expected to conflict with local land use. It may require the temporary displacement of parking during the construction period, but would not permanently displace the parking uses (see also the parking discussion under "Transportation," below). Construction of the proposed project would not require changes to existing zoning, or conflict with existing zoning district regulations. It would also be consistent with applicable public policies, and would be temporary and short in duration. The proposed project would be beneficial to residents and visitors by improving stormwater drainage throughout a 248-acre area of Coney Island and upgrading sanitary sewers in accordance with the ADP. Therefore, the three reconstructed and enlarged outfalls associated with the proposed project are not expected to result in potential significant adverse impacts on land use, zoning and public policy during construction.

CONSOLIDATED WETLAND RESTORATION

The proposed consolidated wetland restoration plan at Calvert Vaux Park would involve construction activities associated with regrading and vegetating a tidal wetland and adjacent area. Work at this site would not result in any changes in land use at that location. With the proposed wetland restoration, the park would continue to meet its ecological objectives and functions for the shoreline and the proposed restoration would expand and support those objectives. Therefore, the proposed consolidated wetland restoration would not result in potential significant impacts to land use, zoning, and public policy during construction.

HAZARDOUS MATERIALS

See "Hazardous Materials" above. The proposed project would include a Materials Handling Plan and CHASP to address any potential construction-period effects due to the presence of hazardous materials in soil or groundwater, which would be disposed in accordance with federal, state and local regulations. Therefore, the proposed project is not expected to result in potential significant adverse impacts with respect to hazardous materials during construction.

NATURAL RESOURCES

WETLANDS

The three proposed stormwater outfalls would have a limited impact on tidal wetlands along Coney Island Creek during construction. Construction of the outfall at each site would include mechanical dredging, outfall construction and the installation of broken stone bedding at the outfall discharge locations to reduce disturbance of the creek bottom. Affected areas for the three outfalls include approximately 4,500 square feet of unvegetated tidal wetland area and about 11,000 square feet of adjacent tidal wetland area that would be temporarily impacted during construction. These impacts would occur along an existing, developed shoreline with a bulkhead edge or deteriorated, previously developed shoreline. Thus, temporary impacts comprise primarily unvegetated shoreline and subtidal wetland (see **Table B-5**, above).

Impacts associated with construction of the three proposed outfalls including any impact to wetlands in Coney Island Creek would be avoided through a number of protective measures that are outlined below, including restoration of wetland areas affected by construction and runoff and erosion control measures (see "Natural Resources and Water Quality Protections" below). Construction of each of the proposed outfalls would last three to four months and would also be temporary and short in duration. The proposed project would be beneficial to residents and visitors by improving stormwater drainage throughout a 248-acre area of Coney Island and upgrading sanitary sewers in accordance with the ADP. Therefore, the proposed project is not expected to result in potential significant adverse impacts to wetlands during construction.

TERRESTRIAL RESOURCES

No significant impacts on terrestrial resources are expected with the construction of the proposed project. Construction activities would occur primarily within existing streets, in the upland portion of the proposed outfalls, or along existing, developed shoreline with a bulkhead edge or deteriorated, previously developed shoreline. Therefore, the proposed project is not expected to result in potential significant adverse impacts on terrestrial resources during construction.

WILDLIFE

As stated above, the three proposed outfall sites and adjacent areas are either developed or previously disturbed shoreline. Combined temporary impacts from construction include approximately 4,500 square feet of unvegetated tidal wetland area and 11,000 square feet of adjacent tidal wetland area. Although a limited number of aquatic species may be temporarily displaced or impacted during construction due to the work along the shoreline and in the wetlands, extensive commensurate habitat is available in the greater Lower Bay for any displaced wildlife. As described in the impact analysis (see, "Natural Resources"), the benthic zone in this area is highly degraded, consisting primarily of pollutant tolerant species. Thus, the loss of any aquatic species due to construction is not expected to be significant. It is also expected that pre-construction species (which are limited) would return to the proposed project area post-construction. Construction of the proposed outfalls would be temporary and short in duration. The construction period impacts are necessary in order to improve stormwater drainage

within the 248-acre project area and upgrade the sanitary sewer system in accordance with the rezoning of the drainage area. Therefore, the proposed project is not expected to result in potential significant adverse impacts to wildlife during construction.

AQUATIC RESOURCES

Bottom disturbing activities associated with the proposed project would include the installation of the three proposed outfalls within the subtidal zone of Coney Island Creek. Water quality changes associated with increases in suspended sediment during construction are expected to be temporary and limited to the immediate area of the activity. Suspended sediments would be expected to dissipate shortly once the outfall construction is completed and would not result in long-term adverse impacts to water quality. In addition, with respect to upland construction, all construction activities would be subject to and performed in accordance with NYSDEC's technical standards for erosion and sediment control, as well as traditional practices for minimizing impacts to water quality for in-water construction activities (e.g., use of silt fences, straw bale dikes, portable sediment tanks, a stabilized construction driveway entrance, cofferdams and containment booms; see "Natural Resources and Water Quality Protections" below).

Construction of the three outfalls associated with the proposed project would last only three to four months and would be temporary and short in duration. Therefore, the proposed project is not expected to result in potential significant adverse impacts on water quality during construction.

AQUATIC BIOTA

As discussed above, the proposed project would have limited short-term construction related impacts to water quality and aquatic biota. These impacts may include localized temporary increases in suspended sediment and re-suspension of contaminated sediments, fish habitat avoidance, and a *de minimis* disturbance to benthic communities during the installation of the proposed outfall. Water quality changes associated with these increases in suspended sediment are expected to be minimal, temporary, and limited to the immediate area of the activity. Protection measures (e.g., silt curtains and erosion control) are also proposed.

In addition, as described above, the proposed project would comply with all construction period requirements for runoff control and sediment control practices, which would be specified in a SWPPP and the construction documents. Lastly, measures would be implemented as required by state and federal permits to protect tidal wetlands, water quality, and natural resources during construction.

The proposed project also includes a consolidated wetland restoration plan for areas affected by the proposed project (See Attachment A, "Project Description"). As a result of the wetland restoration, benthic macroinvertebrates would be expected to recolonize the area shortly after construction is completed.

Impacts associated with construction of the proposed project including aquatic biota would be temporary and short in duration. Therefore, the proposed project is not expected to result in potential significant adverse impacts to aquatic biota during construction.

The SWPPP also includes a soil and erosion control plan (SECP) in conformance with NYSDEC's "Standard and Specifications for Erosion and Sediment Control" that at a minimum includes, but is not limited to, the following control measures: construction limit fence, staked straw bales, reinforced silt fence, sediment trap with filter, sediment filter, portable sediment tank, storm drain inlet protection, and sandbags.

During construction, the contractor, in accordance with the SWPPP, must conduct a site inspection at least once a week and after each rainfall of 0.5 inches or more. The contractor must also perform a final site inspection to certify that the site has undergone final stabilization, using either vegetative or structural stabilization methods, and that all temporary erosion and sediment controls (such as silt fencing) not needed for long-term erosion control have been removed.

NATURAL RESOURCES AND WATER QUALITY PROTECTIONS

All construction activities for the proposed project would be performed in accordance with NYSDEC's technical standards for erosion and sediment control (e.g., use of silt fences, hay bales, and containment booms) that would be implemented in accordance with a SWPPP in order to minimize potential adverse impacts to water quality and aquatic biota during construction. With these measures in place, no significant impacts on water quality in Coney Island Creek are expected as a result of project construction. This SWPPP must be developed by a licensed/certified professional must also be in compliance with New York State's State Pollutant Discharge Elimination System (SPDES) General Permit for Storm Water Runoff from Construction Activity.

The SWPPP also includes a soil and erosion control plan (SECP) in conformance with NYSDEC's "Standard and Specifications for Erosion and Sediment Control" that at a minimum includes, but is not limited to, the following control measures: construction limit fence, staked straw bales, reinforced silt fence, sediment trap with filter, sediment filter, portable sediment tank, storm drain inlet protection, and sandbags.

Construction of the proposed outfalls would involve activities within tidal wetlands and tidal wetland adjacent areas. As a result, the following measures are proposed to avoid this potential impact:

- Sediment and erosion control practices would be made part of the contract requirements, including specific techniques and methods to control sedimentation and erosion, such as snow fencing and silt fence/surface water collectors along the particularly sensitive segments, as appropriate.
- Within the wetland areas to be replanted, biodegradable erosion-control matting or jute mesh would be used to stabilize soils during the grown-in period. Individual plants would be planted after the mat has been installed. This matting reduces erosion and sedimentation by protecting soil during the period when new wetland plantings are taking root.
- Flagging and marking the edge of wetlands so that construction activities do not extend into wetland areas not intended for construction or restoration.
- Removal of debris and invasive species within the project area. With the installation of the three proposed outfalls, several measures would be undertaken to restore the areas disturbed under the current condition. This would include the removal of invasive plants as well as the removal of debris. Under this proposal, these disturbed areas would be planted with tidal plants that are native to Jamaica Bay and consistent with adjoining habitats.
- During construction, the contractor, in accordance with the SWPPP, must conduct a site inspection at least once a week and after each rainfall of 0.5 inches or more. The contractor must also perform a final site inspection to certify that the site has undergone final stabilization, using either vegetative or structural stabilization methods, and that all temporary erosion and sediment controls (such as silt fencing) not needed for long-term erosion control have been removed.

In addition, to protect surface waters from the impacts of turbidity during construction, the proposed project would include techniques to minimize turbidity impacts and ensure that the proposed construction activity does not significantly adversely impact water quality. These measures are expected to include the following.

- A cofferdam, to be installed prior to the start of any construction activities associated with the construction of the three proposed outfalls. The cofferdam would be installed to allow dewatering pumps to remove water within the construction area before excavation.
- All dewatering activity would occur within the DEP easement and no dewatering effluent from the excavating operation would be discharged directly into surface waters.
- During construction, portable sediment tanks would be used to remove sediments from dewatering effluent prior to discharge into surface waters. If required, dewatering would be covered by a Long Island Wells permit, applied for by the construction contractor. Dredge spoils would be transported in a sealed/watertight container and disposed of at a NYSDEC-approved upland disposal facility. Any dredge material for off-site disposal would undergo chemical analyses to satisfy requirements of the disposal facility and would be disposed in accordance with federal, state and local regulations.
- When water level within the cofferdam rises, mechanical excavation would be performed.

It is expected that these measures would be identified during the permit review process with NYSDEC and USACE. Impacts associated with construction of the proposed project including natural resources and water quality would be temporary and short in duration. Therefore, the proposed project is not expected to result in potential significant adverse impacts to natural resources and water quality during construction.

TRANSPORTATION

CONSTRUCTION TRAFFIC

Construction Workers

The proposed project would generate trips from workers traveling to and from the site, as well as from the movement of goods and equipment. The estimated average number of construction workers on site at any one time would vary, depending on the stage of construction, as follows:

- Sewer, water main and utilities installation and outfall work would require an average of approximately 10 to 20 individuals;
- Street construction work would require an average of approximately 10 to 15 individuals; and
- For lesser intensive work periods (e.g., wetland restoration), average workers at the site work would total between 5 and 10 individuals.

Given typical construction hours (described above), worker trips would occur in off-peak travel times and would not represent a substantial increase in local traffic. Standard peak traffic periods in New York City are from 8:00 AM to 10:00 AM and 5:00 PM to 7:00 PM. Temporary increases in vehicular traffic during construction of the proposed project would not be expected to exceed the 50-peak hour trip threshold established by the CEQR guidelines. Construction period vehicle trips are not expected to result in a significant increase in traffic congestion on local streets and, therefore, are not expected to result in potential significant adverse impacts on traffic during construction.

Truck Traffic

Truck traffic, including delivery and removal of soil, asphalt, piping, and materials would be distributed throughout the weekday, and generally occur between the hours of 7:30 AM and 3:30 PM, depending on the construction phase. The following estimated numbers of trucks (for delivery of soils, materials, and concrete) are anticipated during the various stages of construction:

- Sewer, water main and utilities installation and outfall work: 10 to 15 trucks per day (e.g., dump trucks, concrete trucks)
- Street construction work: 7 trucks per day
- Other site work (e.g., staging): 2 trucks per day

It is assumed that only a limited number of trips would occur in the standard peak traffic periods (e.g., 8:00 to 10:00 AM and 5:00 to 7:00 PM). Impacts associated with construction of the proposed project including truck traffic generated during construction would be temporary and short in duration. For the level of construction activity proposed, it is also expected that truck traffic would not exceed CEQR thresholds for significant traffic impacts during the standard hours for analysis. Therefore, the proposed project is not expected to result in potential significant adverse impacts due to truck traffic during construction.

