

**FINAL SUPPLEMENTAL ENVIRONMENTAL IMPACT STATEMENT FOR THE
CROTON WATER TREATMENT PLANT
AT THE HARLEM RIVER SITE**

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7.13. HAZARDOUS MATERIALS

7.13.1. Introduction

This section evaluates whether the construction and operation of the proposed Croton Water Treatment Plant (Croton project) if the Harlem River Site had been selected could lead to increased exposure of people or the environment to hazardous materials. This section identifies and assesses the potential presence of hazardous materials on the Harlem River Site or those used off-site at neighboring facilities, which could migrate and ultimately affect the water treatment plant site. The methodology used to prepare this analysis is presented in Section 4.13, Data Collection and Impact Methodologies, Hazardous Materials.

7.13.2. Baseline Conditions

7.13.2.1. Existing Conditions

Possible hazardous materials issues relating to the Harlem River Site and a one-half mile radius study area are addressed in this section. Possible issues include activities that occurred at the water treatment plant site and may have caused the release of hazardous materials or wastes to the environment, thereby creating residues that may be exposed during the construction of the proposed project. The analyses also include activities that may have occurred on properties near the water treatment plant site that would have potentially caused the release of hazardous materials or wastes to the environment. These materials, although not released directly to the site, could have subsequently migrated; creating residues within the groundwater that may be exposed during construction. Petroleum-related materials (e.g., fuels and lubricants) that are introduced to off-site facilities are also included.

Hazardous materials and chemicals in the vicinity of the Harlem River Site were identified using four methods described in the Data Collection and Impact Methodologies. First, the property history of the proposed water treatment plant site and surrounding area (one-half mile from the proposed existing property lines) were reviewed using available historical mapping material. Second, a records search was conducted with Federal, State, and Local agencies to identify hazardous materials issues over a broad study area that included the site and properties within at least one-half mile of the proposed water treatment plant site. Third, the site was visually inspected. Fourth, an environmental quality study was conducted to determine the potential for soil and/or groundwater contamination.

7.13.2.1.1. Property History

Sanborn Maps. To assess existing conditions on and near the Harlem River Site, Sanborn Maps were obtained from Sanborn Mapping and Geographical Information Service. The Sanborn Maps are used by the insurance industry to list properties for emergency or claims purposes. As a result, the maps identify properties (i.e., company name, generic title such as filling station, etc.), but generally do not provide detail on the nature of operations that were performed at that location. Nonetheless, since these maps go back as far as the late 1800s for older, more established communities, they were useful for identifying potential hazardous materials sites, particularly prior to the era of current environmental regulations (i.e., pre-1970).

Selected Sanborn Fire Insurance Maps were reviewed for various communities in proximity to the Harlem River Site to identify facilities that may have used or generated hazardous materials during the periods these facilities were in service. The Sanborn maps, which were reviewed, are identified in Table 7.13-1, and significant findings are described below (Sanborn maps are presented in Appendix E).

TABLE 7.13-1. SUMMARY OF SANBORN MAPS

Area	Sanborn Maps Reviewed (Year)
Harlem River Site	1896, 1900, 1907, 1935, 1950, 1954, 1977, 1989

Water Treatment Plant Site. The most prominent feature associated with the history of the water treatment plant site from a hazardous materials standpoint is the presence of two railroad lines traversing the area. As shown on the 1896 map, the Putnam Division of the New York Central and Hudson Railroad (NYCHR) traversed the eastern side of the water treatment plant site in a north-south direction. In 1900, a branch of New York Central tracks was constructed, which split from the Putnam Division right-of-way north of the water treatment plant site and proceeded to the west toward the Hudson River, paralleling the recently completed U.S. Ship Canal. By 1907, a large building was constructed by NYCHR near the intersection of the two railroad lines. The Sanborn maps indicated the building was used to house transformer and battery equipment. Based on the long-term presence of the railroad line and related equipment and structures, the potential for the contamination of soil and groundwater with petroleum constituents, semi-volatile organic compounds, and PCBs is possible in the areas immediately north and east of the water treatment plant site.

Beginning approximately 80 years ago, development along the eastern shore of the Harlem River and near the water treatment plant site occurred in two areas divided by the Putnam and Hudson Division railroad track split. The area north of the Hudson Division tracks to West 225th Street was developed prior to 1935 and has been occupied by commercial facilities, including numerous auto-related businesses, to the present. The Sanborn maps noted that several of these facilities were equipped with both above- and below-ground petroleum storage tanks. The presence of older, presumably unprotected steel tanks, suggests the potential for contaminated soil and groundwater in the area.

During the 1950s, development along Bailey Avenue and Harlem River Terrace, approximately 500 ft. east of the water treatment plant site, changed significantly to accommodate construction of the Major Deegan Expressway (I-87). During this era, several industrial and retail facilities were closed and removed, including a brass foundry, several filling stations and auto repair facilities, and a utility site (i.e., gasholder) operated by Consolidated Gas (Con Edison). It is not known what impact, if any, these decommissioned facilities may have had on the environment.

In the area north of the water treatment plant site, a large warehouse appeared on the 1954 Sanborn map, which later became the Presbyterian Hospital Center. Except for the storage of fuel oil in tanks located outside the warehouse, it is not known if other activities at the facility may have involved the use and possible release of hazardous materials to the environment.

South of the Hudson Division track split, a number of planned streets were depicted on the Sanborn maps, including portions of Exterior Street, and West 184th, 188th, 190th, 191st, and 192nd Streets extending to the Harlem River. Many of these streets were never built. Based on the Sanborn maps, development in this area was virtually nonexistent. Several areas and inlets along the shoreline appear to have been altered or partially filled-in, perhaps in anticipation of more widespread development in the area.

The 1977 and 1989 Sanborn maps show no changes from the 1954 map that would affect the project site or study area.

Aerial Photographs and Early Site Depictions. A variety of historical aerial photographs of the Harlem River Site area taken between 1941 and the 1990s were reviewed to identify possible on- and off-site land uses that may have resulted in the release of hazardous materials to the environment. While the detail and resolution of the photographs varied, prominent features such as shoreline modifications, suspected land uses, piers, roads, vegetative coverage, structures, and vehicles were generally discernable.

In addition to the aerial photographs, an artist's rendering (Figure 7.13-1) believed to depict the area in 1895 was reviewed. It showed the northern portion of the water treatment plant site after the dredging and construction of the U.S. Ship Canal (i.e., Harlem River) was completed. In addition, an 1897 topographic map prepared by the U.S. Coast and Geodetic Survey (Figure 7.13-2) provides insight to the shoreline configuration shortly after the canal was completed.

The historical aerial photographs that were reviewed were taken on January 8, 1941 (Figure 7.13-3), February 23, 1954 (Figure 7.13-4), April 13, 1954 (Figure 7.13-5), undated late 1950s (Figure 7.13-6), June 16, 1960 (Figure 7.13-7), and two undated photographs taken in the 1990s (Figure 7.13-8 and Figure 7.13-9). Significant observations derived from these figures follow.

1890s. The artist's rendering depicting the Harlem River and the northern portion of the water treatment plant site is believed to represent the area in 1895 shortly after the U.S. Ship Canal was constructed thus connecting the Harlem and Hudson Rivers and separating the Marble Hill neighborhood from the rest of Manhattan. No development is noted on or near the water treatment plant site. The 1897 topographic map depicts the railroad tracks adjacent to the shoreline of the Harlem River and illustrates very little landmass between the tracks and the Harlem River. Both figures suggest that the land area, which is now the water treatment plant site, had not been filled in to its current shoreline and contour.



**1895 Artistic Rendering
Harlem River Site**

Croton Water Treatment Plant

M&E File: P:\Environmental Quality\Croton\2004 Final SEIS\GRAPHICS\07-HR13-HAZMAT\HR-hazmat-exconB-05-22-04.cdr 06/29/04



1897 Topographic Map
Harlem River Site



**1941 Aerial Photograph
Harlem River Site**



**February 1954 Aerial Photograph
Harlem River Site**

Croton Water Treatment Plant



**April 1954 Aerial Photograph
Harlem River Site**



**1950s Aerial Photograph
Harlem River Site**

Croton Water Treatment Plant



**1960 Aerial Photograph
Harlem River Site**



1990s Aerial Photograph Harlem River Site

Croton Water Treatment Plant

Figure 7.13-8



**1990s Aerial Photograph
Harlem River Site**

Croton Water Treatment Plant

1941. Compared to the 1890s profile of the water treatment plant site, the January 1941 aerial photograph suggests that much of the water treatment plant site land area was created by filling in wetlands and shallow water zones. Near the northern portion of the water treatment plant site, the 1941 photograph depicts various pier and bulkhead structures along the Harlem River slightly southwest of the split of the Hudson and Putman railroad lines. Exterior Street, which is an unpaved dirt road, roughly parallels the railroad tracks from the University Heights Bridge. Access paths leading from Exterior Street to the shoreline and coves are evident, although the area appears to be virtually undeveloped and largely covered by scrub vegetation or wetland areas. A spit of land parallel to the U.S. Pier and Bulkhead Line and south of the railroad track split forms a cove that may have been used as a marina as suggested by regularly spaced boat slips and/or pilings.

Further south on the water treatment plant site, five large rectangular plots are visible on the 1941 photograph, presumably athletic fields or tennis courts. Adjacent to the southernmost rectangle appears to be a building and a small pier extending into the River. The small pier may have been the structure that housed the Con Edison utility lines, which crossed the River at this point. East of the pier and across the railroad tracks, a large natural gas holder is prominently present. South of the small pier is a cove and a larger, more substantial pier, occasionally referred to on the Sanborn maps as the Landing Road Pier. South of the Landing Road Pier is another inlet or cove with a sandy area that may be a beach. The cove and sandy area extends to the ramp, which leads upward to the road level of the University Heights Bridge and Fordham Road. South of the bridge, there appears to be a facility that may have been used for the storage and distribution of construction materials (e.g., sand and gravel). It appears that a bulkhead wall was established in this location, perhaps with tie-downs along the river.

Few, if any, land uses on the water treatment plant site evident in the 1941 photograph may have resulted in the release of hazardous materials or wastes to the environment. Depending on the nature of the industrial operations at the facility south of the University Heights Bridge, residues from fuel spills or ash may remain. In addition, activities associated with the operation of the gasholder east of the water treatment plant site may have resulted in the release of contaminants (e.g., semi-volatile organic compounds), which could have potentially infiltrated the groundwater and migrated toward the water treatment plant site.

1954. Two aerial photographs were reviewed showing the Harlem River Site area in 1954. In general, both 1954 photos depict conditions similar to those seen in 1941, although excavation, grading, and building demolition are in progress for the construction of the Major Deegan Expressway. The February 1954 photo depicts a wastewater discharge plume (possibly muddy stormwater) entering the river from what appears to be an outfall structure west of the Putman and Hudson Division railroad track split and north of the water treatment plant site. The spit of land and marina visible in the 1941 photograph have been removed and, in its place, a more prominent pier or dock has been constructed.

The five rectangular plots are still visible in the 1954 photographs; as well as the small pier, Landing Road Pier, and the coves or inlets. Both photographs depict material piles (i.e., sand and gravel) at the facility south of the bridge along with a vessel, perhaps a barge, moored to the bulkhead. The gasholder and various buildings adjacent to the water treatment plant site and east

of the railroad tracks have been demolished, presumably to make room for the Major Deegan Expressway.

Late 1950s. An oblique photo taken in the late-1950s shows the NY Central and Hudson Railroad tracks, the former location of the Marble Hill train station, and the northern end of the water treatment plant site. The photo provides a closer view of the pier and bulkhead structures southwest of the railroad track split, various small, unidentifiable structures, and scrub vegetation, suggesting minimal activity on this portion of the water treatment plant site.

1960. The 1960 aerial photograph depicts conditions similar to those shown in previous photos, including the wastewater discharge outfall (i.e., stormwater) and a pier/dock structure southwest of the railroad track split. Consistent with previous photos, there is minimal evidence of activity on the northern portion of the water treatment plant site. A new marina, piers, small boats, and a moored barge are visible north of the five rectangular plots (presumed to be athletic fields or tennis courts). The rectangular plots, an adjacent building, and a small pier remain as previously observed. The cove south of the small pier contains a rectangular object, which may be an anchored or grounded barge. The Landing Road Pier is present with a vessel moored to its northern side. The cove on the southern side of the pier has been mostly filled in, leaving a small rectangular pool and bulkhead adjacent to the pier. The sand and gravel distribution facility south of the bridge continued to be in operation. The Major Deegan Expressway had been completed and was in service.

Through 1960, there appear to be few, if any, activities or operations on the water treatment plant site that may have resulted in the release of hazardous materials or wastes to the environment. However, it is likely that petroleum tanks may have been associated with the marina north of the rectangular plots, the building south of the plots, and the industrial facility south of the bridge, any of which may have had spills or other releases to the environment.

1990s. Two aerial photographs taken in the 1990s were reviewed for this assessment. In the first photograph, presumably taken in 1993 or 1994, it is evident that some commercial development has occurred on the water treatment plant site since the 1960s. Remnants of the pier and bulkhead structures north of the water treatment plant site can be seen and the area has been cleared of vegetation. A large rectangular feature on the northern portion of the treatment plant site is believed to be a road salt storage pile on property leased by Akzo Salt Incorporated from CSX. The marina, boats, and five rectangular plots present in the 1941 and 1954 photographs have been removed. South of the road salt pile, the visible structures belong to a concrete batch plant that presumably operated from 1982 to 1993. The concrete batch plant closed at about the time this photograph was taken and the area became an uncontrolled waste disposal dump and perhaps a junk vehicle storage or salvage yard. Another concrete batch plant opened near the site of the former batch plant in the late 1990's. South of the former concrete batch plant and in the area formerly covered by the five rectangular plots is a building supply distributor utilizing both indoor and outdoor storage facilities.

Sometime after 1960, the property occupied by the building supply distributor was filled in, extending the shoreline to the U.S. Pier and Bulkhead Line and roughly equivalent to the end of the small pier. The Landing Road Pier is still visible but has deteriorated significantly. The filled-in area immediately north of the University Heights Bridge appears to be used as a

materials and equipment storage area. The former facility south of the bridge, believed to have been used for sand and gravel distribution is no longer present and has been replaced by a vehicle storage lot.

The second 1990s aerial photograph of the water treatment plant site may have been taken in 1997 or 1998 as part of the New York State Statewide Digital Orthoimagery Program. The property appears to have similar land uses as seen in the 1994 image, although the road salt storage operation has been removed. No other significant changes or features on or near the water treatment plant site are evident.

Throughout the history of the water treatment plant site, there appear to be few activities that may have involved the extensive handling, storage, or use of hazardous materials that potentially could have been released to the environment. There is no evidence that the water treatment plant site contained any industrial or manufacturing facilities. In fact, the aerial photographs suggest the water treatment plant site may have been used for recreational purposes up to the 1960s. Even without the apparent presence of industrial or manufacturing facilities, it is likely that petroleum hydrocarbon fuels were used and stored on the water treatment plant site and residues from previous releases may still remain. In addition, utility operations performed on Con Edison's property may have involved the use of Polychlorinated Biphenyls (PCBs). During the past two decades, particularly when property ownership or land use changed, portions of the water treatment plant site, including the area occupied by the current batch plant (i.e., XCEL Redi-Mix Concrete batch plant) and along Exterior Street have been impacted by uncontrolled waste dumping and vehicle salvage operations. It is likely that these activities may have caused the release of hazardous materials, particularly petroleum hydrocarbons, to the environment.

Tax Records. The water treatment plant site is located along the Harlem River near the West Fordham Road/University Heights Bridge. To the east of the site are Exterior Street and the MTA Metro-North Railway (Hudson Division) and to the north is West 225th Street/Kingsbridge. The southernmost occupied parcel is occupied by the New York City Department of Transportation (NYCDOT), which uses its property to store bridge repair-related materials. To the immediate north of the NYCDOT property is a Consolidated Edison Company of New York, Inc. (Con Edison), which uses its property to access electrical and natural gas lines that cross the Harlem River at that location. North of the Con Edison property is the Storage Post a self-storage facility, and to its north is the XCEL Ready-Mix Concrete batch plant, which operates a batching plant that produces concrete for distribution in mixing trucks using raw materials (cement, sand, aggregate) that arrive by truck. The northernmost property on-site is the Consolidated Rail Corporation (CSX), which owns property that currently contains several railroad spurs and may be developed in the future as a material (sand and gravel) storage and distribution facility.

According to the City's property tax maps, the Harlem River Site is defined as property tax Block 3231, Lot 350; Block 3244, Lot 100; Block 3244, Lot 120; Block 3244, Lot 145; Block 3244, Lot 160; Block 3244, Lot 1; and Block 3245, Lot 3. Current zoning of the water treatment plant site consists of M1-1, M2-1, and M3-1 (All Manufacturing). Based on information contained in tax records, property ownership documents, and zoning restrictions, there is little or no indication that prior legitimate land uses on the Harlem River Site involved activities which included the use or storage of substantial quantities of hazardous materials or related waste that

could have ultimately been released to the environment. However, because portions of the water treatment plant site were unsecured during the past two decades, particularly along Exterior Street near the NYCDOT and Con Edison properties and in proximity to the current batch plant, uncontrolled waste dumping may have resulted in the release of hazardous materials to the environment (e.g., PCBs on the Con Edison property).

7.13.2.1.2. Records Search

The records search focused on an area radiating one-half mile from the water treatment plant site, and involved contacting the United States Environmental Protection Agency (USEPA), the New York State Department of Environmental Conservation (NYSDEC), and the Emergency Response Unit of the NYCDEP in 2002. This search was conducted to evaluate past and present activities involving hazardous materials at the water treatment plant site and its environs, as described in Section 4.13, Data Collection and Impact Methodologies, Hazardous Materials.

The purpose of these environmental database reviews was to identify incident locations, or facilities where hazardous materials may be present and are either known to have been released to the environment (i.e., spills, tank leaks) or may be sources of future releases. Because numerous residential, commercial, institutional, utility and transportation facilities surround the Harlem River Site, the search of environmental databases was designed to identify environmentally regulated sites up to one-half mile from the water treatment plant site.

In addition, since the Harlem River forms the western boundary of the water treatment plant site and essentially acts as a barrier mitigating the migration of contaminants originating from the Manhattan side of the river, the database search focused on sources in the Bronx.

A summary of the sites identified from the review arranged by regulatory program (i.e., database type) is presented in Table 7.13-2. The results are divided into two groups: (1) sites where hazardous materials are known or suspected to have been released, and (2) sites where regulated hazardous materials or wastes were handled and could potentially have been released to the environment. The number of environmentally regulated sites is sorted by distance and direction from the water treatment plant site. Sites that had incomplete or incorrect addresses and locations that could not be specifically plotted (i.e., geocoded) were assumed to be within one-half mile of the water treatment plant site and identified accordingly. Figure 7.13-10 illustrates the distribution of sites where hazardous material releases (e.g., spills, leaks) are known or suspected to have occurred in relation to the water treatment plant site. Figure 7.13-11 depicts other environmentally regulated sites where hazardous materials have been used or stored but for which there are no records of known or suspected releases.

TABLE 7.13-2. SUMMARY OF THE NUMBER OF ENVIRONMENTALLY REGULATED SITES WITHIN ONE-HALF MILE OF THE HARLEM RIVER SITE

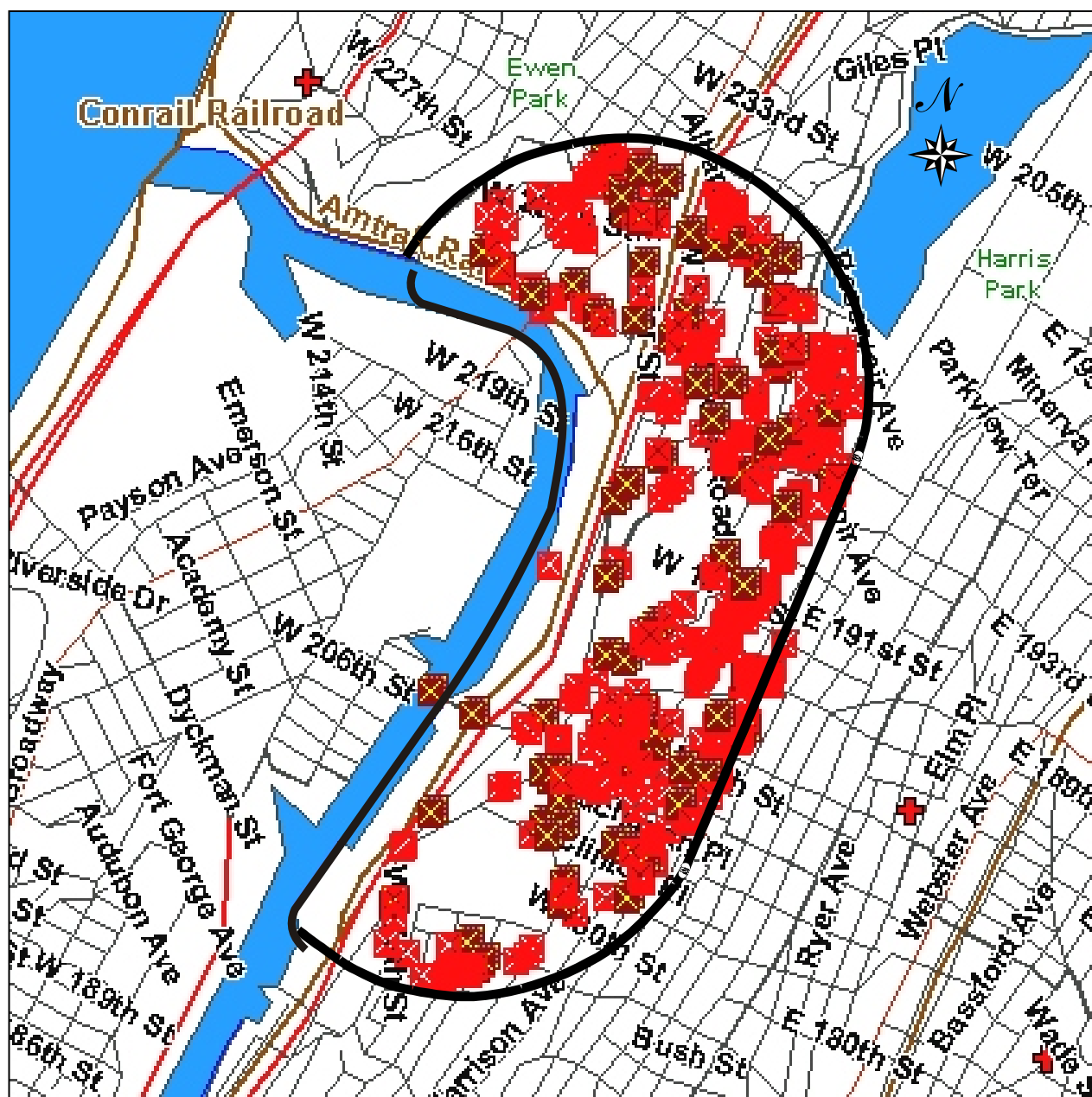
Database	Distance from the Harlem River Site (mile)						TOTAL
	Onsite	<1/8	1/8-1/4	1/4-1/2	>1/2	Un-known	
<i>Sites Where Known or Suspected Releases to the Environment Have Occurred</i>							
NPL (Superfund) Sites	0	0	0	0	-*	0	0
Spills (from leaking tanks)							
- After 1990	1(0)	19(4)	44(4)	130(27)	1(0)	19(2)	214(37)
- 1980 through 1989	0(0)	5(3)	5(0)	9(4)	-*	0	19(7)
RCRA Corrective Action Sites	0	0	0	0	-*	0	0
NYSDEC Sites (hazardous waste)	0	0	0	0	-*	0	0
Emergency Response Sites (ERNS)	0	2	1	8	1	0	12
Toxic Release Inventory Sites (TRIS)	0	0	0	0	-*	0	0
Release Sites (air/water)	0	0	1	1	-*	1	3
<i>Sites Where Hazardous Materials or Wastes Have Been Stored (i.e., potential environmental release sites)</i>							
RCRA:							
-TSD & Generators	0	0	3	17	-*	0	20
-No Longer Regulated	0	4	3	7	-*	0	14
Regulated USTs & ASTs	1	10	63	330	-*	0	404
NYSDEC Sites (hazardous waste)	0	0	0	0	-*	0	0
CERCLIS	0	0	0	0	-*	0	0
Solid Waste Facilities	0	0	0	0	-*	0	0
FINDS sites (i.e., RCRIS, AFS/AIRS, FFIS, ENF Docket, NCDB)	0	0	5	7	-*	0	12
Nuclear Permits	0	0	0	1	-*	0	1

Notes: * No sites identified at the ½ mile study area boundary.

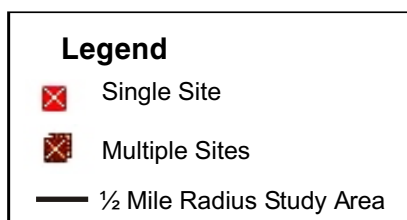
Legend

-  Single Site
 Multiple Sites
 1/2 Mile Radius Study Area

Sites of Known or Suspected Hazardous Material Releases Harlem River Site



Not To Scale



Environmentally Regulated Sites Harlem River Site

The information contained in the databases originates from a wide variety of sources, such as: permits, inspections, and incident reports. As a result, if a site is listed in multiple databases, its name or address may vary. The data presented represents the information as it was derived from the original database sources without significant alteration or correction. Slight modifications have been performed to the addresses for sites that are listed on multiple databases so that the resulting geocoding would derive consistent distances from the water treatment plant site.

The following identifies individual sites in proximity to the water treatment plant site by applicable environmental regulatory programs (i.e., spills, tanks, RCRA hazardous waste). The site/incident reports that were reviewed to identify the listed sites are provided in Appendix E. The site/incident identification number (ID#) listed in the following tables corresponds to the site detail report search ID#s in Appendix E.

Sites Where Known or Suspected Releases to the Environment Have Occurred.

National Priority List (Superfund) Sites. A search was conducted of the National Priority List (NPL), also known as the Superfund list, to identify uncontrolled or abandoned hazardous waste sites in areas that are targeted for possible long-term action under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). None of the properties comprising the Harlem River Site appear on the current NPL. In addition, there are no Superfund sites within one-half mile of the Harlem River Site.

Spill Incidents and Leaking Storage Tanks. The database of spills identifies incidents that have resulted in the release of hazardous materials. The database includes both tank test failures (i.e., tanks that failed tightness testing) and known tank failures (i.e., leaking tanks in the ground or tanks noted to be leaking upon removal). The list of tank test failures includes tanks that are located only below ground (underground storage tanks), whereas the list of tank failures includes both tanks that are either below or above ground. The database also lists spills that have occurred during the transportation of chemicals. The spill statistics identify incidents that occurred after 1990 and spills that occurred between 1980 and 1989.

Table 7.13-3 identifies a large number of sites within one-half mile of the water treatment plant site where hazardous material spills or releases and leaks from storage tanks are known or suspected to have occurred. The data indicates that 214 spills, 37 of which were caused by leaking tanks, are reported to have occurred within one-half mile of the Harlem River Site. The addresses of 19 of these spill incidents could not be established but were assumed to be within one-half mile of the water treatment plant site. Using information gathered from the detailed incident reports for the 214 spills, Table 7.13-4 summarizes the characteristics of potentially significant spills or releases that appear to have affected the environment (i.e., soil, groundwater) surrounding each site.

