

**East New York Central  
Maintenance Facility (MTA-NYCT)  
Draft Upland Site Summary**

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**EAST NEW YORK CENTRAL MAINTENANCE FACILITY (DAR SITE ID #7)**

Address: 1700 Bushwick Avenue, Brooklyn, Kings County,  
New York 11207

Tax Lot Parcel(s): Brooklyn Block 3476, Lot 10

Latitude: 40.678576

Longitude: -73.900976

Regulatory Programs/  
Numbers/Codes: USEPA ID No. NYD981140023, PBS No. 2-609106, AFS No.  
3604701049, NYSDEC Spill No. 0901530 and 0708196

Analytical Data Status:  Electronic Data Available  Hardcopies only  
 No Data Available

**1 SUMMARY OF CONSTITUENTS OF POTENTIAL CONCERN (COPCs) TRANSPORT  
PATHWAYS TO THE CREEK**

The current understanding of the transport mechanisms of COPCs from the upland portions of the East New York Central Maintenance Facility Metropolitan Transportation Authority – New York City Transit (MTA-NYCT) site (site) to Newtown Creek is summarized in this section and Table 1 and supported in the following sections.

**Overland Transport**

The site is located approximately 2.45 miles from Newtown Creek and associated waterways. This is not a complete historical or current pathway.

**Bank Erosion**

The site is not adjacent to Newtown Creek or associated waterways. This is not a complete historical or current pathway.

**Groundwater**

Groundwater quality information for this site was not identified in documents available for review. The site is located approximately 2.45 miles from Newtown Creek and associated waterways.

Groundwater in the vicinity of the site flows away from Newtown Creek. There is insufficient evidence to make a historical or current pathway determination.

### **Overwater Activities**

This site is not adjacent to Newtown Creek or associated waterways and has no overwater activities. This is not a complete historical or current pathway.

### **Stormwater/Wastewater Systems**

Information regarding on-site stormwater infrastructure and management was not identified in documents available for review. This site is located outside of the Newtown Creek Water Pollution Control Plant (WPCP) sewershed (NYCDEP 2007), approximately 2.45 miles from Newtown Creek and associated waterways. There is insufficient evidence to make a historical or current pathway determination for direct discharge of stormwater, wastewater, and sewer/combined sewer overflow (CSO).

### **Air Releases**

An Air Facility System (AFS) number exists for the site and indicates that the site is regulated. Additional information related to air discharges was not located for this site. There is insufficient evidence to make a historical or current pathway determination.

## **2 PROJECT STATUS**

No available documents containing environmental investigations were identified for this site. A New York State Department of Environmental Conservation (NYSDEC) Site Code was not found for this site.

## **3 SITE OWNERSHIP HISTORY**

Respondent Member:

Yes  No

| Owner            | Years              | Occupant                               | Types of Operations   |
|------------------|--------------------|--|---|
| Unknown          | Unknown – 1923     | Brooklyn Rapid Transit Company         | Storage yard and repair shops for train cars                              |
| Unknown          | 1923 – 1940        | Brooklyn–Manhattan Transit Corporation | Storage yard and repair shops for train cars                              |
| Unknown          | 1940 – unknown     | New York City Transit System           | Storage yard and repair shops for train cars                              |
| Unknown          | circa 1951 – 1986? | New York City Transit System           | Storage yard and repair shops for train cars; bus garage and repair shops |
| City of New York | 1986 – present     | Unknown                                | Unknown   |
| Unknown          | Unknown – present  | Metropolitan Transportation Authority  | Storage yard and repair shops for train cars                              |

#### 4 PROPERTY DESCRIPTION

The site occupies approximately 16.4 acres<sup>1</sup> within an urban area in the city of Brooklyn, Kings County, New York. The site is located approximately 3.4 miles south of Newtown Creek and the surface appears to be made up of paved and gravel-covered areas surrounding railroad lines and maintenance buildings.

The site is zoned for manufacturing and surrounding land uses include a combination of manufacturing, commercial, residential, and park uses as shown in Figure 1.

