

A. INTRODUCTION

This chapter presents the findings of the hazardous materials assessment and identifies potential issues of concern that could pose a hazard to workers, the community and/or the environment associated with potential construction resulting from the proposed actions. The rezoning area comprises an approximately 47-acre area in Coney Island, divided into four subdistricts as shown below in **Table 11-1**. Outside of the four rezoning subdistricts, the rezoning area also includes the block bounded by West 25th and 27th Streets, Surf Avenue, and Riegelmann Boardwalk. See Figure 1-2 in Chapter 1, “Project Description,” for the Blocks and Lots within the rezoning area and Figure 1-3 for the proposed zoning subdistricts.

Table 11-1
Project Site Tax Block and Lot Numbers

Block	Lots	Boundaries	
Coney North / Mermaid Avenue			
7060	Entire block	Mermaid Avenue (north) Stillwell Avenue (east) Surf Avenue(south) West 20th Street (west)	
7061	Entire block		
7062	Entire block		
7063	Entire block		
7064	Entire block		
Coney West			
7069	14	Surf Avenue (north) West 25th Street (east) Riegelmann Boardwalk (south) West 27th Street (west)	
7070*	148 (southern portion of block)	Surf Avenue (north)	
7071*	26-28, 30, 32, 34, 76, 79, 81, 83, 85, 100, 123, 130, 142, 226, 231 (south-western and eastern portions of block)	West 19th Street (east) Riegelmann Boardwalk (south) West 22nd Street (west)	
	7072	Entire block	
	7073	The western portion of Lot 101	
Coney East			
7074	Entire block	Surf Avenue, the Brighton / Culver subway viaduct (north) West 8th Street (east) Riegelmann Boardwalk (south) West 16th Street (west)	
7266	249, 250, 252, 254, 260, 261, 265, 270 (southern portion of block)		
7268	190, 213, 218, 225, 228, 234, 236, 244, 250, 254, 344 (southern portion of block)		
8694	Entire block		
8695	Entire block		
8696	Entire block		
8697	Entire block		
8698	Lot 50		
Notes:			
* Block 7070 and part of 7071 are not within the Coney West subdistrict. They are adjacent to the subdistrict in the westernmost portion of the rezoning area.			

Coney Island Rezoning

The Coney North and Mermaid Avenue subdistricts are currently zoned C7 (open-air commercial amusement parks) and R6 (medium density housing), with a C1-2 commercial overlay mapped at a 150-foot depth along the Mermaid Avenue block frontages. The Coney West and East subdistricts are currently zoned C7.

The proposed actions would result in the construction of mid- to high-rise residential buildings with ground-floor retail, a mapped amusement park, a mapped neighborhood park, and a variety of amusement and enhancing uses, in some areas currently zoned for open-air amusement parks and low-rise commercial-residential uses. The Coney North, Mermaid Avenue, and Coney West subdistricts would be rezoned for residential development, mostly with ground-floor retail and with a higher floor area ratio than allowed by the current zoning. The Coney East subdistrict would be rezoned to allow a broader range of amusement-related uses, including enclosed amusements, hotels, dining establishments of all sizes, and performance venues, and would be zoned for a higher floor area ratio than currently allowed. Thus, the rezoning would potentially result in more extensive and deeper subsurface disturbance, during future construction activities in the rezoning area, than would result from construction under current zoning.

Environmental conditions resulting from previous and existing uses, both on-site and in the surrounding area, were assessed through visual inspection of the rezoning area from public rights-of way, conducted on November 26, 2007, and a review of federal, State, and local regulatory databases; New York City Fire Department (FDNY) and Buildings Department (DOB) databases; U.S. Geological Service maps; and historical Sanborn maps.

B. EXISTING CONDITIONS

SUBSURFACE CONDITIONS

The rezoning area is located approximately 10 feet above mean sea level. Based on U.S. Geological Survey (USGS) reports, bedrock is expected at a depth of approximately 650 feet beneath the site surface. Based on USGS data, the approximate depth to the water table is approximately 5 feet, and groundwater is expected to flow in a southerly direction toward the Atlantic Ocean, which is approximately 500 feet to the south. However, the groundwater flow direction is likely to be tidally influenced and may be additionally influenced by past filling activities, underground utilities, other subsurface openings or obstructions such as basements, and other factors beyond the scope of this study. Groundwater in Brooklyn is not used as a source of drinking water.

HAZARDOUS MATERIALS ASSESSMENT

Generally, hazardous materials are defined as those substances that pose a threat to human health and/or the environment. The presence of hazardous materials threatens human health or the environment only when exposure to those materials can occur. The most likely routes of human exposure are breathing of volatile and semi-volatile compounds or particulate-laden air released during soil-disturbing activities, and dermal contact. This chapter includes procedures to reduce the potential for unnecessary and unacceptable exposure to these contaminants. The classes of contaminants typically encountered in urban areas are described briefly below.

- *Volatile organic compounds (VOCs)*. These include compounds such as benzene, toluene, ethylbenzene, xylene (BTEX), which are found in petroleum products (especially gasoline), the gasoline additive methyl tertiary butyl ether (MTBE), and chlorinated compounds, such

as tetrachloroethene (also known as perchloroethylene or “perc”), and trichloroethene, which are common ingredients in solvents, degreasers, and cleansers. VOCs represent the greatest potential for contamination issues since, in addition to soil and groundwater contamination, they can generate organic vapors. Former or current dry cleaners, particularly plants where large-scale processing occurs, and gasoline stations are the most likely sources for substantial VOC contamination. Auto repair and large gasoline spills can also lead to similar concerns (although there are now established procedures for the proper storage, handling, use, and disposal of these materials).

- *Semivolatile organic compounds (SVOCs)*. The most common SVOCs encountered are polycyclic aromatic hydrocarbons (PAHs), which are constituents of partially combusted coal or petroleum-derived products, such as coal ash, and asphalt. These are common in New York City fill.
- *Polychlorinated biphenyls (PCBs)*. Commonly used as a dielectric fluid in transformers, underground high-voltage electric pipelines, and hydraulically operated machinery, PCBs are of special concern at electrical transformer locations where leakage into soil under or around the transformers may have occurred. PCBs and/or PCB-containing materials were once widely used in manufacturing and industrial applications (hydraulic lifts, transformers, and plastic manufacturing, etc.). PCBs tend to travel only short distances in soil, except in unusual circumstances (e.g., large spills of PCB-containing oils over many years).
- *Pesticides, herbicides, and rodenticides*. These are commonly used to control rodents and/or insects, and vegetation in vacant structures or in vegetated lots
- *Metals (including lead, arsenic, cadmium, chromium, and mercury)*. Metals are associated with smelters, foundries, and metal works and are found as components in paint, ink, petroleum products, and coal ash. Metals tend not to travel far in soil; therefore, they would be of greatest concern at the site where they were generated. Metals, at levels above natural background levels, are frequently present in fill material throughout the New York metropolitan area. In addition, most buildings in the rezoning area were built before 1977. These buildings’ interiors are likely to contain lead-based paint, which was banned for use in New York City residential buildings in 1960, and severely restricted for use in commercial buildings by the national Consumer Products Safety Commission in 1977.
- *Asbestos*. Asbestos is a generic name for one of a group of naturally occurring minerals which are known human carcinogens when inhaled. Before 1990, these minerals were commonly used in various building materials, such as insulation, fireproofing, roofing, plaster, and floor and ceiling tiles, due to their excellent fire resistance and insulating properties. Asbestos-containing materials (ACM) are classified as friable or non-friable. Friable ACM, such as spray-applied fireproofing and thermal system insulation, are those which can be crumbled, pulverized, or reduced to powder when dry by hand or other mechanical pressure. Friable ACM are generally associated with a higher risk of releasing asbestos fibers than non-friable ACM, such as vinyl floor tiles and some roofing materials. After 1990, use of most asbestos-containing materials, except some non-friable ACM, was banned by the federal Clean Air Act. However, most buildings in the rezoning area were built before 1990, and are likely to contain ACM.

In order to identify portions of the rezoning area with a significant likelihood of potentially hazardous conditions from past or present, on- or off-site uses, a variety of information sources were reviewed including: SanbornTM Fire Insurance maps; environmental regulatory agency databases identifying State and/or federally listed sites; and City databases and records

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(including electronic DOB and FDNY records). In addition, reconnaissance of the rezoning area and surrounding area within a 400-foot radius was performed.