TRAFFIC DIVERSIONS

The proposed project would require work in local streets for the installation of storm sewers, water mains, sanitary sewer lines, utilities and street reconstruction, which would require temporary lane and possible street closures along with disruption of local traffic. It is expected that traffic flows would be only partially and temporarily affected by the proposed project. If full street closures are required, these would also be temporary. Overall, work in local streets would progress along at a rate of 40-80 feet per day or about 5 days on a short block (200 feet), or 10-15 days on a long block (600 feet). In addition, the contractor would be required to restore the full width of the street at the end of each daily construction period to allow free flow of traffic. Lastly, all construction activities and closures would be subject to DOT approval under a street and sidewalk construction permit that would include a traffic mitigation plan.

Impacts associated with construction of the proposed project including traffic diversions would be temporary and short in duration, would be coordinated with DOT and would include a traffic mitigation plan. Therefore, the proposed project would not result in potential significant adverse impacts due to traffic diversions during construction.

PARKING

Construction of the proposed project may temporarily affect curbside parking along affected streets, but would be limited and temporary in each phase. Street construction is expected, on average, to impact about 20-30 on street parking spaces during the periods of more intensive street construction activities and repaving. All construction activities and temporary removal of street parking would be subject to DOT approval under a street and sidewalk construction permit. It is expected that any truck parking at the site of the proposed outfalls would be addressed in the parking lane along Neptune Avenue (i.e., West 21st and West 12th Street outfall sites) or West 15th Street (i.e., West 15th Street outfall site) where parking is available.

It may be necessary to temporarily prohibit off-street parking at both the West 15th and West 12th Street outfall sites where surface parking is currently provided. This temporary parking relocation from the work area would affect only a limited number of vehicles and both properties

are city-owned. The proposed project would also not eliminate parking at these sites once the proposed outfalls are installed.

Parking impacts associated with construction of the proposed project including on-street and off-street parking would be temporary and short in duration. Therefore, the proposed project is not expected to result in potential significant adverse impacts to on-street parking during construction.

TRANSIT

The proposed project would have some impacts on local bus service and stops along certain streets that have bus service (e.g., Surf Avenue, Mermaid Avenue, Cropsey Avenue). These temporary impacts would be due to construction traffic and temporary lane closures and possibly some temporary bus stop relocations. These impacts would be limited and temporary as construction proceeds throughout the proposed project area. In addition, the work in streets would require a permit from DOT that would limit the impacts on traffic for the in-street work, and would maintain traffic flows to the greatest extent possible during the construction period. Therefore, the proposed project is not expected to result in potential significant adverse impacts on transit systems during construction.

PEDESTRIANS

It is expected that the proposed project may require temporary sidewalk closure along each segment of construction. This closure period would be limited, and adequate temporary diversions would be provided for each phase and segment of street construction. During construction, any sidewalk diversions would be provided with the appropriate protection measures and diversion signage, and would be restored as part of the street reconstruction. All construction activities and sidewalk closures would also be subject to DOT approval under a street and sidewalk construction permit.

Impacts associated with construction of the proposed project including sidewalk closures would be temporary and short in duration. Therefore, the proposed project is not expected to result in potential significant adverse impacts to pedestrians during construction.

NOISE AND VIBRATION

NOISE

Construction activities associated with the proposed project would cause localized temporary noise increases. Impacts on community noise levels during construction typically result from two sources (1) construction equipment operation; and (2) construction vehicles and delivery vehicles traveling to and from the site. Noise levels at a given location typically depend on the number and types of construction equipment being operated, distance of the receptor from the construction site, and any shielding effects (attenuation due to structures or natural barriers). Noise levels caused by construction activities also vary widely and depend on the construction phase. Typically, the loudest noise associated with construction is from pile driving and the use of jackhammers.

Construction noise is regulated by the New York City Noise Control Code (Local Law 113) and the Environmental Protection Agency noise emission standards for construction equipment. These federal and local requirements mandate that certain classifications of construction equipment and motor vehicles meet specified noise emissions standards. Unless under exceptional circumstances, construction activities must be limited to weekdays between the hours of 7 AM and 6 PM. Construction materials would also be handled and transported to avoid

creating any unnecessary noise. Compliance with these noise control measures would be required in contract documents as specifications and directives to the construction contractors.

Additionally, in accordance with city regulations, a noise control plan would be developed and implemented to minimize intrusive noise into nearby areas and effects on sensitive receptors. The noise control plan may include measures such as restricting the location of generators and avoiding unnecessary evening construction activities. A copy of the noise mitigation plan would be kept at the construction site for compliance review by the DEP and the New York City Department of Buildings (DOB). Significant noise impacts to sensitive receptors are not expected to result from the proposed project given the short construction duration.

Impacts associated with construction noise would be temporary and short in duration, and would include a number of controls to minimize construction noise impacts. Therefore, the proposed project is not expected to result in potential significant adverse noise impacts during construction.

VIBRATIONS

Vibrations generated by construction activities can be perceptible and in some cases potentially damaging to structures. No blasting is proposed with the proposed project; however, pile driving (or drilling) would be used for the construction of the three proposed outfalls. Adjacent uses at the three outfall sites are vacant and commercial at the West 21st Street site; residential, vacant, commercial and warehousing at the West 15th Street site; and vacant, utility and surface parking at the West 12th street site. Vibratory levels at a given receptor are a function of the source strength (which in turn is dependent upon the construction equipment and construction methods utilized), the distance between the equipment and the structural receptor, characteristics of the transmitting medium, and the receiver building construction. Construction equipment operation can send vibrations through the ground and therefore decrease in strength with distance. Truck and heavy equipment operation, even in locations close to major roadways, typically do not result in perceptible vibration levels, unless there are irregular road surfaces. Where fragile or historically significant structures exist, such as those identified south of Surf Avenue or near the Boardwalk (see "Historic Resources" above), typical cut and cover construction activities for the installation of infrastructure do not attain vibration levels that result in architectural or structural damage to buildings, although they can achieve levels that are perceptible.

Impacts associated with construction of the proposed project including vibration would be temporary, short in duration, and monitored to avoid impacts. All construction activities would also occur Monday-Friday during daylight hours. Therefore, the proposed project is not expected to result in potential significant adverse impacts due to vibration during construction.

AIR QUALITY

Emissions during construction can include mobile source emissions from vehicles (e.g., trucks and automobiles) and particulate matter from dust. Such emissions may result from trucks delivering or hauling construction and demolition materials and removing debris; worker vehicles; and construction equipment. While it is expected that there would be a limited localized increase in mobile source emissions during construction, these emissions would be temporary and short in duration and, at the projected pace of construction (40-80 feet/day), would shift locations as construction progresses throughout the proposed project area. City regulations require all project contractors to reduce particulate matter emissions to the extent practicable by employing modern equipment, including diesel oxidation catalysts (DOCs).

Construction activities would be subject to New York City Local Law 77, which requires the use of Best Available Technology (BAT) for equipment at the time of construction.[1]

The contractor would also be required to implement a dust control plan with fugitive dust control measures and specifications. For example, watering could be used for excavation and earth moving activities to ensure that soils are dampened as necessary to avoid the suspension of dust in the air. Loose materials could be watered, stabilized with a biodegradable suppressing agent, or covered. Other soil erosion and sediment control practices presented above would have the dual benefit of providing dust suppression. All fugitive dust control measures would be employed as required by the City of New York to reduce the creation and spread of construction dust.

Impacts associated with construction of the proposed project including air quality would be temporary and short in duration given the pace of construction (which would be commensurate with a typical sewer installation project) and would last approximately three to four months at the outfalls. Therefore, the proposed project is not expected to result in potential significant adverse impacts to air quality during construction.

B.20 GROWTH INDUCING

The area of the proposed project is largely developed with residential, commercial, entertainment and open space uses (see **Figure C-3**). Of the approximately 248 acres that comprise the proposed project area, there is limited vacant land (less than 1 percent). The Coney Island area is also accessible by public transportation and has a local street grid that provides vehicular access and utilities including sanitary sewer and water main lines. Thus, the area is already served by transportation, utilities and infrastructure.

The proposed project would involve the installation of new storm sewers, water mains, utilities, sanitary sewer lines and street reconstruction; however, the principal objective is to improve stormwater drainage and upgrade the sanitary sewer system. The *CEQR Technical Manual* (2012) identifies the introduction or expansion of infrastructure as potentially having growth inducing impacts. However, the proposed project area is largely developed, already contains infrastructure, and experiences street flooding during storm events. With the 2009 Coney Island Rezoning, there is potential for substantial residential and commercial development to occur on several large tracts of vacant land along Surf Avenue over the next several years. The proposed project would be beneficial to residents and visitors by improving stormwater drainage throughout a 248-acre area of Coney Island and upgrading sanitary sewers in accordance with the ADP, Therefore, it is concluded that the proposed project would not result in potential significant adverse growth inducing impacts. ✷

[1] New York City Administrative Code § 24-163.3, adopted December 22, 2003, also known as Local Law 77, requires that any diesel-powered non-road engine with a power output of 50 hp or greater that is owned by, operated by or on behalf of, or leased by a city agency shall be powered by ultra low sulfur diesel fuel (ULSD), and utilize the best available technology (BAT) for reducing the emission of pollutants, primarily particulate matter and secondarily nitrogen oxides. DEP is charged with defining and periodically updating the definition of BAT.

ATTACHMENT C

EAS Graphics

4.5.12

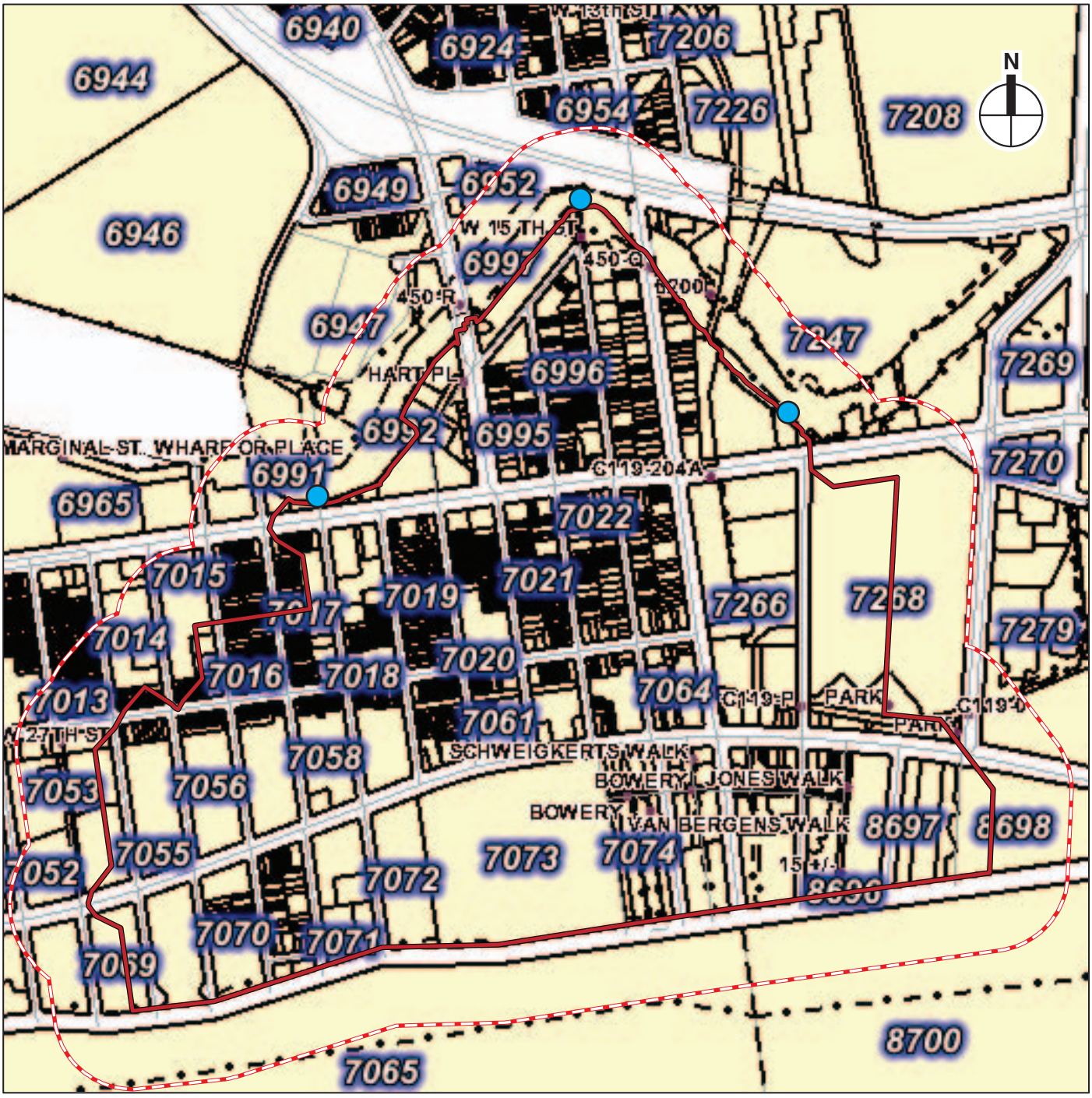
SOURCE: Aerial Photo: 2009 USDA Farm Service AGency National Agriculture Imagery Program