TABLE 7.13-3. HAZARDOUS MATERIALS SPILL SITES (REPORTED SPILLS INCLUDING LEAKING STORAGE TANKS)

ID #	Site	Address		Distance (Miles)	Regulatory ID/ Status	Leaking Tank ID #
Spills Occurring In 1990 And After						
131	Exterior St - Landing Rd	Exterior St - Landing Rd	Bronx NY 10468	0.00 --	9508967/Active	N/A
145	Major Deegan & Fordham Rd	Major Deegan /Fordham Rd	Bronx NY 10468	0.06 SE	8909821/Closed	N/A
146	Major Deegan & West Fordham	Major Deegan /West Fordham	Bronx NY 10468	0.06 SE	9703877/Closed	N/A
147	Major Deegan Express	Major Deegan Express and Fordham Rd	Bronx NY 10468	0.06 SE	9909964/Active	N/A
201	West Fordham Road	West Fordham Rd/Deegan	Bronx NY 10468	0.06 SE	9707112/Closed	N/A
137	Harlem River	192nd St / Bailey Ave	Bronx NY 10468	0.07 SE	9508060/Closed	N/A
91	2590 Bailey Ave/Bx/Getty0	2590 Bailey Avenue	Bronx NY 10463	0.08 SE	9101247/Closed	677
135	Getty	2590 Bailey Ave	Bronx NY 10463	0.08 SE	9611209/Active	N/A
176	Manhole 5008	Bailey Ave/W 193rd St	Bronx NY 10463	0.08 SE	9913959/Active	N/A
89	2548 Bailey Avenue	2548 Bailey Avenue	Bronx NY 10463	0.09 SE	9416663/Active	N/A
122	Bailey Ave West	2663 Heath Ave	Bronx NY 10463	0.09 SE	9605039/Closed	N/A
123	Bailey Houses	2663 Heath Av	Bronx NY 10463	0.09 SE	9605040/Closed	N/A
86	2545 Sedgwick Ave	2545 Sedgwick Ave	Bronx NY 10463	0.12 SE	9707814/Closed	N/A
87	2545 Sedgwick Ave/Bronx	2545 Sedgwick Avenue	Bronx NY 10463	0.12 SE	9002435/Closed	N/A
90	2559 Sedgwick Ave	2559 Sedgwick Av	Bronx NY 10463	0.12 SE	9800488/Active	676
92	2593 Sedgwick Avenue	2593 Sedgwick Avenue	Bronx NY 10463	0.12 SE	9501893/Closed	678
95	2647 Sedgwick Ave	2647 Sedgwick Ave	Bronx NY 10463	0.12 SE	9707846/Closed	N/A
156	Manhole #31136	Sedgwick /Bailey Ave	Bronx NY 10468	0.12 SE	9812981/Active	N/A
186	Residence	2545 Sedgwick Avenue	Bronx NY 10463	0.12 SE	9612636/Closed	N/A
187	Residence	2647 Sedgwick Ave	Bronx NY 10463	0.12 SE	9709564/Closed	697
161	Manhole 12719	Ifo 2400 Sedgwick Ave	Bronx NY 10468	0.13 SE	9905354/Closed	N/A

TABLE 7.13-3. HAZARDOUS MATERIALS SPILL SITES (REPORTED SPILLS INCLUDING LEAKING STORAGE TANKS)

ID #	Site	Address		Distance (Miles)	Regulatory ID/ Status	Leaking Tank ID #
192	Tm 1410	W 193rd St/Health Ave	NY NY 10463	0.13 SE	0000052/Active	N/A
93	2630 Kingsbridge Terrace	2630 Kingsbridge Terrace	Bronx NY 10463	0.14 SE	9412626/Active	N/A
94	2630 Kingsbridge Terrace	2630 Kingsbridge Terrace	Bronx NY 10463	0.14 SE	9403744/Closed	N/A
132	Fordham And	Landing Ave	Bronx NY 10468	0.15 SE	9909822/Closed	N/A
81	2445 Sedgwick Ave	2445 Sedgwick Ave	Bronx NY 10468	0.16 SE	9303142/Active	673
181	MH #5010 Bailey Ave &	West Kingsbridge Rd	Bronx NY 10463	0.17 NE	9813677/Closed	N/A
113	50-64 West 225th St/Bronx	50-64 West 225th Street	Bronx NY 10463	0.17 NW	9001088/Active	686
114	56 West 225 Street	56 West 225 Street	Bronx NY 10463	0.17 NW	9709680/Closed	N/A
117	Apartment Building 8	Fordham/Sedgwick	Bronx NY 10468	0.17 SE	0012998/Active	N/A
133	Fordham Rd/Sedgwick Ave	Fordham Rd/Sedgwick	Bronx NY 10468	0.17 SE	9313155/Closed	N/A
169	Manhole 29002	W Fordham Rd/Sedgwick	Bronx NY 10468	0.17 SE	9814036/Active	N/A
197	W Fordham Rd/Sedgwick A	W Fordham Rd & Sedgwick Ave	Bronx NY 10468	0.17 SE	9603793/Closed	N/A
70	2175 Cedar Ave	2175 Cedar Ave	Bronx NY 10468	0.17 SW	9205906/Closed	N/A
178	Marble Hill Pump Station	58 West 225th St	Bronx NY 10463	0.18 NW	9802989/Closed	N/A
180	Marble Hill Pump Station	58 West 225th St	NY NY 10463	0.18 NW	9805183/Active	N/A
207		2305 Sedgwick Ave	Bronx NY 10468	0.18 SE	9812919/Closed	N/A
68	200 W Kingsbridge Rd	200 W Kingsbridge Rd	Bronx NY 10463	0.19 NE	9516057/Closed	N/A
60	135 West 183 St	135 West 183 St	Bronx NY 10468	0.20 SE	9710115/Active	N/A
164	Manhole 23135	Webb Ave & Father Zeiser	Bronx NY 10468	0.20 SE	9906645/Active	N/A
191	Tm 1160	Webb Ave/Father Zeiser	Bronx NY 10468	0.20 SE	9903875/Active	N/A

TABLE 7.13-3. HAZARDOUS MATERIALS SPILL SITES (REPORTED SPILLS INCLUDING LEAKING STORAGE TANKS)

ID #	Site	Address		Distance (Miles)	Regulatory ID/ Status	Leaking Tank ID #
735	Unnamed	Kingsbridge Rd/Heath St	Bronx NY 10463	0.21 NE	0105914/Active	N/A
56	123 West 183rd St/Bx	123 West 183rd Street	Bronx NY 11453	0.22 SE	9005621/Closed	N/A
96	2700 Kingsbridge Terrace	2700 Kingsbridge Terrace	Bronx NY 10463	0.22 SE	9814227/Closed	N/A
71	225th St Bridge	225th St Bridge	NY NY 10463	0.23 NW	9205270/Closed	N/A
157	Manhole #422	225th St & Broadway	Bronx NY 10463	0.23 NW	9905464/Closed	N/A
171	Manhole 422	Ifo 225th St & Broadway	Bronx NY 10463	0.23 NW	9903541/Closed	N/A
173	Manhole 424	Broadway & W 225 Street	Bronx NY 10463	0.23 NW	9908350/Active	N/A
174	Manhole 424x	Broadway/W 225 St	Bronx NY 10463	0.23 NW	9901785/Active	N/A
82	2475 Devoe Terrace	2475 Devoe Terrace	Bronx NY 10468	0.23 SE	9407419/Active	N/A
139	In roadway	2468 Devoe Terrace	Bronx NY 10468	0.23 SE	0008263/Active	N/A
118	Apartment Complex	2816 Heath Ave	Bronx NY 10463	0.24 NE	0107621/Active	N/A
128	East Side of Broadway	75 Ft No W 225 St	NY NY 10463	0.24 NW	9813753/Closed	N/A
172	Manhole 423x	W.225th St & Broadway	Bronx NY 10463	0.24 NW	9903546/Active	N/A
179	Marble Hill Station	Broadway/225th St	Bronx NY 10463	0.24 NW	0000298/Active	N/A
734	W. 225th St/ Verveelen Pl	W.225th St-M/Holes423&427	Bronx NY 10463	0.24 NW	9504997/Active	N/A
76	2316 Loring Place	2316 Loring Place	Bronx NY 10468	0.24 SE	9505143/Closed	N/A
77	2316 Loring Place	2316 Loring Place	Bronx NY 10468	0.24 SE	9508364/Closed	N/A
80	2440 Webb Ave	2440 Webb Ave	Bronx NY 10468	0.24 SE	9511027/Closed	N/A
129	ECR Realty	2326 Loring Place	Bronx NY 10468	0.24 SE	9811009/Active	688
731	Kingsbridge/Sedgwick Ave	Kingsbridge & Sedgwick Av	Bronx NY 10463	0.24 SE	9102307/Closed	N/A

TABLE 7.13-3. HAZARDOUS MATERIALS SPILL SITES (REPORTED SPILLS INCLUDING LEAKING STORAGE TANKS)

ID #	Site	Address		Distance (Miles)	Regulatory ID/ Status	Leaking Tank ID #
106	2840 Bailey Avenue	2840 Bailey Avenue	Bronx NY 10463	0.25 NE	9511966/Closed	N/A
177	Marble Hill Housing	Broadway	Bronx NY 10463	0.25 NW	9613005/Active	692
155	Manhole #29000	Sedgwick Ave/Kingsbridge Rd	Bronx NY 10463	0.25 SE	9812982/Active	N/A
100	2770 Kingsbridge Terrace	2770 Kingsbridge Terrace	Bronx NY 10463	0.26 NE	9411986/Closed	680
101	2770 Kingsbridge Terrace	2770 Kingsbridge Terrace	Bronx NY 10463	0.26 NE	9602331/Closed	N/A
116	Apartment	2770 Kingsbridge Terrace	Bronx NY 10463	0.26 NE	9707437/Closed	N/A
214	Unnamed	150 West 225 Street	Bronx NY 10463	0.26 NW	0108590/Active	N/A
158	Manhole #425	5360 Broadway	Bronx NY 10463	0.28 NW	9902785/Closed	N/A
188	Roadside	2910 Exterior St	Bronx NY 10463	0.29 NE	9905742/Closed	N/A
175	Manhole 425x	Broadway & 228th St	NY NY 10463	0.29 NW	9901269/Closed	N/A
61	137 Zeiser Place/Bx	137 Zeiser Place	Bronx NY 10468	0.29 SE	9004299/Closed	N/A
72	2277 Andrews Avenue	2277 Andrews Avenue	Bronx NY 10468	0.29 SE	9705847/Active	671
75	2315 Andrews Avenue	2315 Andrews Avenue	Bronx NY 10468	0.29 SE	9414409/Active	N/A
167	Manhole 23741	West Fordham Rd/Andrews	Bronx NY 10468	0.29 SE	9909290/Closed	N/A
154	Manhole #23638	West 183rd St/Andrews Ave	Bronx NY 10468	0.30 SE	9911093/Active	N/A
162	Manhole 21227	East 195th Street/Sedgwick	Bronx NY 10468	0.30 SE	9909271/Active	N/A
182	Pius 12	135 Hall Of Fame Terr	Bronx NY 10453	0.30 SE	0013188/Active	N/A
183	Public School 15	2195 Andrews Ave	Bronx NY 10453	0.30 SE	0013233/Active	695
57	130 W Kingsbridge Rd/Bx	130 West Kingsbridge Rd	Bronx NY 10468	0.31 SE	9100744/Closed	667

TABLE 7.13-3. HAZARDOUS MATERIALS SPILL SITES (REPORTED SPILLS INCLUDING LEAKING STORAGE TANKS)

ID #	Site	Address		Distance (Miles)	Regulatory ID/ Status	Leaking Tank ID #
58	130 West Kingsbridge Rd	130 West Kingsbridge Rd	Bronx NY 10468	0.31 SE	9400330/Active	668
59	130 West Kingsbridge Ave.	130 W Kingsbridge Ave.	Bronx NY 10468	0.31 SE	9314587/Closed	N/A
120	Apt. Building	135 West Kingsbridge Rd	Bronx NY 10468	0.31 SE	9706987/Closed	N/A
194	VA Hospital	VA Hospital	Bronx NY 10468	0.31 SE	0109129/Active	N/A
195	VA Hospital	Sedgwick Av/Kingsbridge	Bronx NY 10468	0.31 SE	9700705/Active	N/A
196	Veterans Admin Hosp	Sedgwick Av/Kingsbridge	Bronx NY 10468	0.31 SE	9800436/Closed	N/A
85	25-50 Webb Ave	25-50 Webb Ave	Bronx NY 10468	0.33 SE	9508602/Active	N/A
103	2819 Sedgwick Avenue	2819 Sedgwick Avenue	Bronx NY 10463	0.34 NE	9512433/Active	N/A
55	1 Jacobus Pl	1 Jacobus Pl	Bronx NY 10463	0.34 NW	9907079/Active	N/A
119	Apt Complex	1-9 Jacobus Pl	NY NY 10463	0.34 NW	0012103/Active	N/A
184	Rental Masters	1 Jacobus Place	Bronx NY 10463	0.34 NW	9912197/Active	N/A
215	Unnamed	1 Jacobus Pl	Bronx NY 10463	0.34 NW	9901195/Active	N/A
97	2701 Webb Ave	2701 Webb Ave	Bronx NY 10468	0.34 SE	9211049/Closed	679
99	2725 Webb Ave	2725 Webb Ave	Bronx NY 10468	0.34 SE	9516851/Closed	N/A
126	Cement In Boiler Room	2701 Webb Avenue	Bronx NY 10468	0.34 SE	9911476/Active	N/A
149	Man Hole	Ifo 2291 University Ave	Bronx NY 10468	0.34 SE	9713077/Active	N/A
159	Manhole 11894	Ifo 2291 University Ave	Bronx NY 10468	0.34 SE	9713073/Active	N/A
189	St.Nicholas of Tolentine	2345 University Ave	Bronx NY 10468	0.34 SE	9702784/Active	698
104	2830 Sedgwick Ave	2830 Sedgwick Ave	Bronx NY 10463	0.35 NE	9213113/Closed	N/A

TABLE 7.13-3. HAZARDOUS MATERIALS SPILL SITES (REPORTED SPILLS INCLUDING LEAKING STORAGE TANKS)

ID #	Site	Address		Distance (Miles)	Regulatory ID/ Status	Leaking Tank ID #
73	2294 University Ave/Bx	2294 University Avenue	Bronx NY 10468	0.35 SE	9007434/Closed	N/A
78	2328 University Av	2328 University Av	Bronx NY 10468	0.35 SE	9611621/Active	N/A
152	Manhole #17271	West Kingsbridge/Webb Av	Bronx NY 10468	0.35 SE	9905060/Active	N/A
209	Unnamed	University Ave/Fordham R	Bronx NY 10468	0.35 SE	0105207/Active	N/A
210	Unnamed	2294 University Ave	Bronx NY 10468	0.35 SE	9912394/Closed	N/A
63	150 West 197th St	150 West 197th St	Bronx NY 10468	0.36 NE	9411639/Closed	N/A
202	Zachary Reality Assoc.	150 West 197th St	Bronx NY 10468	0.36 NE	9607486/Closed	N/A
223	2934 Venton Ave	2934 Venton Ave	Bronx NY 10463	0.36 NW	9512039/Closed	703
67	1983 Sedgwick Avenue	1983 Sedgwick Avenue	Bronx NY 10453	0.36 SW	9309268/Closed	N/A
225	5501 Broadway	5501 Broadway	Bronx NY 10463	0.37 NE	9403356/Active	704
243	ZS9301	Broadway/92ft S of 230 th St	Bronx NY 10463	0.37 NE	9908466/Active	N/A
65	172 225th St/Bx	172 225th Street	Bronx NY 10463	0.37 NW	9101232/Closed	670
217	111 Marble Hill Rd	111 Marble Hill Rd	Bronx NY 10463	0.37 NW	9111999/Closed	N/A
732	Private Res.	27 Van Corlear Place	Bronx NY 10463	0.37 NW	9414766/Closed	740
150	Manhole # 11921	University Ave/Zeiser Pl	Bronx NY 10468	0.37 SE	9908500/Active	N/A
163	Manhole 23110	Ss W 180th St/Loring Pl	Bronx NY 10453	0.37 SE	9912073/Active	N/A
165	Manhole 23478	North of 1981 Sedgwick	Bronx NY 10453	0.37 SW	9908752/Closed	N/A
232	Deegan Expressway	West 230th St	Bronx NY 10463	0.38 NE	9514984/Closed	N/A
242	West 230th St and	Major Deegan Expressway	Bronx NY 10463	0.38 NE	9515001/Closed	N/A

TABLE 7.13-3. HAZARDOUS MATERIALS SPILL SITES (REPORTED SPILLS INCLUDING LEAKING STORAGE TANKS)

ID #	Site	Address		Distance (Miles)	Regulatory ID/ Status	Leaking Tank ID #
84	25-45 University Avenue	25-45 University Avenue	Bronx NY 10468	0.38 SE	9504187/Closed	N/A
88	2545 University Ave/Hosp	2545 University Ave	Bronx NY 10468	0.38 SE	9110119/Closed	675
142	Jewish Home And Hospital	2535 University Ave	Bronx NY 10468	0.38 SE	9804678/Active	N/A
203	Unnamed	2545 University Ave	Bronx NY 10468	0.38 SE	9811903/Active	700
105	2835 Webb Avenue	2835 Webb Avenue	Bronx NY 10468	0.39 NE	9502954/Closed	N/A
124	Bee & Bee Management	2851 Sedgwick Avenue	Bronx NY 10463	0.39 NE	9604251/Closed	687
220	230 West 230th Street	230 West 230th Street	Bronx NY 10463	0.39 NE	9306194/Active	702
226	5510 Broadway	5510 Broadway	Bronx NY 10463	0.39 NE	9311138/Active	705
229	Apartment Complex	147 West 230th Street	Bronx NY 10463	0.39 NE	9908380/Closed	N/A
216	Unnamed	1 Adrian Ave	Bronx NY 10463	0.39 NW	0106855/Active	N/A
219	2 Adrian Avenue	2 Adrian Avenue	Bronx NY 10463	0.39 NW	9516754/Closed	N/A
185	Residence	2237 University Ave	Bronx NY 10453	0.39 SE	9911713/Closed	696
108	2856 Kingsbridge Terr	2856 Kingsbridge Terrace	Bronx NY 10463	0.41 NE	9611201/Closed	682
109	2899 Kingsbridge Terrace	2899 Kingsbridge Terrace	Bronx NY 10463	0.41 NE	9701728/Closed	683
206	Unnamed	2899 Kingsbridge Terrace	NY NY 10463	0.41 NE	9800777/Closed	701
234	In Back Courtyard	231 W. 230th St	Bronx NY 10463	0.41 NE	9512616/Closed	N/A
244	Unnamed	W. 228th St/Marble Hill	Bronx NY 10463	0.41 NW	0108772/Active	N/A
160	Manhole 11937	West 192 St & University	Bronx NY 10468	0.41 SE	9808650/Active	N/A
168	Manhole 28790	University Ave/ W 192nd	Bronx NY 10468	0.41 SE	9808653/Active	N/A
190	Street Vault	University Ave/ W 192 St	Bronx NY 10468	0.41 SE	9709705/Closed	N/A

TABLE 7.13-3. HAZARDOUS MATERIALS SPILL SITES (REPORTED SPILLS INCLUDING LEAKING STORAGE TANKS)

ID #	Site	Address		Distance (Miles)	Regulatory ID/ Status	Leaking Tank ID #
200	West 192 St & University	West 192 St & University	Bronx NY 10468	0.41 SE	9613752/Closed	N/A
224	3011 Heath Avenue	3011 Heath Avenue	Bronx NY 10463	0.42 NE	9500347/Closed	N/A
218	162 W 228th St	162 W 228th St	Bronx NY 10463	0.42 NW	9108763/Closed	N/A
64	157 West 179th St/Bronx	157 West 179th Street	Bronx NY 10453	0.42 SE	9009277/Closed	669
121	Auto Garage	218 University Ave	Bronx NY 10453	0.42 SE	9702125/Active	N/A
127	Christie Residence	145 West 179 St	Bronx NY 10453	0.42 SE	9805774/Active	N/A
134	George Home Hospital	100 West Kingsbridge Rd	Bronx NY 10468	0.42 SE	9806210/Active	N/A
140	Jewish Home & Hospital	2614 University Ave	Bronx NY 10468	0.42 SE	9608909/Active	N/A
141	Jewish Home & Hospital	100 West Kingsbridge	Bronx NY 10468	0.42 SE	9712609/Active	690
143	Jewish Home For Aged	100 West Kingsbridge	Bronx NY 10468	0.42 SE	9914275/Closed	N/A
144	Jewish Home For Aged	100 West Kingsbridge Rd	Bronx NY 10468	0.42 SE	0012785/Closed	N/A
205	Unnamed	100 W Kingsbridge Rd	Bronx NY 10468	0.42 SE	9910556/Closed	N/A
212	Unnamed	2170 University Av	Bronx NY 10453	0.42 SE	0013541/Active	N/A
213	Unnamed	145 West 179th St	Bronx NY 10453	0.42 SE	9803703/Active	N/A
148	Major Deegan Expressway	Major Deegan Expressway	Bronx NY 10453	0.42 SW	9703316/Closed	691
198	W. 179th St & Cedar Ave	W. 179th St & Cedar Ave	Bronx NY 10453	0.42 SW	9502789/Closed	N/A
199	West 179 St/Deegan Expressway	W 179 St/Deegan Expressway	Bronx NY 10453	0.42 SW	9703317/Closed	N/A
227	5530 Broadway	5530 Broadway	Bronx NY 10463	0.43 NE	9311342/Active	N/A
62	150 W 179th St	150 W 179 St	Bronx NY 10453	0.43 SE	9514431/Closed	N/A

TABLE 7.13-3. HAZARDOUS MATERIALS SPILL SITES (REPORTED SPILLS INCLUDING LEAKING STORAGE TANKS)

ID #	Site	Address		Distance (Miles)	Regulatory ID/ Status	Leaking Tank ID #
151	Manhole #11939	University Ave/W Kingsbridge	Bronx NY 10468	0.43 SE	9808654/Active	N/A
107	2851 Webb Ave	2851 Webb Ave	Bronx NY 10468	0.44 NE	9711440/Active	N/A
221	239 W 230th St	239 W 230th St	Bronx NY 10463	0.44 NE	9512686/Active	N/A
222	239 West 230th St	239 West 230th St	Bronx NY 10463	0.44 NE	9512631/Active	N/A
115	79-81 West 182nd Street	79-81 West 182nd Street	Bronx NY 10453	0.44 SE	9308024/Closed	N/A
130	Episcopal Mission	2749 University Ave	Bronx NY 10468	0.44 SE	9804660/Closed	689
110	3009 Kingsbridge Terrace	3009 Kingsbridge Terrace	Bronx NY 10463	0.45 NE	9600214/Closed	N/A
111	3009 Kingsbridge Terrace	3009 Kingsbridge Terrace	Bronx NY 10463	0.45 NE	9612363/Closed	685
231	Broadway/Kimberly Pl	Broadway/Kimberly Pl	Bronx NY 10463	0.45 NE	9602651/Closed	N/A
228	73 Adrian Ave	73 Adrian Ave	Bronx NY 10463	0.45 NW	9612454/Closed	706
102	2805 University Ave	In Front Of	Bronx NY 10468	0.45 SE	0000792/Closed	N/A
166	Manhole 23731	University Ave/W 180th	Bronx NY 10453	0.45 SE	9910988/Active	N/A
138	Harrison Residence	1935 Loring Pl	Bronx NY 10453	0.45 SW	9810550/Active	N/A
233	Getty #277	30-31 Bailey Ave	Bronx NY 10463	0.46 NE	9705124/Active	N/A
125	Below Address	2487 Grand Av	Bronx NY 10468	0.46 SE	9804312/Closed	N/A
208	Unnamed	2304 Grand Ave	Bronx NY 10458	0.46 SE	9809773/Closed	N/A
204	Unnamed	231st St & Sedgwick Av	Bronx NY 10463	0.47 NE	0004100/Active	N/A
241	St John S Church & School	3030 Godwin Terrace Av	Bronx NY 10463	0.47 NE	9801134/Active	707
66	1944 Andrews Ave	1944 Andrews Ave	Bronx NY 10453	0.47 SE	9512081/Closed	N/A
112	34 West 184th St	34 West 184th St	Bronx NY 10468	0.47 SE	9511241/Active	N/A

TABLE 7.13-3. HAZARDOUS MATERIALS SPILL SITES (REPORTED SPILLS INCLUDING LEAKING STORAGE TANKS)

ID #	Site	Address		Distance (Miles)	Regulatory ID/ Status	Leaking Tank ID #
211	Unnamed	60 W. 182 St	Bronx NY 10453	0.47 SE	0013397/Active	N/A
136	Unnamed	1916 Osborne Place	Bronx NY 10453	0.47 SW	9516200/Closed	N/A
235	Kingsbridge Ave/230th St	Kingsbridge Ave/230th St	Bronx NY 10463	0.48 NW	9513523/Closed	N/A
239	MH 17230	West 230 St/Kingsbridge	Bronx NY 10463	0.48 NW	9814219/Closed	N/A
193	Total Realty Associates	50 W182nd St	Bronx NY 10453	0.48 SE	0101303/Active	N/A
236	Manhole #427	Broadway And Verveelen Pl	Bronx NY 10463	0.49 NE	9902782/Active	N/A
237	Manhole 427	Broadway/Verveelen Pl	Bronx NY 10463	0.49 NE	9808463/Active	N/A
238	Manhole 427	Broadway/Verveelen Pl	Bronx NY 10463	0.49 NE	9808467/Active	N/A
74	23-54 Davidson Av/Bronx	23-54 Davidson Ave	Bronx NY 10468	0.49 SE	9010522/Closed	N/A
79	2400 Davidson Ave	2400 Davidson Ave	Bronx NY 10468	0.49 SE	9209865/Closed	N/A
83	25-40 Grand Avenue	25-40 Grand Avenue	Bronx NY 10468	0.49 SE	9315418/Closed	N/A
98	2717 Reservoir Avenue	2717 Reservoir Avenue	Bronx NY 10468	0.49 SE	9504140/Closed	N/A
170	Manhole 3120	2430 Davidson Ave	Bronx NY 10468	0.49 SE	0003842/Active	N/A
230	Bell Atlantic -Nynex	3001 Kingsbridge Ave	Bronx NY 10463	0.50 NW	9708046/Closed	N/A
240	Nynex	3001 Kingsbridge Av	Bronx NY 10463	0.50 NW	9601039/Closed	N/A
69	2155 Grand Ave Corp	2155 Grand Ave	Bronx NY 10453	0.50 SE	9813268/Closed	N/A
153	Manhole #1966	University Av/W Burnside	Bronx NY 10453	0.50 SE	0012116/Closed	N/A
727	Unnamed	Billingsley Terrace/Salem Place	Bronx NY 10453	0.53 SW	9901805/Active	N/A
713	1 Mile Section Between Ma	N hole 428 And 424	Bronx NY	NON GC	9906040/Active	N/A
714	2417 Baltic Avenue	2417 Baltic Avenue	Bronx NY	NON GC	9502949/Closed	N/A
715	3520 Adlevall Ave	3520 Adlevall Ave	Bronx NY	NON GC	9210522/Closed	N/A
716	Bayside Fuel	1975 Frederick Ave	Bronx NY	NON GC	9711348/Closed	N/A

TABLE 7.13-3. HAZARDOUS MATERIALS SPILL SITES (REPORTED SPILLS INCLUDING LEAKING STORAGE TANKS)