The following potential environmental concerns were considered unlikely to be significant in the absence of other indications of impacts on the site:

- Although underground transformer vaults may utilize PCB-containing equipment, the presence of such vaults adjacent to a portion of the rezoning area was not considered a significant concern, unless the vault was located on-site, where it might be disturbed by future construction, or unless regulatory databases identified a release from the vault with impact to surrounding soil or groundwater. Such vaults tend to be self-contained, and releases tend to remain in the concrete vaulted area.
- Circular marks in on-site sidewalks, which may indicate the former locations of fuel tank fill caps, were not considered Recognized Environmental Conditions (RECs) in the absence of other observations or records indicating the past or present use of petroleum storage tanks at such locations, because these marks are more likely associated with utilities (e.g., natural gas or water) or other sidewalk features.
- The presence of a vacant lot was not, by itself, considered significant, unless evidence of chemical use, or dumping of hazardous materials, was observed or noted in the regulatory databases.
- The historical presence of factories was not considered significant unless indications of hazardous materials use were noted. Although historical Sanborn maps frequently do not specify the nature of small factories, the factories which were identified on Sanborn maps or in DOB records, generally manufactured clothing or food items, or assembled toys, and other factories in the rezoning area most likely had similar uses, which most likely did not involve significant quantities of hazardous chemicals.

CONEY NORTH AND MERMAID AVENUE SUBDISTRICTS

Historical Land-Use Map Review

A summary of the findings of the historical research for the Coney North and Mermaid Avenue subdistricts is shown below in **Table 11-2**, with a summary of petroleum storage tank locations in **Table 11-3**.

Visual Observation and Regulatory Database Search

Block 7060

At the time of the site visit, this block was occupied by a community garden, several low-rise commercial-residential buildings, and paved vacant land. The following lots were noted to have known or potential RECs:

- Lots 3-6, 11, 24, 27 and 35: one or more past Oil Burner Applications each in DOB records.
- Lot 20: possible installation of an oil-fired boiler in 2004 according to DOB records.
- Lot 42: replacement of an oil-fired boiler and the installation of a new 275-gallon fuel oil tank in 2003 noted by DOB records

Table 11-2

Coney North / Mermaid Avenue Historical Land Uses

Year	Block	Land Uses
1895	7060	Mainly vacant land, several low-rise dwellings. The New York and Coney Island Railroad runs east to west through Lot 14.
	7061	Mainly vacant land, low-rise dwellings and a hotel. The New York and Coney Island Railroad runs east to west through Lot 14.
	7062	Mainly vacant land, low-rise stores and dwellings. The New York and Coney Island Railroad runs east to west through Lot 14.
	7063	Mainly vacant land, low-rise stores and dwellings. The New York and Coney Island Railroad runs east to west through Lot 12.
	7064	Vacant land, low-rise dwellings, and a hotel. The New York and Coney Island Railroad runs southeast to northwest through Lots 14 and 43.
	Within 400 feet of site	To north: Vacant land. To east: A train station, low-rise dwellings and vacant land. To south: Vacant land, low-rise stores, dwellings, and hotels. To west: Vacant land.
1906	7060	No significant changes since 1895.
	7061	No significant changes since 1895.
	7062	No significant changes since 1895.
	7063	No significant changes since 1895.
	7064	Low-rise stores and dwellings, two hotels, and the A.D. Buschman beer bottling company on Lot 7. The New York and Coney Island Railroad runs southeast to northwest through Lots 14 and 43.
	Within 400 feet of site	To north: Vacant land, low-rise stores and dwellings, a church. To east: A train station, low-rise stores and dwellings, a Consolidated Edison transformer house. To south: Low-rise stores, Steeplechase Amusement Park, and vacant land. To west: Vacant land and low-rise dwellings.
1930	7060	Low-rise dwellings, and factories on Lots 3, 5-8, 11, 16-19, 21, 22, and 32.
	7061	Low-rise stores and dwellings, vacant land, a factory on Lot 21.
	7062	Low-rise stores, a theater, factories on Lots 4-6 and 11, an auto repair shop in the eastern portion of Lot 28.
	7063	Low-rise residential and commercial buildings, vacant land.
	7064	Low- to mid-rise commercial, residential buildings, two hotels and Loews Theater (Lot 16), factories on Lots 45 and 35.
	Within 400 feet of site	To north: Low-rise commercial, institutional, residential, manufacturing buildings. Three small factories across Mermaid Ave. from Block 7062. To east: New York City Transit (NYCT) – Coney Island Terminal on elevated tracks, a Consolidated Edison transformer house. To south: Amusement parks, stores, vacant land. To west: Low-rise commercial, residential and manufacturing properties, parking, an auto repair garage with a buried gasoline tank across West 29th Street from Block 7060, Lots 46 and 47.
1950	7060	Low-rise dwellings, parking, and factories on Lots 4-10, 16-19, 21, 22, 31, and 147.
	7061	Vacant land and low-rise commercial and residential buildings.
	7062	Low-rise commercial or commercial-residential buildings, parking, a theater, a factory on Lot 5, and a machine shop on Lot 28.
	7063	Low-rise residential and commercial buildings, parking.
	7064	Low- to mid-rise commercial, residential buildings, three hotels and Shore Theater (Lot 16). Game manufacturing on Lot 27, a paint shop on Lot 43, a factory on Lot 45.
	Within 400 feet of site	To north: No significant changes from 1930. To east: NYCT – Coney Island Terminal on elevated tracks. To south: No significant changes from 1930. To west: No significant changes from 1930.

Table 11-2 (cont'd)
Coney North / Mermaid Avenue Historical Land Uses

Year	Block	Land Uses
1966	7060	Low-rise dwellings, parking, and factories on Lots 4-10, 16-22, 31, 50, 147.
	7061	Vacant land, low-rise commercial and residential buildings, a dry cleaner on Lot 20.
	7062	Low-rise commercial or commercial-residential buildings, parking, a theater, a factory on Lot 5, and a dry cleaner on Lot 8.
	7063	No significant changes from 1950.
	7064	No significant changes from 1950.
	Within 400 feet of site	To north, east, south: No significant changes from 1950. To east: No significant changes from 1950. To south: No significant changes from 1950. To west: Low-rise commercial, residential and manufacturing properties, parking.
1979	7060	Low-rise dwellings, vacant land, a club, and factories on Lots 6-10, 19-22, 31, 48, 50, 51, and 147.
	7061	Low- to mid-rise commercial and commercial-residential buildings, parking, vacant land, a dry cleaner on Lot 20, a filling station with one 1-story building on Lot 27.
	7062	Mainly parking, as well as low- to mid-rise commercial or commercial-residential buildings, a factory on Lot 5, a dry cleaner on Lot 8.
	7063	No significant changes from 1966.
	7064	Low- to mid-rise commercial, residential buildings, two hotels and Shore Theater (Lot 16). A factory on Lot 45, game manufacturing on Lot 27.
	Within 400 feet of site	To north: No significant changes from 1966. To east: No significant changes from 1966. To south: Amusement parks, stores, vacant land, parking To west: Coney Island No.1 multi-story residential building, parking.
1989	7060	Mainly vacant land, as well as several low-rise vacant, commercial or residential buildings. Factories on Lots 19, 20, 31.
	7061	Vacant land, low- to mid-rise commercial and commercial-residential buildings, parking, a dry cleaner on Lot 20, a filling station with two 1-story buildings on Lot 27.
	7062	No significant changes from 1979.
	7063	Mainly parking, as well as low-rise commercial or vacant buildings.
	7064	No significant changes from 1979.
	Within 400 feet of site	To north: Vacant land, institutional, commercial, residential, manufacturing buildings. Three small factories across Mermaid Ave. from Block 7062. To east: No significant changes from 1979. To south: No significant changes from 1979. To west: No significant changes from 1979.
2006	7060	No significant changes from 1989.
	7061	Vacant land, low- to mid-rise commercial buildings and a medical center.
	7062	No significant changes from 1989.
	7063	No significant changes from 1989.
	7064	Low- to mid-rise commercial buildings, two hotels, Shore Theater (Lot 16), a factory on Lot 45, and parking.
	Within 400 feet of site	To north: Vacant land, institutional, commercial, and residential buildings. One small factory across Mermaid Ave. from Block 7062. To east: No significant changes from 1989. To south: Low-rise stores, KeySpan Park stadium, parking, amusement parks, vacant land To west: No significant changes from 1989.