0 1000 FEET
SCALE

Proposed Outfall Locations
Amended Drainage Plan (ADP) Area
Study Area Boundary (400-Foot Perimeter)
Proposed Storm Sewers

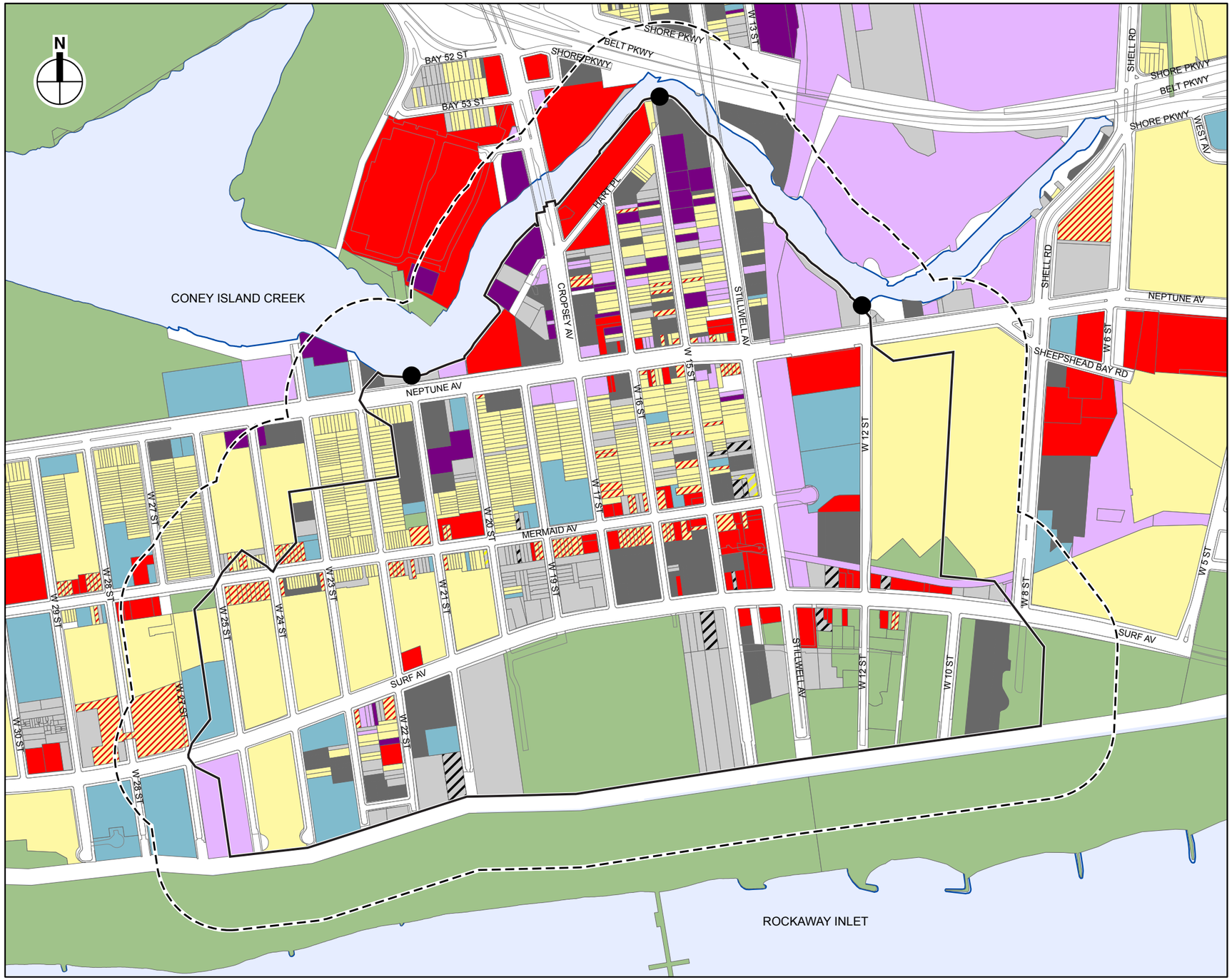
CONEY ISLAND INFRASTRUCTURE IMPROVEMENTS

Aerial Photograph
Proposed Project Area
Figure C-1



Block and Lots
Proposed Project Area
Figure C-2

CONEY ISLAND INFRASTRUCTURE IMPROVEMENTS



- *Proposed Outfall Locations*
- *Amended Drainage Plan (ADP) Area*
- *Study Area Boundary (400-Foot Perimeter)*

Land Use

- *Residential*
- *Residential with Commercial Below*
- *Commercial and Office Buildings*
- *Hotels*
- *Industrial and Manufacturing*
- *Transportation and Utility*
- *Public Facilities and Institutions*
- *Open Space and Outdoor Recreation*
- *Parking Facilities*
- *Vacant Land*
- *Vacant Building*
- *Under Construction*

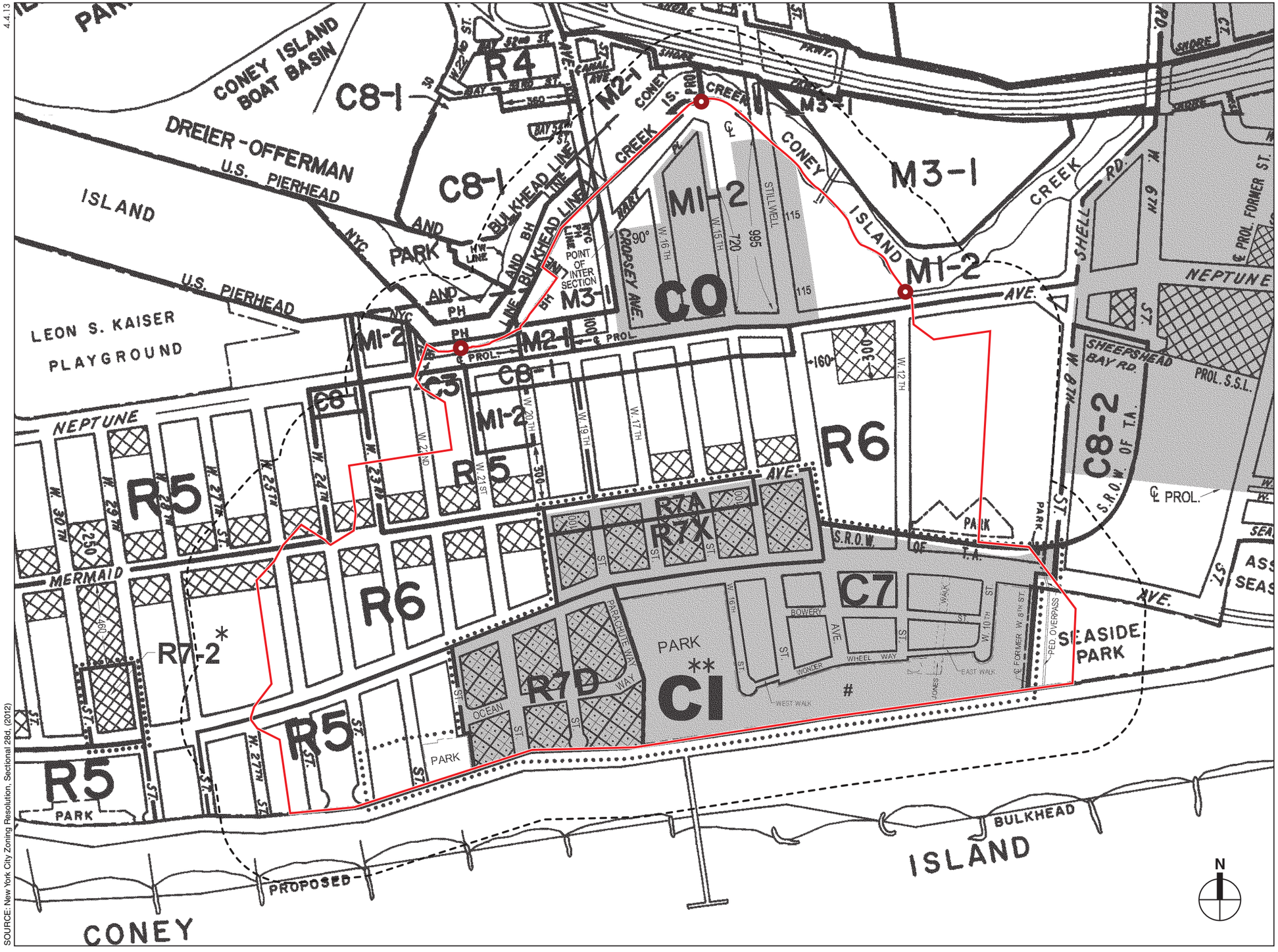
SOURCE: Land Use Data: 2010 NYC Dept. of City Planning and AKRF, Inc.

0 200 1000 FEET
SCALE

CONEY ISLAND INFRASTRUCTURE IMPROVEMENTS

Land Uses
Proposed Project Area
Figure C-3

4.4.13



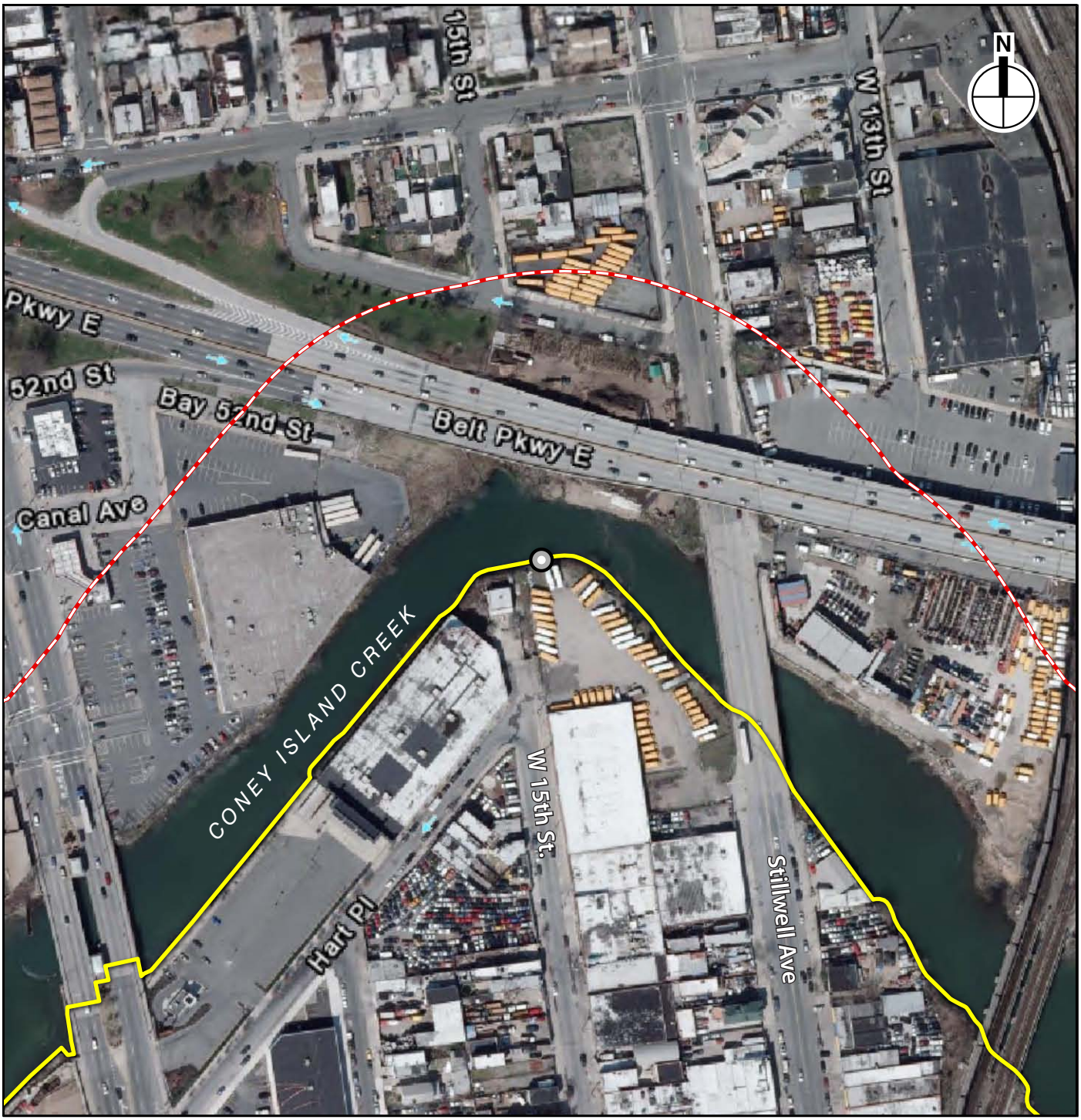
SOURCE: New York City Zoning Resolution, Sectional 28d, (2012)