ID #	Site	Address		Distance (Miles)	Regulatory ID/ Status	Leaking Tank ID #
717	Between Manholes 441/446	East Side Broadway	Bronx NY	NON GC	9704309/Active	N/A
718	Bus # 5364	Fordham Rd & Vanbetiel	Bronx NY	NON GC	0104100/Active	N/A
719	Engine Co 82	1213-15 Bailey Ave	Bronx NY	NON GC	9711526/Active	N/A
720	Feeder Line 99031	Broadway & Center Rd	Bronx NY	NON GC	9710111/Active	N/A
721	Manhole 434	Broadway Opposite Center Rd	Bronx NY	NON GC	9808465/Active	N/A
722	Unnamed	3199 Main Bridge Av	Bronx NY	NON GC	0008309/Active	N/A
723	Unnamed	3243 Chall Ave	Bronx NY	NON GC	9811600/Closed	N/A
724	Manhole 29004	Roberto Clemente St Park	Bronx NY 10453	NON GC	9812979/Active	N/A
725	West 181st Street.	West 181st Street	Bronx NY 10453	NON GC	9209815/Closed	738
726	West 181st Street	West 181st Street	Bronx NY 10453	NON GC	9315218/Closed	N/A
728	2054 Heath Ave	2054 Heath Ave	Bronx NY 10463	NON GC	9513671/Closed	739
729	Apt Complex	1795 Riverside Dr	Bronx NY 10463	NON GC	0012782/Closed	N/A
730	I-87 Major Deegan Expressway	Major Deegan-Broadway	Bronx NY 10463	NON GC	9416098/Closed	N/A
733	Service Box 60540	Marble Hill Ave	Bronx NY 10463	NON GC	9914032/Active	N/A
736	Unnamed	200 227 Street	Bronx NY 10463	NON GC	9901843/Closed	N/A
Spills Occurring 1980 Through 1990						
251	296 Fordham Road / Bronx	296 Fordham Road.	Bronx NY 10468	0.02 SE	8701260/Closed	693
252	296 W Fordham Rd./Mobil	296 West Fordham Rd.	Bronx NY 10468	0.02 SE	8705665/Active	694
253	296 West Fordham Road	Mobil Oil	NY NY 10468	0.02 SE	8701258/Closed	684
257	Fordham Rd/Major Deegan	Fordham Rd/Major Deegan	Bronx NY 10468	0.06 SE	8703950/Closed	N/A
256	East 192nd St. & Bailey A	E 192nd St/Bailey Ave.	Bronx NY 10463	0.07 SE	8705226/Closed	N/A
254	58 W.225th Street / New Y	58 W 225th Street	NY NY 10463	0.18 NW	8703822/Closed	N/A

TABLE 7.13-3. HAZARDOUS MATERIALS SPILL SITES (REPORTED SPILLS INCLUDING LEAKING STORAGE TANKS)

ID #	Site	Address		Distance (Miles)	Regulatory ID/ Status	Leaking Tank ID #
255	58 W225 St	58 W225 St	NY NY 10463	0.18 NW	8602878/Closed	N/A
260	Marble Hill Loses Marbles	58 W. 225th St.	Bronx NY 10463	0.18 NW	8604312/Closed	N/A
262	W 225th St.& Broadway	W 225th St.& Broadway	NY NY 10463	0.18 NW	8704750/Closed	N/A
263	W 225th St/Marble Hill	W225th/Marble Hill Station	Bronx NY 10463	0.18 NW	8708755/Closed	N/A
248	2345 University Ave.	2345 University Ave.	NY NY 10468	0.34 SE	8706856/Active	672
247	1983 Sedgwick Ave/Pelican	1983 Sedgwick Avenue	Bronx NY 10453	0.36 SW	8807111/Closed	N/A
246	1972,74 Cedar Avenue. / B	1972,74 Cedar Avenue.	Bronx NY 10453	0.37 SW	8701256/Active	N/A
259	Jackson's, 1974 Cedar Ave	1974 Cedar Ave.	Bronx NY 10453	0.37 SW	8605749/Closed	N/A
245	125 West 195th St/Bx	125 West 195th Street	Bronx NY 10468	0.38 SE	8905711/Closed	N/A
250	2848 Kingsbridge Terrace/Bronx	2848 Kingsbridge Terrace	Bronx NY 10463	0.39 NE	8901393/Closed	681
261	W 181st. St. & University	W. 181st St/University Ave	NY NY 10453	0.39 SE	8705325/Closed	699
258	HUD Housing Complex	2865 Kingsbridge Terrace	Bronx NY 10463	0.40 NE	8907390/Active	N/A
249	2455 Grand Avenue	2455 Grand Avenue	Bronx NY 10468	0.44 SE	8607577/Closed	674

TABLE 7.13-4. SUMMARY OF SIGNIFICANT SPILL INCIDENTS

Site ID#	Site Name	Distance/ Direction	Material Spilled	Cause of Spill	Comments
131	Con Ed, Exterior St - Landing Rd	0.00	PCB Oil	Unknown	Contaminated soil (61 ppm PCB) removed (1995)
251-253	Mobil Oil, 296 Fordham Road	0.02 SE	Gasoline, Fuel Oil	Tank Leak	Tanks removed (1987)
38	2545 Bailey Ave	0.08 SE	Fuel Oil	Unknown	3,500 gallons released (1993)
135	Getty, 2590 Bailey Ave	0.08 SE	Gasoline	Tank Leak	Tank and contaminated soil was removed (1996)
94	2630 Kingsbridge Terrace	0.14 SE	Fuel Oil	Equipment Failure	Contaminated soil removed (1994)
81	2445 Sedgwick Ave	0.16 SE	Fuel Oil	Tank Failure	2,300 gallons, tank abandoned onsite (1993)
114	56 W 225 th St	0.17 NW	Fuel Oil	Unknown	400 gallons leaked from tank truck onto the street, ground, and storm sewer (1997)
82	2475 Devoe Terrace	0.23 SE	Fuel Oil	Human Error	275 gallons spilled on yard (1994)
139	2468 Devoe Terrace	0.23 SE	Gasoline	Auto Accident	Gasoline leaked into dry well (2000)
731	Kingsbridge & Sedgwick Ave	0.24 SE	Fuel Oil	Unknown	Oil seeping into manhole (1991)
61	137 Zeiser Place	0.29 SE	Petroleum	Deliberate	Resident dumping oil in backyard (1990)
182	Pius 12, 135 Hall of Fame Terrace	0.30 SE	Fuel Oil	Unknown	Tank and contaminated soil was removed (2001)
183	PS 15, 2195 Andrews Ave	0.30 SE	Fuel Oil	Tank Failure	Release from tank at college leaking into basement (2001)
195	VA Hospital, Sedgwick Ave at Kingsbridge	0.31 SE	PCB Oil	Equipment Failure	Transformer leaked oil; spill contained and soil removed (1997)
85	25-50 Webb Ave	0.33 SE	Fuel Oil	Equipment Failure	Site is a large residential/hospital complex; DEC confirmed groundwater contamination (1995)
103	2819 Sedgwick Avenue	0.34 NE	Fuel Oil	Unknown	Oil seeping into dwelling walls and manhole (1996)
246	1972-74 Cedar Ave	0.37 SW	Petroleum	Unknown	Oil-like substance coming out of the ground (1987)
84	25-45 University Avenue	0.38 SE	Fuel Oil	Equipment Failure	25,000 gal tank; removed 40 yd ³ of contaminated soil (1995)
203	2545 University Ave	0.38 SE	Fuel Oil	Tank Overfill	Site is a nursing home (Jewish Home & Hospital); spill affected parking lot and cleaned (1998)
220	230 W 230 th St	0.39 NE	Waste Oil	Tank Failure	Additional area of contaminated soil (31 yd ³) removed (1993)

TABLE 7.13-4. SUMMARY OF SIGNIFICANT SPILL INCIDENTS

Site ID#	Site Name	Distance/ Direction	Material Spilled	Cause of Spill	Comments
124	2851 Sedgwick Avenue	0.39 NE	Fuel Oil	Tank Overfill	Contaminated soil removed (1996)
250	2848 Kingsbridge Terrace	0.39 NW	Fuel Oil	Tank Failure	Oil in catch basin, storm drain, and seeping into neighboring basements (1989)
108	2856 Kingsbridge Terrace	0.41 NE	Fuel Oil	Tank Failure	Oil migrating from neighboring house; oil in groundwater sump (1996)
121	218 University Ave	0.42 SE	Auto Waste Fluids	Deliberate	Auto garage dumping waste oil and other fluids on roadway (1997)
140	Jewish Home & Hospital 2614 University Ave	0.42 SE	TCE, PCE, Methylene Chloride	Unknown	Free product found in groundwater; very high concentrations of tetrachloroethene (PCE) & methylene chloride in groundwater (1996)
141	Jewish Home & Hospital, 100 West Kings Ridge	0.42 SE	Diesel	Tank Leak	Tank and contaminated soil was removed (1998)
142	Jewish Home & Hospital 2535 University Ave	0.42 SE	#4 Fuel Oil	Tank Leak	Tank and contaminated soil was removed (1998)
107	2851 Webb Ave	0.44 NE	Fuel Oil	Equipment Failure	Oil line leaked; contaminated soil removed (1998)
222	239 W 230 th St	0.44 NE	Fuel Oil	Unknown	Oil observed in backyard (1996)
233	Getty #277 30-31 Bailey Ave	0.46 NE	Gasoline	Tank Leak	Tank and contaminated soil was removed (1997)
230	Bell Atlantic NYNEX 3001 Kingsbridge Ave	0.50 NW	Diesel	Unknown	Tank and contaminated soil was removed (1997)

Many of the reported spills listed on Table 7.13-3 involved the release of substances containing petroleum hydrocarbons such as fuel oil. In many cases, the incidents involved low volume releases (i.e., several gallons or less), in areas of limited permeability (i.e., paved areas, basements, vaults, manholes), and were often contained and remediated shortly after the incident. Tank testing failures were also reported as spills, even though there may not have been evidence that hazardous materials were released to the environment. A tank testing failure generally prompted excavation of the tank and piping, retesting, and if necessary, removal of the defective tank, piping, and contaminated soil. If contaminated soil was found during a tank removal, the incident was considered to be significant in terms of potentially impacting the water treatment plant site.

These incidents, presented in Table 7.13-4, were designated as significant because they represent hazardous materials releases that were reported to have impacted the environment (i.e., soil, groundwater) near the source and could potentially migrate, thereby affecting the water treatment plant site. Spill incidents that were contained were not considered significant because there was minimal potential that the released materials could have migrated to the Harlem River Site. For a majority of potential sources, groundwater flow was assumed to be the primary mechanism that could have transported environmental contaminants to the site.

RCRA Corrective Action Sites. This is a system that tracks specific Resource Conservation and Recovery Act (RCRA) events that have occurred at a facility (e.g., facility assessment, stabilization) and indicates corrective action program priority (high/medium/low). There are no RCRA Corrective Action sites within one-half mile of the Harlem River Site.

NYSDEC Inactive Hazardous Waste Disposal Sites. NYSDEC's list of hazardous waste sites that have had known environmental releases. There are no NYSDEC Inactive Hazardous Waste Disposal sites within one-half mile of the Harlem River Site.

Emergency Response Notification System Sites (ENRS). This is the USEPA's spills database showing all USEPA response action to emergency spill incidents. The ERNS sites are present by impacted media (i.e., land, water, air). There have been 12 emergency response incidents in proximity to the Harlem River Site that involved the release of hazardous materials to the environment (see Table 7.13-5).

Toxic Release Inventory Sites (TRIS). The Toxics Release Inventory was established by the Emergency Planning and Community Right-to Know Act, Section 313 submissions. TRIS contains information reported to USEPA and/or NYSDEC by a variety of industries on their annual estimated releases of certain chemicals to the environment. Data include the maximum amount stored on-site; the estimated quantity emitted into the air, discharged into bodies of water, injected underground, or released onto land; methods used in waste treatment and their efficiency; and the transfer of chemicals off-site. There are no toxic release inventory sites within one-half mile of the Harlem River Site.

Accidental and Permitted Release Sites. There have been three reported incidents of accidental or permitted releases of substances to the environment within one-half mile of the Harlem River Site (Table 7.13-5).

Sites Where Hazardous Materials or Wastes Have Been Used or Stored.

RCRA Regulated Sites. This is the USEPA's list of all registered hazardous waste generators. They are classified as TSD (treatment, storage, disposal), LGN (large quantity), SGN (small quantity), VGN (very small quantity), and NLR (no longer regulated) generator facilities. Compliance Monitoring and Enforcement List (CMEL) and RCRA Administrative Action Tracking System (RAATS) information are also included.

TABLE 7.13-5. EMERGENCY RESPONSE NOTIFICATION SYSTEM AND ENVIRONMENTAL RELEASE SITES

ID #	Site	Address		Distance (Miles)	Regulatory ID/ Status
Emergency Response Notification System (ERNS) Sites					
36	New Bakery Corp	Major Deegan Expressway and Fordham	Bronx NY 10468	0.06 SE	285501/unknown
38	Unnamed	2545 Bailey Ave	Bronx NY 10463	0.08 SE	313469/Unknown (NRC)
41	Unnamed	Broadway Bridge Harlem River	NY NY 10034	0.22 NW	367747/Unknown
40	Unnamed	Man Hole #11894 In Front Of 2291 Un	Bronx NY 10468	0.34 SE	569296/Unknown
711	Unnamed	1 Adrian Ave Apt 3H	Bronx NY 10463	0.39 NW	607155/Fixed Facility
35	Con Edison	University Ave 80 Ft South Of West	Bronx NY 10468	0.40 SE	559395/Unknown
34	Beneson Funding	2851 Webb Ave.	Bronx NY 10468	0.44 NE	564192/Pipeline Related
39	Unnamed	2487 Grand Ave	Bronx NY 10468	0.46 SE	585589/Fixed Facility
37	Residential	60 West 182nd Street Basement	Bronx NY 10453	0.47 SE	NRC-560429/Fixed
43	Con Edison Inc	Intersection West 230 8th St. & Kingsbridge	NY NY 10463	0.48 NW	184775/Unknown
42	Con Edison	2)Sec5 Broadway & Verveelen Pl, 1	NY NY 10463	0.49 NE	488565/Fixed Facility
710	Unnamed	Davis Ave And 190th St	Bronx NY 10468	0.51 SE	605042/Unknown (NRC)
Accidental And Permitted Hazardous Material Release Sites					
741	Con Edison	225 South Broadway	Bronx NY	0.23 NW	628697/Fixed Facility
743	Unnamed	Harlem River Next To Roberto Clemente	Bronx NY 10453	0.31 SW	446388/Unknown (NRC)
742	Unnamed	Harlem River	Bronx NY	NON GC	388675/Unknown (NRC)

There are no RCRA regulated TSD facilities within one-half mile of the Harlem River Site. However, there are 20 RCRA hazardous waste generators (see Table 7.13-6). Five of the listed RCRA generators are dry cleaners that, on a national basis, are often the source of perchloroethylene (i.e., perc) in the environment. In addition, there are 14 sites within one-half mile of the Harlem River Site that formerly possessed RCRA permits but are now NLR facilities. The RCRA NLR sites generally represent facilities that may have generated hazardous waste at one period of time because of a specific action such as a building renovation or environmental cleanup, but the activity that prompted the listing has been completed, and the site is no longer regulated under RCRA. Unless specifically identified in other databases as release sites, these generator and NLR facilities represent sites where hazardous wastes are (or have been) handled but there has been no indication that these substances were released to the environment or could have an impact to the Harlem River Site.

Regulated Underground and Aboveground Storage Tanks. This is NYSDEC's list of registered underground and aboveground bulk (i.e., >1,100 gallons) storage tanks. It includes petroleum and chemical bulk storage tanks but excludes unregistered fuel oil tanks used in residential applications (<1,100 gallons).

There are 404 registered petroleum bulk storage (PBS) tanks and no chemical bulk storage (CBS) tanks within one-half mile of the Harlem River Site (see Table 7.13-7). A majority of these bulk storage tanks contain fuel oil for heating applications in large residential or institutional buildings. Most of the tanks in apartment buildings are constructed of steel, having capacities ranging from 2,000 to 5,000 gallons, and are generally installed in either aboveground locations or below-grade vaults. At least eight sites including large apartment buildings and institutional facilities (e.g., hospital, nursing home, school) have one or more tanks with combined capacities exceeding 10,000 gallons. For example, the Veterans Administration Medical Center, 0.31 miles east of the water treatment plant site, has seven tanks with a combined capacity of 152,000 gallons.

Of the 404 registered tanks in the area, a relatively small number contain diesel fuel or gasoline principally dispensed for use in vehicles (i.e., gas stations). Because of stringent regulatory requirements, which went into effect in the late 1990s, many of these tanks have been either upgraded to meet current standards, removed, or closed in-place. Related to tank closures, there is a record (Site Detail Report ID #490) indicating that four unregulated 550-gallon underground tanks formerly containing diesel fuel were closed in-place in 1998 on the water treatment plant site on the property currently occupied by the self-storage facility.

Unless identified in databases characterizing releases, the regulated tank sites listed below represent locations where hazardous materials are (or have been) handled, but where there is no indication that these substances have been released to the environment or could impact the water treatment plant site.

TABLE 7.13-6. CURRENT AND FORMER RCRA REGULATED FACILITIES

ID #	Site	Address	Distance (Miles)	Regulatory ID/ Status
RCRA Permitted Facilities (generators)				
709	NYCHA - Marble Hill Houses	69 W 225th St	Bronx NY 10463	0.20 NW NYR000101568/SGN
5	Modern Age Cleaner	5195 Broadway	Bronx NY 10463	0.24 NW NYD987033834/VGN
11	NYCHA - Marble Hill Houses	5220 Broadway	Bronx NY 10463	0.25 NW NYD980234660/SGN
3	Fordham Cleaners	130 W Fordham Rd	Bronx NY 10468	0.26 SE NYD981080765/VGN
12	Patterson USARC	2181 Loring Pl N	Bronx NY 10453	0.27 SE NY4210022246/SGN
13	St Nicholas Of Tolentine School	2336 Andrews Ave	Bronx NY 10468	0.30 SE NYR000045096/SGN
14	Veterans Administration Medical	130 W Kingsbridge Rd	Bronx NY 10468	0.31 SE NY3360007279/SGN
15	Webb One Hour Service	119 W Kingsbridge Rd	Bronx NY 10468	0.36 SE NYD981082597/SGN
17	Jasmine Cleaners	108 W 228th St	Bronx NY 10463	0.38 NW NYD986961175/VGN
18	Joseph's Cleaners	3000 Bailey Ave	Bronx NY 10463	0.39 NE NYD061223152/SGN
19	U-Haul 80379 Kings Bridge	230 W 230th St	Bronx NY 10463	0.39 NE NYR000030635/VGN
1	Bronx Community College/Nichols	University Ave & W 181st St	Bronx NY 10453	0.39 SE NYD038210613/LGN
2	D A S N Y - Bronx Community College	W 181st St & University Ave	Bronx NY 10453	0.39 SE NYD987006210/VGN
9	NYCDEP - Shaft 5	Aqueduct Ave & 183rd St	Bronx NY 10453	0.40 SE NYR000092304/VGN
7	NYC Board Of Ed - Public School 91	2200 Aqueduct Ave	Bronx NY 10453	0.41 SE NY0000903617/SGN
8	NYC Dgs Public School Is 143x	120 W 231st St	Bronx NY 10463	0.46 NE NYR000030411/VGN
16	Getty Petroleum Corp	3031 Bailey Ave	Bronx NY 10463	0.46 NE NYD183529205/LGN
4	Jackie's Cleaners'	2245 Grand Ave	Bronx NY 10453	0.47 SE NYD981132400/SGN
10	NYCDEP - Shaft 5b	Harrison Ave/W 181st St	Bronx NY 10453	0.47 SE NYR000092320/VGN
6	NYC Board of Ed - Public School 26	1930 Andrews Ave	Bronx NY 10453	0.49 SE NY0000903401/VGN
Former RCRA Permitted Facilities (No Longer Regulated)				
23	Mobil Oil Corp	296 W Fordham Rd	Bronx NY 10464	0.02 SE NYD982279101/NLR
25	NYCDOT Bin 2240120	W 207th St Bridge Over Harlem R	Bronx NY 10034	0.07 NW NYR000052464/NLR

TABLE 7.13-6. CURRENT AND FORMER RCRA REGULATED FACILITIES

ID #	Site	Address		Distance (Miles)	Regulatory ID/ Status
27	NYSDOT G Campbell Painting D500777	207 St Over Harlem River	NY NY 10034	0.07 NW	NYD986943256/NLR
21	Getty Petroleum Corp	2590 Bailey Ave	Bronx NY 10468	0.08 SE	NYD987035276/NLR
20	Bronx Armory Auto Inc	72 W 225th St	Bronx NY 10465	0.19 NW	NYD986914224/NLR
26	NYCTA - 80 W 225th St	80 W 225th St	Bronx NY 10463	0.20 NW	NYR000006171/NLR
24	Modern Age Cleaner Store	5191 Broadway	Bronx NY 10463	0.24 NW	NYD981083421/NLR
31	NYCDOT - West 230th Street Bridge	W 230th St Bridge Conrail & Ramp	Kingsbridge NY	0.38 NE	NYD987033958/NLR
33	Zephyr Cleaners	209 W 230th St	Bronx NY 10463	0.38 NE	NYD029066404/NLR
28	Getty Petroleum Corp	5510 Broadway	Bronx NY 10463	0.39 NE	NY0001493410/NLR
22	Kingsbridge Garage	2614 University Ave	Bronx NY 10468	0.42 SE	NYR000035600/NLR
30	NYC Fire Dept - Engine Co 81	3027 Bailey Ave	Bronx NY 10463	0.43 NE	NYR000051433/NLR
32	Woolworth 31900	5545 Broadway	Bronx NY 10463	0.46 NE	NYR000049163/NLR
29	New York Telephone Co	3001 Kingsbridge Ave	Bronx NY 10463	0.50 NW	NY0000081208/NLR

TABLE 7.13-7. UNDERGROUND AND ABOVEGROUND STORAGE TANKS

ID #	Site	Address		Distance (Miles)	Regulatory ID/ Status
490	Butler Lumber Co. Inc.	2415 Exterior Street	Bronx NY 10468	0.00 --	PBS2-603393/Unregulated
518	Gaseteria West Fordham	296 West Fordham Road	Bronx NY 10468	0.02 SE	PBS2-480347/Active PBS
550	Mobil S/S 17-Klv Boysie Service	296 W Fordham Rd/Major Deegan	Bronx NY 10468	0.02 SE	PBS2-156434/Unregulated
519	Getty #264	2590 Bailey Avenue	Bronx NY 10463	0.08 SE	PBS2-153001/Active PBS
609	Wingate House	2686 Bailey Ave	Bronx NY 10463	0.09 NE	PBS2-279633/Active PBS
481	Bailey Avenue	2663 Heath Avenue	Bronx NY 10463	0.09 SE	PBS2-473405/Active PBS
394	2698 Bailey Avenue	2698 Bailey Avenue	Bronx NY 10463	0.10 NE	PBS2-334375/Active PBS
380	2575 Sedgwick Ave	2575 Sedgwick Ave	NY NY 10463	0.12 SE	PBS2-242144/Active PBS
389	2647 Sedgwick Ave Corp	2647 Sedgwick Ave	Bronx NY 10468	0.12 SE	PBS2-064858/Active PBS
493	Cedar-Hampden Holdings	2254 Cedar Avenue	Bronx NY 10468	0.12 SE	PBS2-219371/Active PBS
525	High View Owners, Inc	2545 Sedgwick Avenue	Bronx NY 10463	0.12 SE	PBS2-454575/Active PBS
379	2559 Sedgwick Ave	2559 Sedgwick Ave	NY NY 10463	0.13 SE	PBS2-257664/Active PBS
393	2695 Heath Realty	2695 Heath Avenue	Bronx NY 10467	0.13 SE	PBS2-605235/Active PBS
485	Bronx Ready Mix Corp	265 West Fordham Road	Bronx NY 10468	0.13 SE	PBS2-130826/Active PBS
486	Bronx Ready Mix West	265 W. Fordham Rd.	Bronx NY 10468	0.13 SE	Cbs2-000177/Inactive
494	Cedar-Hampden Holdings	2269 Hampden Place	Bronx NY 10468	0.13 SE	PBS2-365084/Active PBS
523	Heath Management Co	2680 Heath Ave	Bronx NY 10463	0.13 SE	PBS2-252360/Active PBS
397	2709 Heath Avenue	2709 Heath Avenue	Bronx NY 10463	0.14 NE	PBS2-267880/Active PBS
385	2630 Kingsbridge Terrace	2630 Kingsbridge Terrace	Bronx NY 10463	0.14 SE	PBS2-281565/Active PBS
402	2721 Heath Avenue	2721 Heath Avenue	Bronx NY 10463	0.15 NE	PBS2-605537/Active PBS
567	Presbyterian Hosp Service Center	40 West 225th Street	NY NY 10463	0.16 NW	PBS2-111112/Active PBS
306	2265 Sedgwick Avenue	2265 Sedgwick Avenue	Bronx NY 10468	0.16 SE	PBS2-601715/Active PBS
314	2285 Sedgwick Realty Corp	2285 Sedgwick Avenue	Bronx NY 10468	0.16 SE	PBS2-256862/Active PBS
513	Fordham Hill Cooperative	2425 Sedgwick Ave.	Bronx NY 10468	0.16 SE	PBS2-604632/Unregulated
498	Dale Operating Corporation	56 West 225th Street	Bronx NY 10463	0.17 NW	PBS2-477265/Active PBS

TABLE 7.13-7. UNDERGROUND AND ABOVEGROUND STORAGE TANKS

ID #	Site	Address		Distance (Miles)	Regulatory ID/ Status
383	2619-2625 Sedgwick Ave	2619-2625 Sedgwick Avenue	Bronx NY 10468	0.17 SE	PBS2-457434/Active PBS
562	Palazzolo Holding	208 West Fordham Road	Bronx NY 10468	0.17 SE	PBS2-602909/Active PBS
737	Fordham Hill Owners Coop	1 Fordham Hill Oval	Bronx NY 10468	0.17 SE	PBS2-333719/Active PBS
492	Cedar Two Company,	2175 Cedar Avenue	Bronx NY 10468	0.17 SW	PBS2-345911/Active PBS
546	Marble Hill Houses	2811 Exterior Street	Bronx NY 10463	0.18 NE	PBS2-473820/Active PBS
561	P.S. 122	260 West Kingsbridge Road	Bronx NY 10463	0.18 NE	PBS2-352071/Active PBS
384	2629 Sedgwick Avenue	2629 Sedgwick Avenue	Bronx NY 10463	0.18 SE	PBS2-603386/Active PBS
424	2800 Bailey Ave	2800-10 Bailey Ave	Bronx NY 10463	0.19 NE	PBS2-279161/Admin Closed
538	Kingsbridge Apts	200 West Kingsbridge Rd	Bronx NY 10463	0.19 NE	PBS2-092630/Active PBS
545	M. Henkin	2800 Bailey Avenue	Bronx NY 10463	0.19 NE	PBS2-602372/Active PBS
386	2635 Sedgwick Realty	2635 Sedgwick Avenue	Bronx NY 10468	0.19 SE	PBS2-456829/Active PBS
585	Rosewall Gardens Assoc.	2300 Sedgwick Avenue	Bronx NY 10468	0.19 SE	PBS2-605699/Active PBS
591	Sedgwick Avenue,	2304 Sedgwick Avenue	Bronx NY 10468	0.19 SE	PBS2-219339/Active PBS
296	212 West Kingsbridge Road	212 West Kingsbridge Road	Bronx NY 10463	0.20 NE	PBS2-605200/Active PBS
274	135 Realty Associates	135 West 183rd Street	Bronx NY 10453	0.20 SE	PBS2-363154/Active PBS
388	2643 Sedgwick Avenue	2643 Sedgwick Avenue	Bronx NY 10463	0.20 SE	PBS2-605684/Active PBS
345	2400 Webb Avenue	2400 Webb Avenue	Bronx NY 10468	0.21 SE	PBS2-475947/Active PBS
515	Fordham Terrace Co	2400 Webb Ave	Bronx NY 10468	0.21 SE	PBS2-111309/Admin Closed
524	Hidalgo Realty	160 West Kingsbridge Rd	Bronx NY 10463	0.21 SE	PBS2-315230/Active PBS
587	Rucon Properties	2820 Bailey Ave	Bronx NY 10463	0.22 NE	PBS2-091545/Active PBS
356	2435 Devoe Terrace	2435 Devoe Terrace	Bronx NY 10468	0.22 SE	PBS2-116270/Active PBS
453	539 Holding Ltd	2704 Kingsbridge Terrace	Bronx NY 10463	0.22 SE	PBS2-342262/Active PBS
464	Aka University Heights Senior Housing	123-127 West 183rd St	Bronx NY 11453	0.22 SE	PBS2-266450/Active PBS
541	Kingsbridge Terrace Equity	2700 Kingsbridge Terrace	Bronx NY 10463	0.22 SE	PBS2-339237/Active PBS
425	2800 Heath Ave	2800 Heath Ave	Bronx NY 10463	0.23 NE	PBS2-374008/Active PBS
426	2805 Heath Ave	2805 Heath Ave	Bronx NY 10463	0.23 NE	PBS2-374172/Active PBS
271	130 West 183rd St	130 West 183rd Street	Bronx NY 10468	0.23 SE	PBS2-085014/Active PBS