#### 5 CURRENT SITE USE

The site is currently used as a maintenance and repair facility by MTA-NYCT.

#### 6 SITE USE HISTORY

According to an 1888 Sanborn Map Company (Sanborn) map, a series of streets used to run parallel and in between Conway Street and Jamaica Avenue, connecting Bushwick Avenue and Broadway at the present location of Block 3476, Lot 10. The streets were named Rose

<sup>1</sup> Acreage is an approximation of the site tax parcel using geographic information system data.

Place, Cactus Place, Danlia Place, and one other street that is illegible on the Sanborn map (Sanborn 1888). A 1904 Sanborn map showed only Gillen Place as existing over the present site between Conway Street and Jamaica Avenue. The northeastern edge of Gillen Place began at 1730 Bushwick Avenue (Sanborn 1904). A 1915 Sanborn Map, revised in April 1951, showed the site extending to Fanchon Place (Sanborn 1915a).

In the early 1900s, the site contained the Brooklyn Rapid Transit Storage Yard and Repair Shops. The surface yard, with tracks on grade with Broadway, had a capacity of 327 cars. The elevated yards, with tracks on grade of an elevated structure on solid ground, had a capacity of 254 cars. A structure on the northeastern section of the site, at the corner of Bushwick Avenue and Gillen Place, contained a car barn and repair pits; a glazing area; tool grinding area; wood working area on the second floor; steel, iron, and coal storage; a scrap steel shed; offices; a machine shop; and a stock room. Adjacent to the stock room was a two-story structure, approximately 3,750 square feet, used for oil waste storage. The roof of this structure was cement covered with gravel (Sanborn 1904). By the 1930s, the car barn and repair pits structure extended to the southern end of the site bordering Broadway (Sanborn 1915b).

A structure on the southeastern section of the site, at the corner of Gillen Place and Broadway, contained the Brooklyn Rapid Transit Company Rail Road (B.R.T.R.R.) Men's Club. A lumber shed (approximately 5,000 square feet) was located at 1686-1688 Bushwick Avenue. A transformer station (approximately 4,000 square feet) was located at 1993-2003 Broadway. Other structures on the Broadway side of the site included a small switch tower and a dispatcher's office next to a fireproof bridge over the tracks (Sanborn 1904).

There were 41 uncovered train tracks within the storage yard. An additional eight tracks entered the car barn and repair pits, two tracks entered the machine shop, and four tracks resided near the stock room and B.R.T.R.R. Men's Club (Sanborn 1904).

By the early 1950s, a bus terminal with a filling station was located on the Broadway side of the site. A large structure existed spanning from 1700 Bushwick Avenue to Fanchon Place on the northeastern end to the corner of Jamaica Avenue and Broadway on the southern end.

The structure consisted of the Subway and Elevated Train Repair Shop (with storerooms, a car truck repair area, offices, and lockers) and the New York City Transit System East New York Bus Garage & Repair Shops. There were two 2,000-gallon diesel fuel tanks in an underground vault protected by formite fireproofing located inside the Bus Garage and Repair Shops near 13 Jamaica Avenue (Sanborn 1915a).

The Brooklyn Rapid Transit Company began subway service between Brooklyn and Manhattan in 1915. The Brooklyn-Manhattan Transit Corporation took over the Brooklyn Rapid Transit Company a few years later. The City of New York purchased the Brooklyn-Manhattan Transit Corporation in 1940 and became the sole owner and operator of all New York City subway and elevated lines (MTA 2012a).

The site (sections 5, 11, 15 to 17, 20 to 26 on the November 15, 1985, Tax Map of the City of New York for the Borough of Brooklyn) entered in foreclosure on July 1, 1986. On July 7, 1986 the deed of the property was transferred from the Commissioner of Finance of the City of New York to the City of New York (Commissioner of Finance 1986). A Vacate Order was decreed on September 19, 1988 (Supreme Court of the State of New York 1988).