- *Proposed Outfall Locations*
- *Amended Drainage Plan Boundary*
- *Study Area Boundary (400-Foot Perimeter)*
- *Zoning District Boundary*
- *Special Purpose District*
- *C1-2 Overlay*
- *C2-2 Overlay*

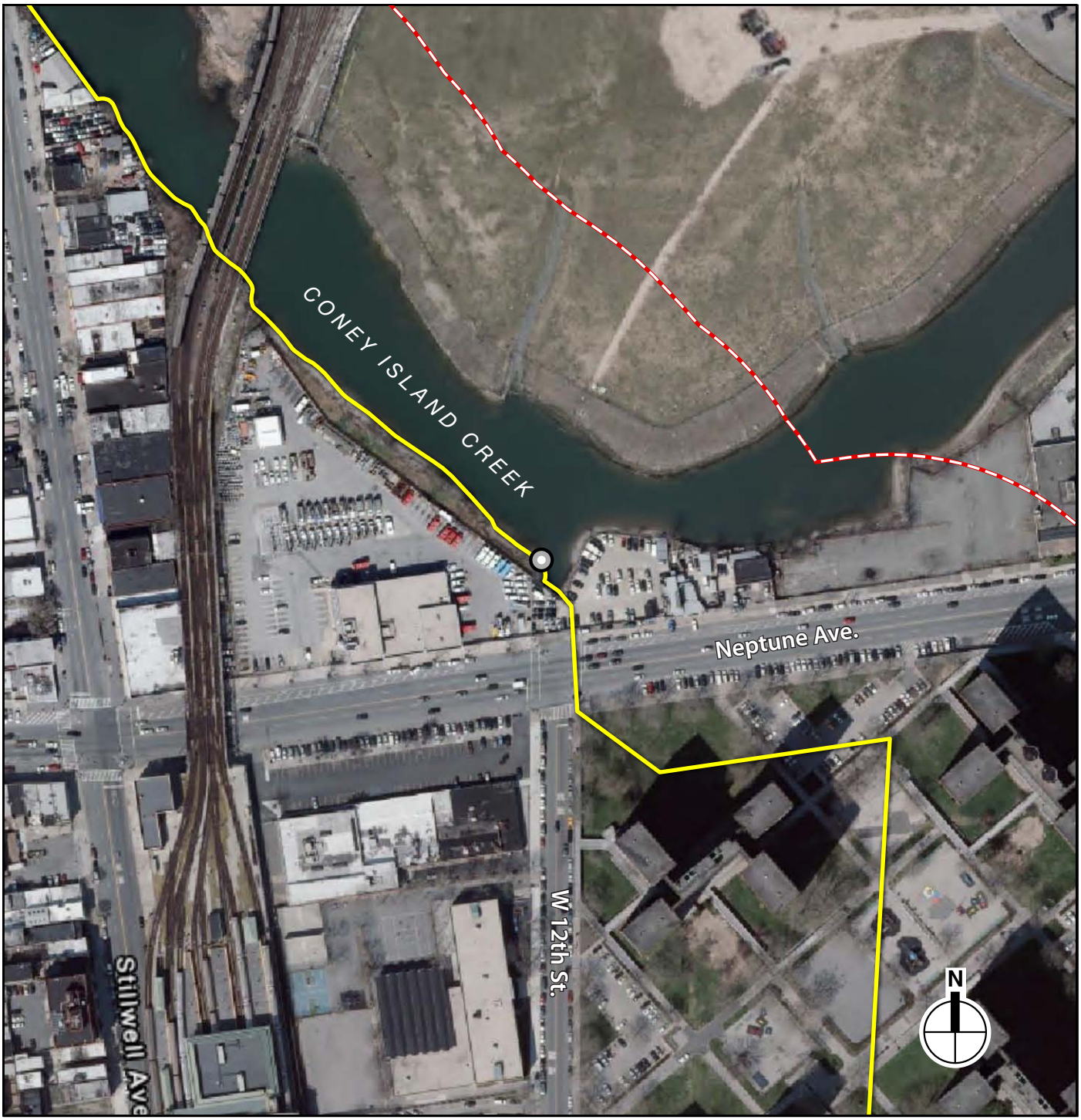
0 500 1000 FEET
SCALE

Zoning
Proposed Project Area
Figure C-4

Aerial Photograph
West 21st Street Outfall Site
Figure C-5a



Aerial Photograph
West 15th Street Outfall Site
Figure C-5b



Proposed Outfall Location

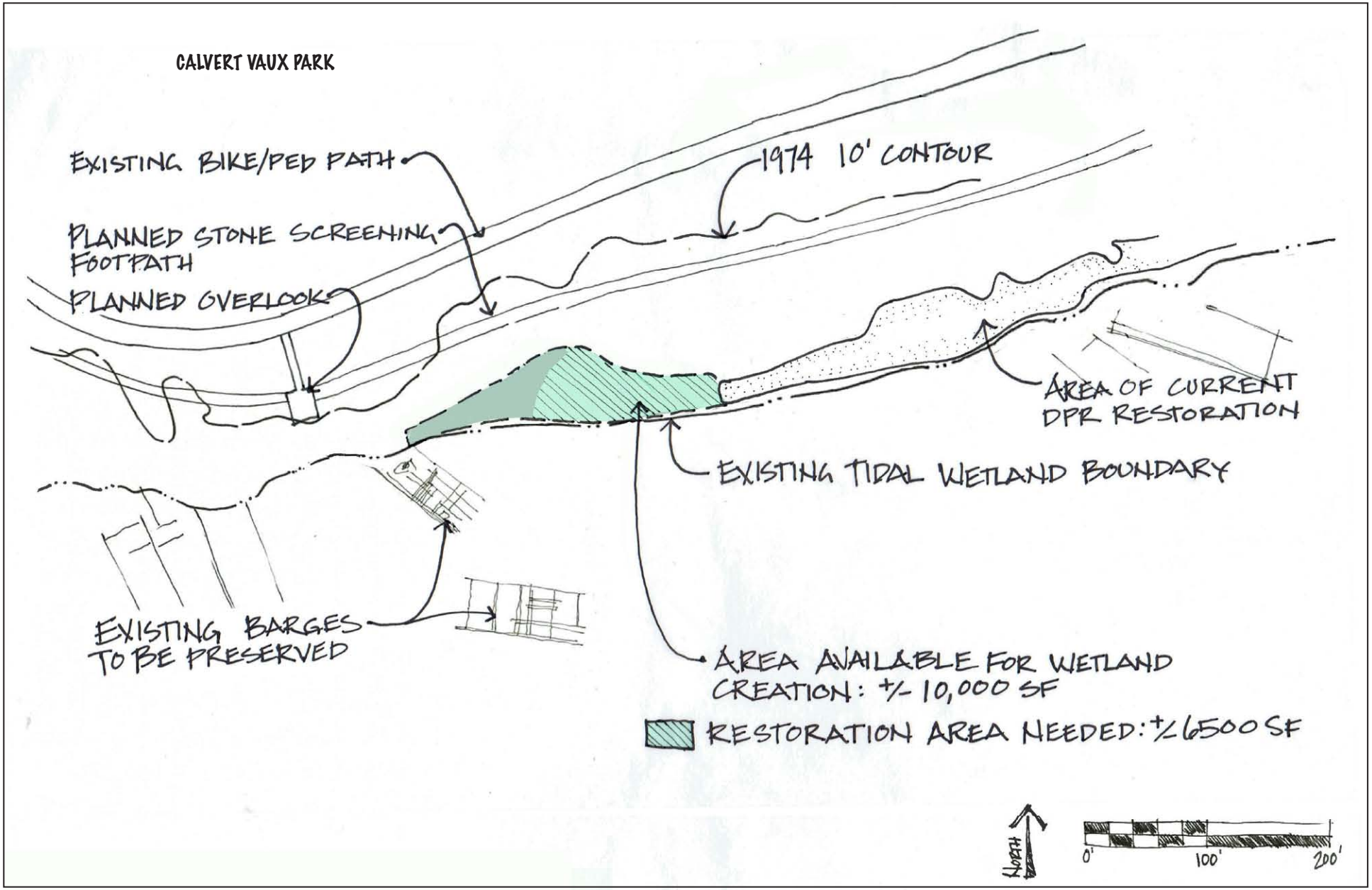
Amended Drainage Plan (ADP) Area

Study Area Boundary (400-Foot Perimeter)

0 100 200 FEET

SCALE

Aerial Photograph
West 12th Street Outfall Site
Figure C-5c



Consolidated Wetland Restoration:
Conceptual Plan
Figure C-6

Phase I
Phase 2a
Phase 2b
Amended Drainage Plan (ADP) Area
Sewer/Utility
Rezoning Area
Outfall Sites

CONEY ISLAND INFRASTRUCTURE IMPROVEMENTS

Project Phasing
Figure C-7

4.4.12

Aerial Photo: 2009 USDA Farm Service AGency National Agriculture Imagery Program
Planimetric Data: New York City Dept. of Information Technology and Telecom. & AKRF

0 200 400 600 800 Feet

Proposed Outfall Locations

Coney Island Rezoning Boundary

Surface Coverages

A	ADP Sub-Drainage Area A	Sq. Ft.
	Pervious (lawns, sand, etc.)	432,969
	Building roofs	787,407
	Parking lots	714,835
	Roadbed	751,357
	Sidewalks	403,293
	Other impervious (private driveways, etc.)	1,319,910