TABLE 7.13-7. UNDERGROUND AND ABOVEGROUND STORAGE TANKS

ID #	Site	Address		Distance (Miles)	Regulatory ID/ Status
272	130 West 183rd Street	130 West 183rd Street	Bronx NY 10453	0.23 SE	PBS2-509280/Admin Closed
339	2333 Loring Pl	2333 Loring Place	Bronx NY 10468	0.23 SE	PBS2-338168/Active PBS
357	2444 Devoe Terrace	2444 Devoe Terrace	Bronx NY 10468	0.23 SE	PBS2-456543/Active PBS
428	2816/2818 Heath Ave	2816/2818 Heath Ave	Bronx NY 10463	0.24 NE	PBS2-406171/Active PBS
573	Prosperities Corporation	2880 Exterior St	Bronx NY 10463	0.24 NE	PBS2-310352/Unregulated
285	1678 Karyas Realty	2312 Loring Pl N	NY NY 10468	0.24 SE	PBS2-210447/Active PBS
286	1678 Karyas Realty	2316 Loring Pl N	NY NY 10468	0.24 SE	PBS2-210455/Active PBS
325	2312 Loring Place	2312 Loring Place N	Bronx NY 10468	0.24 SE	PBS2-509922/Admin Closed
331	2322 Loring Pl	2322 Loring Place	Bronx NY 10468	0.24 SE	PBS2-338184/Active PBS
335	2326 Loring Pl	2326 Loring Pl N	Bronx NY 10468	0.24 SE	PBS2-216127/Active PBS
359	244o Webb Avenue	244o Webb Avenue	Bronx NY 10468	0.24 SE	PBS2-601950/Active PBS
368	2492 Devoe Terrace c/o J Bodak	2492 Devoe Terrace	Bronx NY 10468	0.24 SE	PBS2-332356/Active PBS
488	Bukolla Properties Iii, Inc.	2432 Webb Avenue	Bronx NY 10468	0.24 SE	PBS2-603656/Active PBS
549	Minni Mar Realty,	2485 Devoe Terrace	Bronx NY 10468	0.24 SE	PBS2-266280/Active PBS
553	Multiple Dwelling	2432-34 Webb Ave	Bronx NY 10468	0.24 SE	PBS2-360538/Active PBS
594	Shapiro Real Estate	2318 Loring Place N	Bronx NY 10468	0.24 SE	PBS2-338818/Active PBS
416	2765 Kingsbridge Terrace	2765 Kingsbridge Terrace	Bronx NY 10463	0.25 NE	PBS2-203912/Active PBS
483	Besnick Realty Corp	2840 Bailey Avenue	Bronx NY 10463	0.25 NE	PBS2-604263/Active PBS
312	2280 Loring Pl	2280 Loring Pl N	Bronx NY 10468	0.25 SE	PBS2-236306/Active PBS
320	2300 Incorporated	2300 Loring Place	Bronx NY 10468	0.25 SE	PBS2-336041/Active PBS
511	Estate Of Louis Sachs	120 West 183rd St	Bronx NY 10453	0.25 SE	PBS2-284203/Active PBS
514	Fordham One Company	2121 Cedar Avenue	Bronx NY 10468	0.25 SW	PBS2-345938/Active PBS
420	2775 King Terrace Assoc.	2775 Kingsbridge Terrace	Bronx NY 10463	0.26 NE	PBS2-509973/Active PBS
614	Yankee Realty	2770-80 Kingsbridge Terrace	Bronx NY 10463	0.26 NE	PBS2-251038/Active PBS
572	Promenade Apartments	150 West 225th Street	NY NY 10463	0.26 NW	PBS2-116769/Active PBS
266	111 West 183rd Street	111 West 183rd Street	Bronx NY 10453	0.26 SE	PBS2-063134/Active PBS
283	155 Realty Co	153 Father Zeiser Pl	Bronx NY 10468	0.26 SE	PBS2-400459/Active PBS

TABLE 7.13-7. UNDERGROUND AND ABOVEGROUND STORAGE TANKS

ID #	Site	Address		Distance (Miles)	Regulatory ID/ Status
396	2707 Sedgwick Ave.	2707 Sedgwick Ave	Bronx NY 10468	0.26 SE	PBS2-200794/Active PBS
568	Prime Residential Bronx	2454 Webb Avenue	Bronx NY 10468	0.26 SE	PBS2-604371/Active PBS
500	Deegan Two Company,	2101 Cedar Avenue	Bronx NY 10468	0.26 SW	PBS2-345946/Active PBS
432	2834 Heath Avenue	2834 Heath Avenue	Bronx NY 10468	0.27 NE	PBS2-605351/Active PBS
267	114 W 183 St Bronx	114 W 183 St	Bronx NY 10453	0.27 SE	PBS2-243736/Active PBS
279	150 East 182nd Street	150 East 182nd Street	Bronx NY 10453	0.27 SE	PBS2-602254/Active PBS
301	2226 Loring Place	2226 Loring Place N	Bronx NY 10453	0.27 SE	PBS2-509949/Active PBS
302	2226 Loring Place No	2226 Loring Place No	Bronx NY 10453	0.27 SE	PBS2-340855/Admin Closed
401	2719 Sedgwick Ave	2719 Sedgwick Ave	Bronx NY 10468	0.27 SE	PBS2-238449/Active PBS
540	Kingsbridge Court	2710 Sedgwick Avenue	Bronx NY 10468	0.27 SE	PBS2-335479/Active PBS
584	Robert Patterson Usarc	2181 Loring Place N	Bronx NY 10453	0.27 SE	PBS2-600898/Active PBS
448	36 Marble Hill Realty	36 Marble Hill Avenue	NY NY 10463	0.28 NW	PBS2-093629/Active PBS
277	145 Father Zeiser Pl	145 Father Zeiser Pl	Bronx NY 10468	0.28 SE	PBS2-362921/Active PBS
340	2337 Andrews Avenue	2337 Andrews Avenue	Bronx NY 10468	0.28 SE	PBS2-326313/Active PBS
408	2735-41-47 Sedgwick Ave	2735-41-47 Sedgwick Avenue	Bronx NY 10468	0.28 SE	PBS2-238457/Active PBS
548	Minni Mar Realty	2476 Webb Avenue	Bronx NY 10468	0.28 SE	PBS2-279641/Active PBS
446	2910 Exterior St	2910 Exterior St	Bronx NY 10463	0.29 NE	PBS2-085561/Unregulated
275	135 W 225 St	135 W 225th St	Bronx NY 10463	0.29 NW	PBS2-192562/Active PBS
310	2277 Andrews Avenue	2277 Andrews Avenue	Bronx NY 10468	0.29 SE	PBS2-602844/Active PBS
318	2295 Andrews Avenue Hdfc	2295 Andrews Avenue N	Bronx NY 10468	0.29 SE	PBS2-468495/Active PBS
337	2333 Andrews Avenue	2333 Andrews Avenue N	Bronx NY 10453	0.29 SE	PBS2-467324/Active PBS
476	Apartment House	2333 Andrews Ave N	Bronx NY 10468	0.29 SE	PBS2-327026/Active PBS
504	Dirot Realty Corporation	103 West 183rd Street	Bronx NY 10468	0.29 SE	PBS2-603267/Active PBS
506	Dirot Realty Corporation	2261 Andrews	Bronx NY 10468	0.29 SE	PBS2-603206/Active PBS
535	Kilgarvan Realty Corp	2285 Andrews Ave N	NY NY 10468	0.29 SE	PBS2-244619/Active PBS
537	Kings Heights Assoc	2734 Sedgwick Ave	Bronx NY 10468	0.29 SE	PBS2-256935/Active PBS
543	M&D Management	2327 Andrews Avenue	Bronx NY 10467	0.29 SE	PBS2-070769/Active PBS
554	New Line Realty Iv Corp.	2321 Andrews Ave	Bronx NY 10468	0.29 SE	PBS2-251852/Active PBS

TABLE 7.13-7. UNDERGROUND AND ABOVEGROUND STORAGE TANKS

ID #	Site	Address		Distance (Miles)	Regulatory ID/ Status
413	2755-69 Sedgwick Ave/1700 Dev	2755-69 Sedgwick Ave	Bronx NY 10463	0.30 NE	PBS2-155780/Active PBS
563	Parkway Apartments Owners	2860 Bailey Ave	Bronx NY 10463	0.30 NE	PBS2-316474/Active PBS
319	2296 Andrews Ave	2296 Andrews Ave N	Bronx NY 10455	0.30 SE	PBS2-081191/Active PBS
497	Conagul Equities	2316 Andrews Avenue	Bronx NY 10468	0.30 SE	PBS2-468509/Active PBS
505	Dirot Realty Corporation	102 West 183rd	Bronx NY 10468	0.30 SE	PBS2-603209/Active PBS
547	Mario & Lucia Milevoi	2280 Andrews Ave N	Bronx NY 10468	0.30 SE	PBS2-329096/Active PBS
574	Public School 15	2195 Andrews Ave.	Bronx NY 10453	0.30 SE	PBS2-606247/Active PBS
582	Residents	2290 Andrews Ave N	Bronx NY 10468	0.30 SE	PBS2-251860/Active PBS
596	Snow House	135 Hall Of Fame Terrace	Bronx NY 10453	0.30 SE	PBS2-605651/Active PBS
529	Imperio Realty	2785 Sedgwick Ave	Bronx NY 10468	0.31 NE	PBS2-320005/Active PBS
276	135 West Kingsbridge	135 West Kingsbridge Road	Bronx NY 10468	0.31 SE	PBS2-216089/Active PBS
309	2272 Andrews Avenue	2272 Andrews Ave	Bronx NY 10453	0.31 SE	PBS2-285226/Active PBS
417	2766 Sedgwick Avenue	2766 Sedgwick Avenue	Bronx NY 10468	0.31 SE	PBS2-509957/Active PBS
466	Alpha Dynamics Ltd	98 West 183rd St	Bronx NY 10453	0.31 SE	PBS2-063037/Active PBS
603	VA Medical Center	130 West Kingsbridge Road	Bronx NY 10468	0.31 SE	PBS2-602985/Active PBS
270	117 Father Zeiser Place	117 Father Zeiser Place	Bronx NY 10468	0.32 SE	PBS2-404993/Active PBS
282	150 West 195th Street	150 West 195th Street	Bronx NY 10468	0.32 SE	PBS2-148687/Active PBS
372	2518-20 Webb Ave	2518-20 Webb Ave	Bronx NY 10468	0.32 SE	PBS2-081248/Active PBS
463	95 West 183rd Street	95 West 183rd Street	Bronx NY 10453	0.32 SE	PBS2-605248/Active PBS
569	Prime Residential Bronx	2500 Webb Ave	Bronx NY 10468	0.32 SE	PBS2-303518/Active PBS
616	108/128 West 228 St	108 West 228th St	NY NY 10463	0.33 NW	PBS2-099376/Admin Closed
265	111 Father Zeiser Place	111 Father Zeiser Place	Bronx NY 10468	0.33 SE	PBS2-285234/Active PBS
542	Kittay House	2550 Webb Ave	Bronx NY 10468	0.33 SE	PBS2-288764/Active PBS
556	One Jacobus Realty Co	1 Jacobus Place	Bronx NY 10463	0.34 NW	PBS2-200735/Active PBS
570	Prime Residential Manhattan	18 Jacobus Place	Bronx NY 10463	0.34 NW	PBS2-257443/Active PBS
307	2265 University Ave Owners	2265 University Ave	Bronx NY 10468	0.34 SE	PBS2-362484/Active PBS
313	2281 85 University Ave	2281 University Ave	Bronx NY 10468	0.34 SE	PBS2-293040/Active PBS

TABLE 7.13-7. UNDERGROUND AND ABOVEGROUND STORAGE TANKS

ID #	Site	Address		Distance (Miles)	Regulatory ID/ Status
315	2287 Associates, Inc.	2287 University Avenue	Bronx NY 10468	0.34 SE	PBS2-100528/Active PBS
316	2291 University Ave/1700 Dev	2291 University Ave	Bronx NY 10468	0.34 SE	PBS2-187372/Active PBS
323	2305 University Avenue	2305 University Avenue	Bronx NY 10468	0.34 SE	PBS2-070610/Active PBS
326	2315 University Ave	2315 University Ave	Bronx NY 10468	0.34 SE	PBS2-070580/Active PBS
333	2325 University Ave	2325 University Ave	Bronx NY 10468	0.34 SE	PBS2-070599/Active PBS
400	2715 Webb Ave	2715 Webb Ave	Bronx NY 10468	0.34 SE	PBS2-328316/Active PBS
403	2723-25 Webb Ave	2723-25 Webb Ave	Bronx NY 10468	0.34 SE	PBS2-160628/Active PBS
409	2737 Webb Ave	2737-9 Webb Ave	Bronx NY 10468	0.34 SE	PBS2-255467/Admin Closed
410	2737-39 Webb Avenue	2737-39 Webb Avenue	Bronx NY 10468	0.34 SE	PBS2-603083/Active PBS
449	St Nicholas of Tolentine Church	2345 University Ave	Bronx NY 10468	0.34 SE	PBS2-246336/Active PBS
571	Prishtina Associates	2703 Webb Ave	Bronx NY 10468	0.34 SE	PBS2-094285/Active PBS
284	165 West 197th St	165 West 197th St	Bronx NY 10463	0.35 NE	PBS2-339318/Active PBS
431	2829 Sedgwick Ave	2829 Sedgwick Ave	Bronx NY 10463	0.35 NE	PBS2-274267/Active PBS
433	2840 Sedgwick Ave	2840 Sedgwick Ave	Bronx NY 10463	0.35 NE	PBS2-365270/Active PBS
522	Halpern & Pintel Inc.	2830 Sedgwick Avenue	Bronx NY 10463	0.35 NE	PBS2-602659/Active PBS
278	15 Jacobus Place	15 Jacobus Place	Bronx NY 10463	0.35 NW	PBS2-364614/Active PBS
636	68-70 Marble Hill Avenue	68-70 Marble Hill Avenue	NY NY 10463	0.35 NW	PBS2-601746/Active PBS
662	Pk Equities	120 West 228th Street	NY NY 10463	0.35 NW	PBS2-601571/Active PBS
308	2270 University Ave	2270 University Ave	Bronx NY 10468	0.35 SE	PBS2-604194/Active PBS
317	2294 University Avenue	2294 University Avenue	Bronx NY 10468	0.35 SE	PBS2-605503/Active PBS
321	2300 University Avenue	2300 University Avenue	Bronx NY 10467	0.35 SE	PBS2-605508/Active PBS
324	2308 University Avenue	2308 University Avenue	Bronx NY 10468	0.35 SE	PBS2-457337/Active PBS
327	2316 University Avenue	2316 University Avenue	Bronx NY 10468	0.35 SE	PBS2-509302/Active PBS
332	2324 University Avenue	2324 University Avenue	Bronx NY 10468	0.35 SE	PBS2-606030/Active PBS
336	2328 Uniave Corp.	2328 University Avenue	Bronx NY 10468	0.35 SE	PBS2-605875/Active PBS
392	2690 Webb L.L.C.	2690 Webb Avenue	Bronx NY 10468	0.35 SE	PBS2-116157/Active PBS

TABLE 7.13-7. UNDERGROUND AND ABOVEGROUND STORAGE TANKS

ID #	Site	Address		Distance (Miles)	Regulatory ID/ Status
398	2710 Webb Ave	2710 Webb Ave	Bronx NY 10468	0.35 SE	PBS2-251909/Active PBS
405	2728 Webb Ave	2728 Webb Ave	Bronx NY 10468	0.35 SE	PBS2-153435/Active PBS
520	Glicker Partners, L.P.	2374 University Avenue	Bronx NY 10468	0.35 SE	PBS2-605544/Active PBS
595	Shelbe Associates	2290 University Ave	Bronx NY 10468	0.35 SE	PBS2-205281/Active PBS
281	150 W 197th St Bronx	150 West 197th Street	Bronx NY 10468	0.36 NE	PBS2-114154/Active PBS
304	2260 University Ave	2260 University Ave	Bronx NY 10468	0.36 SE	PBS2-270423/Active PBS
348	2406 University Ave	2406 University Ave	Bronx NY 10468	0.36 SE	PBS2-365246/Active PBS
349	2414 University Ave	2414 University Ave	Bronx NY 10468	0.36 SE	PBS2-158704/Active PBS
351	2418 University Ave	2418 University Avenue	Bronx NY 10468	0.36 SE	PBS2-606969/Active PBS
354	2426 University Ave. Realty	2426 University Ave.	Bronx NY 10468	0.36 SE	PBS2-606029/Active PBS
586	Rosewick Gardens	1985 Sedgwick Ave	Bronx NY 10453	0.36 SW	PBS2-130192/Active PBS
648	Gas Station	5501 Broadway	Bronx NY 10463	0.37 NE	PBS2-191647/Active PBS
664	R & G Associates	108 West 227th St	NY NY 10463	0.37 NW	PBS2-091529/Active PBS
355	2432 University Avenue	2432 University Avenue	Bronx NY 10468	0.37 SE	PBS2-467448/Active PBS
358	2446 Realty Assoc	2446 University Ave	Bronx NY 10468	0.37 SE	PBS2-362972/Active PBS
363	2467 University Avenue	2467 University Avenue	Bronx NY 10468	0.37 SE	PBS2-319651/Active PBS
487	Bukolla Properties Ii, Inc.	104 West 190th Street	Bronx NY 10468	0.37 SE	PBS2-603657/Active PBS
534	Kadir Ally	2430 University Ave.	Bronx NY 10468	0.37 SE	PBS2-605761/Active PBS
606	Walton Heights	2471 University Ave.	Bronx NY 10468	0.37 SE	PBS2-605877/Active PBS
293	1975 Sedgwick Avenue	1975 Sedgwick Avenue	Bronx NY 10453	0.37 SW	PBS2-467529/Admin Closed
469	Apartment House	1975 Sedgwick Ave	Bronx NY 10453	0.37 SW	PBS2-291234/Active PBS
656	Kingsbridge Post Office	5517 Broadway	Bronx NY 10463	0.38 NE	PBS2-476226/Unregulated
273	130 West 195 St	130 West 195 St	Bronx NY 10468	0.38 SE	PBS2-159433/Active PBS
369	2505 University Avenue	2505 University Avenue	Bronx NY 10468	0.38 SE	PBS2-601780/Active PBS
371	2515 Realty Co	2515 University Ave	Bronx NY 10468	0.38 SE	PBS2-365572/Active PBS
399	2715 Claflin Avenue	2715 Claflin Ave	Bronx NY 10468	0.38 SE	PBS2-364754/Active PBS
508	Ekrem Realty Corporation	2460 University Avenue	Bronx NY 10468	0.38 SE	PBS2-603833/Active PBS
517	Fuel Oil Storage Tank	125 West 195th Street	Bronx NY 10468	0.38 SE	PBS2-205095/Active PBS

TABLE 7.13-7. UNDERGROUND AND ABOVEGROUND STORAGE TANKS

ID #	Site	Address		Distance (Miles)	Regulatory ID/ Status
526	Ho&He Properties	2523 University Ave	Bronx NY 10468	0.38 SE	PBS2-091774/Active PBS
604	W K Nursing Home	2545 University Ave	Bronx NY 10468	0.38 SE	PBS2-345350/Active PBS
430	2825 Webb Ave	2825 Webb Ave	Bronx NY 10468	0.39 NE	PBS2-061506/Active PBS
436	2851 Sedgwick Avenue	2851 Sedgwick Avenue	Bronx NY 10468	0.39 NE	PBS2-457450/Active PBS
440	2857 Sedgwick Ave	2857 Sedgwick Ave	Bronx NY 10463	0.39 NE	PBS2-251917/Active PBS
501	Denn Owners Corp	2835 Webb Ave	Bronx NY 10468	0.39 NE	PBS2-329614/Active PBS
619	147 West 230th Street	147 West 230th Street	Bronx NY 10463	0.39 NE	PBS2-376752/Active PBS
650	Getty 58014	5510 Broadway	Bronx NY 10463	0.39 NE	PBS2-153532/Active PBS
666	U Haul Co of Metro NY	230 W 230 St	Bronx NY 10463	0.39 NE	PBS2-083984/Active PBS
264	1 Adrian Avenue	1 Adrian Avenue	Bronx NY 10463	0.39 NW	PBS2-340839/Active PBS
637	9-15 Adrian Ave	9-15 Adrian Ave	Bronx NY 10463	0.39 NW	PBS2-334332/Active PBS
640	Adrian Ave	2 Adrian Ave	Bronx NY 10463	0.39 NW	PBS2-326488/Active PBS
657	Mircon Realty Corp	10 Adrian Ave	NY NY 10463	0.39 NW	PBS2-325457/Active PBS
370	2512 University Ave	2512 University Ave	NY NY 10468	0.39 SE	PBS2-196215/Active PBS
482	Banco Realty	2500 University Ave	Bronx NY 10468	0.39 SE	PBS2-274550/Active PBS
484	Bronx Community College	W 181st / University Ave	Bronx NY 10453	0.39 SE	PBS2-107204/Active PBS
575	Public School 226	1950 Sedgwick Avenue	Bronx NY 10453	0.39 SW	PBS2-606264/Active PBS
442	2875 Sedgwick Ave	5875 Sedgwick Avenue	Bronx NY 10468	0.40 NE	PBS2-219363/Active PBS
443	2875 Sedgwick Owners	2875 Sedgwick Ave	Bronx NY 10463	0.40 NE	PBS2-601249/Active PBS
539	Kingsbridge Arms Inc	2865 Kingsbridge Terrace	Bronx NY 10463	0.40 NE	PBS2-113859/Active PBS
608	Webb Avenue Associates, Ltd.	2847 Webb Avenue	Bronx NY 10468	0.40 NE	PBS2-404225/Active PBS
303	2240 University Avenue	2240 University Ave	Bronx NY 10453	0.40 SE	PBS2-219509/Active PBS
329	2320 Inc	2320 Aqueduct Ave E	Bronx NY 10468	0.40 SE	PBS2-295124/Active PBS
373	2522 University Avenue	2522 University Ave	Bronx NY 10468	0.40 SE	PBS2-083534/Active PBS
375	2532 University Avenue	2532 University Ave	Bronx NY 10468	0.40 SE	PBS2-362794/Active PBS
377	2550-52 University Ave	2550-52 University Ave	Bronx NY 10468	0.40 SE	PBS2-160598/Active PBS
406	2734 Claflin	2734 Claflin Avenue	Bronx NY 10468	0.40 SE	PBS2-265160/Active PBS

TABLE 7.13-7. UNDERGROUND AND ABOVEGROUND STORAGE TANKS

ID #	Site	Address		Distance (Miles)	Regulatory ID/ Status
414	2757 Claflin Ave	2757 Claflin Avenue	Bronx NY 10468	0.40 SE	PBS2-335444/Active PBS
459	83 West 188 Realty L.L.C.	83 W 188th St	Bronx NY 10468	0.40 SE	PBS2-191973/Active PBS
460	84 West 188th Street Realty	84 W 188th St	Bronx NY 10468	0.40 SE	PBS2-191965/Active PBS
478	Apt Building	2230 University Ave	Bronx NY 10453	0.40 SE	PBS2-306150/Active PBS
530	Is 206 B	2280 Aqueduct Avenue	Bronx NY 10468	0.40 SE	PBS2-478261/Active PBS
533	Joremi Enterprises Inc	2542 University Ave	Bronx NY 10468	0.40 SE	PBS2-362786/Active PBS
435	2850 Webb Ave Corp	2850 Webb Avenue	Bronx NY 10468	0.41 NE	PBS2-604330/Active PBS
444	2899/2907 Kingsbridge Terr	2899 Kingsbridge Terrace	Bronx NY 10463	0.41 NE	PBS2-311294/Active PBS
445	2899/2907 Kingsbridge Terr	2907 Kingsbridge Terr	Bronx NY 10463	0.41 NE	PBS2-323098/Active PBS
578	Quattro Realty	3004 Heath Ave	Bronx NY 10463	0.41 NE	PBS2-116696/Active PBS
593	Senargis Properties L.L.C.	2807-09 Claflin Ave	Bronx NY 10468	0.41 NE	PBS2-159808/Active PBS
654	Jolyn Management Corp	231/5 W 230 St	Bronx NY 10463	0.41 NE	PBS2-280666/Active PBS
641	Adrian Management Corp	45 Adrian Avenue	NY NY 10463	0.41 NW	PBS2-205796/Active PBS
456	60 W 190th St	60 W 190th St	Bronx NY 10468	0.41 SE	PBS2-192430/Active PBS
502	Diamante Realty	75 W 190th St	Bronx NY 10468	0.41 SE	PBS2-319996/Active PBS
536	Kingdom Associates,	2600 University Ave	Bronx NY 10468	0.41 SE	PBS2-161381/Active PBS
555	Nikgjonaj Realty Corp.	2754 Claflin Avenue	Bronx NY 10468	0.41 SE	PBS2-603894/Active PBS
577	Public School 91	2200 Aqueduct Avenue	Bronx NY 10453	0.41 SE	PBS2-606687/Active PBS
597	Sulmerg Realty Corp.	2604 University Avenue	Bronx NY 10468	0.41 SE	PBS2-606685/Active PBS
559	Our Lady Of Angels Church	2860 Sedgwick Avenue	Bronx NY 10463	0.42 NE	PBS2-606642/Active PBS
628	3025 Godwin Terrace	3025 Godwin Terrace	Bronx NY 10463	0.42 NE	PBS2-361887/Active PBS
658	Morningside Properties, Inc.	3011 Heath Avenue	Bronx NY 10463	0.42 NE	PBS2-603378/Active PBS
620	151 West 228th Street	151 West 228th Street	Bronx NY 10463	0.42 NW	PBS2-605621/Active PBS
621	159 W 228 St/1700 Development	159 W 228th St	Bronx NY 10463	0.42 NW	PBS2-187410/Active PBS
639	Abby Assoc Corp	157 West 228th St	NY NY 10463	0.42 NW	PBS2-287490/Active PBS
298	2170 University Avenue Assoc	2170 University Avenue	Bronx NY 10453	0.42 SE	PBS2-083410/Active PBS