Presently, there is a Federal Communications Commission Registered Cell Phone and Antenna Tower located on the site. Construction of the tower was finished on July 19, 1991. The registrant is listed as the New York City Transit Authority (NYCTA; City-data.com 2012; Homefacts.com 2012).

Recent information suggests that the site is currently occupied by the East New York Maintenance Shop for the MTA-NYCT (Google Maps 2012). On January 11, 2011, the MTA website posted a construction contract solicitation for modification of the ventilation system at the East New York Shop (MTA 2012b).

## **7 CURRENT AND HISTORICAL AREAS OF CONCERN AND COPCs**

The current understanding of the historical and current potential upland and overwater areas of concern at the site is summarized in Table 1. The following sections provide brief discussion of the potential sources and COPCs at the site requiring additional discussion.

## 7.1 Uplands

Historical site records indicate that former railway maintenance operations included aboveground storage tanks (ASTs) and underground storage tanks (USTs) for various fuel and chemicals (including combustible liquids, corrosive liquids and waste petroleum liquids/distillates, spent waste oil, gasoline, and alkaline liquid), piping and collection systems associated with handling of these liquids, and material handling and maintenance areas (NYCTA, 1987, 1988a, 1988b, 1992, 2007).

The site is an active petroleum bulk storage (PBS) facility (PBS No. 2-609106) with two registered 500-gallon ASTs located on site (NYSDEC 2012). Both ASTs were installed on February 1, 1999, and are used to store waste oil.

The site has historically been classified a Resource Conservation and Recovery Act (RCRA) conditionally exempt small quantity generator (CESQG), small quantity generator (SQG), and large quantity generator (LQG; RCRIS 2012). The site was classified a LQG in 1985 and 1991, an SQG in 1999, and a CESQG in 2001, 2003, 2005, and 2006. The site was most recently classified a CESQG; however, available documents have not been updated since 2007 (RCRIS 2012).

Potential historical and current contaminant sources at the site include products and equipment used in railway maintenance and repair practices and operations, including ASTs and USTs and associated conveyance piping. The COPCs for these sources include volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), petroleum hydrocarbons, and polycyclic aromatic hydrocarbons (PAHs).

## 7.2 Overwater Activities

This site is not adjacent to Newtown Creek or associated waterways.

## 7.3 Spills

Documented spills at the site are summarized as follows (NYSDEC 2012):

| NYSDEC Spill No. | Spill Date | Close Date | Material Spilled | Remarks   |
|------------------|------------|------------|------------------|---|
| 0708196          | 10/26/07   | 10/26/07   | Diesel           | An unknown amount of diesel was spilled to soil<br>Cause: Unknown<br>Source: Railroad car                                   |
| 0901530          | 05/07/09   | 06/15/09   | Diesel           | 4,000 gallons of diesel spilled; resource affected was reported as unknown<br>Cause: Other<br>Source: Commercial/Industrial |

## 8 PHYSICAL SITE SETTING

Site-specific hydrogeologic information was not identified in documents available for review. The geologic setting for Newtown Creek consists of impermeable Precambrian and Paleozoic crystalline bedrock, overlain by the Upper Cretaceous Raritan formation, Magothy formation and Matawan Group (undifferentiated), unconsolidated Pleistocene deposits and upper Pleistocene glacial deposits and Holocene shore, beach salt-marsh deposits, and alluvium, along with local occurrences of artificial fill (Buxton et al. 1981; Soren and Simmons 1987). The primary areas of groundwater discharge are Newtown Creek and its tributaries and the East River (Misut and Monti 1999). In the vicinity of Newtown Creek, groundwater flow in the Upper Glacial aquifer is generally north and south toward the creek. With increased distance from the creek, groundwater will flow toward the nearest surface water body to discharge (Misut and Monti 1999). Incidences of perched groundwater may occur above the Upper Glacial Aquifer in some areas, particularly in formerly low-lying areas that have been filled. Groundwater flow at a specific property may differ from the regional pattern due to pumping for groundwater treatment or dewatering activities (Misut and Monti 1999), the presence of buried utilities, or other preferential pathways.