Table 11-3
Coney North / Mermaid Avenue Petroleum Storage Tanks

Block	Location	Capacity (gallons)	Contents	Status	Source
7060	Lots 3-6, 11, 24, 27, 35	Unknown	Unknown	Unknown	DOB
	Lot 20	Unknown	Fuel Oil	Unknown	DOB
	Lot 42	275	Fuel Oil	Unknown	DOB
7061	Lots 3 and 5	Unknown	Unknown	Unknown	OBS, DOB
	Lot 27 – Coney Island Gas and Wash, 1709-1729 Surf Ave	4,000 UST x4 550 UST x16	Gasoline Empty	Removed	PBS
7062	Lot 1 – Washington Mutual Bank, 2909 West 17th St.	5,000 AST	No.2 Fuel Oil	Closed In Place	PBS, OBS
	Lots 7, 10, 11	Unknown	Unknown	Unknown	DOB
	Lot 8	Unknown	Unknown	Unknown	OBS
7063	Lot 1	Unknown	Unknown	Unknown	OBS, DOB
	Lots 3 and 8	Unknown	Unknown	Unknown	DOB
7064	Lots 2, 4, 16, 37, 45	Unknown	Unknown	Unknown	DOB
	Lot 45 – 2905 West 15th St.	3,000 AST	No.2 Fuel Oil	In Service	PBS, DOB NYFD
	Lot 45 – RLM Realty Corp., 2905 West 15th St.	4,000 AST	No.2 Fuel Oil	Unknown	
Within 400 feet of site	Coney Island, 1901 Mermaid Ave., north of Block 7060, Lots 10-12 across Mermaid Ave.	2,500 UST	No.2 Fuel Oil	Closed In Place	PBS
	Carey Gardens, 2007 Surf Ave., west of Block 7060, Lots 32, 35 across West 20th St.	15,000 UST 15,000 UST 6,000 AST	No.2 Fuel Oil	In Service Removed Removed	PBS
	Our Lady of Solace Church, 2866 West 17th St., north of Block 7061, Lots 8 and 9 across Mermaid Ave.	1,500 AST (contacts soil)	No.6 Fuel Oil	In Service	PBS
	Our Lady of Solace School, 2865 West 19th St., about 200 feet north of Block 7061	3,000 AST (contacts soil)	No.6 Fuel Oil	In Service	PBS
Notes: AST - aboveground storage tank UST - underground storage tank DOB - NYC Buildings Department Database PBS - State Petroleum Bulk Storage Database NYFD - NYC Fire Department database OBS - Visual Observation					

- Regulatory database listings and DOB records for the former Coney Island Gas and Wash at 1709-1729 Surf Avenue, east of Lots 21, 22 and 24 across West 19th Street, identified this presently vacant lot as a gasoline station with 20 buried gasoline tanks and an oil change shop since 1968, and noted that the tanks were removed in 2003, but a spill listing (New York State Department of Environmental Conservation [NYSDEC] Spill #0302857) was open for this location due to soil and groundwater contamination with gasoline and MTBE (a highly water-soluble gasoline additive).
- Regulatory database listings for Carey Gardens at 2007 Surf Avenue, west of Lots 32 and 35 across West 20th Street, included an open spill listing (NYSDEC Spill #9607012) for a 1996 tank failure, soil contamination with fuel oil, and two past fuel oil spills (60 and 75 gallons) onto pavement.
- See **Table 11-3** for a list of on-site or nearby petroleum storage tanks.

Block 7061

At the time of the site visit, this block was occupied by low-rise commercial-residential buildings (some partly vacant), parking and paved or vegetated vacant land. The following lots were noted to have known or potential RECs:

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- Lots 3 and 5: fill caps and vent pipes for potential petroleum storage tanks observed in front of buildings.
- Lot 5: two past Oil Burner Applications in DOB records.
- Lot 8: regulatory databases report an open spill (NYSDEC Spill #0702363) in 2007 due to a gasoline odor and oil flow into the building's basement after heavy rains. The listing noted that oil has been entering the basement for about two years, was pumped into the basement sump, and may be related to contamination from the historical gasoline station on Lot 27 (1709-1729 Surf Avenue).
- Lot 20: regulatory databases note that in 1991, Dumain French Cleaners, located on Lot 20, generated 270 pounds of spent halogenated solvents. This dry cleaner was not observed during the site visit.
- Lot 27: regulatory database listings and DOB records indicated that this vacant lot was occupied by Coney Island Gas and Wash, a gasoline station with 20 buried gasoline tanks and an oil change shop, since 1968, and noted that the tanks were removed in 2003, but a spill listing (NYSDEC Spill #0302857) was open for this location due to soil and groundwater contamination with gasoline and MTBE (a highly water-soluble gasoline additive).
- See **Table 11-3** for a list of on-site or nearby petroleum storage tanks.

Block 7062

At the time of the site visit, this block was occupied by commercial-residential buildings, up to four stories in height (some partly vacant), parking and paved vacant land. The following lots were noted to have known or potential RECs:

- Lot 1: regulatory databases note a closed tank test failure for the 5,000-gallon aboveground No.2 Fuel Oil tank in the former Dime Savings Bank (present Washington Mutual) building. According to the listing, the tank failed at the vent hole, and soil was not affected.
- Lots 1, 7, 10, 11: one or more past Oil Burner Applications, each in DOB records.
- Lots 1 and 8: fill caps and vent pipes for potential petroleum storage tanks observed near buildings.
- Lots 28 and 34: regulatory databases noted that in 1999, a caller to the NYSDEC complained that a fleet of fuel oil trucks was dumping oil onto the pavement of these lots. This complaint was not investigated due to being anonymous, and the spill was closed.
- Regulatory databases listed Dumain French Cleaners, located at 2928 West 17th Street, west of Lot 28 across West 17th Street, as a generator of 270 pounds of spent halogenated solvents in 1991. This dry cleaner was not observed during the site visit.
- See **Table 11-3** for a list of on-site or nearby petroleum storage tanks

Block 7063

At the time of the site visit, this block was occupied by low-rise commercial-residential buildings and parking. The following lots were noted to have known or potential RECs:

- Lot 1: a fill cap and a vent pipe for a potential petroleum storage tank observed on the side of the building.
- Lots 1, 3, 8: one or more past Oil Burner Applications each in DOB records.

- Lot 9: Golden Bell Cleaners, a dry cleaner presently located on Lot 9, was listed in regulatory databases as a generator of 340 pounds of spent halogenated solvents during the first half of 2006.
- See **Table 11-3** for a list of on-site or nearby petroleum storage tanks.

Block 7064

At the time of the site visit, this block was occupied by low-rise and multi-story commercial-residential buildings (some partly vacant), including several restaurants, and parking. The following lots were noted to have known or potential RECs:

- Lot 2: the dry cleaner presently located on Lot 2, Jiffy Cleaners, was listed in regulatory databases as a generator of 195 pounds of spent halogenated solids during the first half of 2006.
- Lots 2, 4, 16, 37: one past Oil Burner Application each in DOB records.
- Lot 45: a Work Application to replace an oil-fired burner in 1992 in DOB records.
- See **Table 11-3** for a list of on-site or nearby petroleum storage tanks.

CONEY WEST SUBDISTRICT

Historical Land-Use Map Review

A summary of the findings of the historical research for the Coney West subdistrict is shown below in **Table 11-4**, with a summary of petroleum storage tank locations in **Table 11-5**.

Table 11-4
Coney West Historical Land Uses

Year	Block	Land Uses
1895	7069	Eastern portion: Mainly vacant land, as well as a small hotel and stores.
	7070	Southeastern portion: vacant land.
	7071	Southwestern portion: vacant land. Lots 226 and 231 are occupied by the Atlantic Ocean. Eastern portion: A hotel and vacant land.
	7072	Mainly vacant land, as well as a low-rise dwelling and a small hotel.
	7073	Western portion: Mainly vacant land, as well as a small hotel.
	Within 400 feet of site	To north: Vacant land and low-rise dwellings. To east: Vacant land. To south: Atlantic Ocean. To west: Vacant land and low-rise dwellings.
1906	7069	Eastern portion: Vacant land, a hotel and a dwelling.
	7070	No significant changes since 1895.
	7071	Southwestern portion: Vacant land, low-rise dwellings. Lots 226 and 231 are occupied by the Atlantic Ocean. Eastern portion: No significant changes since 1895.
	7072	No significant changes since 1895.
	7073	Western portion: vacant land, a bathing pavilion, and a hotel.
	Within 400 feet of site	To north: Vacant land, low-rise stores and dwellings. To east: Steeplechase Amusement Park. To south: Atlantic Ocean. To west: Vacant land and an orphan asylum.