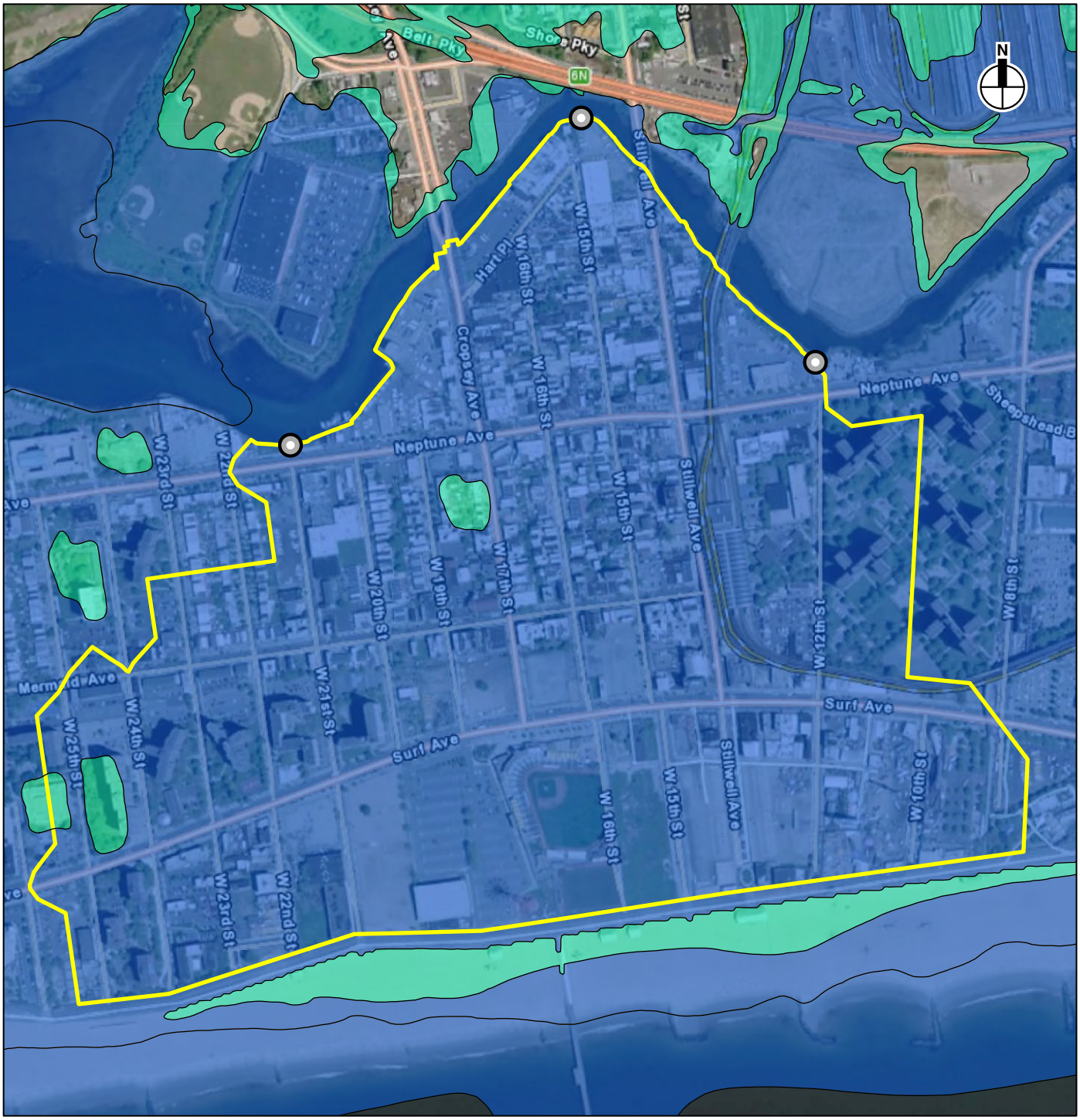
B	ADP Sub-Drainage Area B	Sq. Ft.
	Pervious (lawns, sand, etc.)	234,176
	Building roofs	499,249
	Parking lots	136,010
	Roadbed	371,677
	Sidewalks	222,166
	Other impervious (private driveways, etc.)	919,764

C	ADP Sub-Drainage Area C	Sq. Ft.
	Pervious (lawns, sand, etc.)	176,190
	Building roofs	697,060
	Parking lots	347,663
	Roadbed	519,817
	Sidewalks	184,628
	Other impervious (private driveways, etc.)	1,364,286

Expansion of Drainage Area to West 21st Street Outfall

Amended Drainage Plan (ADP):
Drainage Subareas
Figure C-8

4.4.12



Data sources: Federal Emergency Management Agency - National Flood Hazard Layer 2010; USDA National Agriculture Imagery Program 2009

0 800 FEET

SCALE

Proposed Outfall Locations

Amended Drainage Plan (ADP) Area

Flood Hazard Areas (Source: Federal Emergency Management Agency)

1% Annual Chance Flood Plain add (100 Year Floodplain)

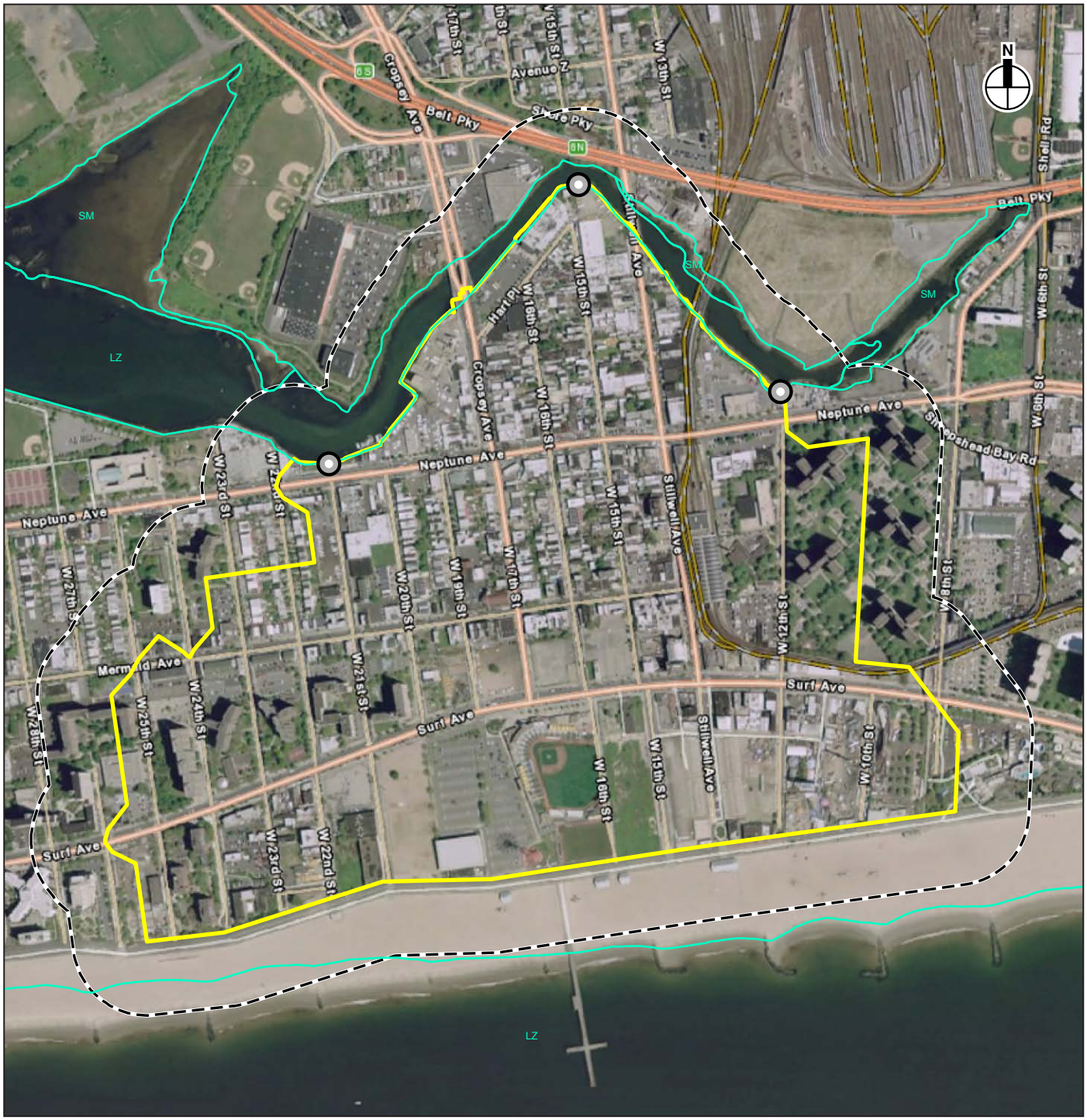
0.2% Annual Chance Flood Plain add (500 Year Floodplain)

CONEY ISLAND INFRASTRUCTURE IMPROVEMENTS

Flood Hazard Areas

Figure C-9

4.5.12



Data sources: NYSDEC Tidal Wetlands 1974; USDA National Agriculture Imagery Program 2009

0 400 800 FEET

SCALE

Proposed Outfall Locations

Amended Drainage Plan (ADP) Area

Study Area Boundary (400-Foot Perimeter)

NYSDEC Mapped Tidal Wetlands Boundaries

CONEY ISLAND INFRASTRUCTURE IMPROVEMENTS

NYSDEC Wetlands

Figure C-10

Data sources: USFWS National Wetlands Inventory - published 2009; USDA National Agriculture Imagery Program 2009

0 400 800 FEET

SCALE

Proposed Outfall Locations

Amended Drainage Plan (ADP) Area

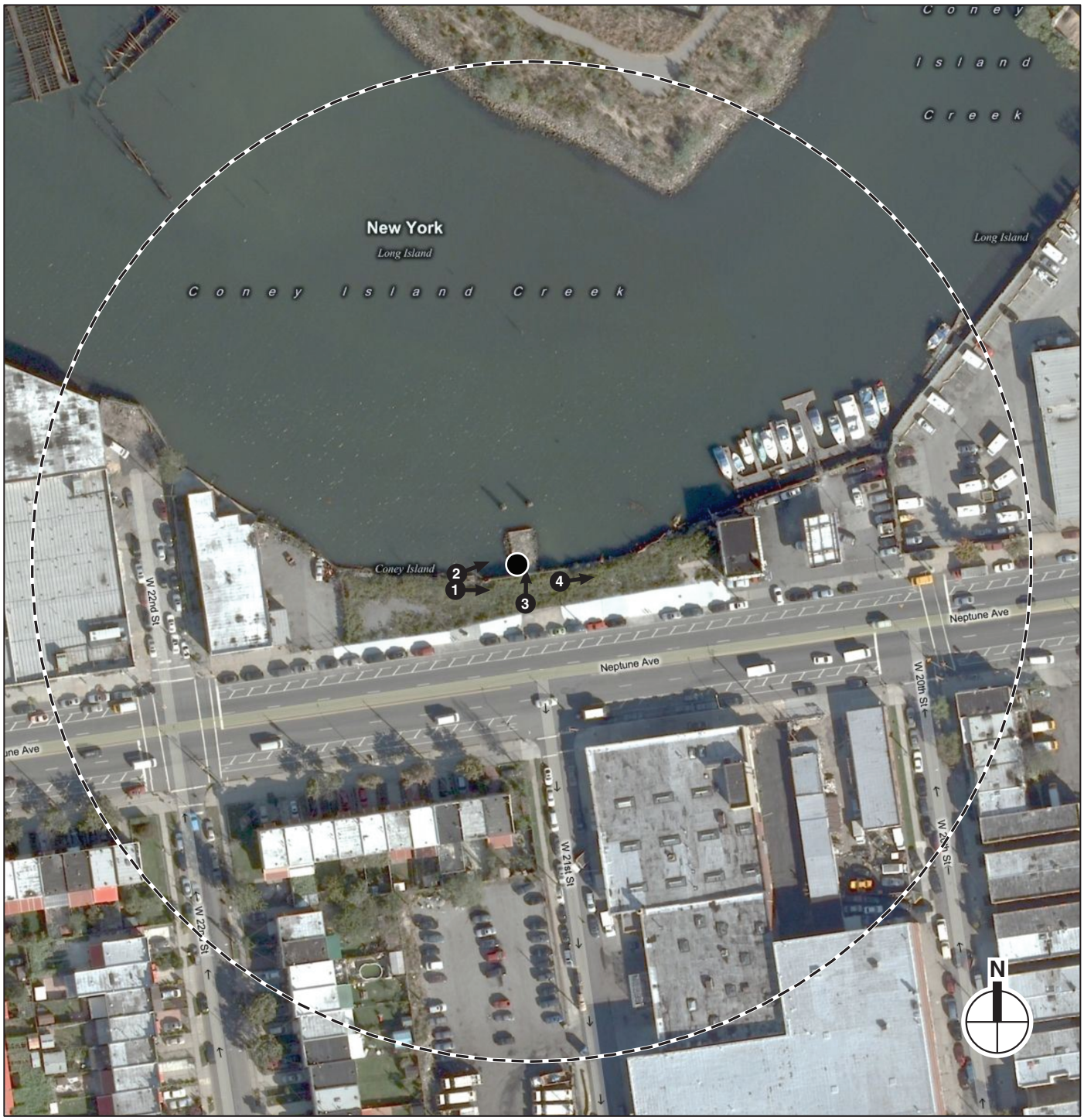
Study Area Boundary (400-Foot Perimeter)