## 9 NATURE AND EXTENT (CURRENT UNDERSTANDING OF ENVIRONMENTAL CONDITIONS)

### 9.1 Soil

Soil Investigations

Yes  No

Bank Samples

Yes  No  Not Applicable

Soil-Vapor Investigations

Yes  No

Information related to soil investigations was not found in reviewed documents.

## 9.2 Groundwater

Groundwater Investigations  Yes  No  
 NAPL Presence (Historical and Current)  Yes  No  
 Dissolved COPC Plumes  Yes  No  
 Visual Seep Sample Data  Yes  No  Not Applicable

Information related to groundwater was not found in reviewed documents.

## 9.3 Surface Water

Surface Water Investigation  Yes  No  
 SPDES Permit (Current or Past)  Yes  No  
 Industrial Wastewater Discharge Permit (Current or Past)  Yes  No  
 Stormwater Data  Yes  No  
 Catch Basin Solids Data  Yes  No  
 Wastewater Data  Yes  No

### 9.3.1 Stormwater and Wastewater Systems

Information regarding on-site stormwater infrastructure and management was not identified in documents available for review. This site is located outside of the Newtown Creek WPCP sewershed (NYCDEP 2007), approximately 2.45 miles from Newtown Creek and associated waterways. Based on the site topography, stormwater at the site is expected to infiltrate into the ground or flow overland towards the south onto the adjoining properties (see Figure 1).

## 9.4 Sediment

Creek Sediment Data  Yes  No  Not Applicable

Sediment investigation information was not found in reviewed documents.



## 9.5 Air

Air Permit

Yes  No

Air Data

Yes  No

An AFS number (AFS No. 3604701049) exists for the site and indicates that the site is regulated for chlorofluorocarbon, non-specific point source, and sulfur dioxide emissions. Additional information related to air discharges or sampling was not located for this site.

## 10 REMEDIATION HISTORY (INTERIM REMEDIAL MEASURES AND OTHER CLEANUPS)

Information related to remediation was not found in reviewed documents.

## 11 BIBLIOGRAPHY/INFORMATION SOURCES

Buxton et al. (Buxton, H.T., Soren, J., Posner, A., and Shernoff, P.K.), 1981. *Reconnaissance of the Groundwater Resources of Kings and Queens Counties, New York*. U.S. Department of the Interior, U.S. Geological Survey. Open-File Report 81-1186. 1981.

City-data.com, 2012. FCC Registered Cell Phone and Antenna Towers in New York, New York. Accessed January 11, 2012.

Available from: <http://www.city-data.com/towers/cell-New-York-New-York.html#ixzz1jCiiW3u8>

Commissioner of Finance, 1986. Deed to City of New York. July 7, 1986.

Google Maps, 2012. Online Mapping Application. 1700 Bushwick Avenue, Brooklyn, New York. Accessed January 11, 2012.

Available from: <http://maps.google.com/>

Homefacts.com, 2012. FCC Towers, Registration No. 1204053. Accessed January 11, 2012.

Available from: <http://www.homefacts.com/fcctowers/New-York/New-York-County/New-York/1204053.html>

Misut and Monti (Misut, P.E. and Monti, J. Jr.), 1999. *Simulation of Ground-Water Flow and Pumpage in Kings and Queens Counties, Long Island, New York*. U.S. Geological Survey. Water-Resources Investigations Report 98-4071. 1999.

MTA (Metropolitan Transportation Authority), 2012a. New York City Transit – History and Chronology. Accessed January 12, 2012.

Available from: <http://www.mta.info/nyct/facts/ffhist.htm>

MTA, 2012b. Construction/Architectural and Engineering Contract, Solicitation Notice/Project Overview. Accessed January 11, 2012.

Available from: <http://www.mta.info/nyct/procure/contracts/C-34189sol.pdf>

NYCDEP (New York City Department of Environmental Protection), 2007. *Landside Modeling Report, Sewershed Characteristics and Model Calibration*. City-Wide Long Term CSO Control Planning Project. Newtown Creek WPCP Service Area. Draft. New York City Department of Environmental Protection, Bureau of Engineering Design and Construction. July 2007.