Table 11-4 (cont'd)
Coney West Historical Land Uses

Year	Block	Land Uses
1930	7069	Eastern portion: Hotels, dwellings, and a carousel.
	7070	Southeastern portion: a bathhouse, low-rise stores, vacant land.
	7071	Southwestern portion: low-rise stores and dwellings, factories on Lots 26, 28, 30, 32, 34, and 85. Eastern portion: low-rise stores and dwellings, a factory and an auto store with five buried gasoline tanks in the western portion of Lot 100, a hotel, a bathhouse complex, a 3-story building of unspecified use on Lot 123, and a 1-story building occupied by Childs Restaurant and a bathhouse on Lot 130.
	7072	Two bathhouse complexes with laundries, vacant land and low-rise stores.
	7073	Western portion: a bathhouse complex with a laundry and low-rise stores
	Within 400 feet of site	To north: Low-rise stores, dwellings and factories, vacant land. To east: No significant changes from 1906. To south: Riegelmann Boardwalk, Coney Island Beach, the Atlantic Ocean To west: No significant changes from 1906.
1950	7069	No significant changes from 1930.
	7070	Southeastern portion: a bathhouse complex with a boiler room and a laundry on Lot 148.
	7071	Southwestern portion: vacant land and a 3-story apartment building on Lot 86. Eastern portion: a bathhouse complex on Lot 142, two bathhouses in 1- and 3-story buildings on Lots 123 (with a boiler room) and 130, low-to mid-rise stores and dwellings, and an auto service station with five buried gasoline tanks in the northwestern corner of Lot 100.
	7072	Vacant land, a bathhouse complex with a laundry, low-rise stores.
	7073	Western portion: a bathhouse complex with a laundry.
	Within 400 feet of site	To north: Low-rise stores, dwellings and factories, parking. To east: No significant changes from 1930. To south: No significant changes from 1930. To west: No significant changes from 1930.
1966	7069	Eastern portion: a NYC Department of Parks and Recreation (DPR) parking lot with a maintenance shop and an auto-repair shop, as well as a playground.
	7070	No significant changes since 1950.
	7071	Southwestern portion: no significant changes since 1950. Eastern portion: parking, a bathhouse complex, low-rise commercial buildings, a 3-story building of unspecified use on Lot 123, a 1-story building occupied by manufacturing, and a store on Lot 130.
	7072	Vacant land and a bathhouse complex with a laundry.
	7073	Western portion: vacant land.
	Within 400 feet of site	To north: Low-rise stores, dwellings and factories and parking. A roofer, a paint store and a furniture finisher to the north of the southwestern portion of Block 7071 on the off-site portion of the block. To east: Steeplechase Amusement Park (mostly not in operation) To south: No significant changes from 1950. To west: A youth center and day camp.
1979	7069	No significant changes from 1966.
	7070	Southeastern portion: Sea Crest Health Center and parking.
	7071	Southwestern portion: vacant land. Eastern portion: vacant land, parking, a 3-story loft building on Lot 123, a 1-story building occupied by manufacturing and stores on Lot 130.
	7072	No significant changes from 1966.
	7073	Western portion: parking and a 2-story DPR convention hall and skating rink
	Within 400 feet of site	To north: multi-story residential buildings north of western portion of the site, low-rise commercial and residential buildings and parking north of eastern portion. A roofer, a tin smelter, a paint store and a furniture finisher to the north of the southwestern portion of Block 7071 on the off-site portion of the block. A filling station to the northeast of the on-site portion of Block 7073. To east: an amusement park, vacant land, the Parachute Jump tower and a miniature auto track To south: No significant changes from 1966. To west: No significant changes from 1966.

Table 11-4 (cont'd)
Coney West Historical Land Uses

Year	Block	Land Uses
1989	7069	No significant changes from 1979.
	7070	No significant changes from 1979.
	7071	Southwestern portion: vacant land and parking. Eastern portion: no significant changes from 1979.
	7072	No significant changes from 1979.
	7073	No significant changes from 1979.
	Within 400 feet of site	To north: Multi-story residential buildings north of western portion of the site, low-rise commercial buildings and vacant land north of eastern portion. Two auto repair shops, a tin smelter, a factory, a paint store and a furniture finisher to the north of the southwestern portion of Block 7071 on the off-site portion of the block. A filling station to the northeast of the on-site portion of Block 7073. To east: Mainly vacant land, as well as the Parachute Jump tower and a miniature auto track. To south: No significant changes from 1979. To west: Vacant land.
2006 - 2008	7069	Eastern portion: Same buildings as shown in 1989 (use illegible), DPR parking lot, and a playground.
	7070	No significant changes from 1989.
	7071	Southwestern portion: no significant changes from 1989. Eastern portion: vacant land, parking, a 3-story office building on Lot 123, a 1-story building on Lot 130.
	7072	Vacant land.
	7073	No significant changes since 1989.
	Within 400 feet of site	To north: Multi-story residential buildings north of western portion of the site, vacant land and parking north of eastern portion. Two auto repair shops, a tin smelter and a furniture finisher to the north of the southwestern portion of Block 7071 on the off-site portion of the block. To east: KeySpan Park stadium, Parachute Jump tower. To south: No significant changes from 1989. To west: Vacant land and a nursing home.

**Table 11-5
Coney West Petroleum Storage Tanks**

Block	Location	Capacity (gallons)	Contents	Status	Source
7069	Lot 14 – Coney Island Maintenance Building	3,000 AST	No. 2 Fuel Oil	In Service	PBS
	DPR – Kaiser Park	1,500 UST 2,500 UST	No. 2 Fuel Oil Diesel	Closed in Place In Service	PBS
	Site No. 210 – Coney Island Garage	1,000 UST x3 2,000 AST 750 AST	No. 2 Fuel Oil	In Service In Service In Service	PBS
7070	Lot 148 – 3031 West 24th St.	Unknown	Unknown	Unknown	DOB
7071	Lot 100	Unknown	Unknown	Unknown	DOB
	Lot 130 - former Childs Restaurant, 2101 Boardwalk West	Unknown	Unknown	Unknown	DOB, OBS
7072	Lot 1 – 2001 Boardwalk West	Unknown	Unknown	Unknown	DOB
7073	No evidence of tanks observed or listed in databases				
Within 400 feet of site	1602 Surf Ave., northeastern corner of Block 7073, Lot 101	Unknown	Unknown	Unknown	DOB
	Coney Island Gas and Wash, 1709-1729 Surf Ave., north of the northwest corner of Block 7073, Lot 101 across Surf Ave.	4,000 UST x4 550 UST x16	Gasoline Empty	Removed	PBS
	Lots 24, 27, 35 of Block 7060, north of the northwest corner of Block 7073, Lot 101 across Surf Ave.	Unknown	Unknown	Unknown	DOB
	Pier Auto Service, 3022 West 22nd St., in the northwestern corner of Lot 7071	1,080	No. 2 Fuel Oil	Unknown	NYFD
	Haber Houses, 3033 West 25th St., approximately 250 feet west of Block 7070 and 100 feet east of Block 7069	10,000 UST 25,000 UST	No. 2 Fuel Oil	In Service Removed	PBS
	Carey Gardens, 2007 Surf Ave., approximately 170 feet north of Block 7072	15,000 UST 15,000 UST 6,000 AST	No. 2 Fuel Oil	In Service Removed Removed	PBS
	P.S. 288, 2950 West 25 th St., approximately 300 feet north of Block 7069	7,000 AST x2	No. 2 Fuel Oil	In Service	PBS
	Sea Park East Apartments, 2980 West 28th Street, approximately 300 feet northwest of Block 7069	15,000 UST	No. 2 Fuel Oil	In Service	PBS
Notes: AST - aboveground storage tank UST - underground storage tank DOB - NYC Buildings Department database PBS - State Petroleum Bulk Storage database NYFD - NYC Fire Department database OBS - Visual observation					

Visual Observation and Regulatory Database Search

Block 7069

This block is bisected north to south by West 27th Street. At the time of the site visit, the on-site eastern portion of this block (Lot 14) was occupied by a DPR parking and equipment storage lot, two DPR Department buildings (including the Coney Island Garage at 3026 West 25th Street), and a playground. The following known or potential RECs were noted:

- A vent pipe and fill cap for a petroleum storage tank on the side of the Coney Island Garage.

- Regulatory database listings for Coney Island Garage, located on the subject lot, listed an active status gasoline spill reported in 1995. The spill involved gasoline-contaminated groundwater, and free product was detected in a monitoring well. Groundwater monitoring and remedial activities were in progress at the time of the listing. The garage was reported as a generator of ignitable solid waste in 1995, possibly due to spill cleanup activities.
A closed status spill was reported for the same building in 2002, and involved a 1,000-gallon gasoline storage tank failing a tightness test. A faulty hose for the tank was repaired, and the tank passed a second tightness test. A third spill, involving 10 gallons of gasoline spilled onto concrete due to a tank overfill, was reported in 2008. This spill was cleaned up, and the listing was closed.
- Regulatory databases listed an active status spill at Haber Houses, approximately 100 feet east of the lot, in 1999. The spill involved soil contaminated with fuel oil, which was found during tank removal. A second spill at the same address, involving a 25,000-gallon fuel oil tank failing a tightness test in 1996, had been closed for consolidation with the above listing.
- See **Table 11-5** for a list of on-site or nearby petroleum storage tanks.

Block 7070

This block is bisected north to south by West 24th Street. At the time of the site visit, the on-site southeastern portion of this block (Lot 148) was occupied by the Sea Crest Health Care Center and parking. The following known or potential RECs were noted:

- Remnants of three suspect fuel oil fill caps or natural gas vents in sidewalks west-adjacent to the on-site parking lot, and east-adjacent to the Health Care building.
- A 1909 Oil Burner Application for 3031 West 24th Street, on subject lot, in DOB records.
- See **Table 11-5** for a list of on-site or nearby petroleum storage tanks.