TABLE 7.13-7. UNDERGROUND AND ABOVEGROUND STORAGE TANKS

ID #	Site	Address		Distance (Miles)	Regulatory ID/ Status
382	2614 Kingsbridge Corp	2614 University Av	Bronx NY 10468	0.42 SE	PBS2-290815/Unregulated
387	2636 University Realty,	2636 University Avenue	Bronx NY 10468	0.42 SE	PBS2-472611/Active PBS
390	2685 University Ave	2685 University Ave	Bronx NY 10468	0.42 SE	PBS2-253928/Active PBS
455	55 West 184th Street	55 W. 184 St.	Bronx NY 10458	0.42 SE	PBS2-604554/Active PBS
470	Apartment House	51 North St	Bronx NY 10468	0.42 SE	PBS2-325694/Admin Closed
472	Apartment House	51 North Street	Bronx NY 10468	0.42 SE	PBS2-469173/Active PBS
479	Aragon Realty	2505 Aqueduct Ave W	Bronx NY 10468	0.42 SE	PBS2-320366/Active PBS
557	Orchard Mews Associates	2610 University Avenue	Bronx NY 10468	0.42 SE	PBS2-246220/Unregulated
605	W K Nursing Home	100 W Kingsbridge Rd	Bronx NY 10468	0.42 SE	PBS2-345369/Active PBS
610	Wk Apartment Corp.	100 West Kingsbridge Road	Bronx NY 10468	0.42 SE	PBS2-602771/Active PBS
611	Wk Nursing Home Corp.	100 West Kingsbridge Road	Bronx NY 10468	0.42 SE	PBS2-602770/Admin Closed
612	Wk Nursing Home Corp.	100 West Kingsbridge Rd.	Bronx NY 10468	0.42 SE	PBS2-602769/Active PBS
429	2825 Claflin Ave	2825 Claflin Ave	Bronx NY 10468	0.43 NE	PBS2-094595/Active PBS
623	237 West 230 St Realty	237 West 230 St	Bronx NY 10463	0.43 NE	PBS2-151998/Admin Closed
647	Engine 81	3025 Bailey Avenue	Bronx NY 10463	0.43 NE	PBS2-601793/Active PBS
651	Godwin Company	3033 Godwin Terr	Bronx NY 10463	0.43 NE	PBS2-257222/Active PBS
652	Jinete Realty	3018 Heath Ave	Bronx NY 10463	0.43 NE	PBS2-286923/Active PBS
280	150 W 179th St	150 W 179th St	Bronx NY 10453	0.43 SE	PBS2-235601/Active PBS
292	1945 Loring Place	1945 Loring Place S	Bronx NY 10453	0.43 SE	PBS2-295426/Active PBS
374	2523-2525 Aqueduct Ave	2523 Aqueduct Ave West	Bronx NY 10468	0.43 SE	PBS2-055352/Active PBS
376	2541 Aqueduct Associates	2541 Aqueduct Avenue West	Bronx NY 10468	0.43 SE	PBS2-158259/Active PBS
378	2551 Aqueduct Avenue	2551 Aqueduct Avenue West	Bronx NY 10468	0.43 SE	PBS2-511293/Active PBS
404	2727 Realty Co	2727 University Ave	Bronx NY 10468	0.43 SE	PBS2-279684/Active PBS
454	54 Evelyn Place	54 Evelyn Place	Bronx NY 10468	0.43 SE	PBS2-467774/Active PBS
521	Grand Born Realty Corp	2385 Grand Ave	Bronx NY 10468	0.43 SE	PBS2-399558/Active PBS
583	Robert D Sena	2547 Aqueduct Avenue W	Bronx NY 10468	0.43 SE	PBS2-062146/Active PBS
599	Una Realty Corp	2397 Grand Ave	Bronx NY 10468	0.43 SE	PBS2-290114/Active PBS
600	Una Realty Corp.	2395 Grand Avenue	Bronx NY 10468	0.43 SE	PBS2-605328/Active PBS

TABLE 7.13-7. UNDERGROUND AND ABOVEGROUND STORAGE TANKS

ID #	Site	Address		Distance (Miles)	Regulatory ID/ Status
613	Xanadu Realty	2497 Grand Avenue	Bronx NY 10468	0.43 SE	PBS2-605357/Active PBS
269	116 W 197th St	116 West 197th Street	Bronx NY 10468	0.44 NE	PBS2-159816/Active PBS
437	2851 Webb Ave	2851/53 Webb Ave	Bronx NY 10468	0.44 NE	PBS2-153486/Active PBS
496	Coco Realty Corporation	2849 Webb Ave	Bronx NY 10468	0.44 NE	PBS2-333905/Active PBS
624	239 West 230th Street	239 West 230th Street	Bronx NY 10463	0.44 NE	PBS2-509388/Active PBS
626	3004 Albany Crescent	3004 Albany Crescent	Bronx NY 10463	0.44 NE	PBS2-511447/Active PBS
635	63 Adrian Avenue	63 Adrian Avenue	NY NY 10463	0.44 NW	PBS2-602235/Active PBS
659	New Wave Properties L.P.	16-20 Marble Hill Ave	NY NY 10463	0.44 NW	PBS2-291056/Active PBS
338	2333 Grand Ave Tenants	2333 Grand Avenue	Bronx NY 10468	0.44 SE	PBS2-467642/Active PBS
343	2380-86 Grand Avenue Assoc.	2380-86 Grand Avenue	Bronx NY 10468	0.44 SE	PBS2-602936/Active PBS
360	2455 Grand Ave	2455 Grand Ave	NY NY 10468	0.44 SE	PBS2-098647/Active PBS
362	2463 Grand Ave	2463 Grand Ave	Bronx NY 10468	0.44 SE	PBS2-257230/Active PBS
391	2690 University Ave	2690 University Ave	Bronx NY 10468	0.44 SE	PBS2-189391/Active PBS
395	2704 University Ave	2704 University Ave	Bronx NY 10468	0.44 SE	PBS2-151637/Active PBS
407	2735 University Ave	2735 University Ave	Bronx NY 10468	0.44 SE	PBS2-278157/Active PBS
457	67 West 192nd St	67 West 192nd St	Bronx NY 10468	0.44 SE	PBS2-284580/Active PBS
458	79 81 West 182 St	79 West 182nd St	Bronx NY 10453	0.44 SE	PBS2-099686/Active PBS
465	Alnard Associates	64 West 192nd Street	Bronx NY 10468	0.44 SE	PBS2-161438/Active PBS
491	Cedar Row Realty	65 W. 192nd Street	Bronx NY 10468	0.44 SE	PBS2-604181/Active PBS
601	University Associates	2714 University Avenue	Bronx NY 10468	0.44 SE	PBS2-093610/Active PBS
602	University Associates	2724 University Ave	Bronx NY 10468	0.44 SE	PBS2-091952/Active PBS
268	115-117 West 197th St	115-117 West 197 St	Bronx NY 10468	0.45 NE	PBS2-206253/Active PBS
438	2855 Claflin Ave	2855 Claflin Ave	Bronx NY 10468	0.45 NE	PBS2-404217/Active PBS
447	3009 Kingsbridge Terrace	3009 Kingsbridge Terrace	Bronx NY 10463	0.45 NE	PBS2-457493/Active PBS
507	Dran Vataj	2856 Webb Avenue	Bronx NY 10468	0.45 NE	PBS2-602086/Active PBS
622	226 Kimberly Pl	226 Kimberly Pl	NY NY 10463	0.45 NE	PBS2-258563/Active PBS
615	1-11 Marble Hill Avenue	1-11 Marble Hill Ave	NY NY 10463	0.45 NW	PBS2-278033/Active PBS

TABLE 7.13-7. UNDERGROUND AND ABOVEGROUND STORAGE TANKS

ID #	Site	Address		Distance (Miles)	Regulatory ID/ Status
617	135 Terrace View Ave	135 Terrace View Avenue	Bronx NY 10463	0.45 NW	PBS2-214124/Active PBS
645	Champ Hill Company	58 Marble Hill Ave	Marble Hill	0.45 NW	PBS2-208140/Active PBS
295	2114 Aqueduct Realty	2114 Aqueduct Ave E	Bronx NY 10453	0.45 SE	PBS2-191884/Active PBS
322	2305 Grand Avenue	2305 Grand Avenue	Bronx NY 10468	0.45 SE	PBS2-468118/Active PBS
330	2322 Grand Ave/1700 Dev	2322 Grand Ave	Bronx NY 10468	0.45 SE	PBS2-187364/Active PBS
334	2326 Grand Avenue	2326 Grand Avenue	Bronx NY 10468	0.45 SE	PBS2-509876/Active PBS
344	24 Realty Co	2460 Grand Ave	Bronx NY 10468	0.45 SE	PBS2-365580/Active PBS
365	2471 Grand Ave	2471 Grand Ave	Bronx NY 10468	0.45 SE	PBS2-197084/Active PBS
366	2472 Grand Ave	2472 Grand Ave	Bronx NY 10468	0.45 SE	PBS2-309346/Active PBS
367	2474 Grand Ave	2474 Grand Ave	Bronx NY 10468	0.45 SE	PBS2-309354/Active PBS
412	2751 University Ave	2751 University Ave	Bronx NY 10468	0.45 SE	PBS2-096563/Active PBS
415	2761 University Ave	2761 University Ave	Bronx NY 10468	0.45 SE	PBS2-159492/Active PBS
419	2769 University Ave	2769 University Ave	Bronx NY 10468	0.45 SE	PBS2-201774/Active PBS
422	2785 Univ Corp	2785 University Ave	Bronx NY 10468	0.45 SE	PBS2-270695/Active PBS
423	2791 University Realty	2791 University Avenue	Bronx NY 10468	0.45 SE	PBS2-062618/Active PBS
427	2805 University Ave	2805 University Ave	Bronx NY 10468	0.45 SE	PBS2-373850/Active PBS
450	41 W 184 St/1700 Dev Corp	41 W 184 St	Bronx NY 10468	0.45 SE	PBS2-187380/Active PBS
581	Residential Apt Bldg	71 W 182 St	Bronx NY 10453	0.45 SE	PBS2-337064/Active PBS
510	Engine 43 / Ladder 59	1901 Sedgwick Avenue	Bronx NY 10453	0.45 SW	PBS2-601785/Active PBS
434	2850 Claflin Avenue	2850 Claflin Ave	Bronx NY 10468	0.46 NE	PBS2-153508/Active PBS
528	I.S. 143	120 West 231st Street	Bronx NY 10463	0.46 NE	PBS2-352225/Active PBS
629	3034 Albany Crescent Inc	3034 Albany Crescent	Bronx NY 10463	0.46 NE	PBS2-201561/Active PBS
630	3036 Bailey Avenue	3036 Bailey Avenue	Bronx NY 10463	0.46 NE	PBS2-457469/Active PBS
649	Getty 00277	3031 Bailey Avenue	Bronx NY 10463	0.46 NE	PBS2-152935/Active PBS
660	Odd Job	5545 Broadway	Bronx NY 10463	0.46 NE	PBS2-605458/Active PBS
661	Palazzolo Realty Iii Corp	3044 Albany Crescent	Bronx NY 10463	0.46 NE	PBS2-091812/Active PBS
634	45 Marble Hill Avenue	45 Marble Hill Avenue	Bronx NY 10463	0.46 NW	PBS2-605376/Active PBS
653	John F Kennedy High School	99 Terrace View Ave	Bronx NY 10463	0.46 NW	PBS2-352640/Active PBS

TABLE 7.13-7. UNDERGROUND AND ABOVEGROUND STORAGE TANKS

ID #	Site	Address		Distance (Miles)	Regulatory ID/ Status
353	2426 Grand Operating	42 West Fordham Road	Bronx NY 10468	0.46 SE	PBS2-117013/Active PBS
381	2609 Aqueduct Avenue	2609 Aqueduct Avenue	Bronx NY 10468	0.46 SE	PBS2-246247/Active PBS
418	2766 University Ave.	2764-66 University Ave	Bronx NY 10468	0.46 SE	PBS2-241687/Active PBS
421	2780 University Associates	2780 University Ave	Bronx NY 10468	0.46 SE	PBS2-374261/Active PBS
503	Diplomacy Realty Assoc	95 West 195th St	Bronx NY 10468	0.46 SE	PBS2-277118/Active PBS
516	Franciacorta Properties	51 Buchanan Place	Bronx NY 10453	0.46 SE	PBS2-605078/Active PBS
289	1920 Osborne Place	1920 Osborne Place	Bronx NY 10453	0.46 SW	PBS2-600659/Active PBS
631	3056 Albany Crescent	3056 Albany Crescent	Bronx NY 10463	0.47 NE	PBS2-246611/Active PBS
632	3060 Albany Crescent	3060 Albany Crescent	Bronx NY 10463	0.47 NE	PBS2-605092/Active PBS
663	Prima Realty	3030 Heath Ave	Bronx NY 10463	0.47 NE	PBS2-116688/Active PBS
665	St. Johns School	3030 Godwin Terrace	Bronx NY 10463	0.47 NE	PBS2-070521/Active PBS
291	1944 Andrews Avenue	1944 Andrews Ave S	Bronx NY 10453	0.47 SE	PBS2-285099/Active PBS
294	2015 University Avenue	2015 University Avenue	Bronx NY 10453	0.47 SE	PBS2-509361/Active PBS
305	2264 Grand Ave	2264 Grand Ave	Bronx NY 10453	0.47 SE	PBS2-194824/Active PBS
311	2280 Grand Avenue	2280 Grand Ave	Bronx NY 10468	0.47 SE	PBS2-365114/Admin Closed
350	2415 Dawson Avenue	2415 Dawson Avenue	Bronx NY 10468	0.47 SE	PBS2-107522/Active PBS
474	Apartment House	31 North Street	Bronx NY 10468	0.47 SE	PBS2-469165/Active PBS
475	Apartment House	31 North St	NY NY 10468	0.47 SE	PBS2-325503/Admin Closed
499	D Wolchok/Shardan Realty	50 Buchanan Pl	Bronx NY 10453	0.47 SE	PBS2-235415/Active PBS
551	Mp Realty,	2284 Grand Avenue	Bronx NY 10468	0.47 SE	PBS2-356794/Active PBS
552	Multiple Dwelling	2284 Grand Ave	Bronx NY 10468	0.47 SE	PBS2-288632/Admin Closed
580	Ren Realty Co	2691 Reservoir Ave	Bronx NY 10468	0.47 SE	PBS2-294136/Active PBS
590	Santa Rosa Management	2401 Davidson Avenue	Bronx NY 10468	0.47 SE	PBS2-247677/Active PBS
589	Sabosa Realty Co.	2800 University Avenue	Bronx NY 10468	0.48 NE	PBS2-206814/Active PBS
618	14 Realty Co	3064 Bailey Ave	Bronx NY 10463	0.48 NE	PBS2-295914/Active PBS
633	3064 Albany Crescent	3064 Albany Crescent	Bronx NY 10463	0.48 NE	PBS2-274844/Active PBS
644	Buddhist Assoc of The U S	3070 Albany Crescent	Bronx NY 10463	0.48 NE	PBS2-292915/Unregulated
646	Cormad Realty Corp	3061 Bailey Ave	Bronx NY 10463	0.48 NE	PBS2-289655/Active PBS

TABLE 7.13-7. UNDERGROUND AND ABOVEGROUND STORAGE TANKS

ID #	Site	Address		Distance (Miles)	Regulatory ID/ Status
655	Kenneth Chzng	3057 Bailey Ave.	Bronx NY 10463	0.48 NE	PBS2-605421/Active PBS
638	99 Marble Hill Ave	99 Marble Hill Ave	NY NY 10463	0.48 NW	PBS2-096008/Active PBS
288	1920 Loring Place South	1920 Loring Place South	Bronx NY 10453	0.48 SE	PBS2-605177/Active PBS
290	1940 Andrews Ave	1940 Andrews Ave S	Bronx NY 10453	0.48 SE	PBS2-276871/Active PBS
451	50 W 182nd St Associates	50 W 182nd St	Bronx NY 10453	0.48 SE	PBS2-256420/Active PBS
452	50 West 182nd Street	50 West 182nd Street	Bronx NY 10453	0.48 SE	PBS2-509868/Admin Closed
468	Apartment Building	2357 Davidson Ave	Bronx NY 10468	0.48 SE	PBS2-314978/Active PBS
495	NYC Depart of H.P.D	2001 University Ave	Bronx NY 10453	0.48 SE	PBS2-601158/Active PBS
532	Jed Management Realty	2386 Davidson Ave	Bronx NY 10468	0.48 SE	PBS2-252670/Active PBS
558	Oscar Rojas	2419 Davidson Ave	Bronx NY 10468	0.48 SE	PBS2-256870/Active PBS
579	Raega Inc	1929 Andrews Ave S	Bronx NY 10453	0.48 SE	PBS2-149004/Active PBS
592	Senareis Properties	2390 Davidson Avenue	Bronx NY 10468	0.48 SE	PBS2-202495/Active PBS
439	2855 University Ave	2855 University Ave	Bronx NY 10468	0.49 NE	PBS2-601288/Active PBS
588	S Y Realty Co	2824 University Ave	Bronx NY 10468	0.49 NE	PBS2-362964/Active PBS
625	3000-18 Kingsbridge Ave	3000-18 Kingsbridge Avenue	Bronx NY 10463	0.49 NE	PBS2-605440/Active PBS
642	Apt House	3045 Godwin Terrace	Bronx NY 10463	0.49 NE	PBS2-325856/Active PBS
300	2200 Grand	2200 Grand Ave	NY NY10453	0.49 SE	PBS2-152358/Active PBS
341	2344 Owners	2344 Davidson Ave	Bronx NY 10468	0.49 SE	PBS2-063142/Active PBS
342	2350 Davidson Ave.	2350 Davidson Ave.	Bronx NY 10468	0.49 SE	PBS2-605690/Active PBS
346	2400-2410 Davidson Ave H.D.F.C.	2400 Davidson Ave	Bronx NY 10468	0.49 SE	PBS2-291773/Active PBS
347	2400-2410 Davidson Ave H.D.F.C.	2410 Davidson Avenue	Bronx NY 10468	0.49 SE	PBS2-468274/Active PBS
352	2420 Davidson Assoc	2420 Davidson Ave	Bronx NY 10468	0.49 SE	PBS2-312061/Active PBS
411	2745 Reservoir Ave	2745 Reservoir Ave	Bronx NY 10468	0.49 SE	PBS2-277967/Active PBS
467	Andrews Apartments	1915 Andrews Ave S	Bronx NY 10453	0.49 SE	PBS2-247979/Active PBS
473	Apartment House	2400 Davidson Ave	Bronx NY 10468	0.49 SE	PBS2-291269/Admin Closed
477	Apt Building	86 W 179th St	Bronx NY 10453	0.49 SE	PBS2-318566/Active PBS

TABLE 7.13-7. UNDERGROUND AND ABOVEGROUND STORAGE TANKS

ID #	Site	Address		Distance (Miles)	Regulatory ID/ Status
512	Fordham Bedford Housing	2400 Davidson Avenue	Bronx NY 10468	0.49 SE	PBS2-468312/Admin Closed
531	Isreal Colon	1921 Andrews Ave S	Bronx NY 10453	0.49 SE	PBS2-305855/Active PBS
560	P S 26	1930 Andrews Ave S	Bronx NY 10453	0.49 SE	PBS2-352438/Active PBS
564	P Gentile/Receiver c/o Gazivoda	2461 Davidson Ave.	Bronx NY 10468	0.49 SE	PBS2-605398/Active PBS
565	Power Test/Getty 00265	2717 Reservoir Ave	Bronx NY 10468	0.49 SE	PBS2-153028/Admin Closed
598	Two-One-Eight-One Associates	2181 Grand Avenue	Bronx NY 10453	0.49 SE	PBS2-605261/Active PBS
480	B G Z Realty Corp	1912-16 Loring Place South	Bronx NY 10453	0.49 SW	PBS2-321036/Active PBS
441	2865 University Ave	2865 University Ave	Bronx NY 10468	0.50 NE	PBS2-338192/Active PBS
462	88 W 197 St	88 West 197th Street	Bronx NY 10468	0.50 NE	PBS2-259683/Active PBS
627	3024 Kings Bridge Assoc	3024 Kingsbridge Avenue	Bronx NY 10463	0.50 NE	PBS2-099589/Active PBS
643	Bell Atlantic	3001 Kingsbridge Rd West	Bronx NY 10463	0.50 NW	PBS2-343668/Active PBS
297	2155 Grand Avenue	2155 Grand Avenue	Bronx NY 10453	0.50 SE	PBS2-467634/Admin Closed
299	2176 Grand Ave	2176 Grand Ave	Bronx NY 10453	0.50 SE	PBS2-250163/Active PBS
328	2316 University Ave Assoc	2473 Davidson Avenue	Bronx NY 10468	0.50 SE	PBS2-509485/Active PBS
361	2460 Davidson Ave	2460 Davidson Ave	Bronx NY 10468	0.50 SE	PBS2-198919/Active PBS
364	2471 Davidson Realty Co	2471 Davidson Avenue	Bronx NY 10468	0.50 SE	PBS2-366064/Active PBS
461	85 Strong St	85 Strong St	Bronx NY 10468	0.50 SE	PBS2-160474/Active PBS
471	Apartment House	2285 Davidson Ave	Bronx NY 10468	0.50 SE	PBS2-291765/Active PBS
489	Burnside Assoc L.P.	2324 Davidson Ave	Bronx NY 10468	0.50 SE	PBS2-601076/Active PBS
527	Horsal Realty Corp	30 West 190 Street	Bronx NY 10468	0.50 SE	PBS2-117722/Active PBS
544	M&D Management,	2155 Grand Avenue	Bronx NY 10453	0.50 SE	PBS2-070750/Active PBS
566	Preetan Realty Co. Inc.	2275 Davidson Avenue	Bronx NY 10453	0.50 SE	PBS2-604814/Active PBS
576	Public School 86	2756 Reservoir Avenue	Bronx NY 10468	0.50 SE	PBS2-606260/Active PBS
607	Walton High School	2780 Reservoir	Bronx NY 10468	0.50 SE	PBS2-603976/Active PBS
287	1900 Hennessy Place	1900 Hennessy Place	Bronx NY 10453	0.50 SW	PBS2-246255/Active PBS
509	Elder Holding Corp	1904 Loring Place South	Bronx NY 10453	0.50 SW	PBS2-206407/Active PBS

NYSDEC Inactive Hazardous Waste Disposal Sites. The NYSDEC keeps a list of any site that NYSDEC has inspected and identified as a landfill or a dump. There are no NYSDEC hazardous material or waste disposal sites within one-half mile of the Harlem River Site.

Solid Waste Landfills. This database includes a listing of landfills, incinerators, transfer stations, recycling centers, and other sites that manage solid waste. There are no solid waste (municipal, non-municipal, or private) landfill sites within one-half mile of the Harlem River Site.

USEPA's Facility Index System (FINDS) Database Sites. This is an USEPA database of all programs (e.g., air, water, hazardous waste) and identification numbers for a given facility. The FINDS database includes the National Compliance Data Base System (NCDB) that tracks regional compliance and enforcement activity and the Permit Compliance System (PCS) that is a computerized database of water discharge permits.

The review of environmentally regulated sites identified 12 facilities within one-half mile of the Harlem River Site that were listed in the FINDS database (Table 7.13-8). Two of the FINDS sites are listed in the Federal Facility Information System (FFIS, a list of federal facilities that are regulated for environmental purposes), including the Veterans Administration Medical Center and an U.S. Army Reserve facility. The VA Hospital is also listed in USEPA's enforcement docket.

Nuclear Permitted Sites. These facilities are permitted to handle radioactive materials. Table 7.13-8 identifies one facility (U.S. Veterans Administration Hospital) within one-half mile of the Harlem River Site that is permitted to handle nuclear materials.

7.13.2.1.3. On-Site Reconnaissance

Visual. Field inspections of potentially significant hazardous materials sites were performed to verify and update information derived from the review of environmentally regulated sites, the database compiled by NYCDEP in 1997, and the historical land use review (i.e., Sanborn maps, aerial photographs). In addition, the field observations identified some hazardous materials sites that were not recognized using these database sources. Table 7.13-9 provides a listing of potentially significant hazardous materials sites and corresponding observations.

The current assessment identified multiple sources of potential environmental contamination either on or adjacent to the water treatment plant site. Identification of these sources was based on historical and current land use data, reported petroleum and PCB spills, environmentally regulated sites, and field observations. It is suspected that soil and groundwater contamination may be present north of the water treatment plant site associated where there used to be auto service facilities and a railroad facilities building. On-site, soil and groundwater contamination may be present in areas where waste has been potentially uncontrollably dumped. There is a documented incident of the removal of PCB-contaminated soil from the Con Edison property (see first item on Table 7.13-4 and Appendix E).