NYCTA (New York City Transit Authority), 1987. State of New Jersey, Department of Environmental Protection, Division of Waste Management, Uniform Hazardous Waste Manifest. Document Number NJA 0274547. February 23, 1987.

NYCTA, 1988a. State of New Jersey, Department of Environmental Protection, Division of Waste Management, Uniform Hazardous Waste Manifest. Document Number NJA 0405072. February 9, 1988.

NYCTA, 1988b. State of New Jersey, Department of Environmental Protection, Division of Waste Management, Uniform Hazardous Waste Manifest. Document Number NJA 0369148. July 14, 1988. NYCTA, 1992. State of New Jersey, Department of Environmental Protection, Division of Waste Management, Uniform Hazardous Waste Manifest. Document Number NJA 1506840. November 20, 1992.

NYCTA, 2007. Uniform Hazardous Waste Manifest. Manifest Tracking Number 000079040 UIS. December 13, 2007.

NYSDEC (New York State Department of Environmental Conservation), 2012. Environmental Remediation Databases. Accessed March 22, 2012.

Available from: <http://www.dec.ny.gov/cfm/external/derexternal/>

RCRIS (Resource Conservation and Recovery Information System), 2012. Resource Conservation and Recovery Act Information System (RCRIS) Database. Accessed March 22, 2012.

Available from: <http://www.rtknet.org/db/rcris>

Sanborn (Sanborn Map Company), 1888. *Insurance Maps of the Borough of Brooklyn, New York*. Volume 9: Sheet 2 of 2. 1888.

Sanborn, 1904. *Insurance Maps of the Borough of Brooklyn, New York*. Volume 8: Sheet 1. Original 1904, revised 1908.

Sanborn, 1915a. *Insurance Maps of the Borough of Brooklyn, New York*. Volume 16: Sheet 1. Original 1915, revised April 1951.

Sanborn, 1915b. *Insurance Maps of the Borough of Brooklyn, New York*. Volume 16: Sheet 1. Original 1915, revised 1933.

Soren and Simmons (Soren, J. and Simmons, D.L.), 1987. *Thickness and Hydrogeology of Aquifers and Confining Units Below the Upper Glacial Aquifer on Long Island, New York*. U.S. Geological Survey. Water-Resources Investigations Report 86-4175. Scale 1:125,000. 1987.

Supreme Court of the State of New York, 1988. Vacate Order. September 19, 1988.

## 12 ATTACHMENTS

### Figures

Figure 1                      Site Vicinity Map: East New York Central Maintenance Facility (MTA-NYCT)

### Tables

Table 1                      Potential Areas of Concern and Transport Pathways Assessment