Block 7071

This block is bisected north to south by West 22nd Street, and partly divided east to west by Highland View Avenue. At the time of the site visit, the on-site southwestern portion of the block was occupied by school bus parking and vacant paved and vegetated lots, and the on-site eastern portion of the site was occupied by an office building, the vacant former Childs Restaurant, and vacant paved and vegetated lots. The following lots were noted to have known or potential RECs:

- Lot 100: DOB records for properties historically located on the lot included Certificates of Occupancy listing 2124-2130 Surf Avenue as a gasoline station and auto show room in 1925, as an auto showroom in 1941, and as an archery equipment assembly factory in 1954; and past Oil Burner Applications for 3023 West 22nd Street and 3025 West 22nd Street.
- Lot 130: A remnant of a suspect fuel oil fill cap or natural gas vent observed in the sidewalk east-adjacent to the former Childs Restaurant, and a vent pipe for a potential petroleum storage tank observed on the eastern wall of the restaurant; three past Oil Burner Applications in DOB records.
- Two auto repair shops, broken car storage, and roofing sales and storage noted approximately 250 feet to the north of the on-site portion of the block on Lots 3-6, 93 and 114 of the subject block.
- Regulatory database listings for a Carey Gardens building at 2955 West 23rd Street, approximately 300 feet northwest of Lot 100, noted an active tank failure involving high levels of No.2 fuel oil contamination in soil and groundwater, discovered during tank removal in

Coney Island Rezoning

2002, and an active overflow-related fuel oil spill with impact to soil in 2006. In addition, listings for a Carey Gardens building at 2007 Surf Avenue, approximately 300 feet northeast of Lot 100, included an open spill listing (NYSDEC Spill #9607012) for a 1996 tank failure, soil contamination with fuel oil, and two past fuel oil spills (60 and 75 gallons) onto pavement.

- Regulatory databases listed Dial French Cleaners, located at 2115 Surf Avenue, north of Lot 100 across Surf Avenue, as a generator of 570 pounds of spent halogenated solvents in 1996. This dry cleaner was not observed during the site visit.
- See **Table 11-5** for a list of on-site or nearby petroleum storage tanks.

Block 7072

At the time of the site visit, this block was occupied by a vegetated vacant lot (Lot 1). The following known or potential RECs were noted:

- Two past Oil Burner Applications for 2001 Boardwalk West, historically located in the southern portion of the lot, in DOB records.
- Regulatory database listings for Carey Gardens at 2007 Surf Avenue, to the north across Surf Avenue, included an open spill listing (NYSDEC Spill #9607012) for a 1996 tank failure, soil contamination with fuel oil, and two past fuel oil spills (60 and 75 gallons) onto pavement.
- See **Table 11-5** for a list of on-site or nearby petroleum storage tanks.

Block 7073

At the time of the site visit, the on-site western portion of this block was occupied by the western portion of Lot 101, containing the Abe Stark Rink and a parking lot. The following known or potential RECs were noted:

- Suspect freestanding electrical equipment, which may include transformers, observed south-adjacent to Abe Stark Rink, in the southwestern corner of the lot. An underground transformer vault observed east-adjacent to the rink.
- Regulatory databases for Carey Gardens, at 2007 Surf Avenue, approximately 250 feet northwest of the northwestern corner of Lot 101, included an open spill listing (NYSDEC Spill #9607012) for a 1996 tank failure, soil contamination with fuel oil, and two past fuel oil spills (60 and 75 gallons) onto pavement.
- Regulatory database listings for the former Coney Island Gas and Wash at 1709-1729 Surf Avenue, north of the northwestern corner of the lot across Surf Avenue, identified this presently vacant lot as a gasoline station with 20 buried gasoline tanks and an oil change shop since 1968, and noted that the tanks were removed in 2003, but a spill listing (NYSDEC Spill #0302857) was open for this location due to soil and groundwater contamination with gasoline and MTBE (a highly water-soluble gasoline additive).
- See **Table 11-5** for a list of on-site or nearby petroleum storage tanks.

CONEY EAST SUBDISTRICT

Historical Land-Use Map Review

A summary of the findings of the historical research for the Coney East subdistrict is shown below in **Table 11-6**, with a summary of petroleum storage tank locations in **Table 11-7**.

Table 11-6
Coney East Historical Land Uses

Year	Block	Land Uses
1895	7074	Low-rise stores, dwellings, dance halls, vacant land, and several bathhouses. The southern portions of Lots 20, 23, 105, and 190 are occupied by the Atlantic Ocean.
	7266	A railroad station, New York and Coney Island Railroad tracks running through Lot 249, low-rise stores and a hotel.
	7268	Low-rise stores, hotels, and amusement rides.
	8694	Low-rise stores, hotels, a rifle range on Lot 18.
	8695	Low-rise stores and dwellings, music halls, a bathing pavilion, vacant land.
	8696	Low-rise stores and dwellings, a small rifle range on Lot 140, vacant land.
	8697	Low-rise stores, hotels, music halls, a bathing pavilion, and vacant land.
	8698	Amusement rides and arcades.
	Within 400 feet of site	To north: Vacant land, low-rise stores and dwellings, amusement rides. To east: Amusement rides, arcades, and a sports club. To south: Atlantic Ocean. To west: Vacant land and low-rise dwellings.
1906	7074	Low-rise stores, shows, amusement rides, a bathing pavilion. The southern portions of Lots 20, 23, 105, and 190 are occupied by the Atlantic Ocean.
	7266	Low-rise stores, dwellings, a hotel, and the New York and Coney Island Railroad running southeast to northwest through Lot 249.
	7268	Low-rise stores and amusement rides.
	8694	Low-rise stores and music halls.
	8695	Low-rise stores, amusement rides, music halls, and a bathhouse complex with two laundries on Lot 433.
	8696	Low-rise stores, music halls, amusement rides, an ice manufacturer, vacant land, and bathing pavilions.
	8697	Amusement rides, low-rise stores, bathing pavilions, and an auto repair shop in the northern portion of Lot 4.
	8698	A portion of Dreamland Amusement Park, a transformer house.
	Within 400 feet of site	To north: Low-rise stores and dwellings, vacant land, Luna Park, and a transformer house north-adjacent to Block 7266, Lot 249 To east: Dreamland Amusement Park, a transformer house east-adjacent to Block 8697, Lot 8. To south: Atlantic Ocean. To west: Steeplechase Amusement Park.
1930	7074	Bathhouses, low-rise stores, a rifle range in southern portion of Lot 256.
	7266	Elevated train tracks, low-rise commercial buildings, a movie theater, a hotel.
	7268	Elevated train tracks, low-rise commercial buildings, amusement rides.
	8694	Low-rise stores, shows, a museum, and shooting ranges on Lot 30 and in the southwestern corner of Lot 421.
	8695	Bathhouse complexes with laundries on Lots 61 and 120, a restaurant, and hotels.
	8696	Amusement park rides, low-rise stores, a restaurant, and a bathhouse.
	8697	Two roller coasters, including the Cyclone, and bathhouse complexes with a laundry in the central portion of Lot 8.
	8698	Vacant land, a circus building.
	Within 400 feet of site	To north: Low-rise stores, vacant land, Luna Park, and, on the off-site portion of Block 7266, a garage with a buried gasoline tank, a Consolidated Edison transformer substation with two buried gasoline tanks, and a Consolidated Edison transformer house north-adjacent to Lot 249. To east: Vacant land, amusement park rides. To south: Riegelmann Boardwalk, Coney Island Beach, the Atlantic Ocean To west: No significant changes since 1906.

Table 11-6 (cont'd)
Coney East Historical Land Uses

Year	Block	Land Uses
1950	7074	Amusement park rides, small commercial buildings, two bathhouse complexes (with a laundry on Lot 190), and a bathing pavilion.
	7266	Elevated train tracks, low-rise commercial buildings, rides, and a hotel.
	7268	No significant changes since 1930.
	8694	Low-rise commercial buildings, arcades, amusement park rides, a museum.
	8695	Mainly amusement park rides, as well as low-rise commercial buildings and a bathhouse complex with a laundry on Lot 120.
	8696	Mainly amusement park rides, as well as low-rise commercial buildings.
	8697	Cyclone roller coaster, parking, and several low-rise stores.
	8698	No significant changes since 1930.
	Within 400 feet of site	To north: Low-rise stores, vacant land, amusement park rides, and, on the off-site portion of Block 7266, a bakery with a buried gasoline tank and oil-fired portable ovens, and a Consolidated Edison transformer substation with two buried gasoline tanks. To east: No significant changes since 1930. To south: No significant changes since 1930. To west: No significant changes since 1930.
1966	7074	Amusement park rides, parking, storage areas, small commercial buildings, and a bathing pavilion.
	7266	No significant changes since 1950.
	7268	No significant changes since 1950.
	8694	No significant changes since 1950.
	8695	Mainly amusement park rides, as well as low-rise commercial buildings and a bathhouse laundry on Lot 120.
	8696	Mainly amusement park rides (including Astroland Kiddie Park), as well as amusement park storage buildings and low-rise commercial buildings
	8697	No significant changes since 1950.
	8698	Parking.
	Within 400 feet of site	To north: Low-rise commercial or multi-story residential buildings, parking, and a Consolidated Edison transformer substation on the off-site portion of Block 7266. To east: NY Aquarium, parking. To south: No significant changes from 1950. To west: Steeplechase Amusement Park (mostly not in operation).
1979	7074	No significant changes from 1966.
	7266	Elevated train tracks, vacant land, low-rise commercial buildings, a hotel.
	7268	No significant changes from 1966.
	8694	No significant changes from 1966.
	8695	No significant changes from 1966.
	8696	Mainly amusement park rides (including Astroland Kiddie Park), as well as low-rise commercial buildings and arcades.
	8697	Cyclone roller coaster, parking, several low-rise stores, and a 1-story NY Aquarium office building.
	8698	No significant changes from 1966.
	Within 400 feet of site	To north: Low-rise commercial or multi-story residential buildings, parking, an auto repair shop north-adjacent to Block 7266, Lot 249 on the off-site portion of the block, a Consolidated Edison transformer substation on the off-site portion of Block 7266, and the 60th Precinct police station, with a filling station, northwest of the on-site portion of Block 7268. To east: No significant changes from 1966. To south: No significant changes from 1966. To west: an amusement park, vacant land, the Parachute Jump tower and a miniature auto track.