TABLE 7.13-8. SITES LISTED IN EPA'S FINDS DATABASE AND NUCLEAR PERMIT SITES

ID #	Site	Address		Distance (Miles)	Regulatory ID/ Status
Sites Listed on EPA's FINDS Database (excluding sites listed for regulatory programs already identified)					
45	Fordham Auto Svc	205 W Fordham Rd	Bronx NY 10458	0.16 SE	NY0001493162
46	Fordham Hill Apts	2391 Webb Avenue	Bronx NY 10468	0.17 SE	NYD980214316
712	Avp Critical Interior Services	One Fordham Hill Oval	Bronx NY 10468	0.17 SE	NY0001493626
48	NYCHA Marble Hill Houses	2811 Exterior St	Bronx NY 10463	0.18 NE	NY0001956382
49	Star Cleaners	5235 Broadway	Bronx NY 10463	0.23 NW	NYD982721805
50	US Army	2181 Loring Pl N	Bronx NY 10453	0.27 SE	NY5210020124
51	Vetrans Admin Med Ctr	130 W Kingsbridge Rd	Bronx NY 10468	0.31 SE	NY3360007279
54	Prepac Inc	188 W 230th St	Bronx NY 10463	0.38 NE	NYD001495431
52	Getty	5510 Broadway	Bronx NY 10463	0.39 NE	NY0001493410
44	Bronx Community College	University Ave & W 181st St	Bronx NY 10453	0.39 SE	NYD038210613
47	Kingsbridge Garage	2614 University Ave	Bronx NY 10468	0.42 SE	NY0002062644
53	NYC Fire Dept Engine Co 81	3027 Bailey Ave	Bronx NY 10463	0.43 NE	NY0002411072
Nuclear Permits					
708	V. A., Department Of	130 West Kingsbridge Road	Bronx NY 10468	0.31 SE	0499-5416/Active

TABLE 7.13-9. POTENTIALLY SIGNIFICANT HAZARDOUS MATERIAL SOURCES

Facility	Location	Observations
J & V Service Station Corporation	90 West 225th Street	Vehicle storage and repair; potential abandoned and unreported USTs
DEP Marble Hill Pumping Station	80 West 225th Street	Known releases of raw sewage (12)
Trio Towing and Collision	78 West 225th Street	Vehicle storage and repair; potential unreported USTs
Polly's Auto Service	76 West 225th Street	Vehicle storage and repair; potential unreported USTs
Armory Auto Service	72 West 225th Street	Vehicle storage and repair; potential unreported USTs
Auto repair (closed)	68 West 225th Street	Vehicle storage and repair; potential unreported USTs
Gasoline Station	58 West 225th Street	UST: 4,000 gal gasoline; tank test failure (1990)
Dale Operating Corporation	56 West 225th Street	USTs: 3-4,000 gal gasoline; vehicle repair
Presbyterian Hospital Center	40 West 225th Street	ASTs: 1-20,000 gal, 1-7,500 gal heating oil; potential structural asbestos and lead-based paint
Con Ed vault 3205	West 225th Street/Exterior St	Former PCB Transformer vault
NY Central (Metro North) building	100' S of Presb. Hospital Center	Former transformer, battery storage; uncontrolled waste disposal; potential asbestos and lead-based paint
Con Ed building	500' N of University Heights Bridge	Known release of PCB oil (1995)
Uncontrolled waste disposal area	200' N of University Heights Bridge	Unknown material and debris; potentially contaminated materials
Auto junk yard (1989)	1,200' N of University Heights Bridge	Replaced by concrete batch plant
Mobil Oil/Gaseteria	296 West Fordham Road	USTs: 3-4,000 gal gasoline, 1-4,000 gal diesel; tank test failures (1987, 1991)
Getty	2590 Bailey Avenue	ASTs: 2- 240 gal oil; USTs: 3-4,000 gal gasoline; known release (1996)
TM 1410	West 193rd Street	Known petroleum release; suspected groundwater contamination
Consolidated Gas - Kingsbridge Stat (1910)	Fordham and Landing Road	Former 10M cubic ft gas holder; potential coal tar residue
B & B Management	2851 Sedgwick Avenue	Known petroleum release; soil contamination (1996)
Herbert Lehman College	Bedford Park Blvd West	Known petroleum releases; suspected groundwater contamination (1988, 1997)

TABLE 7.13-9. POTENTIALLY SIGNIFICANT HAZARDOUS MATERIAL SOURCES

Facility	Location	Observations
Residence	2856 Kingsbridge Terrace	Known petroleum release; groundwater contamination (1996)
HUD Housing Complex	2865 Kingsbridge Terrace	Known petroleum release; soil contamination (1989)
Residence	3138 Heath Avenue	Known petroleum release; soil contamination (1996)
Episcopal Mission	2749 University Avenue	Known petroleum release; soil contamination (1998)
Veterans Administration Hospital	Sedgwick Avenue	Known transformer oil release; soil contamination (1998)
Residence	2819 Sedgwick Avenue	Known petroleum release; soil contamination (1996)
Residence	2851 Webb Avenue	Known petroleum release; soil contamination (1998)
Jewish Home and Hospital	2535 University Avenue	Known petroleum, chlorinated solvent releases; soil & groundwater contamination (1995-1998)
Residence	2475 Devoe Terrace	Known petroleum release; soil contamination (1994)
Kittay House Apts.	2550 Webb Avenue	Known petroleum release; groundwater contamination (1995)
Petroleum Bulk Storage Tanks	various locations (759 total)	ASTs/USTs
Dry Cleaners	various locations (6 sites)	Suspected use of solvents
NCA Shaft #22	West Fordham Road	No surface structure

Both east and hydraulically up gradient of the water treatment plant site, there are several potentially significant hazardous materials sources. These sites include a former utility facility (i.e., Consolidated Gas), several gas stations, and contaminated utility manholes. Because groundwater is assumed to flow toward the Harlem River, contaminants from these sites could potentially affect the water treatment plant site.

Overall, most of the properties within the water treatment plant site are in poor condition. Even though the self-storage facility and the batch plant are active facilities during weekday daylight hours, they are closed evenings and weekends, leaving the water treatment plant site virtually unoccupied and susceptible to vandalism and uncontrolled waste dumping. Although the properties have waterfront footage, improvements may be difficult and expensive due to poor access (i.e., unimproved condition of Exterior Street) and limited utility service (i.e., water, natural gas, electricity).

Because of the remote nature of the water treatment plant site, uncontrolled waste dumping has occurred in several publicly accessible areas, including outside the fence surrounding the Con Edison property along Exterior Street and under the University Heights Bridge on the road leading to the property south of the bridge. The uncontrolled dumped waste appears to be a mixture of construction debris (e.g., wood, piping, roofing), large bulk items including an automobile and broken furniture, and miscellaneous domestic trash.

Environmental Quality. The following describes the results obtained from the analysis of soil and groundwater samples collected at the NYCDOT and XCEL Ready Mix concrete batch plant properties and river sediment adjacent to these properties. Other properties at the Harlem River Site (i.e., self-storage facility, Con Edison, CSX) were not tested because of access limitations.

Soil. A total of 45 soil samples were collected at a series of locations on the NYCDOT and XCEL Ready Mix concrete batch plant properties to characterize the presence of site contaminants. Soil cores extending from the surface to the water table (approximately 10 ft.) were obtained using direct push (i.e., Geoprobe) equipment. The entire length of each core was sub sampled and composited to prepare each sample for laboratory analysis. The soil cores and composite samples were initially screened to identify total volatile organic compounds and metals. Based on these screening results as well as the field observations, a total of 12 samples were selected for more comprehensive analyses. A summary of the soil testing results by property and contaminant (i.e., metals, organics) follows. A complete description of the soil sampling locations, site conditions, and findings is provided in the Harlem River Site Sampling and Analysis Report (Appendix E).

A summary of the metals and field screening data for soil samples collected at the NYCDOT property is presented in Table 7.13-10. A statistical summary of the metals data is presented in Table 7.13-11. Based on field observations and screening data, six samples (i.e., DOT-6, -10, -16, -18, -19, -21) were selected for the analysis of volatile and semi-volatile organics, pesticides, PCBs, diesel range total petroleum hydrocarbons (TPH), and gasoline range TPH, including benzene, ethyl benzene, toluene, and total xylenes (BTX). A summary of the organics results is presented in Table 7.13-12.

TABLE 7.13-10. SUMMARY OF METALS AND SCREENING DATA FOR SOIL FROM THE NYCDOT PROPERTY AT THE HARLEM RIVER SITE

Parameter	DOT-1	DOT-2	DOT-3	DOT-4	DOT-5	TAGM #4046
Target Analyte List Metals (mg/Kg)						
Aluminum	11500	7420	7400	8780	7880	SB
Antimony	2.94	1.52	1.35	0.97	1.03	SB
Arsenic	2.47	1.74	2.38	2.51	2.39	7.5 or SB
Barium	138	104	70.7	114	74.3	300 or SB
Beryllium	0.794	0.577	0.579	0.611	0.511	0.16 or SB
Cadmium	<0.35	<0.32	<0.35	4.93	<0.32	1 or SB
Chromium	22.3	26.5	31.1	25.7	17.2	10 or SB
Calcium	3290	10200	14400	14500	29200	SB
Iron	21800	18700	20500	19900	14900	2,000 or SB
Cobalt	13.2	20	24.2	16	6.54	30 or SB
Copper	41.8	18.9	19.5	33.4	34.8	25 or SB
Lead	50.3	26.5	17.1	136	72.2	SB
Magnesium	7300	39300	50000	27500	18600	SB
Manganese	364	344	383	353	287	SB
Mercury	0.07	0.04	<0.04	0.17	0.07	0.1
Nickel	41.9	317	414	207	13.5	13 or SB
Vanadium	31	21.5	21	26.7	22.4	150 or SB
Selenium	<2.3	<2.1	<2.3	<2.3	<2.1	2 or SB
Potassium	3600	1640	1760	2600	1210	SB
Silver	<0.35	<0.32	<0.35	<0.34	<0.32	SB
Sodium	<349	<322	<351	371	<321	SB
Thallium	<1.8	<1.5	<1.8	<1.8	<1.5	SB
Zinc	102	49	40.4	76.5	94.2	20 or SB

TABLE 7.13-10. SUMMARY OF METALS AND SCREENING DATA FOR SOIL FROM THE NYCDOT PROPERTY AT THE HARLEM RIVER SITE

Parameter	DOT-1	DOT-2	DOT-3	DOT-4	DOT-5	TAGM #4046
Asbestos (%)						
Asbestos by PLM/DS	ND	ND	ND	ND	ND	NA
Field Screening Data						
Radioactivity (mR/hr)	<0.5	<0.5	<0.5	<0.5	<0.5	NA
Volatile Organics [ppm (depth in ft.)]	1.0 (3.0)	2.1 (3.0)	3.4 (3.0)	0.9 (7.5)	2.2 (6.0)	NA
Observations	Dark sediment at 5.5-8 ft				Creosote odor	NA

Notes: * = Samples selected for comprehensive organics analysis; SB = site background; ND = not detected; NA = not applicable

TABLE 7.13-10. SUMMARY OF METALS AND SCREENING DATA FOR SOIL FROM THE NYCDOT PROPERTY AT THE HARLEM RIVER SITE

Parameter	DOT-6*	DOT-7	DOT-8	DOT-10*	DOT-13	TAGM #4046
Target Analyte List Metals (mg/Kg)						
Aluminum	9810	7740	8420	7760	6320	SB
Antimony	1.22	0.988	1.38	1.1	1.01	SB
Arsenic	1.24	1.65	1.58	3.71	1.59	7.5 or SB
Barium	88.4	86.2	122	108	117	300 or SB
Beryllium	0.694	0.561	0.566	0.522	0.419	0.16 or SB
Cadmium	<0.32	<0.31	<0.32	<0.31	<0.31	1 or SB
Chromium	18.5	32.1	47.7	20.7	15.3	10 or SB
Calcium	13100	16200	11000	13100	9110	SB
Iron	19500	17100	19000	17800	16000	2,000 or SB
Cobalt	11.8	14.2	16.3	8.2	5.78	30 or SB
Copper	28.5	30.6	24.3	47.4	28.7	25 or SB
Lead	27.9	31	101	109	57.3	SB
Magnesium	12400	26500	30500	9340	5470	SB
Manganese	344	284	324	265	288	SB
Mercury	<0.04	<0.04	0.07	0.16	0.05	0.1
Nickel	40.3	171	196	27.2	18	13 or SB
Vanadium	24.7	28.7	28.3	25.2	19.1	150 or SB
Selenium	<2.1	<2.1	<2.1	<2.1	<2.1	2 or SB
Potassium	3010	2880	2510	2610	762	SB
Silver	<0.32	<0.31	<0.32	<0.31	<0.31	SB
Sodium	354	402	<318	<312	336	SB
Thallium	<1.5	<1.5	<1.5	<1.5	<1.5	SB
Zinc	55.3	57.5	77.4	155	77.4	20 or SB

TABLE 7.13-10. SUMMARY OF METALS AND SCREENING DATA FOR SOIL FROM THE NYCDOT PROPERTY AT THE HARLEM RIVER SITE

Parameter	DOT-6*	DOT-7	DOT-8	DOT-10*	DOT-13	TAGM #4046
Asbestos (%)						
Asbestos by PLM/DS	ND	ND	ND	ND	ND	NA
Field Screening Data						
Radioactivity (mR/hr)	<0.5	<0.5	<0.5	<0.5	<0.5	NA
Volatile Organics [ppm (depth in ft.)]	8.8 (8.0)	1.6 (3.0)	1.4 (1.0)	2.1 (7.0)	0.6 (3.0)	NA
Observations		Timber at 2.5 ft			Bricks at 2-4 ft	NA

Notes: * = Samples selected for comprehensive organics analysis; SB = site background; ND = not detected; NA = not applicable

TABLE 7.13-10. SUMMARY OF METALS AND SCREENING DATA FOR SOIL FROM THE NYCDOT PROPERTY AT THE HARLEM RIVER SITE

Parameter	DOT-14	DOT-15	DOT-16*	DOT-17	DOT-18*	TAGM #4046
Target Analyte List Metals (mg/Kg)						
Aluminum	4250	10200	6850	9350	13200	SB
Antimony	<0.9	1.05	<0.9	0.95	1.25	SB
Arsenic	1.51	1.58	2.1	2.96	2.33	7.5 or SB
Barium	38.5	96.4	72.6	131	115	300 or SB
Beryllium	0.382	0.646	0.504	0.482	0.645	0.16 or SB
Cadmium	<0.32	<0.32	<0.32	<0.30	<0.36	1 or SB
Chromium	10.5	22.6	16.6	24.4	35.8	10 or SB
Calcium	2780	8230	19700	5870	15800	SB
Iron	10600	20300	12900	18500	23400	2,000 or SB
Cobalt	5.2	13	7.15	14.6	15.2	30 or SB
Copper	15.2	28.7	31.3	30.7	34.2	25 or SB
Lead	42.4	51.8	45.2	49.4	40.5	SB
Magnesium	2600	13100	10800	18200	16800	SB
Manganese	230	411	241	347	405	SB
Mercury	<0.04	<0.04	0.09	<0.04	0.19	0.1
Nickel	11.2	63.2	36.8	137	101	13 or SB
Vanadium	13.4	29	21.7	26.8	41.2	150 or SB
Selenium	<2.2	<2.1	<2.2	<2.0	<2.4	2 or SB
Potassium	776	3700	1720	3120	4510	SB
Silver	<0.32	<0.32	<0.32	<0.30	<0.36	SB
Sodium	<324	<321	442	<301	390	SB
Thallium	<1.5	<1.5	<1.5	<1.5	<1.8	SB
Zinc	42.3	71.1	62.7	69.5	128	20 or SB

TABLE 7.13-10. SUMMARY OF METALS AND SCREENING DATA FOR SOIL FROM THE NYCDOT PROPERTY AT THE HARLEM RIVER SITE

Parameter	DOT-14	DOT-15	DOT-16*	DOT-17	DOT-18*	TAGM #4046
Asbestos (%)						
Asbestos by PLM/DS	ND	ND	ND	ND	ND	NA
Field Screening Data						
Radioactivity (mR/hr)	<0.5	<0.5	<0.5	<0.5	<0.5	NA
Volatile Organics [ppm (depth in ft.)]	3.1 (3.0)	3.2 (4.0)	<0.5 (11.0)	<0.5 (1.0)	<0.5 (6.0)	NA
Observations	Bricks at 3-4 ft		Creosote odor		Dark sediment at 12-16 ft	NA

Notes: * = Samples selected for comprehensive organics analysis; SB = site background; ND = not detected; NA = not applicable

TABLE 7.13-10. SUMMARY OF METALS AND SCREENING DATA FOR SOIL FROM THE NYCDOT PROPERTY AT THE HARLEM RIVER SITE

Parameter	DOT-19*	DOT-20	DOT-21*	DOT-22	DOT-23	TAGM #4046
Target Analyte List Metals (mg/Kg)						
Aluminum	6780	4350	9610	7030	5610	SB
Antimony	0.953	<0.9	0.935	<0.9	<0.9	SB
Arsenic	2.81	1.21	1.4	1.58	1.74	7.5 or SB
Barium	200	54.5	108	49.6	77.3	300 or SB
Beryllium	0.491	0.475	0.626	0.445	0.431	0.16 or SB
Cadmium	<0.32	<0.32	<0.33	<0.34	<0.33	1 or SB
Chromium	17.4	13.9	20.6	19	21.8	10 or SB
Calcium	15600	3040	9310	7540	8160	SB
Iron	15300	10200	18700	14000	14800	2,000 or SB
Cobalt	7.83	6.69	11.3	9.67	13.6	30 or SB
Copper	25.7	17.2	29.8	21.5	18.8	25 or SB
Lead	76.4	15.8	46.4	24	31.1	SB
Magnesium	3800	5350	9180	12500	24000	SB
Manganese	517	253	351	218	276	SB
Mercury	0.1	<0.04	0.06	<0.04	<0.04	0.1
Nickel	15.3	38.3	43.5	95.8	196	13 or SB
Vanadium	20.8	14.6	23.9	17.3	17.9	150 or SB
Selenium	<2.1	<2.2	<2.2	<2.3	<2.2	2 or SB
Potassium	951	1450	2810	1380	1310	SB
Silver	<0.32	<0.32	<0.33	<0.34	<0.33	SB
Sodium	414	490	<326	<338	<332	SB
Thallium	<1.5	<1.5	<1.5	<1.5	<1.5	SB
Zinc	127	31.9	72.3	41.5	48.7	20 or SB

TABLE 7.13-10. SUMMARY OF METALS AND SCREENING DATA FOR SOIL FROM THE NYCDOT PROPERTY AT THE HARLEM RIVER SITE

Parameter	DOT-19*	DOT-20	DOT-21*	DOT-22	DOT-23	TAGM #4046
Asbestos (%)						
Asbestos by PLM/DS	ND	ND	ND	ND	ND	NA
Field Screening Data						
Radioactivity (mR/hr)	<0.5	<0.5	<0.5	<0.5	<0.5	NA
Volatile Organics [ppm (depth in ft.)]	<0.5 (4.0)	3.0 (1.0)	7.0 (1.0)	5.4 (2.0)	<0.5 (4.0)	NA
Observations				Bricks at 2-2.5 ft		NA

Notes: * = Samples selected for comprehensive organics analysis; SB = site background; ND = not detected; NA = not applicable

TABLE 7.13-11. STASTICAL SUMMARY OF METALS IN SOIL FROM THE NYCDOT PROPERTY AT THE HARLEM RIVER SITE

Metal (mg/Kg)	No.	Min	Max	Mean	Standard Deviation	Relative Std Deviation	Median	Geometric Mean	TAGM #4046
Aluminum	24	4250	13200	7883.750	2125.644	0.27	7820	7602.327	SB
Antimony	19	0.935	2.94	1.289	0.482	0.37	1.1	1.229	SB
Arsenic	24	0.953	3.71	2.048	0.679	0.33	1.92	1.943	7.5 or SB
Barium	24	38.5	200	92.663	35.532	0.38	87.3	86.638	300 or SB
Beryllium	24	0.321	1.01	0.566	0.144	0.25	0.5635	0.550	0.16 or SB
Cadmium	1	4.93	4.93	4.930			4.93	4.930	1 or SB
Chromium	24	10.5	47.7	22.079	8.076	0.37	19.8	20.909	10 or SB
Calcium	24	1270	29200	10278.750	6461.824	0.63	9210	8205.442	SB
Iron	24	10200	23400	17129.167	3500.122	0.20	18150	16749.564	2,000 or SB
Cobalt	24	5.2	24.2	11.492	4.783	0.42	11.1	10.591	30 or SB
Copper	24	15.2	47.4	27.850	7.594	0.27	28.6	26.869	25 or SB
Lead	24	15.8	136	48.725	30.468	0.63	41.45	41.589	SB
Magnesium	24	2600	50000	15214.583	12273.143	0.81	11600	11165.456	SB
Manganese	24	182	517	321.125	78.555	0.24	334	312.015	SB
Mercury	14	0.04	0.19	0.090	0.049	0.55	0.07	0.079	0.1
Nickel	24	11.2	414	96.542	105.422	1.09	42.7	56.166	13 or SB
Vanadium	24	13.4	41.2	23.329	6.026	0.26	22.85	22.618	150 or SB
Selenium	0	0	0						2 or SB
Potassium	24	762	4510	2103.292	1007.620	0.48	1710	1879.487	SB
Silver	0	0	0						SB
Sodium	8	336	490	399.875	49.594	0.12	396	397.263	SB
Thallium	0	0	0						SB
Zinc	24	31.9	155	70.692	31.152	0.44	66.1	65.132	20 or SB
Percent Solids	24	81.2	91.5	87.679	2.608	0.03	87.95	87.642	N/A

Notes: No. = number of samples where analyte was detected

TABLE 7.13-12. SUMMARY OF ORGANIC CONSTITUENTS IN SOIL FROM THE NYCDOT PROPERTY AT THE HARLEM RIVER SITE

Parameter	DOT-6	DOT-10	DOT-16	DOT-18	DOT-19	DOT-21	TAGM #4046
Volatile Organics (µg/Kg)							
Acetone	ND	ND	ND	16800	ND	ND	200
Benzene	ND	ND	ND	ND	216	ND	60
Semi-volatile Organics (µg/Kg)							
Benzo(a)anthracene	ND	ND	1040	491	789	ND	224
Benzo(b)fluoranthene	ND	ND	1440	770	1250	543	1100
Benzo(a)pyrene	ND	ND	865	ND	878	ND	61
Chrysene	ND	ND	1040	488	878	284	400
Fluoranthene	ND	ND	3240	ND	1220	ND	50000
Fluorene	ND	ND	ND	ND	ND	ND	50000
Phenanthrene	ND	ND	6050	ND	ND	ND	50000
Pyrene	ND	ND	2440	ND	1520	ND	50000
Pesticides (µg/Kg)	ND	ND	ND	ND	ND	ND	
PCBs (µg/Kg)	ND	ND	ND	ND	ND	ND	
Modified 8015 for Diesel (mg/Kg)							
TPH-DIESEL	ND	25.9	71.5	132	268	16.2	
Modified 8015 for BTEX, TPH (µg/Kg)							
BTEX & TPH as Gasoline	ND	ND	ND	ND	ND	ND	

Notes: ND = not detected; **BOLD** = Exceedences

Visual observations, field screening, and metals data suggest that the soil at the NYCDOT property is highly variable. This variability may be attributed to the sources of material used to fill the area in the 1960s thus creating this land mass from what was a river cove, and subsequent activities that may have taken place on the property that could have resulted in the localized release of hazardous materials (e.g., fuel spills, waste disposal) to the environment.

The distribution of metals in the soil at the NYCDOT property appears to have been impacted by anthropogenic sources. Realizing the site has been disturbed for a number of years and the surrounding area has been the subject of numerous large construction projects (e.g., U.S. Ship Canal, various rail lines, University Heights Bridge, Major Deegan Expressway), it is virtually impossible to establish a representative site background concentration for each metal analyte. Nonetheless, inspection of the metals data and evaluation of the concentration trends suggests that beryllium, cadmium, chromium, nickel, and zinc are present at elevated concentrations and may warrant management procedures.

Two volatile organic compounds, acetone and benzene, were detected in two soil samples from the NYCDOT property. Acetone was found in a single soil sample (DOT-16) at a significantly high concentration (16,800 µg/Kg). Realizing that acetone is highly volatile, readily evaporates in an environmental setting, and was not used during sampling, it is likely that the acetone detected in the sample was a laboratory contaminant. Benzene was also found in a single soil sample (DOT-19) and although it is also a volatile organic compound, its presence in subsurface soils may be the result of previous petroleum hydrocarbon fuel (e.g., gasoline) spills.

A series of semi-volatile organic compounds, polynuclear aromatic hydrocarbons (PAHs), were detected in four soil samples collected on the NYCDOT property. PAHs such as benzo(a)pyrene, chrysene, phenanthrene, etc. were found in soil samples DOT-16, DOT-18, DOT-19, and DOT-21. These compounds are often associated with less volatile petroleum hydrocarbon fuels (e.g., diesel), fuel combustion residues, or other complex organic mixtures such as coal tar.

No pesticides or PCBs were detected in any of the soil samples from the NYCDOT property.

Diesel range TPH was detected in five of the six soil samples from the NYCDOT property. Diesel range TPH represents the combined concentration of a mixture of organic compounds typically representative of the components found in diesel fuel. In addition, other complex organic materials, some of which may be naturally occurring and not associated with petroleum hydrocarbon fuels can also affect the measurement of diesel range TPH. The identification of a series of fuel-related PAHs in four out of the five samples containing diesel range TPH suggests that the soil is probably contaminated with diesel or fuel oil.

A summary of the metals and field screening data for soil samples collected at the XCEL Ready Mix batch plant property is presented in Table 7.13-13. A statistical summary of the metals data is presented in Table 7.13-14. Based on field observations and screening data, six samples (i.e., XCEL-1, -4, -9, -12, -19, -21) were selected for the analysis of volatile and semi-volatile organics, pesticides, PCBs, diesel range total petroleum hydrocarbons (TPH), and gasoline range

TPH including benzene, ethyl benzene, toluene, and total xylenes (BTX). A summary of the organics results is presented in Table 7.13-15.