Estuarine and Marine Deepwater Wetlands (Source: US Fish & Wildlife Service)

National Wetlands Inventory

Figure C-11

4.4.12



0 100 200 FEET

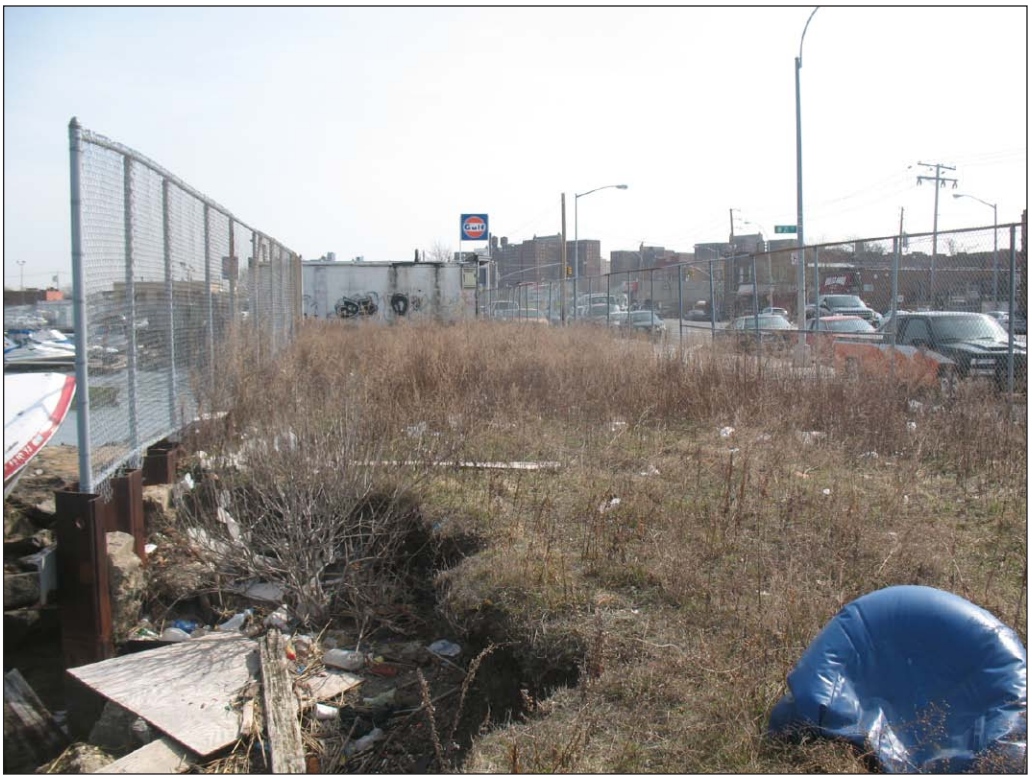
SCALE

Proposed Outfall Location

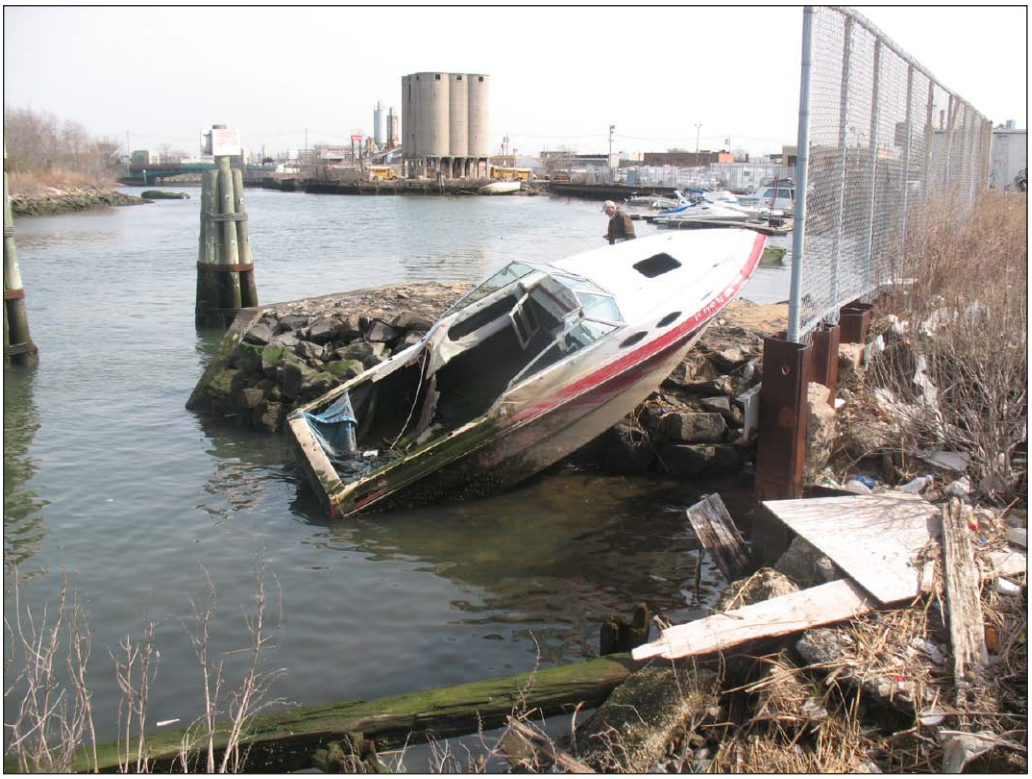
Study Area Boundary (400-Foot Perimeter)

1 Photograph View Direction and Reference Number

Natural Resources Photograph Key
West 21st Street Outfall Site
Figure C-12



View of sewer right-of-way next to Coney Island Creek facing east **1**



View of existing outfall structure on Coney Island Creek facing east **2**

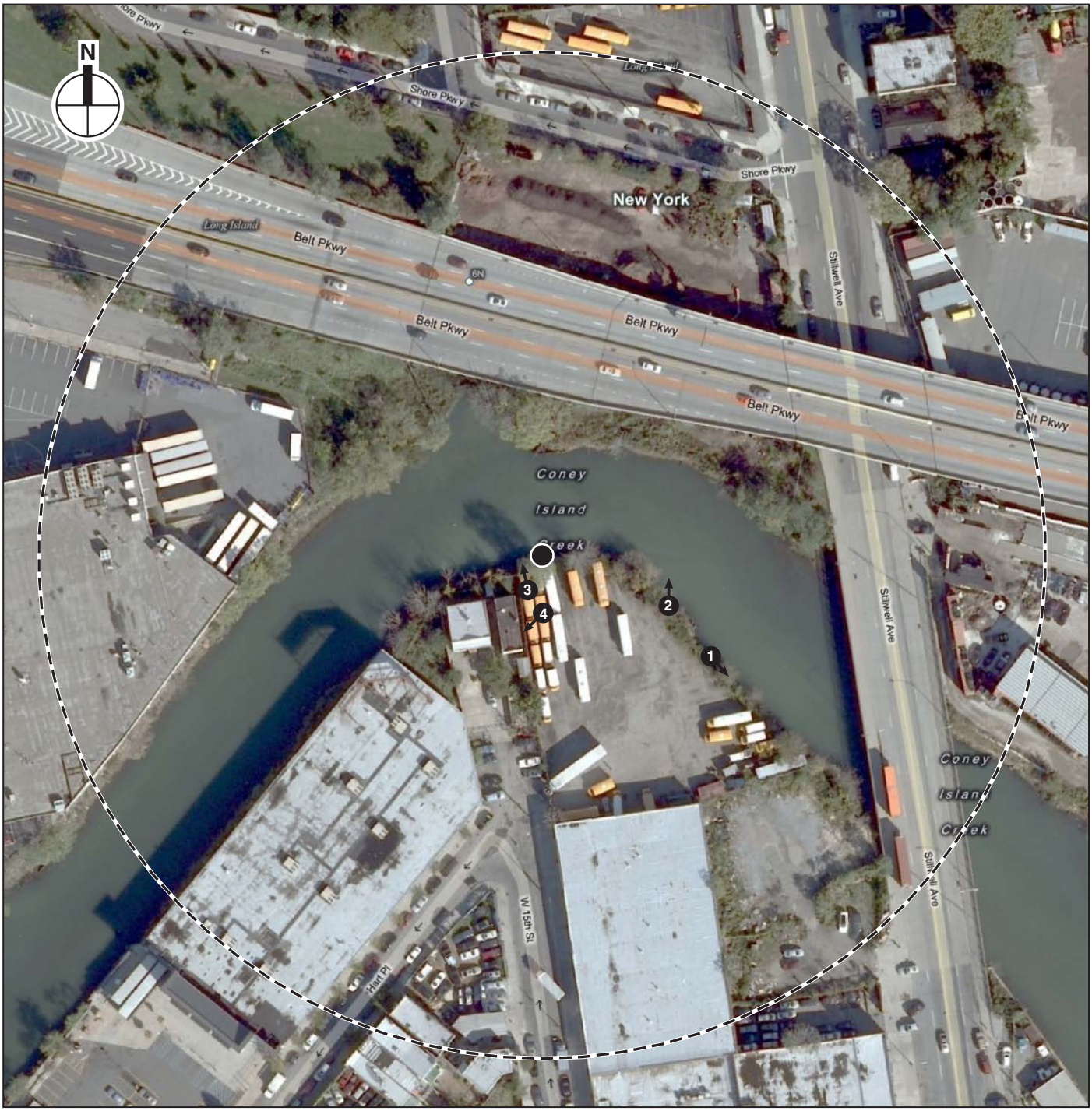
Natural Resources Photographs
West 21st Street Outfall Site
Figure C-13

View of existing sewer outfall structure on Coney Island Creek facing north **3**

View of eroding southern bank along Coney Island Creek facing east **4**

Natural Resources Photographs
West 21st Street Outfall Site
Figure C-14

4.4.12



0 100 200 FEET

SCALE

● *Proposed Outfall Location*

Study Area Boundary (400-Foot Perimeter)

1→ *Photograph View Direction and Reference Number*

Natural Resources Photograph Key
West 15th Street Outfall Site
Figure C-15

CONEY ISLAND INFRASTRUCTURE IMPROVEMENTS

View of south bank of Coney Island Creek facing east **1**

View of north bank of Coney Island Creek facing east **2**

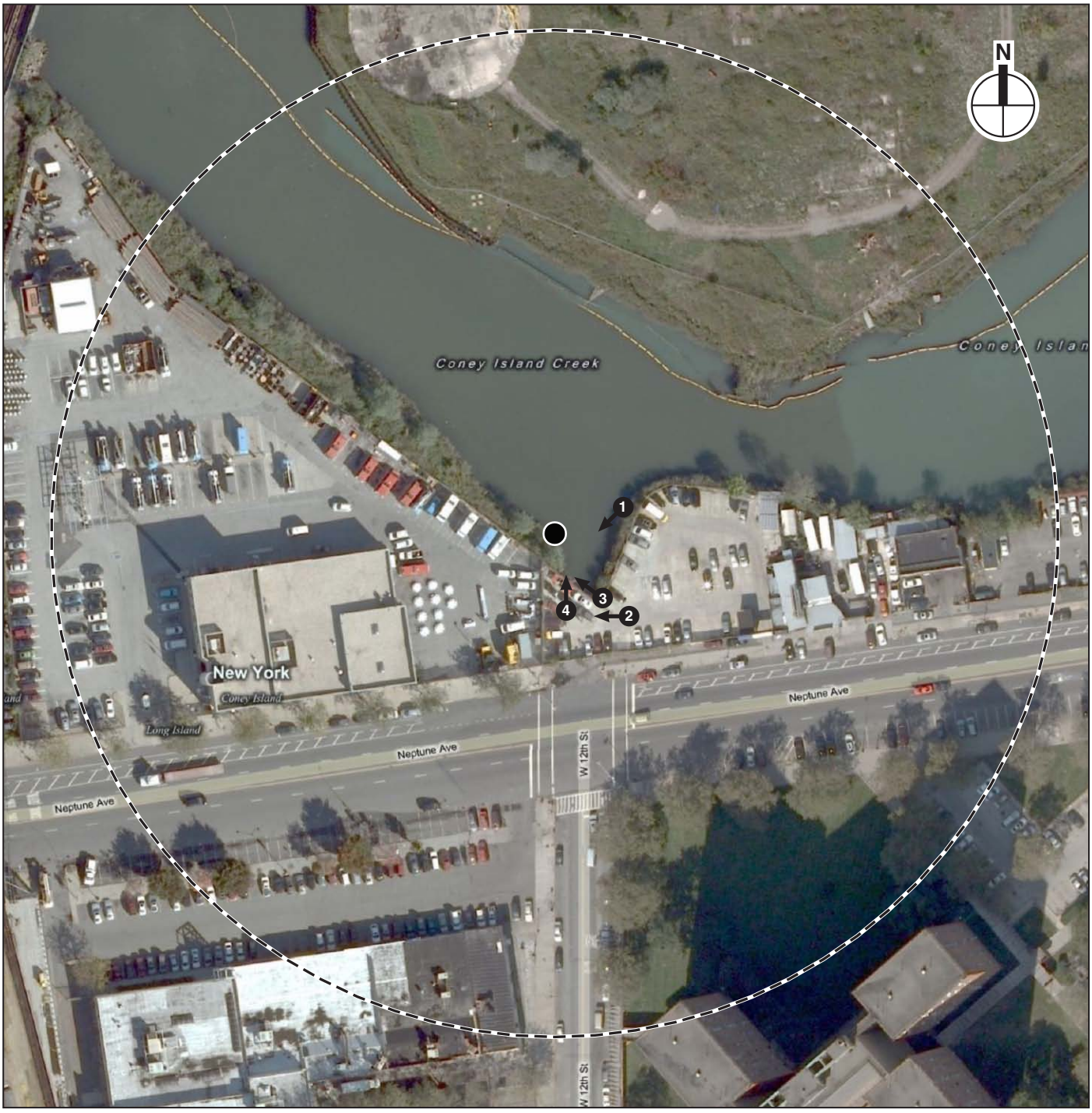
Natural Resources Photographs
West 15th Street Outfall Site
Figure C-16