Table 11-6 (cont'd)
Coney East Historical Land Uses

Year	Block	Land Uses
1989	7074	No significant changes from 1979.
	7266	Elevated train tracks, vacant land and low-rise commercial buildings.
	7268	Elevated train tracks, low-rise commercial buildings, and a container storage yard on Lots 213 and 218.
	8694	No significant changes from 1979.
	8695	No significant changes from 1979.
	8696	No significant changes from 1979.
	8697	No significant changes from 1979.
	8698	No significant changes from 1979.
	Within 400 feet of site	To north: Parking, vacant land, low-rise commercial or multi-story residential buildings. An auto repair shop north-adjacent to Block 7266, Lot 249 on the off-site portion of the block, a Consolidated Edison transformer substation on the off-site portion of Block 7266, and the 60th Precinct police station, with a filling station, northwest of the on-site portion of Block 7268. To east: No significant changes from 1979. To south: No significant changes from 1979. To west: mainly vacant land, as well as the Parachute Jump tower and a miniature auto track.
2006	7074	Parking, small commercial buildings, arcades, and amusement park rides
	7266	Elevated train tracks, low-rise commercial buildings, and container storage on Lot 261.
	7268	Elevated train tracks, low-rise commercial buildings, and vacant land.
	8694	Low-rise commercial buildings, arcades, a hotel.
	8695	No significant changes from 1989.
	8696	No significant changes from 1989.
	8697	No significant changes from 1989.
	8698	No significant changes from 1989.
	Within 400 feet of site	To north: Parking, vacant land, low-rise commercial or multi-story residential buildings, a Consolidated Edison transformer substation on the off-site portion of Block 7266, and the 60th Precinct police station, with a filling station, northwest of the on-site portion of Block 7268. To east: No significant changes from 1989. To south: No significant changes from 1989. To west: KeySpan Park stadium, Parachute Jump tower.

Table 11-7
Coney East Petroleum Storage Tanks

Block	Location	Capacity (gallons)	Contents	Status	Source
7074	Lot 256	Unkn. AST	Diesel	Unknown	DOB
7266	Lot 250 – 1201 Surf Ave.	Unknown	Unknown	Unknown	DOB
	Lot 265 - Portal Building / Police Distr.34, 1237 Surf Ave	260 AST 5,000 AST	No.2 Fuel Oil	In Service	PBS
7268	No evidence of tanks observed or listed in databases				
8694	Lot 5 – 1228-1230 Surf Ave.	550 UST	No.2 Fuel Oil	Closed In Place	SPL, DOB
	Lot 5 – 1228-1230 Surf Ave.	1,080 UST		Unknown	NYFD
8695	Lot 85 - 1205 Boardwalk West	Unknown	Unknown	Unknown	DOB
8696	Lot 140	Unknown	Fuel Oil	Removed	DOB
	Lot 212 – 1001 Boardwalk West	Unknown x3	Diesel	In Service	DOB
8697	Lot 8	550 UST	Unknown	Removed	DOB
8698	No evidence of tanks observed or listed in databases for Lot 50				
Within 400 feet of site	1602 Surf Ave., west-adjacent to Block 7074, Lot 1	Unknown	Unknown	Unknown	DOB
	1301 Surf Ave., north of Block 7074, Lot 340 across Surf Ave.	Unknown	Unknown	Unknown	DOB
	60th Prec. Police Station, 2925 West 8th St., about 260 feet north-northwest of Block 7268 across West 8th St.	10,000 1,080	No.4 Fuel Oil Diesel	Unknown	NYFD
	60th Prec. Police Station, 2951 West 8th St., about 260 feet north-northwest of Block 7268 across West 8th St.	4,000 UST 550 UST x4 4,000 UST 10,000 UST 1,000 UST 550 UST x4 6,000 UST	Gasoline Gasoline Diesel No2 Fuel Oil No2 Fuel Oil Diesel Diesel	In Service Removed In Service Removed Removed Removed In Service	PBS, OBS
	FDNY Engine 245, 2951 West 8th St., about 260 feet north-northwest of Block 7268 across West 8th St.	550 UST x2 550 UST x2	Diesel Gasoline	Admin Closed	PBS
	Lot 45 – 2905 West 15th St.	3,000 AST	No.2 Fuel Oil	In Service	PBS, DOB
	Lot 45 – RLM Realty Corp., 2905 West 15th St.	4,000 AST	No.2 Fuel Oil	Unknown	NYFD
Notes: AST - aboveground storage tank UST - underground storage tank DOB - NYC Buildings Department database PBS - State Petroleum Bulk Storage database NYFD - NYC Fire Department database SPL - State SPILLS database OBS - Visual observation					

Visual Observation and Regulatory Database Search

Block 7074

This block is bisected north to south by West 15th Street, and divided east to west by Bowery Street. At the time of the site visit, the western half of this lot was occupied by a vacant arcade and vacant paved or vegetated land, and the eastern half of the lot was occupied by eateries, parking, and open-air amusement lots. The following lots were noted to have known or potential RECs:

- Lot 256: a Work Application to install a diesel aboveground storage tank for a private fueling facility in 2002 in DOB records.
- See **Table 11-7** for a list of on-site or nearby petroleum storage tanks.

Block 7266

At the time of the site visit, the on-site southern portion of this block was occupied by a portion of the elevated F and Q Line subway tracks, a portion of the Stillwell Avenue Station building, low-rise commercial or vacant buildings, and vacant land. The following lots were noted to have known or potential RECs:

- Lot 250: two past Oil Burner Applications in DOB records.
- 2904 West 12th Street, approximately 400 feet north of the site on the subject block, listed as a Consolidated Edison electrical substation with a garage and transformers in the State Historic Utility database for 1906, 1923, and 1930. During the site visit, this building was observed to be used as a store.
- See **Table 11-7** for a list of on-site or nearby petroleum storage tanks.

Block 7268

At the time of the site visit, the on-site southern portion of this block was occupied by a portion of the elevated F and Q Line subway tracks, low-rise commercial buildings and restaurants, and a paved vacant lot. The following lots were noted to have known or potential RECs:

- Regulatory databases reported an open spill listing (NYSDEC Spill #9514694) for the New York Police Department (NYPD) 60th Precinct building and associated filling station at 2925-2951 West 8th Street, approximately 260 feet north-northeast of Block 7268 across West 8th Street. According to the listing, soil and groundwater contaminated with gasoline, diesel and MTBE (a highly water-soluble gasoline additive) from removed underground storage tanks were discovered in 1996, and a 100-gallon spill of diesel onto soil occurred in 1997 due to an overfill. A dual phase extraction system operated until 2003, but the spill remained open because groundwater contamination was discovered in monitoring wells in 2005.
- See **Table 11-7** for a list of on-site or nearby petroleum storage tanks.

Block 8694

At the time of the site visit, this block was occupied by low-rise arcades, eateries, stores, a museum and vacant buildings. The following lots were noted to have known or potential RECs:

- Lot 5: a 1952 Oil Burner Application in DOB records; regulatory databases noted an open tank test failure (NYSDEC Spill #0512262) and a closed tank test failure in the vacant hotel at 1228 Surf Avenue in 2006. According to the listings, a 550-gallon underground No. 2 fuel oil storage tank was filled with sand by the owner and the associated piping was cut without proper testing. Contamination was identified in on-site soil and groundwater. Although contaminated soil was reportedly removed in 2006, the second spill remained open because residual staining was noted in the excavation and no endpoint information was provided to the NYSDEC. The listing noted that the building was scheduled for demolition in Fall 2007. However, it had not been demolished at the time of the site visit.
- Lot 11: a 1952 Oil Burner Application in DOB records.
- See **Table 11-7** for a list of on-site or nearby petroleum storage tanks.

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Block 8695

At the time of the site visit, this block was occupied by a portion of Deno's Wonder Wheel Amusement Park, with rides and concession stands. The following lots were noted to have known or potential RECs:

- Lot 85: two past Oil Burner Applications in DOB records.
- Unknown location: a 2005 complaint about an outdoor fuel tank installed "next to the Wonderwheel" without a permit in DOB records. According to the listing, a DOB inspection one year later indicated that no action was necessary. The listing was for 3030 Surf Avenue, on Lot 64. However, it was not clear whether the complaint referred to Deno's Wonder Wheel Amusement Park, which occupies portions of Blocks 8695 and 8696, or to the Wonder Wheel itself, located on Block 8696, Lot 145.
- See **Table 11-7** for a list of on-site or nearby petroleum storage tanks.