TABLE 7.13-13. SUMMARY OF METALS AND SCREENING DATA FOR SOIL FROM THE XCEL PROPERTY AT THE HARLEM RIVER SITE

Parameter	X-1*	X-2	X-3	X-4*	X-5	X-6	TAGM #4046
Target Analyte List Metals (mg/Kg)							
Aluminum	10400	11100	10100	12800	10900	13300	SB
Antimony	<2.2	<2.1	<2.2	<2.3	<2.3	<2.0	SB
Arsenic	4.65	3.67	2.27	6.2	12.2	2.64	7.5 or SB
Barium	109	141	70.1	168	132	159	300 or SB
Beryllium	0.505	0.66	0.404	0.589	0.718	0.521	0.16 or SB
Cadmium	<0.33	<0.31	<0.33	0.478	<0.34	<0.31	1 or SB
Chromium	29.5	20.4	20.7	31.4	35.4	32.5	10 or SB
Calcium	20300	5890	6050	7980	8650	7630	SB
Iron	17600	20000	14700	21800	18600	24000	2,000 or SB
Cobalt	9.28	16.1	8.34	11.2	9.85	16.6	30 or SB
Copper	29	61.1	18.1	119	30.3	64.9	25 or SB
Lead	63.1	42.6	20.8	123	59	28.2	SB
Magnesium	12600	6640	8690	6630	4920	8850	SB
Manganese	329	205	291	286	270	308	SB
Mercury	0.11	0.09	0.07	0.21	0.22	0.22	0.1
Nickel	20.5	25.7	15.7	25.4	22.7	27.3	13 or SB
Vanadium	37.1	30.1	28.7	50.6	44.2	45.9	150 or SB
Selenium	<2.2	<2.1	<2.2	<2.3	<2.3	<2.0	2 or SB
Potassium	3310	6670	1850	2770	3080	6380	SB
Silver	<0.33	<0.31	<0.33	<0.34	<0.34	<0.31	SB
Sodium	624	435	825	763	282	340	SB
Thallium	<1.7	<1.6	<1.6	<1.7	<1.7	<1.5	SB
Zinc	137	180	55.5	229	90.2	80	20 or SB
Asbestos (%)							
Asbestos by PLM/DS	ND	ND	ND	ND	ND	ND	NA
Field Screening Data							
Radioactivity (mR/hr)	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	NA
Volatile Organics [ppm (depth in ft.)]	18.4 (10.0)	12.3 (2.0)	13.6 (4.0)	17.1 (2.0)	14 (8.0)	7.2 (2.0)	NA
Observations	Fill at 2-8 ft					Marble pieces at 4-10 ft	NA

Notes: * = Samples selected for comprehensive organics analysis; SB= site background; ND=not detected; **BOLD** = exceedance

**TABLE 7.13-13. SUMMARY OF METALS AND SCREENING DATA FOR SOIL FROM
THE XCEL PROPERTY AT THE HARLEM RIVER SITE**

Parameter	X-7	X-8	X-9*	X-10	X-11	TAGM #4046
Target Analyte List Metals (mg/Kg)						
Aluminum	11000	7670	11900	9990	16100	SB
Antimony	<2.3	<2.2	<2.2	<2.2	<2.1	SB
Arsenic	4.23	4.63	3.18	5.07	3.65	7.5 or SB
Barium	265	78.3	93.1	93.1	145	300 or SB
Beryllium	0.495	0.435	0.487	0.618	0.598	0.16 or SB
Cadmium	0.569	<0.33	<0.33	<0.33	<0.32	1 or SB
Chromium	40.6	28.3	41.5	36.6	57.6	10 or SB
Calcium	13700	45300	3910	29500	7350	SB
Iron	19000	11700	18400	20100	27500	2,000 or SB
Cobalt	9.76	6.75	11.2	9.74	14.6	30 or SB
Copper	48.5	31.3	24.8	62.1	50.7	25 or SB
Lead	160	53	40	103	40.3	SB
Magnesium	6870	10800	6220	14400	12700	SB
Manganese	264	179	329	252	429	SB
Mercury	0.23	0.34	0.09	0.27	0.17	0.1
Nickel	22.9	18.4	25.3	26.2	30.9	13 or SB
Vanadium	37	35.4	36.3	36.7	64.1	150 or SB
Selenium	<2.3	<2.2	<2.2	<2.2	<2.1	2 or SB
Potassium	2610	2600	3370	4220	8500	SB
Silver	<0.35	<0.33	<0.33	<0.33	<0.32	SB
Sodium	441	551	257	442	345	SB
Thallium	<1.7	<1.6	<1.6	<1.6	<1.6	SB
Zinc	187	68.5	89.1	130	151	20 or SB
Asbestos (%)						
Asbestos by PLM/DS	ND	ND	ND	ND	ND	NA
Field Screening Data						
Radioactivity (mR/hr)	<0.5	<0.5	<0.5	<0.5	<0.5	NA
Volatile Organics [ppm (depth in ft.)]	17.1 (2.0)	13.7 (1.0)	35.6 (5.0)	14.0 (7.0)	20.9 (5.0)	NA
Observations	Bricks at 2-4 ft	Bricks, wood at 1-4 ft	Diesel odor	Marble pieces at 7-8 ft	Diesel odor; bricks 8-10 ft	NA

Notes: * = Samples selected for comprehensive organics analysis; SB= site background; ND=not detected; **BOLD** = exceedance

**TABLE 7.13-13. SUMMARY OF METALS AND SCREENING DATA FOR SOIL FROM
THE XCEL PROPERTY AT THE HARLEM RIVER SITE**

Parameter	X-12*	X-13	X-14	X-15	X-16	TAGM #4046
Target Analyte List Metals (mg/Kg)						
Aluminum	7960	15000	18900	4840	19500	SB
Antimony	<2.4	<2.1	<2.1	<2.1	2.1	SB
Arsenic	7.67	2.94	2.26	4.27	3.4	7.5 or SB
Barium	66.2	155	223	61.9	271	300 or SB
Beryllium	0.543	0.653	0.683	0.37	0.81	0.16 or SB
Cadmium	<0.37	<0.32	<0.31	1.06	<0.30	1 or SB
Chromium	25.8	31.2	67.7	17.1	92.9	10 or SB
Calcium	56100	5130	17600	57800	11700	SB
Iron	9410	24300	28200	12800	30700	2,000 or SB
Cobalt	4.29	15.1	17	4.03	21.2	30 or SB
Copper	26.8	34.8	24.1	31.5	45.1	25 or SB
Lead	165	29.2	40.5	43.2	54.7	SB
Magnesium	6770	6550	16400	9430	18300	SB
Manganese	209	292	428	161	322	SB
Mercury	5.14	0.07	0.09	0.13	0.19	0.1
Nickel	14.1	25.9	35.8	21.8	68.8	13 or SB
Vanadium	34.1	45.8	66.4	16.7	96.7	150 or SB
Selenium	<2.4	<2.1	<2.1	<2.1	<2.0	2 or SB
Potassium	1480	4340	11000	975	8090	SB
Silver	<0.37	<0.32	<0.31	<0.32	<0.30	SB
Sodium	743	255	370	349	1060	SB
Thallium	<1.8	<1.6	<1.6	<1.6	<1.5	SB
Zinc	91.7	72.3	85.4	72.6	112	20 or SB
Asbestos (%)						
Asbestos by PLM/DS	ND	ND	ND	ND	ND	NA
Field Screening Data						
Radioactivity (mR/hr)	<0.5	<0.5	<0.5	<0.5	<0.5	NA
Volatile Organics [ppm (depth in ft.)]	11.6 (6.0)	18.6 (6.0)	16.4 (5.0)	10 (2.0)	10 (8.0)	NA
Observations	Fill, bricks at 6-10 ft			Fill 2-4 ft	at Dark sediment at 8-10 ft	NA

Notes: * = Samples selected for comprehensive organics analysis; SB= site background; ND=not detected; **BOLD** = exceedance

**TABLE 7.13-13. SUMMARY OF METALS AND SCREENING DATA FOR SOIL FROM
THE XCEL PROPERTY AT THE HARLEM RIVER SITE**

Parameter	X-17	X-18	X-19*	X-20	X-21*	TAGM #4046
Target Analyte List Metals (mg/Kg)						
Aluminum	13800	12000	14400	16300	9270	SB
Antimony	<2.3	<2.2	<2.2	22.7	<2.3	SB
Arsenic	3.81	3.99	6.25	4.77	5.42	7.5 or SB
Barium	166	216	283	322	159	300 or SB
Beryllium	0.509	0.431	0.675	0.686	0.452	0.16 or SB
Cadmium	<0.34	<0.33	<0.33	1.38	<0.34	1 or SB
Chromium	30.2	26.9	57.4	44.9	26	10 or SB
Calcium	4940	4600	4480	12000	5980	SB
Iron	23100	20900	30900	30800	17100	2,000 or SB
Cobalt	10.1	11.3	15.6	18.8	8.21	30 or SB
Copper	100	27.4	46.1	57	58.4	25 or SB
Lead	290	114	199	143	232	SB
Magnesium	9920	6470	8600	11500	4860	SB
Manganese	393	345	386	329	278	SB
Mercury	0.04	0.15	0.23	0.15	0.4	0.1
Nickel	21	21.3	35.7	31.5	19.1	13 or SB
Vanadium	44.2	37.8	66.3	104	34.9	150 or SB
Selenium	<2.3	<2.2	<2.2	<2.1	<2.3	2 or SB
Potassium	4300	3960	6310	8640	2240	SB
Silver	<0.34	<0.33	<0.33	<0.31	<0.34	SB
Sodium	352	467	409	455	551	SB
Thallium	<1.7	<1.7	<1.7	<1.5	<1.7	SB
Zinc	188	308	483	344	153	20 or SB
Asbestos (%)						
Asbestos by PLM/DS	ND	ND	ND	ND	ND	NA
Field Screening Data						
Radioactivity (mR/hr)	<0.5	<0.5	<0.5	<0.5	<0.5	NA
Volatile Organics [ppm (depth in ft.)]	11.1 (8.0)	17.1 (8.0)	11.8 (6.0)	8.5 (5.0)	10.4 (8.0)	NA
Observations	Bricks at 10 ft	Dark sediment at 8-10 ft	Pungent odor; bricks at 10 ft	Fill at 2-4 ft	Dark sediment at 8-10 ft	NA

Notes: * = Samples selected for comprehensive organics analysis; SB= site background; ND=not detected; **BOLD** = exceedance

TABLE 7.13-14. STASTICAL SUMMARY OF METALS IN SOIL FROM THE XCEL PROPERTY AT THE HARLEM RIVER SITE

Metal (mg/Kg)	No.	Min	Max	Mean	Standard Deviation	Relative Std Deviation	Median	Geometric Mean	TAGM #4046
Aluminum	21	4840	19500	12249.048	3641.542	0.30	11900	11695.415	SB
Antimony	2	2.1	22.7	12.400	14.566	1.17	12.4	6.904	SB
Arsenic	21	2.26	12.2	4.627	2.206	0.48	4.23	4.256	7.5 or SB
Barium	21	61.9	322	160.795	76.824	0.48	155	143.528	300 or SB
Beryllium	21	0.37	0.81	0.564	0.118	0.21	0.543	0.552	0.16 or SB
Cadmium	4	0.478	1.38	0.872	0.424	0.49	0.8145	0.794	1 or SB
Chromium	21	17.1	92.9	37.838	18.084	0.48	31.4	34.631	10 or SB
Calcium	21	3910	57800	16028.095	16838.883	1.05	7980	10798.186	SB
Iron	21	9410	30900	21029.048	6245.040	0.30	20100	20074.157	2,000 or SB
Cobalt	21	4.03	21.2	11.860	4.629	0.39	11.2	10.907	30 or SB
Copper	21	18.1	119	47.190	25.370	0.54	45.1	41.949	25 or SB
Lead	21	20.8	290	97.314	75.681	0.78	59	73.644	SB
Magnesium	21	4860	18300	9434.286	3731.711	0.40	8690	8801.994	SB
Manganese	21	161	429	299.286	74.414	0.25	292	289.872	SB
Mercury	21	0.04	5.14	0.410	1.088	2.65	0.17	0.176	0.1
Nickel	21	14.1	68.8	26.476	11.275	0.43	25.3	24.915	13 or SB
Vanadium	21	16.7	104	47.286	21.540	0.46	37.8	43.432	150 or SB
Selenium	0	0	0						2 or SB
Potassium	21	975	11000	4604.524	2725.471	0.59	3960	3862.824	SB
Silver	0	0	0						SB
Sodium	21	255	1060	491.238	208.171	0.42	441	455.775	SB
Thallium	0	0	0						SB
Zinc	21	55.5	483	157.490	107.621	0.68	130	132.054	20 or SB
Percent Solids	21	79.7	90.4	85.957	3.068	0.04	86.3	85.905	N/A

Notes: No. = number of samples where analyte was detected; **BOLD** = exceedences

TABLE 7.13-15. SUMMARY OF ORGANIC CONSTITUENTS IN SOIL FROM THE XCEL PROPERTY AT THE HARLEM RIVER SITE

Parameter	X-1	X-4	X-9	X-12	X-19	X-21	TAGM #4046
Volatile Organics (µg/Kg)							
Ethylbenzene	ND	ND	1040	ND	ND	ND	5500
Isopropylbenzene	ND	ND	1030	ND	ND	ND	
n-Propylbenzene	ND	ND	2190	ND	ND	ND	
1,2,4-Trimethylbenzene	ND	ND	8170	ND	ND	ND	
sec-Butylbenzene	ND	ND	2120	ND	ND	ND	
n-Butylbenzene	ND	ND	2810	ND	ND	ND	
Naphthalene	ND	1470	6470	ND	ND	ND	13000
Semi-volatile Organics (µg/Kg)							
Benzo(b)fluoranthene	ND	693	ND	ND	ND	ND	1100
Benzo(k)fluoranthene	ND	724	ND	ND	ND	ND	1100
bis(2-Ethylhexyl) phthalate	ND	9580	ND	ND	ND	ND	50000
Chrysene	296	404	ND	ND	ND	ND	400
Di-n-butylphthalate	ND	5290	ND	ND	ND	ND	8100
Pesticides and PCBs (µg/Kg)							
4,4'-DDD	ND	115	ND	ND	ND	ND	2900
4,4'-DDE	ND	4.79	ND	ND	ND	ND	2100
Modified 8015 for Diesel (mg/Kg)							
TPH-DIESEL	118	67.7	8380	444	102	75.8	NA
Modified 8015 for BTEX, TPH (µg/Kg)							
Ethylbenzene	ND	ND	998	ND	ND	ND	NA
Total Xylenes	ND	ND	349	ND	ND	ND	NA
TPH as Gasoline	ND	ND	1440000	55700	15000	13700	NA

Notes: ND = not detected; **BOLD** = exceedences

Similar to the soil characteristics observed for the NYCDOT property, visual observations, field screening, and metals data suggest the soil at the XCEL Ready Mix concrete batch plant property is also highly variable. Unlike the NYCDOT property that is primarily fill material, most of the land area at batch plant is natural at least since the 1890s when the U.S. Ship Canal was constructed. The variability in the concentration of metals in the soil is more likely due to localized releases of hazardous materials such as fuel spills or residues from previous waste disposal practices. In general, the concentrations of most metals detected in the soil at the batch plant property are considerably higher than the concentrations observed at the NYCDOT property. Based on the distribution of metals in the soil at the batch plant property and a comparison to concentration levels observed at the NYCDOT property, aluminum, antimony, beryllium, chromium, copper, lead, manganese, and zinc are slightly elevated to potentially warrant management methods.

Several volatile organic compounds were detected in two soil samples from the batch plant property. Sample X-9 contained a related series of aromatic compounds (e.g., ethylbenzene, propylbenzene, butylbenzene, naphthalene). A likely source of these types of volatile aromatic compounds is gasoline. Sample X-4 only contained naphthalene, an organic compound that may be considered volatile or semi-volatile depending on the analytical method used, but it is typically associated with less volatile fuels such as diesel or fuel oil.

Soil sample X-4 also contained five semi-volatile organic compounds. Two phthalate esters were detected in sample X-4 that may have resulted from plastic residues or plastic-related waste. In addition, three PAH compounds were detected in sample X-4. The PAH compounds are likely to have originated from petroleum hydrocarbon fuels such as diesel, fuel oil, residues from the combustion of these fuels, or other complex organic mixtures such as coal tar. One of the PAH compounds detected in soil sample X-4 was also detected in sample X-1.

Two chlorinated pesticide compounds, 4,4'-DDD and 4,4'-DDE, were detected at low levels in soil sample X-4. Dichlorodiphenyldichloroethylene (DDE) and dichlorodiphenyl-dichloroethane (DDD) are chemicals similar to dichlorodiphenyltrichloroethane (DDT) that contaminate commercial DDT preparations. DDE has no commercial use. DDD was used to kill pests, but its use, like that of DDT, has been banned. Both DDD and DDE can enter the environment as contaminant or breakdown products of DDT. DDD and DDE were also found in river sediment samples S-3 and S-4 collected offshore from the XCEL Ready Mix property. It is not known if DDT may have been applied in this area prior to its ban for use in 1972, used illegally after 1972, or originated from waste disposal residues previously deposited in this area.

Diesel range TPH were detected in all six soil samples collected on the batch plant property. As indicated above, diesel range TPH represents the combined concentration of a mixture of organic compounds typically representative of the components found in diesel fuel. The identification of a series of fuel-related PAH in sample X-4 suggests that the soil in this area is probably contaminated with diesel or fuel oil.

Gasoline range TPH were detected in four of the six soil samples collected at the batch plant property. Analogous to diesel range TPH, gasoline range TPH represent the combined concentration of a mixture of organic compounds typically found in gasoline and are more volatile than the compounds found in diesel. The identification of a series of volatile organic compounds in sample X-9, along with gasoline range TPH, suggests that the soil in this area is contaminated with a volatile fuel such as gasoline. Although several other XCEL Ready Mix soil samples exhibited elevated gasoline range TPH levels, the absence of gasoline-related volatile organic compounds suggest that the TPH levels may be related to other organic materials or highly weathered petroleum fuels (i.e., oil).

Groundwater. In 2002, NYCDEP conducted a geotechnical investigation at the Harlem River Site including a comprehensive soil boring program to document the subsurface lithology particularly related to the depth and competency of bedrock at the water treatment plant site. Selected borings were either made into piezometers to monitor various characteristics of underlying water-bearing zones (i.e., hydraulic conductivity, transmissivity) or completed as monitoring wells. Five wells and piezometers were selected as groundwater sampling points. In

addition, groundwater was obtained at a soil sampling location at the batch plant property (i.e., X-18) without the construction of a piezometer or monitoring well. A total of six locations on the NYCDOT and batch plant properties were sampled in 2002 to characterize groundwater quality. Table 7.13-16 provides a summary of groundwater testing results. A complete description of the well locations, site conditions, and findings is provided in the Harlem River Site Sampling and Analysis Report (Appendix E). The following describes significant groundwater findings.

TABLE 7.13-16. SUMMARY OF HARLEM RIVER SITE GROUNDWATER TESTING RESULTS

Parameter	NHR-1 DOT	MW-64 DOT	MW-77 Xcel	MW-4 Xcel	P-94 Xcel	X-18 Xcel
Volatile Organics (µg/L)						
Methyl tertbutyl Ether	1710	ND	ND	ND	ND	ND
Benzene	131	ND	ND	ND	ND	ND
Naphthalene	ND	ND	ND	18.4	ND	130
Semi-volatile Organics (µg/L)						
Butyl Benzyl Phthalate	ND	ND	ND	ND	5.7	6.8
Dimethyl Phthalate	ND	ND	12.3	ND	ND	ND
Fluorene	ND	ND	ND	ND	ND	10
Naphthalene	ND	ND	ND	ND	ND	79
2-Methylnaphthalene	ND	ND	ND	ND	ND	29
Phenanthrene	ND	ND	ND	ND	ND	23
PCBs (µg/L)	ND	ND	ND	ND	ND	ND
Pesticides (µg/L)	ND	ND	ND	ND	ND	ND
Target Analyte List Metals (mg/L)						
Aluminum	0.636	0.662	20.7	3.57	47.3	73.8
Antimony	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Barium	0.676	0.0470	0.557	0.110	0.594	1.05
Arsenic	<0.010	<0.010	<0.010	<0.010	0.0134	0.029
Beryllium	<0.0025	<0.0025	<0.0025	<0.0025	0.00428	0.0035
Cadmium	<0.0011	<0.0011	0.00239	<0.0011	<0.0011	0.0029
Chromium	<0.0060	<0.0060	0.0599	0.0175	0.160	0.1866
Calcium	216	80.3	178	133	655	146
Copper	0.0116	<0.0050	0.0256	0.0228	0.0760	0.204
Cobalt	<0.050	<0.050	<0.050	<0.050	<0.050	0.0559
Iron	6.96	1.09	60.2	4.76	62.1	114
Magnesium	140	30.7	31.2	175	79.6	33.1
Lead	<0.0100	<0.0100	0.0680	0.0138	0.0639	1.81
Manganese	1.41	0.110	3.39	1.25	1.28	2.22
Mercury	<0.0002	<0.0002	0.000280	<0.0002	<0.0002	0.001124
Nickel	<0.040	<0.040	<0.040	<0.040	0.0798	0.134
Potassium	24.2	21.9	41.2	158	39.7	23.5

TABLE 7.13-16. SUMMARY OF HARLEM RIVER SITE GROUNDWATER TESTING RESULTS

Parameter	NHR-1 DOT	MW-64 DOT	MW-77 Xcel	MW-4 Xcel	P-94 Xcel	X-18 Xcel
Sodium	347	230	1220	1670	222	217
Silver	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Selenium	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
Zinc	<0.030	<0.030	0.0629	0.196	1.81	1.77
Thallium	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
Vanadium	<0.050	<0.050	0.0687	<0.050	0.156	0.213

Notes: ND = not detected

Groundwater samples were obtained from two wells (NHR-1, MW-64) on the NYCDOT property in January 2003 and analyzed for volatile and semi-volatile organic compounds, pesticides, PCBs, and metals. Two volatile organic compounds, methyl tert-butyl ether (MTBE) and benzene, were detected in the groundwater from one well (NHR-1). MTBE is a ubiquitous organic compound, which is commonly added to gasoline during winter months to oxygenate the fuel, enhance combustion, and reduce air emissions. Benzene is a primary volatile component of gasoline. No other organic compounds were detected in the groundwater.

Both MTBE, and to a lesser extent benzene, are soluble in water, and they tend to migrate at nearly the same velocity as the groundwater flow with little or no attenuation by soil particles. The MTBE and benzene may have originated from an on-site gasoline spill or migrated to the site via groundwater transport from one or more upgradient sources (e.g., leaking tanks at gasoline stations). Benzene was detected in one soil sample along with a series of semi-volatile organic compounds (i.e., polynuclear aromatic hydrocarbons). MTBE was not detected in the soil. Given the relatively high solubility and mobility of MTBE and benzene in groundwater, it is likely that these organic compounds originated from one or more off-site sources although on-site soil contaminants may have contributed to the constituents detected in the groundwater.

Various metals were detected in the groundwater samples from the NYCDOT property. In general, none of the metals are sufficiently concentrated in the groundwater to warrant significant concern. The variability in metals concentrations in the groundwater may be related to the materials that were used to infill the river inlet after 1960 and create the NYCDOT property.

Groundwater samples were obtained from four locations (MW-77, MW-4, P-94, X-18) on the batch plant property and analyzed for volatile and semi-volatile organic compounds, pesticides, PCBs, and metals. Six different organic compounds were detected in the groundwater samples. Two phthalate compounds (i.e., butyl benzyl phthalate, dimethyl phthalate) were detected in two wells (MW-77, P-94). Naphthalene was detected in the groundwater from two locations (MW-4, X-18). Several other polynuclear aromatic hydrocarbons (e.g., fluorene, phenanthrene, 2-methylnaphthalene) were also detected in the groundwater from X-18.

The phthalate esters found in the groundwater are commonly present in the environment and may result from anthropogenic and perhaps natural sources. Industrially, phthalate esters are often used as plasticizers in the manufacture of various plastic products. Since the Harlem River Site does not have a history of plastics manufacturing or of the disposal of large quantities of plastics-related wastes, it is likely that the phthalates detected in the groundwater samples may have been either a residue from wastes disposed in the area or the result of cross-contamination from sampling or analytical processes. The polynuclear aromatic hydrocarbon compounds detected in the groundwater samples are related chemically and may be the result of residues from fuel spills (e.g., diesel, fuel oil) or other organic wastes (e.g., coal tar). These compounds have a relatively high affinity to bind with carbonaceous soil particles, thereby limiting their mobility in groundwater systems.

Various metals were detected in the groundwater samples from the batch plant property. The concentration of the metals exhibited significant variability between samples. The variability may be attributed to past land uses on the property, particularly when wastes were dumped on the site in the mid 1990's.

The Harlem River shoreline from the University Heights Bridge was inspected from a boat to north of the water treatment plant site to identify potential sources of contamination (e.g., outfalls, hazardous waste debris). In addition, the sediment between the shoreline and the U.S. Pier and Bulkhead Line was probed from the boat using a 2-inch diameter steel-coring device to evaluate the condition of the sediment and identify suitable sediment sampling locations. In general, the river bottom exhibits a hard substrate composed of rock, gravel, and hard-packed sand, with little or no organic sediment and silt. These bottom characteristics are not unanticipated since this portion of the river had been excavated in the late 1890's to construct the U.S. Ship Canal and is subject to swift tidal currents that potentially scour the river bottom.

Four locations (S-1, S-2, S-3, and S-4) were found where suitable sediment could be recovered for chemical analysis. Location S-1 was adjacent to the northern boundary of the NYCDOT property. The other three samples (S-2, S-3, S-4) were collected adjacent to the batch plant property. Although samples of hard substrate materials were recovered using dredging techniques (i.e., Ponar grab), these samples did not contain sufficient sediment to be representative for chemical analysis.

Table 7.13-17 provides a summary of river sediment testing results. A complete description of the sediment sampling locations, river conditions, and findings is provided in the Harlem River Site Sampling and Analysis Report (Appendix E). The following describes significant findings in the sediment testing results. Measured values were compared against the Technical Guidance for Screening Contaminated Sediments (TGSCS), and the Technical and Administrative Guidance Memorandum (TAGM) #4046 - Determination of Soil Cleanup Objectives and Cleanup Levels.

TABLE 7.13-17. SUMMARY OF HARLEM RIVER SEDIMENT TESTING RESULTS

Parameter	S-1	S-2	S-3	S-4	TAGM #4046
Volatile Organics (µg/Kg)					
1,4-Dichlorobenzene	490	ND	ND	ND	8500
Semi-volatile Organics (µg/Kg)					
Benzo(a)anthracene	ND	ND	ND	263	224
Benzo(b)fluoranthene	ND	ND	589	466	1100
Benzo(k)fluoranthene	ND	ND	547	468	1100
Benzo(a)pyrene	ND	ND	ND	320	61
Chrysene	ND	ND	371	295	400
Pesticides (µg/Kg)					
4,4'-DDD	ND	ND	3.34	7.49	2100
4,4'-DDE	ND	ND	2.76	2.66	2100
PCBs (µg/Kg)	ND	ND	ND	ND	NA
Total Petroleum Hydrocarbons Modified 8015 (mg/Kg)					
TPH-Diesel	83.1	184	97.5	244	NA
TPH as Gasoline	ND	ND	ND	21200	NA
Target Analyte List Metals (mg/Kg)					
Aluminum	10500	2170	3590	3210	SB
Antimony	<2.8	9.58	1.33	1.19	SB
Arsenic	6.07	<6.50	2.62	4.60	7.5 or SB
Barium	67.0	29.8	28.7	41.3	300 or SB
Beryllium	0.552	<2.4	<0.45	<0.38	0.16 or SB
Cadmium	0.490	<2.4	<0.45	0.647	1 or SB
Chromium	41.6	22.3	15.4	19.6	10 or SB
Calcium	7640	6410	8000	10100	SB
Iron	20000	5620	7760	8420	2,000 or SB
Cobalt	8.02	<16	3.41	3.68	30 or SB
Copper	77.8	43.1	31.4	41.9	25 or SB
Lead	152	18.8	667	59.1	SB
Magnesium	6980	8150	5390	6780	SB
Manganese	244	186	101	85.4	SB
Mercury	0.60	<0.29	0.27	0.71	0.1
Nickel	22.6	<33	9.50	10.5	13 or SB
Vanadium	24.4	<16.3	8.37	10.3	150 or SB
Selenium	<110	<16	<3.0	<2.6	2 or SB
Potassium	2020	1760	635	672	SB
Silver	1.61	<2.4	0.762	0.844	SB

TABLE 7.13-17. SUMMARY OF HARLEM RIVER SEDIMENT TESTING RESULTS

Parameter	S-1	S-2	S-3	S-4	TAGM #4046
Sodium	3760	31000	1480	973	SB
Thallium	<2.1	<12	<2.2	<1.9	SB
Zinc	213	51.2	55.1	89.3	20 or SB
Percent Solids	51.9	11.5	64.1	71.5	NA

Notes: SB= site background; ND=not detected; NA = not applicable; TAGM #4046: Technical and Administrative Guidance Memorandum #4046, Determination of Soil Cleanup Objectives and Cleanup Levels (1994)

Various organic compounds were detected in the river sediment samples. The sediment sample collected in the river adjacent to the NYCDOT property (S-1) contained 1,4 dichlorobenzene. As a general rule, chlorinated organic compounds are not naturally occurring and the presence of dichlorobenzene in the river sediment may be related to contaminated stormwater discharges or land-based activities in this area.

Several polynuclear aromatic hydrocarbon compounds (PAH) were detected in the sediment samples (S-3, S-4) collected in the river adjacent to the batch plant property. The PAHs are typically associated with petroleum fuels, combustion residues, or other complex organic materials such as coal tar. Two chlorinated pesticides, 4,4'-DDD and 4,4'-DDE were also detected in sediment samples S-3 and S-4. DDE is formed as a degradation product of DDT and is not manufactured as a commercial product. DDD may be produced in an aquatic environment under anaerobic conditions as a result of the biotransformation of DDT. The major fate processes for both DDD and DDE in aquatic environments are bioaccumulation and sorption to sediments and biota.

Diesel range TPH organics were present in all four sediment samples. The TPH analysis represents a gross measurement of combination of numerous organic compounds within a particular boiling point range. Weathered fuels or other complex organic wastes may have impacted the four sediment samples causing the detectable TPH diesel levels.

Numerous metals were detected in the four sediment samples. The concentrations of most of the metals were highly variable from sample to sample. This variability may have been associated with the heterogeneous deposition of sediments or fill materials and the swift tidal current in this area that scour the river bottom and transport fine-grained sediments. Attention is noted to the slightly elevated concentration levels of beryllium, chromium, copper, lead, mercury, silver, and zinc in the sediment, some or all of which may have been caused by anthropogenic sources.

7.13.2.2. Future Without the Project

The Future Without the Project considerations include the anticipated year of peak construction (2009) and the anticipated year of operation (2011) for the proposed plant. In the Future Without the Project, it is anticipated that the water treatment plant site would remain in the hands of multiple property owners.

The property owned by the City of New York and occupied by the NYCDOT provides outdoor storage for surplus equipment and materials and is not occupied on a regular basis. In lieu of the proposed action, the NYCDOT property would probably remain as a storage yard. The property owned by Con Edison would probably continue to be used in its current configuration as long as the electrical and natural gas lines, which cross the Harlem River, remain at that location. The owner of the Butler Lumber Co. property has recently sold the property to a firm that has redeveloped the property as a self-storage facility. The batch plant appears to be a viable business; therefore, no change to the current operation is anticipated. The property owned by the CSX and predecessors has remained virtually undeveloped throughout the 1900s. The site is currently being used for sand and gravel storage.