View from southern shoreline of outfalls located on northern shoreline of Coney Island Creek **3**

View of sewer right-of-way facing north toward Coney Island Creek **4**

Natural Resources Photographs
West 15th Street Outfall Site
Figure C-17

4.4.12



0 100 200 FEET

SCALE

Proposed Outfall Location

Study Area Boundary (400-Foot Perimeter)

Photograph View Direction and Reference Number

Natural Resources Photograph Key
West 12th Street Outfall Site
Figure C-18

View of existing timber bulkhead on the southern shoreline of Coney Island Creek **1**

View of the parking lot and top of the existing timber bulkhead facing west **2**

Natural Resources Photographs
West 12th Street Outfall Site
Figure C-19

View of the top of the existing timber bulkhead and the southern shoreline of Coney Island Creek facing west **3**

View from the top of the outfall facing north toward the restoration area of the former Brooklyn Borough Gas Works site **4**

Natural Resources Photographs
West 12th Street Outfall Site
Figure C-20

APPENDIX A

NYC Waterfront Revitalization Program
Consistency Assessment Form

For Internal Use Only:	WRP no._____
Date Received:_____	DOS no._____

NEW YORK CITY WATERFRONT REVITALIZATION PROGRAM
Consistency Assessment Form

Proposed action subject to CEQR, ULURP, or other Local, State or Federal Agency Discretionary Actions that are situated within New York City's designated Coastal Zone Boundary must be reviewed and assessed for their consistency with the *New York City Waterfront Revitalization Program (WRP)*. The WRP was adopted as a 197-a Plan by the Council of the City of New York on October 13, 1999, and approved in coordination with local, state and Federal laws and regulations, including the State's Coastal Management Program (Executive Law, Article 42) and the Federal Coastal Zone Management Act of 1972 (P.L. 92-583). As a result of these approvals, state and federal discretionary actions within the city's coastal zone must be consistent to the maximum extent practicable with the WRP policies and the city must be given the opportunity to comment on all state and federal projects within its coastal zone.

This form is intended to assist an applicant in certifying that the proposed activity is consistent with the WRP. It should be completed when the local, state, or federal application is prepared. The completed form and accompanying information will be used by the New York State Department of State, other State Agency or the New York City Department of City Planning in its review of the applicant's certification of consistency.

A. APPLICANT

1. Name: **Narayana Venugopalan, Assistant Commissioner**
   New York City Department of Design and Construction

Address: **30-30 Thomson Avenue**, **Long Island City, NY 11101**

3. Telephone: **718-391-2283** Fax: **718-391-2277**

E-mail Address: **venugopa@ddc.nyc.gov**

4. Project site owner: **City of New York**

B. PROPOSED ACTIVITY

1. Brief description of activity: **The proposed capital project involves the installation of a storm sewer system, including three enlarged outfalls into Coney Island Creek with new storm water collection sewers, the relocation of sanitary sewers and water mains within the built street where necessary, and wetland restoration.**

2. Purpose of activity: **The proposed storm sewer system and outfalls are necessary to improve drainage and to reduce street flooding in the area.**

3. Location of activity: **The project area is the Coney Island area of Brooklyn including the waterfront of Coney Island Creek.**
   Borough: **Brooklyn**

Street Address or Site Description: **See above.**

Proposed Activity Cont'd

4. If a federal or state permit or license was issued or is required for the proposed activity, identify the permit type(s), the authorizing agency and provide the application or permit number(s), if known: **State Approvals: NYSDEC 401 Water Quality Certification; NYSDEC Tidal Wetlands Permit; NYSDEC SPDES MS4 Permit (Modification); NYSDEC SPDES General Permit for Stormwater Discharges from Construction Activity; Industrial SPDES Discharge Permit.**
Federal Approvals: ACOE Section 10, Construction in Navigable Waters; ACOE Section 404, Dredging and Filling of Navigable Waters. Nationwide Permit 7–Outfall Structures and Associated Intake Structures. See also Attachment A, "Project Description," under "Permits and Approvals."

5. Is federal or state funding being used to finance the project? If so, please identify the funding source(s). **No**

		Yes	No
6.	Will the proposed project result in any large physical change to a site within the coastal area that will require the preparation of an environmental impact statement? If yes, identify Lead Agency:		✓

7. Identify City discretionary actions, such as zoning amendment or adoption of an urban renewal plan, required for the proposed project.
The proposed action is a capital project being undertaken by the New York City Department of Environmental Protection.

C. COASTAL ASSESSMENT

The following questions represent, in a broad sense, the policy of the WRP. The number in the parentheses after each question indicated the policy or policies that are the focus of the question. A detailed explanation of the Waterfront Revitalization Program and its policies are contained in the publication the *New York City Waterfront Revitalization Program.*

Check either "Yes" or "No" for each of the following questions. Once the checklist is completed, assess how the proposed project affects the policy or standards indicated in "( )" after each question with a Yes response. Explain how the action is consistent with the goals of the policy or standard.

Location Questions:		**Yes**	**No**
1.	Is the project site on the waterfront or at the water's edge?	✓	
2.	Does the proposed project require a waterfront site?	✓	
3.	Would the action result in a physical alteration to a waterfront site, including land along the shoreline, land underwater, or coastal waters?	✓	

Policy Questions:		**Yes**	**No**
	The following questions represent, in a broad sense, the policies of the WRP. Numbers in parentheses after each question indicate the policy or policies addressed by the question. The new Waterfront Revitalization Program offers detailed explanations of the policies, including criteria for consistency determinations. Check either "Yes" or "No" for each of the following questions. For all "yes" responses, provide an attachment assessing the effects of the proposed activity on the relevant policies or standards. Explain how the action would be consistent with the goals of those policies and standards.		
4.	Will the proposed project result in revitalization or redevelopment of a deteriorated or under- used waterfront site? (1)		✓
5.	Is the project site appropriate for residential or commercial redevelopment? (1.1)		✓
6.	Will the action result in a change in scale or character of a neighborhood? (1.2)		✓
7.	Will the proposed activity require provision of new public services or infrastructure in undeveloped or sparsely populated sections of the coastal area? (1.3)		✓

Policy Questions cont'd:		Yes	No
8.	Is the action located in one of the designated Significant Maritime and Industrial Areas (SMIA): South Bronx, Newtown Creek, Brooklyn Navy Yard, Red Hook, Sunset Park, or Staten Island? (2)		✓
9.	Are there any waterfront structures, such as piers, docks, bulkheads or wharves, located on the project sites? (2)	✓	
10.	Would the action involve the siting or construction of a facility essential to the generation or transmission of energy, or a natural gas facility, or would it develop new energy resources? (2.1)		✓
11.	Does the action involve the siting of a working waterfront use outside of a SMIA? (2.2)		✓
12.	Does the proposed project involve infrastructure improvement, such as construction or repair of piers, docks, or bulkheads? (2.3, 3.2)	✓	
13.	Would the action involve mining, dredging, or dredge disposal, or placement of dredged or fill materials in coastal waters? (2.3, 3.1, 4, 5.3, 6.3)	✓	
14.	Would the action be located in a commercial or recreational boating center, such as City Island, Sheepshead Bay or Great Kills or an area devoted to water-dependent transportation? (3)		✓
15.	Would the proposed project have an adverse effect upon the land or water uses within a commercial or recreation boating center or water-dependent transportation center? (3.1)		✓
16.	Would the proposed project create any conflicts between commercial and recreational boating? (3.2)		✓
17.	Does the proposed project involve any boating activity that would have an impact on the aquatic environment or surrounding land and water uses? (3.3)		✓
18.	Is the action located in one of the designated Special Natural Waterfront Areas (SNWA): Long Island Sound-East River, Jamaica Bay, or Northwest Staten Island? (4 and 9.2)		✓
19.	Is the project site in or adjacent to a Significant Coastal Fish and Wildlife Habitats? (4.1)		✓
20.	Is the site located within or adjacent to a Recognized Ecological Complex: South Shore of Staten Island or Riverdale Natural Area District? (4.1and 9.2)		✓
21.	Would the action involve any activity in or near a tidal or freshwater wetland? (4.2)	✓	
22.	Does the project site contain a rare ecological community or would the proposed project affect a vulnerable plant, fish, or wildlife species? (4.3)		✓
23.	Would the action have any effects on commercial or recreational use of fish resources? (4.4)		✓
24.	Would the proposed project in any way affect the water quality classification of nearby waters or be unable to be consistent with that classification? (5)		✓
25.	Would the action result in any direct or indirect discharges, including toxins, hazardous substances, or other pollutants, effluent, or waste, into any waterbody? (5.1)	✓	
26.	Would the action result in the draining of stormwater runoff or sewer overflows into coastal waters? (5.1)	✓	
27.	Will any activity associated with the project generate nonpoint source pollution? (5.2)	✓	

Policy Questions cont'd:		Yes	No
28.	Would the action cause violations of the National or State air quality standards? (5.2)		✓
29.	Would the action result in significant amounts of acid rain precursors (nitrates and sulfates)? (5.2C)		✓
30.	Will the project involve the excavation or placing of fill in or near navigable waters, marshes, estuaries, tidal marshes or other wetlands? (5.3)	✓	
31.	Would the proposed action have any effects on surface or ground water supplies? (5.4)		✓
32.	Would the action result in any activities within a Federally designated flood hazard area or State designated erosion hazards area? (6)		✓
33.	Would the action result in any construction activities that would lead to erosion? (6)	✓	
34.	Would the action involve construction or reconstruction of flood or erosion control structure? (6.1)	✓	
35.	Would the action involve any new or increased activity on or near any beach, dune, barrier island, or bluff? (6.1)		✓
36.	Does the proposed project involve use of public funds for flood prevention or erosion control? (6.2)	✓	
37.	Would the proposed project affect a non-renewable source of sand? (6.3)		✓
38.	Would the action result in shipping, handling, or storing of solid wastes; hazardous materials, or other pollutants? (7)	✓	
39.	Would the action affect any sites that have been used as landfills? (7.1)		✓
40.	Would the action result in development of a site that may contain contamination or has a history of underground fuel tanks, oil spills, or other form or petroleum product use or storage? (7.2)	✓	
41.	Will the proposed activity result in any transport, storage, treatment, or disposal of solid wastes or hazardous materials, or the siting of a solid or hazardous waste facility? (7.3)		✓
42.	Would the action result in a reduction of existing or required access to or along coastal waters, public access areas, or public parks or open spaces? (8)		✓
43.	Will the proposed project affect or be located in, on, or adjacent to any federal, state, or city park or other land in public ownership protected for open space preservation? (8)		✓
44.	Would the action result in the provision of open space without the provision for its maintenance? (8.1)		✓
45.	Would the action result in any development along the shoreline but NOT include new water enhanced or water dependent recreational space? (8.2)		✓
46.	Will the proposed project impede visual access to coastal lands, waters and open space? (8.3)		✓

Policy Questions cont'd:		Yes	No
47.	Does the proposed project involve publically owned or acquired land that could accommodate waterfront open space or recreation? (8.4)		✓
48.	Does the project site involve lands or waters held in public trust by the state or city? (8.5)	✓	
49.	Would the action affect natural or built resources that contribute to the scenic quality of a coastal area? (9)		✓
50.	Does the site currently include elements that degrade the area's scenic quality or block views to the water? (9.1)		✓
51.	Would the proposed action have a significant adverse impact on historic, archeological, or cultural resources? (10)		✓
52.	Will the proposed activity affect or be located in, on, or adjacent to an historic resource listed on the National or State Register of Historic Places, or designated as a landmark by the City of New York? (10)		✓

D. CERTIFICATION

The applicant must certify that the proposed activity is consistent with New York City's Waterfront Revitalization Program, pursuant to the New York State Coastal Management Program. If this certification cannot be made, the proposed activity shall not be undertaken. If the certification can be made, complete this section.