Block 8696

At the time of the site visit, this block was occupied by arcades, concession stands, and the Deno's Wonder Wheel and Astroland Amusement Parks. The following lots were noted to have known or potential RECs:

- Lot 140: a Work Application noting the removal of an abandoned or excavated fuel oil tank in 2006 from 3025 West 12th Street, located on this lot, in DOB records.
- Lot 212: a ride maintenance and repair shop observed in the southeastern corner of Astroland at 1001 Boardwalk West; DOB records for this address include a 2005 application to legalize two existing diesel generators with three associated storage tanks.
- See **Table 11-7** for a list of on-site or nearby petroleum storage tanks.

Block 8697

At the time of the site visit, this block was occupied by the Cyclone roller coaster, paved parking lots, and a New York Aquarium building with a storage area. The following lots were noted to have known or potential RECs:

- Lot 8: a 1998 Work Application to remove a 550-gallon underground storage tank from 801 Boardwalk West, in the southern portion of this lot, in DOB records.
- See **Table 11-7** for a list of on-site or nearby petroleum storage tanks.

Block 8698

At the time of the site visit, the on-site Lot 50 was occupied by a paved parking lot and vegetated areas. No potential RECs were noted during the visual site inspection and a search of regulatory databases.

- See **Table 11-7** for a list of on-site or nearby petroleum storage tanks.

SUMMARY

Potential hazardous materials impacts were identified for the potential development lots listed in **Table 11-8**. The table indicates whether environmental conditions were identified on-site, on adjacent sites, or on sites within 400 feet of each development lot. The table also indicates the potential classes of chemicals that may have impacted soil and/or groundwater conditions on the lot.

Table 11-8
Potential Impacts

Block	Lot	Potential Impacts for On-Site, Adjacent Sites or Sites within 400 Feet	Potential Class of Chemical	Site Ownership in the Future With the Proposed Actions ¹
7060	3-6, 11, 20, 24, 27, 35, 42	On-Site	V, S, P	Privately Owned: Lots 6, 10-12, 41-43
	Entire Block	Within 400 feet	V, S, P	City Owned: Lots 1, 3-5, 7-9, 14, 16-22, 24, 27, 31, 32, 35, 44-51, 147 (These lots will be disposed of to a private developer under the proposed actions.)
7061	3, 5	On-site	V, S, P	Privately Owned: Lots 1-9, 11, 14, 20, 27 City Owned: Lots 16, 21, 39-43, 45 (These lots will be disposed of to a private developer under the proposed actions.)
	20	On-site	V, S, P	
	27	On-site	V, P, M	
	Entire Block	Adjacent / Within 400 feet	V, S, P	
7062	8	On-Site	V	Privately Owned
	28	On-Site	V, S, PCB, P, M	
	34	On-site	V, S, P	
	1, 7, 8, 10, 11	On-site	V, S	
	Entire Block	Adjacent / Within 400 feet	V, S	
7063	1, 3, 8	On-site	V, S	Privately Owned
	9	On-Site	V	
	Entire Block	Adjacent / Within 400 feet	V	
7064	2	On-Site	V	Privately Owned
	2, 4, 16, 37, 45	On-Site	V, S	
	43	On-Site	V, S, M	
	Entire Block	Adjacent / Within 400 feet	V	
7069	14	On-Site / Within 400 feet	V, S, M	City Owned
7071	100	On-Site / Within 400 feet	V, S, P, M	Privately Owned: Lots 123 and 130 City Owned: Lots 100 and 142 (These lots will be disposed of under the proposed actions.)
	123	Adjacent	V, S	
	130	On-Site / Within 400 feet	V, S	
	142	Within 400 feet	V, S, P	
7072	Entire Block	On-Site / Within 400 feet	V, S, P	Privately Owned
7073	101 (west side)	On-Site / Within 400 feet	V, S, PCB	City Owned (Part of this lot will be disposed of under the proposed actions.)
7074				City Owned (Part of this lot will be disposed of under the proposed actions.)
	256	On-Site	V, S, M	
7266	250	On-Site	V, S	Privately Owned
7268	213, 218	Within 400 feet	V, S, P	Privately Owned
8694	5	On-Site	V, S	City Owned (These lots will be disposed of under the proposed actions.)
	11	On-Site / Adjacent	V, S	
8696				City Owned (Part of this lot will be disposed of under the proposed actions.)
	212	On-Site	V, S	
8697	8	On-Site / Adjacent	V, S, PCB, M	City Owned
8698	50	On-Site / Adjacent	V, PCB	City Owned

Notes: V = VOCs, S = SVOCs, PCB = PCBs, P = pesticides, M = metals

1. This column notes which parcels will be privately owned or under City ownership in the future with the proposed actions. On Block 7060, the City currently owns some parcels and the NYC Department of Housing Preservation and Development (HPD) is proposing the acquisition of others in the future with the proposed actions, as described in Chapter 1, "Project Description." The parcels on Block 7061 are currently owned by the City. The City-owned properties on Blocks 7060 and 7061 would then be disposed of by HPD to a private developer. On Blocks 7074, 8694, and 8696, the City would acquire some privately owned parcels in the future with the proposed actions; portions of those parcels would then be disposed of to the New York City Economic Development Corporation to facilitate the development of a 27-acre amusement and entertainment district. The parcels on Blocks 7071, 7073, 8697, and 8698 are currently under City ownership. The City-owned parcels on Blocks 7071 and 7073 would be disposed of in the future with the proposed actions.

C. THE FUTURE WITHOUT THE PROPOSED ACTIONS

This analysis assumes that in the future without the proposed actions, no construction is expected at: the locations of the landmarked Childs Restaurant building (Block 7071, Lot 130) and Cyclone roller coaster (Block 8697, part of Lot 4); at Lots 249, 265 and 270 of Block 7266 and Lots 190, 254 and 344 of Block 7268, which are occupied by portions of elevated subway tracks, subway infrastructure, or station buildings; nor at Lot 148 of Block 7070, where the existing Sea Crest Health Care Center would remain in use. Other portions of the rezoning area will either continue in their current uses, which do not currently present a hazard to people or the environment, or be developed with uses complying with the current zoning. Such construction would most likely result in shallower and less extensive subsurface disturbance than under the proposed rezoning, particularly in areas currently zoned for open-air amusement parks, which are not typically densely developed with buildings. However, any construction involving soil disturbance in portions of the rezoning area with identified RECs could potentially increase pathways for human exposure to any subsurface hazardous materials present in those areas. Since no E-designations, which require the owner of a property to assess potential hazardous material impacts prior to construction, currently exist on any portion of the rezoning area, such soil disturbance would not necessarily be conducted in accordance with the procedures (e.g., for conducting testing before commencing excavation and implementation of health and safety plans during construction) described in the following section. However, legal requirements (including those of NYSDEC) should petroleum tanks and/or spills be identified, and requirements for disturbance and handling of suspect lead-based paint and asbestos-containing materials, and for off-site disposal of soil/fill would need to be followed. As such, in the future without the proposed actions, the amount of soil disturbance would be less, but potentially the controls on its performance would not be as stringent as under the proposed actions, as described below.

D. PROBABLE IMPACTS OF THE PROPOSED ACTIONS

Under the proposed actions, no construction is expected at the locations of the Cyclone roller coaster (Block 8697, part of Lot 4); at Lots 249, 265 and 270 of Block 7266 and Lots 190, 254 and 344 of Block 7268, which are occupied by portions of elevated subway tracks and associated structures; nor at Lot 148 of Block 7070, where the existing Sea Crest Health Care Center would remain in use. In addition, construction at the site of the landmarked Childs Restaurant building (Block 7071, Lot 130) would only include an upper story addition to the rear of the building. Further, the proposed rezoning would include mapping Block 7074: portions of Lots 20, 23, 105 and 190; Block 7074: Lot 382 and portions of Lots 256, 310 and 360; Block 8695: Lots 85, 104, 120, 468 and portions of Lots 72 and 433; and Block 8696: Lots 75, 166, and portions of Lots 70, 140, 145 and 212 as parkland to preserve their historic use as open-air amusements. The southwestern portion of Block 7071 would also be mapped as parkland to create Highland View Park. None of these changes are expected to result in more than shallow subsurface disturbance in the affected portions of the rezoning area. For the remainder of the rezoning area, the proposed actions would potentially result in more extensive and deeper subsurface disturbance, during future construction activities in the rezoning area, than would result from construction under current zoning. Thus, the potential for adverse impacts associated with excavation for new construction, resulting from the potential presence of subsurface contamination in portions of the rezoning area, would increase in comparison with the current conditions. Although the proposed actions could result in more construction activities that could increase pathways for human exposure, the possibility of impacts would be reduced by the measures identified below.