**Table 1**

**Potential Areas of Concern and Transport Pathways Assessment – East New York Central Maintenance Facility (MTA-NYCT)**

| Potential Areas of Concern   | Media Impacted |                 |             |                    |                | COPCs          |                |                 |                                |      |                  |       |      |            |           |        |      |                           | Potential Complete Pathway |             |                              |                                     |                        |              |                |
|--|----------------|-----------------|-------------|--------------------|----------------|----------------|----------------|-----------------|--------------------------------|------|------------------|-------|------|------------|-----------|--------|------|---------------------------|----------------------------|-------------|------------------------------|-------------------------------------|------------------------|--------------|----------------|
|  |                |                 |             |                    |                | TPH            |                |                 | VOCs                           |      |                  | SVOCs | PAHs | Phthalates | Phenolics | Metals | PCBs | Herbicides and Pesticides |                            |             |                              |                                     |                        |              | Dioxins/Furans |
|  | Surface Soil   | Subsurface Soil | Groundwater | Catch Basin Solids | Creek Sediment | Gasoline-Range | Diesel – Range | Heavier – Range | Petroleum Related (e.g., BTEX) | VOCs | Chlorinated VOCs |       |      |            |           |        |      |                           | Overland Transport         | Groundwater | Direct Discharge – Overwater | Direct Discharge – Storm/Wastewater | Discharge to Sewer/CSO | Bank Erosion |                |
| Former UST and associated conveyance piping                                    | ?              | ?               | ?           | ?                  | --             | √              | √              | √               | √                              | √    | ?                | ?     | ?    | ?          | ?         | ?      | ?    | ?                         | --                         | ?           | --                           | ?                                   | ?                      | --           | ?              |
| Former railway maintenance and repair practices and operations, including ASTs | ?              | ?               | ?           | ?                  | --             | √              | √              | √               | √                              | √    | ?                | ?     | ?    | ?          | ?         | ?      | ?    | ?                         | --                         | ?           | --                           | ?                                   | ?                      | --           | ?              |
| Spills   | √              | ?               | ?           | ?                  | --             | ?              | √              | ?               | √                              | √    | ?                | √     | √    | ?          | ?         | ?      | ?    | ?                         | --                         | ?           | --                           | ?                                   | ?                      | --           | ?              |

Notes:

√ – COPCs are/were present in areas of concern having a current or historical pathway that is determined to be complete or potentially complete.

? – There is not enough information to determine if COPC is/was present in area of concern or if pathway is complete.

-- – Current or historical pathway has been investigated and shown to be not present or incomplete.

AST – aboveground storage tank

BTEX – benzene, toluene, ethylbenzene, and xylene

COPC – constituent of potential concern

CSO – combined sewer overflow

PAH – polycyclic aromatic hydrocarbon

PCB – polychlorinated biphenyl

SVOC – semi-volatile organic compound

TPH – total petroleum hydrocarbon

UST – underground storage tank

VOC – volatile organic compound



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|  |  |   |  |
|--|--|---|--|
| <ul style="list-style-type: none"> <li> USEPA Sample Locations (Surface and Subsurface)</li> <li> Shoreline (NYC Dept. of Information Technology, 2006)</li> <li> USGS Nat'l Elev. Dataset 5-foot Contours</li> <li> Selected Site Property Boundary</li> <li> Neighboring Site Property Boundary</li> </ul> | <p><b>Outfall Class</b></p> <ul style="list-style-type: none"> <li> Direct Discharge</li> <li> General</li> <li> Highway Drain</li> <li> Major Stormwater Outfall</li> <li> SPDES</li> <li> Storm Drain</li> </ul> | <p><b>NOTES:</b></p> <ol style="list-style-type: none"> <li>1. Outfall Labeling: BB: Bowery Bay; NC(B/Q): Newtown Creek, Brooklyn/Queens; ST: Stormwater.</li> <li>2. Outfall locations are preliminary, compiled, estimated data based on New York City Department of Environmental Protection (NYCDEP) maps and tabulated data and other resources. Many outfall locations were taken from the New York City Shoreline Survey Program: Newtown Creek Water Pollution Control Plant Drainage Area, NYCDEP, March 31, 2003. Other locations were taken from an excerpt from a similar report from 2008 (the complete report was not included in files available for review). Finally, some outfall locations were inherited from previous Anchor QEA and Newtown Creek Project work. Latitudinal and longitudinal data provided in the 2003 and 2008 NYCDEP reports were rounded to the nearest second. This resulted in potential outfall location discrepancies of up to approximately 200 feet. All outfall locations are currently under field verification.</li> <li>3. Aerial Photos: New York State Division of Homeland Security and Emergency Services, 2010.</li> <li>4. Site Boundaries are based on New York City parcels data.</li> <li>5. Coarse topographic contours are derived from U.S. Geological Survey 10-meter data.</li> </ol> | <div style="text-align: center;"> <p>Feet</p> </div> <div style="text-align: right;"> </div> |
|--|--|---|--|



DRAFT

**Figure 1**  
Site Vicinity Map  
Draft Upland Site Summary: East New York Central Maintenance Facility (MTA-NYCT)  
Newtown Creek RI/FS