7.13.3. Potential Impacts

7.13.3.1. Potential Project Impacts

The anticipated year of completion of the proposed water treatment plant is 2011. Therefore, potential project impacts have been assessed by comparing the Future With the Project conditions against the Future Without the Project conditions for the year 2011.

7.13.3.1.1. Water Treatment Chemicals

Chemical facilities would be provided to store and feed the chemicals required to improve filtration, to control corrosion, to prevent dental decay, and to provide secondary disinfection. The facilities would be designed in accordance with New York State Department of Health (NYSDOH), United States Environmental Protection Agency (USEPA), and New York State Department of Environmental Conservation (NYSDEC) requirements at average flow/average dose. Regulatory requirements encompass chemical storage capacity, redundant transfer and feed pumps, and secondary containment of chemicals to protect against potential spills. Currently, transfer pumps and tanks are proposed for the chemical systems to reduce space requirements in the bulk storage tank area; this would be further analyzed during final design. Day tanks are under consideration for sodium hypochlorite, hydrofluorosilicic acid, sodium hydroxide and the corrosion inhibitor. Each chemical system would be divided into two sub-systems, each serving one half of the treatment plant.

The bulk quantities of water treatment chemicals to be stored and used at the proposed plant are summarized in Table 7.13-18. The function of each chemical is briefly described below. Potassium Permanganate would be introduced at Gate House No. 5 at Jerome Park Reservoir, as discussed in Section 8, Off-Site Facilities.

TABLE 7.13-18. BULK STORAGE NEEDS

Chemical	Typical Active Concentration (lbs/gal)	Half Plant						Total
		Design Conditions		Required Design Parameters				Plant
		Average Dose (mg/l)	Average Flow (mgd)	Use (lbs/day)	Use (gal/day)	Required Storage (Days)	Required Storage (Gallons)	Required Storage (Gallons)
Sulfuric acid (77%)	11.08	2.5	75.0	1,565	141	30	4,200	8,500
Aluminum sulfate (48%)	5.32	17.0	75.0	10,640	1,998	30	60,000	120,000
Polyaluminum chloride (33%)	3.30	13.0	75.0	8,136	2,464	30	74,000	148,000
Coagulant polymer (50%)	4.38	1.25	75.0	782	179	30	5,400	10,800
Filter aid polymer (50%)	4.17	0.05	75.0	31	8	30	225	450
Sodium hypochlorite, pre-feed (10%)	0.83	2.0	75.0	1262	1520	15	22,800	45,600
Sodium hypochlorite, Post-feed (10%)	0.83	1.4	72.0	900	1086	15	15,200	30,400
Corrosion inhibitor ⁽¹⁾	3.58	1.0	72.0	601	168	30	5,000	10,100
Sodium hydroxide (50%)	6.42	5.0	72.0	3,004	468	30	14,000	28,100
Hydrofluorosilicic acid (23%)	1.84	1.0	72.0	601	327	30	9,800	19,600
Cationic polymer for dewatering centrifuges (50%)	4.59	16 lbs/ton	0.025	49	10.5	30	315	630
Ferric chloride for dewatering centrifuges (40%)	4.70	5 lbs/ton	0.025	15.4	3.0	30	90	180
Ammonia (Future)(29%)	2.17	0.3	72.0	180	8.3	30	2,490	4,980

⁽¹⁾ Average dose is based on 36% solution as phosphate and 1.0 mg/l dose as phosphate.

- Sulfuric Acid – For pH correction prior to coagulation; fed at first-stage rapid mixer.
- Coagulant – Alum (Aluminum Sulfate) / PACl (Polyaluminum Chloride) – For coagulation; fed at first-stage rapid mixer.
- Coagulant Aid Polymer – As coagulant; fed at second-stage rapid mixer.
- Filter Aid Polymer – As filtration aid; fed at second-stage flocculation tank.
- Sodium Hypochlorite –
 - Pre-Feed: Intermittent feed at first-stage rapid mix. This feed point is optional and would only be used at plant start-up or reactivating a flow train.
 - Intermediate: Pre-filtration for manganese removal; fed at the Dissolved Air Flotation baffle wall.
 - Post-Feed: Secondary and virus disinfection; fed at treated water discharge from the UV chambers.
- Hydrofluorosilicic Acid – To prevent dental decay; fed at treated water discharge from the UV chambers.
- Sodium Hydroxide – For pH adjustment; fed at treated water discharge from the UV disinfection chambers.
- Corrosion Inhibitor (Orthophosphate or Phosphoric Acid) – For corrosion control; fed at treated water discharge from the UV disinfection chambers.
- Ferric Chloride – For solids dewatering; fed at centrifuge.
- Residual Polymer – For solids dewatering; fed at centrifuge.

Chemical system capacities would be based on the chemical usage data from pilot testing¹ and estimates of required dosages for other chemicals. The storage tank volume would be based on 30-day storage for the design usage, except sodium hypochlorite and potassium permanganate, which would be based on 15-day storage. In order to standardize the design of the chemical systems, tanks would be designed for the larger of the 30-day storage volume or 7,000 gallons, except for the filter aid polymer and residual polymer, which would be shipped in totes rather than in tanker trucks. The transfer tank volumes would be based on maximum flow and maximum dose conditions with a 24-hour detention time for all chemicals, except the coagulant and sodium hypochlorite pre-feed/intermediate transfer tanks that would be sized for a 12-hour detention time. All chemical storage tanks would be provided with secondary containment with the capacity to hold at 110 percent of the largest single tank volume in the containment area and include an adequate freeboard. Incompatible chemicals would be stored in separate areas.

Trucks carrying chemicals to the water treatment plant would have to go past a security checkpoint before arriving at the chemical fill station. The trucks would enter the unloading area which can be sealed with rolling doors and then unload its chemicals. There would be also be a chemical containment sump that would be capable of holding a 110 percent of the volume of a truckload of chemicals. The chemicals can later be pumped out of the sump in the event of a spill during unloading. The chemicals used on-site are the same as chemicals routinely trucked throughout the city for water pollution control plants. None of these chemicals are flammable.

¹ New York City Department of Environmental Protection. November 1997. Additional Pilot Studies for the Croton Water Treatment Plant.

The routine and safe transport of these chemicals is well established, and the transport of the water treatment chemicals would not be a potential significant impact.

7.13.3.1.2. Chemical Storage and Delivery

The proposed plant would be designed according to all applicable requirements. Long-term chemical storage needs for the proposed plant would be based on 30-day storage for the average flow rate of water through the proposed plant and the average chemical dose (with the exception of sodium hypochlorite, for which storage would be limited to 15 days to minimize chlorine degradation and prevent chlorate formation). Circular fiberglass reinforced plastic (FRP) tanks would be used to store all chemicals with the exception of the nonionic polymer. Metering pumps to feed the chemicals from the tanks into the process streams would be designed to operate throughout the full range of flow rates and chemical doses. A chemical storage area would be provided in the proposed plant. The storage area would be equipped with additional transfer and metering pump capacity so that individual pump or tank maintenance procedures or failures would not significantly affect the operation of the proposed plant (i.e., taking one pump off-line for maintenance would not disturb the treatment process).

Each chemical would be stored in a separate area with its own secondary spill containment in accordance with NYSDEC regulations. All storage tanks would be registered with NYSDEC. The secondary containment structures would be sized to hold 110 percent of the single largest chemical storage tank and include an adequate freeboard. Incompatible chemicals would be stored in separate areas to avoid the potential for uncontrolled reactions. This procedure minimizes the risk of release that could occur into the environment.

All chemical deliveries made to the proposed plant would be conducted in accordance with New York State Department of Transportation (NYSDOT) regulations. The safety precautions taken by licensed transporters include double-walled tank trucks, spill/fill protection, and chemical-specific training for drivers. Adherence to these precautions minimizes the risk of an accidental spill into the environment. The proposed truck routes are described in Section 7.9, Traffic and Transportation.

Material Safety Data Sheets (MSDS) would be posted in accordance with OSHA's Hazard Communication Standard in conspicuous areas that are easily identifiable to the proposed plant personnel and visitors. Employees would be trained to understand the Community Right-To-Know Policy and their rights under the policy. In addition, records of OSHA training would be maintained on-site.

7.13.3.1.3. Mercury-Containing Ultraviolet Light (UV) Disinfection Lamps

The estimated total number of UV lamps to be contained in the facility is 960 lamps (48 lamps per unit x 20 units). As the useful life of a lamp diminishes, it would need to be replaced. According to the manufacturer's recommendations, the lamp life expectancy ranges between 10,000 and 12,000 hours. According to engineering estimates, each lamp should be changed roughly every 840 days (2.3 years). Approximately 1.14 lamps per day would be changed and generated as waste at the proposed facility (960 lamps/840 days). The lamps would contain a

small amount of mercury, about 0.15 grams each. The weekly quantity of mercury generated would be 0.00264 lbs/week (1.14 lamps/day x 0.15 grams Hg x 7 days/week equals 1.2 grams/week). Lamps containing mercury would be hauled off-site to a USEPA Licensed Recycle Facility. This would be done under contract between the City and the private hauler.

Cleaning of UV lamps is a significant operation and maintenance issue, and its frequency is dependent on the fouling of quartz sleeves. Fouling of sleeves is a result of water quality effects such as precipitation of iron, calcium, aluminum, and manganese salts along with other inorganic and organic constituents. Fouling is also dependent on the type of lamp used; medium pressure lamps operate at much higher temperatures and irradiance concentrations than low-pressure lamps and therefore foul much more quickly. Lamp cleaning fluid would be a food-grade (non-hazardous) acid such as phosphoric acid (currently added to the water supply for corrosion control), which can be discharged to the sewer or hauled off-site for disposal. Approximately 200 gallons per month of phosphoric acid would be used to clean the UV disinfection units. Disposal of spent acid and related liquid waste would be intermittent and is estimated to be 16,000 gallons per month.

7.13.3.1.4. Chemical Spills

During later stages of the planning process, a Health and Safety Plan would be developed for the proposed plant. All employees would be required to review the plan and comply with the requirements outlined within. The Health and Safety Plan would include a task/operations safety and health risk analysis, training requirements, necessary personal protective equipment, the frequency and types of required air monitoring, site control measures and an emergency response/contingency plan. In areas where chemicals are unloaded, drains and spill pads of excess volume capacity would be installed to ensure that large spills are contained on-site. In the event of a spill or release of a hazardous substance, the Hazardous Materials Contingency Plan would be activated, as discussed in greater detail below. The NYSDEC Spill Hotline (1-800-457-7362) is the designated telephone number to call to report any spill. Notification must also be given to the State Emergency Response Commission (SERC), the National Response Center (NRC), and the Local Emergency Planning Committee immediately after the release with a prompt written notification to follow. NYSDEC would also be contacted in writing.

A Hazardous Materials Contingency Plan would be used to respond to hazardous material emergencies outside the proposed plant. As part of this plan, a hazardous materials team of first and secondary responders would be organized. All emergency responders would have training consistent with OSHA standards and would be qualified to respond to hazardous material emergencies. Under the plan, proper action would be taken to assess the scene, isolate the material, define a hot zone, warm zone, and cold zone, identify the material, and determine a containment, cleanup, and decontamination strategy. A hot zone is an area immediately surrounding a hazardous material release, extending far enough to prevent adverse effects from the release to personnel. A warm zone is an area where personnel and equipment decontamination and hot zone support take place. The warm zone includes control points for the access corridor and thus assists in reducing the spread of contamination. A cold zone contains the command post and such other support functions, as deemed necessary to control the incident. Containment includes actions taken to keep the material in its container or stop the release of the

material. Air monitoring would be conducted to determine if certain areas would need to be closed off. Every precaution would be taken to prevent the spread of the material and to safeguard the public and emergency responders.

In the event a chemical spill occurs inside the proposed plant, plant personnel would make proper notification and respond in accordance with the level of training and personal protective equipment that they have received. Sodium hypochlorite, sodium bisulfite, hydrofluorosilicic acid, and ferric chloride are noncombustible and would be cleaned up with appropriate procedures. NYCDEP staff would contain any spills within the facility to the best of their ability. A complete set of MSDS, which provide detailed physical and chemical properties, and safety precautions for each chemical, are provided in the Appendix E.

None of the proposed water treatment chemicals are combustible. Incompatible chemicals would be segregated to avoid the generation of any unstable substance, thereby avoiding the risk of a fire or explosion. The hazardous area several hundred feet around the spill would be cornered off, which would be the only area where the fumes would be hazardous. None of these chemicals volatilize quickly, and any spill scenario, involving any of the water treatment chemicals, does not pose a real danger to the surrounding neighborhood. The only risk would be immediately around the spill; where the liquid would flow and provide potential for direct skin contact. An additional area outside this hot zone would be reserved for cleanup operations (warm and cold, as explained above). The entire cleanup may take up to a day and would disrupt normal operations. Specific details of a typical response depend on the type of accident, quantity spilled, location of the spills, weather patterns, and other variables. The City's emergency personnel routinely train and drill for such emergencies.

7.13.3.1.5. Alternative Chemicals

Alternatives to the chemicals that were selected for the proposed water treatment process are listed in Table 7.13-19. Each alternative chemical and its issue of concern are discussed in more detail below.

Aluminum Sulfate. Aluminum sulfate [$\text{Al}_2(\text{SO}_4)_3 \cdot 18 \text{H}_2\text{O}$], a white to blue-green liquid, could be used as a primary coagulant. Under normal handling and storage conditions, this material is stable. According to the manufacturer, this material may pose a slip hazard. Symptoms of short-term exposure include mild skin and respiratory irritation. Pilot testing revealed that the selected chemical (ferric chloride) provides optimum process performance.

Polyaluminum Chloride (i.e., Westchlor FA 900S). Polyaluminum chloride, a clear white to slightly yellow odorless liquid, could be used as a primary coagulant. This product is considered stable; however, this material reacts with metals including aluminum, zinc, steel, bronze and copper. Contact with caustic soda can result in a highly exothermic (heat generating) reaction. Symptoms of short-term exposure include mild skin and respiratory irritation. Pilot testing revealed that the selected chemical (ferric chloride) provides optimum process performance.

TABLE 7.13-19. ALTERNATIVE TREATMENT PROCESS CHEMICALS

Treatment Objective	Selected Chemical	Alternative Chemical	Comments
Disinfection	Sodium Hypochlorite	Chlorine (gas)	Selected chemical is safer for transporting, handling, and storage.
Coagulant	Ferric Chloride	Aluminum Sulfate or Polyaluminum Chloride	Pilot testing revealed that the selected chemical provides optimum process performance.
Coagulant Aid Polymer	Clarifloc C-138 or equivalent (Cationic Polymer)	Similar products by other manufacturers.	N/A
Flocculant Aid Polymer	Superfloc N-1986 or equivalent (Nonionic Polymer)	Similar products by other manufacturers.	N/A
Secondary Disinfection	Sodium Hypochlorite	Chlorine (gas)	Selected chemical is safer for transporting, handling, and storage.
Fluoridation to prevent tooth decay	Hydrofluoro-silicic Acid	Sodium Fluoride	Alternative chemical results in operational and maintenance difficulty and is supplied as a dry substance rather than a liquid. Liquid is preferred.
Thickening	Percol LT27 or equivalent	Similar products by other manufacturers.	N/A
Dewatering	Percol 778 or equivalent	Similar products by other manufacturers.	N/A

Chlorine Gas. Chlorine (Cl₂) could be used for secondary disinfection. Chlorine is a greenish gas with an acrid odor. Under normal storage and handling conditions, chlorine is stable. However, contact with alkalis, reducing agents, and/or organic materials can produce hydrochloric acid, which is highly corrosive. Symptoms of exposure include respiratory allergic reactions and skin and eye irritation. Chlorine gas is more difficult to control than sodium hypochlorite, and if released, can disperse through the air and travel a considerable distance.

Sodium Fluoride. Sodium fluoride, clear white or blue colored crystals that are odorless, could be used for fluoridation (dental) purposes. This material is considered stable, but it reacts with acids to produce dangerous hydrogen fluoride gas. Symptoms of exposure include respiratory allergic reactions and skin and eye irritation. The use of this alternative chemical results in operational and maintenance difficulty, as it is supplied as a dry substance rather than a liquid.

7.13.3.1.6. Process Laboratory Chemicals

The proposed plant would require a process laboratory for monitoring and controlling the treatment process. The laboratory would be equipped to perform process control water quality tests. The parameters to be measured and their frequency are outlined in Table 7.13-20.

TABLE 7.13-20. PROCESS LABORATORY CHEMICAL USAGE AND WASTE DISPOSAL

Analysis	Method ⁽¹⁾	Required Reagents	Quantity	Daily Waste Discharges Type	Disposal Method
Turbidity	SM180.1	None		Water	Sewer
Color	SM204	None		Water	Sewer
pH	SM424	None		Water	Neutralizing sink/ sewer
Alkalinity	SM403	0.02 N Sulfuric Acid (1 L)	Approx. 100 ml per sample per day	Solution	Neutralizing sink/ sewer
Particle Count	Laser Diode Technology	None		Water	Sewer
Iron	SM310A	FerroVer ⁽²⁾	Approx. 10 ml per sample per day	Solution	Neutralizing sink/ sewer
Manganese	USEPA LR PAN Method	PAN indicator ⁽³⁾ Alkaline Cyanide ⁽⁴⁾ Ascorbic Acid	1ml – PAN 0.5ml – Alkaline 1 packet – Ascorbic (each per sample/ day)	Solution	Neutralizing sink/ sewer
Chlorine Residual	SM409E	None/ DPD ⁽⁵⁾		Solution	Neutralizing sink/ sewer
Cleaning Reagents		Nitric Acid (4%) Standard Detergent (Alconox)	5 gallons per year 10 gallons per year	Solution	Neutralizing sink/ sewer
Total Estimated Discharge Volume To Sewer Per Day					10,000 ml

Notes:

1. SM – Standard method for the analysis of water and wastewater
2. FerroVer – Iron phenanthroline
3. PAN Indicator – Dimethyl formamide, Ammonium acetate, Triton X, Water
4. Alkaline cyanide – Water, Sodium cyanide, Sodium hydroxide
5. n, n- diethyl- p- phenylendiamine

7.13.3.1.7. Emergency Planning And Community Right-to-Know Act

Under the Emergency Planning and Community Right-To-Know Act (EPCRA), established in 1986 as part of the Superfund Amendments and Reauthorization Act (SARA), there are three subtitles: Subtitle A for emergency planning; Subtitle B for specific hazardous chemical reporting requirements; and Subtitle C for how the public can gain access to information pertaining to chemical and/or hazardous materials quantities at a facility. Chemicals and/or hazardous materials that would be stored at the Harlem River Site above their Threshold Reportable Quantities (TRQ) must be reported to NYCDEP and to local and State agencies, including local fire and police departments, the local emergency planning committee, and the State Emergency Response Commission (SERC). This allows emergency personnel to determine the location and quantities of chemicals in the event of a release. The standard that is set for the limits of TRQs is determined by factoring in the potential risk and health factor to both human and ecological receptors. Ecological receptors include air, land, and water.

A Tier II Form would be submitted each year by March outlining and reporting quantities of hazardous materials used on-site. Material Safety Data Sheets (MSDSs) would be submitted for each chemical in accordance with OSHA's Hazard Communication Standard (29 CFR Part 1910.1200). All hazardous materials containers would be labeled with the chemical name clearly visible (the side or top of the container).

7.13.3.1.8. Waste Disposal

The proposed plant would not generate any RCRA-regulated hazardous wastes. All of the chemicals discussed above would be consumed during the treatment process. As discussed in Section 7.1, Project Description, there would be no residual treatment and all process sludge from the floated solids tanks would be discharged to a force main and conveyed to the Hunts Point Water Pollution Control Plant (WPCP). The process overflow would be discharged directly to the Harlem River following treatment. Waste backwash water tank overflow would contain approximately 60 mg/L solids composed of 50 percent aluminum hydroxide, 41 percent organics (17 percent biodegradable), and 9 percent other inert solids (metals, inorganics). For more details on how these wastes would be disposed, see Section 7.16, Infrastructure and Energy.

7.13.3.2. Potential Construction Impacts

7.13.3.2.1. Hazardous Materials Disturbed During Construction

The Harlem River Site has never been fully developed for commercial, industrial, or residential purposes, but a variety of site uses during the 20th century may have resulted in the release of hazardous materials to the environment. During the early to mid 1900s, parts of the site were used for recreational purposes with marinas and athletic fields. After the 1960s, some commercial development occurred but it may have been inhibited because of limited utility service (e.g., water, sewer, electricity, natural gas) and relatively unimproved access facilities (i.e., roads). Because of this lack of development, unsecured parts of the site became uncontrolled waste dumping areas if barriers, fencing, or other obstructions did not limit public access.

The environmental assessment undertaken in 2002 confirmed the presence of hazardous materials on the Harlem River Site and helped to identify potentially significant impacts associated with the proposed action that could be addressed by appropriate mitigating measures. The environmental hazardous materials found on the Harlem River Site originated from both on-site and off-site sources, some of which may still be releasing hazardous materials to the environment. Based on the soil, groundwater, and river sediment testing data, the significant contaminants of concern present at the Harlem River Site are identified in Table 7.13-21.

TABLE 7.13-21. POTENTIAL ENVIRONMENTAL CONTAMINANTS OF CONCERN AT THE HARLEM RIVER SITE

Media	Contaminant Class*	Contaminants of Concern
Soil	Metals	Aluminum, Antimony, Beryllium, Cadmium, Chromium, Copper, Manganese, Nickel, Zinc
	Volatile Organic Compounds	Benzene
	Semi-volatile Organic Compounds	Benzo(a) Anthracene, Benzo(b) Fluorene, Chrysene
	Total Petroleum Hydrocarbons	TPH
	TSCA Regulated Wastes (unconfirmed by testing)	PCBs
Groundwater	Volatile Organic Compounds	Methyl Tert Butyl Ether (MTBE), Benzene
	Semi-volatile Organic Compounds	Naphthalene
River Sediment	Metals	Beryllium, Chromium, Copper, Lead, Mercury, Nickel, Zinc
	Semi-volatile Organic Compounds	Benzo (a) Anthracene, Benzo (a) Pyrene

Notes:

* Includes contaminants of concern confirmed by environmental testing and contaminants suspected by review of regulatory database information.

It should be noted that because of property access restrictions, the list of contaminants of concern is primarily based on environmental data derived from the testing of the NYCDOT and XCEL properties. Information compiled from the search of environmentally regulated sites suggests that PCBs may be present in the soil at the Con Edison property and total petroleum hydrocarbons, including related volatile and semi-volatile organic compounds, may be present in the soil at the self-storage facility as a result of past documented hazardous materials releases.

The presence of hazardous or contaminated materials on the Harlem River Site may threaten human health or the environment only when exposure to those materials occurs. During construction of the proposed plant, excavation and disturbance of soil both above and below the water table would be required, including the management of tunneling spoils and river sediment.

A site-specific Construction Contamination Management Plan (CCMP) would be prepared for all areas where environmental contaminants may be encountered. The CCMP would identify sampling and analysis procedures to characterize type and extent of contamination and requirements for the handling, management, treatment, and disposal of contaminated materials encountered during construction.

For solid materials that would not be reused on-site, testing would be required to determine appropriate off-site disposal options. In addition, testing may also be required for reuse of solid materials on-site either to confirm that contaminants are not present or to demonstrate that selected management techniques are suitable for the contaminant concentration levels present. The testing data for either the on-site and off-site management of contaminated materials would be specifically generated for each lot of material requiring disposition.

The off-site disposal of solid wastes generated as a result of the proposed action would depend on the nature of the construction activity (e.g., quantity of material to be excavated) and the bulk chemical characteristics of the waste materials to be managed. Wastes containing contaminants at concentration levels above applicable action levels, regulatory thresholds, or risk-based limits would require specialized disposal.

Portions of the excavation for the proposed plant would extend below the groundwater table. The contractor would be responsible for the design and implementation of the dewatering system to maintain a dry subgrade. Generally, the groundwater level is maintained 2 ft. below the final subgrade level during the entire period of excavation, foundation construction, and fill placement. As summarized in Table 7.13-16, the groundwater at the site has been shown to contain various volatile and semi-volatile organic contaminants of concern. In addition, stormwater runoff in contact with contaminated soils or river sediments could leach and solubilize contaminants and collect in excavated areas.

The excavation of building footprints and foundation construction would require minimal dewatering due to the selected construction technique that would prevent groundwater infiltration into the excavation pit. The groundwater dewatered during this period of excavation would be minimal and the water would be pre-treated in the similar fashion as the stormwater runoff prior to discharge to the Harlem River. Construction of deep shafts and tunnels with the proposed slurry wall construction method would not require dewatering and therefore would have no impact on the Harlem River. The construction of three tidal wetlands would require excavation and modification of the riverbank. These mitigation wetlands would be constructed at the end of the construction period, prior to final landscaping.

Depending on the site location and the tidal stage the proposed excavation for the proposed project would extend to an elevation approximately four to eight feet below the water table. Portable pumps would be used to remove groundwater and rainwater from the excavation pit as required. These pumps would convey water through hoses to a manifold system along the north side of the water treatment plant site. This excavation water would be pumped through a settling tank and oil/grease separator prior to discharge to the Harlem River.

Once the permanent drainage system has been completed, stormwater runoff from the site would be collected and discharged to the Harlem River via the existing north and south 66-inch Combined Sewer Outfalls (CSO) (see Section 7.15, Water Resources & Section 7.16, Infrastructure and Energy). Pollution prevention devices would be included as part of the drainage system. In addition, measures would be taken during construction to protect the permanent storm drainage system from sedimentation impacts, thus ensuring that the Harlem River would not be adversely affected by stormwater runoff during construction.

The management of extracted (i.e., pumped) groundwater and stormwater that is contaminated would be accomplished based on the physical/chemical properties and the concentration levels of contaminants present. For example, discharge to local sanitary sewers may be possible if preliminary on-site treatment is sufficient to meet pretreatment standards for the Ward's Island Water Pollution Control Plant (WPCP). In addition, the pretreated discharge volume to the sanitary sewer may have to be controlled during specific times to ensure the WPCP can accommodate the flow. Alternatively, complete on-site treatment may allow pumped groundwater and stormwater to be discharged to local water bodies (e.g., Harlem River) under the conditions of a site-specific State Pollution Discharge Elimination System (SPDES) Permit. With either discharge option, treatment and testing would be required prior to construction to assure that NYCDEP requirements for sewer discharges or NYSDEC standards for discharges to water bodies are satisfied.

7.13.3.2.2. Hazardous Materials Used During Construction

During the construction of the proposed plant, the contractor may introduce a variety of hazardous materials to the project site to support the construction activity. The specific types and quantities of hazardous materials stored and used on the construction site would depend on the nature and extent of activities being performed (e.g., excavation, foundation construction, tunneling). In general, various petroleum-related materials would be used to support the operation of vehicles and heavy equipment (e.g., diesel fuel, gasoline, lubricants, glycol) as well as hazardous materials used in the construction process itself (e.g., concrete release agents, adhesives, paints and coatings). Each contractor would provide MSDSs for the construction-related hazardous materials that they could be introduced to the project site.

In summary, the proposed project would not involve construction methods, procedures, or hazardous materials handling actions that would pose a significant health and safety risk to the general public. Most construction activities would occur in areas where the general public has no access. Public access to all construction sites would be restricted.