Prior to construction, further investigation would be performed on each projected development site where known or potential RECs were identified, to determine the presence and nature of contaminants of concern and the proper remedial and/or health and safety measures that would be employed during redevelopment. Mechanisms to ensure that these actions occur differ for privately owned sites and for City-owned sites, as described below.

An E-designation would be placed on the lots identified in **Table 11-8** that are privately owned. The E-designation would require that, prior to redevelopment, the property owner conduct a Phase I Environmental Site Assessment (ESA) in accordance with the American Society of Testing Materials (ASTM) E1527-05, prepare and implement a soil and groundwater testing protocol, and conduct remediation where appropriate, to the satisfaction of the New York City Department of Environmental Protection (DEP) before issuance of construction-related building permits by the DOB (pursuant to Section 11-15 of the Zoning Resolution – Environmental Requirements). The E-designation also requires mandatory construction-related health and safety plans, which must also be approved by DEP. A Phase II report is required at the completion of the site investigation if potential contamination is identified. Remediation, if necessary, based on the Phase II will then be addressed during construction. A closure report is required at the completion of all remedial activities.

E-designations would not be placed on those lots identified in **Table 11-8** that are City-owned. In the case of lots to be disposed of by the New York City Department of Housing Preservation and Development (HPD), Land Disposition Agreements created between HPD and the development sponsor would require a similar environmental review process to development undergoing CEQR. For HPD-owned sites on Tax Blocks 7060 and 7061, the site investigation reports and work plans, as well as the closure reports if required, would be submitted for approval to HPD as well as DEP. With the required measures related to subsurface testing and remediation included as part of the Land Disposition Agreements, no significant adverse impacts would occur. For other City-owned lots, either the New York City Economic Development Corporation (NYCEDC) or the New York City Department of Parks and Recreation (DPR) will enter into a Memorandum of Understanding with DEP stipulating implementation of the environmental review process for site testing and any required remediation. Restrictive declarations would be placed on any sites to be subsequently disposed of by the City to a private developer, in accordance with the Memorandum of Understanding for that site.

All demolition or rehabilitation would be conducted in accordance with applicable requirements for disturbance, handling, and disposal of suspect lead-paint and asbestos-containing materials. For potential development sites where no E-designation, Land Disposition Agreement, or Memorandum of Understanding would be placed, in addition to the requirements for lead-based paint and asbestos, requirements (including those of NYSDEC) for off-site disposal of soil/fill would need to be followed should petroleum tanks and/or spills be identified.

In summary, the following privately owned portions of the rezoning area would be assigned an E-designation:

- Block 7060 – Lots 6, 10-12, 41-43
- Block 7061 – Lots 1-9, 11, 14, 20, 27
- Block 7062 – Lots 1, 4-11, 14, 25, 28, 34 (entire block)
- Block 7063 – Lots 1-4, 6, 8, 9, 11, 12, 32-35, 38-41 (entire block)
- Block 7064 – Lots 1, 2, 4, 5, 7, 14, 16, 27, 28, 31, 32, 35, 37, 38, 43, 45 (entire block)

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- Block 7071 – Lots 123 and 130
- Block 7072 – Lot 1 (entire block)
- Block 7266 – Lot 250
- Block 7268 – Lots 213 and 218

Land Disposition Agreements would be placed on the following properties that are currently owned or would be acquired by the City for disposition by HPD to a private developer:

- Block 7060 – Lots 1, 3-5, 7-9, 14, 16-22, 24, 27, 31, 32, 35, 44-51, 147
- Block 7061 – Lots 16, 21, 39-43, 45

Memorandums of Understanding would be entered into by NYCEDC for the following properties:

- Block 7071 – Lots 100 and 142
- Block 7073 – Lot 101 (western portion of block)
- Block 7074 – Lot 256
- Block 8694 – Lots 5 and 11
- Block 8696 – Lot 212

Memorandums of Understanding would be entered into by DPR for the following properties:

- Block 7069 – Lot 14
- Block 8697 – Lot 8
- Block 8698 – Lot 50

Under the proposed actions, the lots on Blocks 7074, 8694, and 8696 would be disposed of by the City to NYCEDC to facilitate the development of a 27-acre amusement and entertainment district. (For Block 7074, Lot 256 and Block 8696, Lot 212, portions of the lots would be disposed of.) Under the proposed actions, Block 7071, Lot 142 would be disposed of to NYCEDC and then to a private developer for development under the proposed zoning. Block 7071, Lot 100 and Block 7073, portion of Lot 101 would be disposed of, through NYCEDC, to a private entity for development under the proposed zoning. The Memorandum(s) of Understanding between NYCEDC and DEP for these lots will stipulate that restrictive declarations would be placed on each lot, or portion of a lot, at the time of disposition requiring environmental site testing and any necessary remediation. Site investigation and remediation prior to any construction on the portions of Block 7074, Lot 256 and Block 8696, Lot 212 that would remain in City ownership will be ensured through the Memorandum(s) of Understanding between NYCEDC and DEP. The lots on Blocks 7069, 8697, and 8698 are controlled by DPR, and will remain under City ownership in the future with the proposed actions, and site investigation and remediation prior to any construction on them will be ensured through a Memorandum of Understanding between DPR and DEP.

The implementation of these measures would reduce or avoid the potential that significant adverse impacts would result from potential construction in the rezoning area. Following such construction, there would be no potential for significant adverse impacts.

E. CONCLUSIONS

The Hazardous Materials Assessment identified potential historical and present sources of contamination in portions of the rezoning area. These RECs included the past or present existence of gasoline stations, dry cleaners, and/or petroleum storage tanks in portions of the rezoning area, as well as off-site releases from underground petroleum storage tanks with a potential of affecting the rezoning area. To reduce the potential of adverse impacts associated with potential new construction resulting from the proposed actions, further environmental investigation will be required at sites where potential hazardous materials conditions were identified.

E-designations would be placed on the following privately owned properties that would be developed under the proposed actions:

- Block 7060: Lots 6, 10-12, 41-43
- Block 7061: Lots 1-9, 11, 14, 20, 27
- Block 7062: Lots 1, 4-11, 14, 25, 28, 34 (entire block)
- Block 7063: Lots 1-4, 6, 8, 9, 11, 12, 32-35, 38-41 (entire block)
- Block 7064: Lots 1, 2, 4, 5, 7, 14, 16, 27, 28, 31, 32, 35, 37, 38, 43, 45 (entire block)
- Block 7071: Lots 123 and 130
- Block 7072: Lot 1 (entire block)
- Block 7266: Lot 250
- Block 7268: Lots 213 and 218

Land Disposition Agreements would be placed on the following properties, which are currently owned or would be acquired by the City for disposition by HPD to a private developer:

- Block 7060: Lots 1, 3-5, 7-9, 14, 16-22, 24, 27, 31, 32, 35, 44-51, 147
- Block 7061: Lots 16, 21, 39-43, 45

Memorandums of Understanding would be entered into by NYCEDC for the following properties:

- Block 7071: Lots 100 and 142
- Block 7073: Lot 101 (western portion of block)
- Block 7074: Lot 256
- Block 8694: Lots 5 and 11
- Block 8696: Lot 212

Memorandums of Understanding would be entered into by DPR for the following properties:

- Block 7069: Lot 14
- Block 8697: Lot 8
- Block 8698: Lot 50

Restrictive declarations would subsequently be placed on the lots (and in two cases, partial lots) on Blocks 7071, 7073, 7074, 8694, and 8696 at the time of their disposition by the City, in accordance with the Memorandum(s) of Understanding that would be entered into between NYCEDC and DEP. The portions of Block 7074, Lot 256 and Block 8696, Lot 212 will remain

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in City ownership under the proposed actions and site investigation and remediation prior to any construction on them will be ensured through a Memorandum of Understanding between NYCEDC and DEP. The lots on Blocks 7069, 8697, and 8698 will remain under City ownership and site investigation and remediation prior to any construction on them will be ensured through a Memorandum of Understanding between DPR and DEP.

These E-designations, Land Disposition Agreements, and Memorandums of Understanding require the owner of the property to conduct a Phase I ESA in accordance with ASTM E1527-05, prepare and implement a soil and groundwater testing protocol, prepare a Phase II report where potential contamination is identified and conduct remediation where appropriate, to the satisfaction of DEP before development-related building permits can be issued by the Department of Buildings (pursuant to Section 11-15 of the Zoning Resolution – Environmental Requirements). Additionally, construction-phase health and safety plans, which must also be approved by DEP, are required including procedures to address both any known concerns as well as contingencies should unexpected contamination be encountered. For HPD-owned sites on Tax Blocks 7060 and 7061, Phase I ESA reports, subsurface investigation work plans and reports, and remediation reports (where applicable) would be submitted to HPD as well as DEP for approval. A closure report is required at the completion of all remedial activities). This closure report should be approved by DEP and, for Blocks 7060 and 7061, by HPD as well. *