"The proposed activity complies with New York State's Coastal Management Program as expressed in New York City's approved Local Waterfront Revitalization Program, pursuant to New York State's Coastal Management Program, and will be conducted in a manner consistent with such program."

Applicant/Agent Name: **Narayana Venugopalan, Assistant Commissioner**
New York City Department of Design and Construction

Address: **30-30 Thomson Avenue, Long Island City, NY 11101**

Telephone **718-391-2283**

Applicant/Agent Signature: N. Venugopal. Date: 4-2-12

A. NEW YORK STATE COASTAL ZONE MANAGEMENT PROGRAM

This attachment examines the compliance of the proposed project with the City's Waterfront Revitalization Program (WRP). The Coastal Zone Management (CZM) Act of 1972 was established to support and protect the distinctive character of the waterfront, and to set forth standard policies for reviewing proposed development projects along coastlines. The program addressed local, state, and federal concerns about the deterioration and inappropriate use of the waterfront.

In response, New York State adopted its Coastal Management Program, designed to balance economic development and preservation by promoting waterfront revitalization and water-dependent uses while protecting fish and wildlife, open space and scenic areas, public access to the shoreline, and farmland; and minimizing adverse changes to ecological systems and in erosion and flood hazards. The program provides for local implementation when a municipality adopts a local waterfront revitalization program, as is the case in New York City.

The New York City WRP encourages coordination among all levels of government to promote sound waterfront planning and requires consideration of the program's goals in making land use decisions. The New York State Department of State (NYSDOS) administers the program at the state level, and the New York City Department of City Planning (NYCDCP) administers it in the City.

This attachment reviews the 10 New York City coastal zone policies that comprise the WRP and assesses, where applicable, the general consistency of the proposed Coney Island Infrastructure Improvements ("proposed project") (see "Project Description, Attachment A) with those policies.

NEW YORK CITY WATERFRONT REVITALIZATION POLICIES

Policy 1: Support and facilitate commercial and residential redevelopment in appropriate coastal zone areas.

Policy 1.1: Encourage commercial and residential redevelopment in appropriate coastal zone areas.

Policy 1.2: Encourage non-industrial development that enlivens the waterfront and attracts the public.

Policy 1.3: Encourage redevelopment in the coastal area where public facilities and infrastructure are adequate or will be developed.

The proposed project would not directly result in any new residential or commercial uses or redevelopment, nor would it induce any new development through the installation of new infrastructure. The proposed project would support existing commercial and residential development in the coastal zone as it would improve stormwater drainage within the 248-acre project area and upgrade the sanitary sewer system in accordance with DEP's amended drainage plan (ADP). The proposed project would also support new residential and commercial development anticipated to result from the Coney Island Rezoning. Therefore, the proposed project would be consistent with these policies.

Policy 2: Support water-dependent and industrial uses in New York City coastal areas that are well-suited to their continued operation.

Policy 2.1: Promote water-dependent and industrial uses in Significant Maritime and Industrial Areas.

Policy 2.2: Encourage working waterfront uses at appropriate sites outside the Significant Maritime and Industrial Areas.

Policy 2.3: Provide infrastructure improvements necessary to support working waterfront uses.

The proposed project would not involve water dependent or waterfront industrial uses. Therefore, these policies do not apply.

Policy 3: Promote use of New York City's waterways for commercial and recreational boating and water-dependent transportation centers.

Policy 3.1: Support and encourage recreational and commercial boating in New York City's maritime centers.

Policy 3.2: Minimize conflicts between recreational, commercial, and ocean-going freight vessels.

Policy 3.3: Minimize impact of commercial and recreational boating activities on the aquatic environment and surrounding land and water uses.

The proposed project would not involve any type of commercial or recreational boating activities. Therefore, these policies do not apply.

Policy 4: Protect and restore the quality and function of ecological systems within the New York City coastal area.

Policy 4.1: Protect and restore the ecological quality and component habitats and resources within the Special Natural Waterfront Areas, Recognized Ecological Complexes and Significant Coastal Fish and Wildlife Habitats.

The proposed project area is not located within a Special Natural Waterfront Area, Recognized Ecological Complex, or Significant Coastal Fish and Wildlife Habitat. Therefore, this subpolicy would not apply.

Policy 4.2: Protect and restore tidal and freshwater wetlands.

Policy 4.3: Protect vulnerable plant, fish, and wildlife species, and rare ecological communities. Design and develop land and water uses to maximize their integration or compatibility with the identified ecological community.

Policy 4.4: Maintain and protect living aquatic resources.

The proposed project would not adversely affect any vulnerable plant, fish, or wildlife species, rare ecological communities, or living aquatic resources. As described under "Natural Resources" and "Construction Impacts" in Attachment B, baseline water quality conditions would not be significantly changed and water quality impacts would be negligible. The proposed project also includes a consolidated wetland restoration plan to address the permanent impacts associated with the reconstruction and enlargement of each outfall. The proposed consolidated wetland restoration would be beneficial to the ecology of Coney Island Creek by providing increased saltmarsh habitat and improved water quality. In order to avoid impacts due to construction-period activity, the proposed project includes measures to protect tidal wetlands from impacts during construction and to restore affected areas following construction (see "Construction Impacts" in Attachment B). Therefore, the proposed project is consistent with these policies.

Policy 5: Protect and improve water quality in the New York City coastal area.

Policy 5.1: Manage direct or indirect discharges to waterbodies.

The proposed project would improve stormwater drainage within the 248-acre project area and upgrade the sanitary sewer system in accordance with DEP's amended drainage plan (ADP). New storm sewers throughout the proposed project area are to be installed to convey stormwater from the local streets to Coney Island Creek, thereby reducing flooding in the drainage area. The proposed project would also manage any direct or indirect discharges to waterbodies during construction through a Stormwater Pollution Prevention Plan (SWPPP) (see "Construction Impacts" in Attachment B). Therefore the proposed project would be consistent with this subpolicy.

Policy 5.2: Protect the quality of New York City's waters by managing activities that generate non-point source pollution.

The proposed project would not contribute nonpoint source pollution. Therefore, this subpolicy does not apply.

Policy 5.3: Protect water quality when excavating or placing fill in navigable waters and in or near marshes, estuaries, tidal marshes or wetlands.

Policy 5.4: Protect the quality and quantity of groundwater, streams, and the sources of water for wetlands.

The proposed project would not have significant adverse impacts on local water quality during operation or construction. Baseline water quality conditions would not be significantly changed and water quality impacts would be negligible (see "Natural Resources" in Attachment B). The proposed project would also manage any direct or indirect discharges to waterbodies during construction through a Stormwater Pollution Prevention Plan (SWPPP) (see "Construction Impacts" in Attachment B) and would not adversely impact water quality during operation. In addition, the proposed consolidated wetland restoration would be beneficial to the ecology of Coney Island Creek by providing increased saltmarsh habitat and improved water quality. Therefore, the proposed project would be consistent with these subpolicies.

Policy 6: Minimize the loss of life, structures, and natural resources caused by flooding and erosion.

Policy 6.1: Minimize losses from flooding and erosion by employing non-structural and structural management measures appropriate to the condition and use of the property to be protected and the surrounding area.

The proposed project would improve stormwater drainage within the 248-acre project area and upgrade the sanitary sewer system in accordance with DEP's amended drainage plan (ADP). All construction activities would be performed in accordance with NYSDEC's technical standards for erosion and sediment control (e.g. use of silt fences, hay bales, and containment booms) that would be implemented in accordance with a SWPPP in order to minimize potential erosion impacts. With these measures in place, no significant erosion impacts are expected. Therefore, the proposed project would be consistent with this subpolicy.

Policy 6.2: Direct public funding for flood prevention or erosion control measures in those locations where the investment will yield significant public benefit.

Policy 6.3: Protect and preserve non-renewable sources of sand for beach nourishment.

These subpolicies are not applicable.

Policy 7: Minimize environmental degradation from solid waste and hazardous substances.

Policy 7.1: Manage solid waste material, hazardous wastes, toxic pollutants, and substances hazardous to the environment to protect public health, control pollution and prevent degradation of coastal ecosystems.

Policy 7.2: Prevent and remediate discharge of petroleum products.

Policy 7.3: Transport solid waste and hazardous substances and site solid and hazardous waste facilities in a manner that minimizes potential degradation of coastal resources.

The proposed project would improve stormwater drainage within the 248-acre project area and upgrade the sanitary sewer system in accordance with DEP's amended drainage plan (ADP). The proposed project does not include any solid waste or hazardous materials siting or processing facilities. A Phase 1 Corridor Assessment was prepared in order to determine if the proposed project corridor has the potential to contain any hazardous materials and, as a result, the proposed project includes measures to address the identification, handling, and disposal of any hazardous materials. With these measures in place, the proposed project would be consistent with this policy.

Policy 8: Provide public access to and along New York City's coastal waters.

Policy 8.1: Preserve, protect and maintain existing physical, visual, and recreational access to the waterfront.

Policy 8.2: Incorporate public access into new public and private development where compatible with proposed land use and coastal location.

Policy 8.3: Provide visual access to coastal lands, waters, and open space where physically practical.

Policy 8.4: Preserve and develop waterfront open space and recreation on publicly owned land at suitable locations.

Policy 8.5: Preserve the public interest in and use of lands and waters held in public trust by the state and city.

The proposed project is not a development project that can accommodate new public access. The proposed project would neither impact nor include any physical public access to the water. The proposed project includes below grade infrastructure and, thus, would not impede any current visual access to coastal lands or waters. Therefore, this policy does not apply.

Policy 9: Protect scenic resources that contribute to the visual quality of the New York City coastal area.

Policy 9.1: Protect and improve visual quality associated with New York City's urban context and the historic and working waterfront.

Policy 9.2: Protect scenic values associated with natural resources.

The proposed project would have no effect on the visual quality of the city's historic and working waterfront and would not impede or alter any views of natural resources. Therefore, this policy does not apply.

Policy 10: Protect, preserve, and enhance resources significant to the historical, archaeological, and cultural legacy of the New York City coastal area.

Policy 10.1 Retain and preserve designated historic resources and enhance resources significant to the coastal culture of New York City.

The proposed project would not involve any physical alteration or contact with State or National Register listed or eligible resources of historic significance within the proposed project area, such as the Coney Island Pumping Station (Neptune Avenue); the Shore Theater and the Childs Building (Surf Avenue); and the Cyclone, Wonderwheel and Parachute Jump (near the Boardwalk). The proposed upland infrastructure improvements would be below grade and would not have any direct or indirect impacts on these resources. In addition, installation of the proposed infrastructure is not expected to result in any adverse impacts during construction (see also "Construction Impacts" below). Therefore, the proposed project would be consistent with this subpolicy.

Policy 10.2: Protect and preserve archaeological resources and artifacts.

The New York City Landmarks Preservation Commission (LPC) provided a technical review memorandum dated July 15, 2011 stating that the lots in the proposed project area, including the lots of the proposed outfalls (Block 6992, Lot 8901; Block 6997, Lot 158; and Block 7247, Lot 125), are not archeologically significant. Therefore, the proposed project would not result in potential significant adverse impacts to archaeological resources and this subpolicy does not apply.