NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

Environmental Site Remediation Database Search Details

Site Record

Administrative Information

Site Name: 5 & 15 Flint Street Site
Site Code: C828162
Program: Brownfield Cleanup Program
Classification: A
EPA ID Number:

Location

DEC Region: 8
Address: 5 & 15 Flint Street
City: Rochester Zip: 14608
County: Monroe
Latitude: 43.136767856
Longitude: -77.621814303
Site Type: DUMP STRUCTURE
Estimated Size: 7.224 Acres

Site Owner(s) and Operator(s)

Site Document Repository

Name: Phillis Wheatley Community Library
Address: 33 Dr. Samuel McCree Way
Rochester,NY 14608

Hazardous Waste Disposal Period

Site Description

Location: The site is located in an urban area on the south side of Flint Street between Exchange Street and the western bank of the Genesee River in the City of Rochester. Site Features: The site consists of two non-contiguous parcels totaling approximately 7.2-acres. The two parcels are separated by a narrow strip of publically owned land that was formerly used as a canal and then a railroad bed. The main site features include one large abandoned building and several smaller buildings. Most of the site is undeveloped and covered with trees and other vegetation. Foundations and other remnants from historic structures are visible in some locations. Current Zoning and Land Use: The site is currently inactive, and is zoned for high-density residential use. The surrounding parcels are used for a combination of residential, recreational, commercial, and light industrial purposes. Residential properties border a portion of the site to the west. The City of Rochester owns vacant property south and east of the site. The site is also in a Brownfield Opportunity Area (BOA). The BOA

master plan anticipates rezoning the site to allow for mixed uses. Past Use of the Site: The site is located wholly within the footprint of the former Vacuum Oil Company refinery which operated from approximately 1866 until 1935. The Vacuum Oil Company was a predecessor of ExxonMobil Corporation. The processing operations involved distilling crude petroleum under pressure to produce a variety of petroleum products. The two site properties were used for operations, barrel preparation, and storage (including petroleum storage). After the Vacuum Oil facility closed, most of the structures were demolished in place. Additional activities that may have contributed to site contamination after the Vacuum Oil facility closed include as a scrap metal and automotive salvage yard and resource recovery facility. In 1989, an investigation was completed for the City of Rochester on adjacent property. In 1990, the City of Rochester prepared a report that describes the property and traces the history of the Vacuum Oil Corporation. In 2001, NYSDEC completed a preliminary investigation of a 24-acre portion of the former Vacuum Oil facility. In 2005, ExxonMobil performed work that expanded on the NYSDEC investigation. In 2008, separate reports were completed for the 15 Flint Street and 5 Flint Street properties for the City of Rochester and in 2009 an additional investigation report was prepared for ExxonMobil. The results of these investigations indicated the widespread presence of various contaminants in soil and groundwater including petroleum compounds, metals, PCBs, and volatile organic compounds. Based on these results, the 5 Flint Street and 15 Flint Street parcels entered the Brownfield Cleanup Program in June 2010. Site Geology and Hydrogeology: There ground surface slopes fairly steeply from the west side of the site down to the river. Site soils consist of both native soils and fills. Fills are generally found between 0 and 6 feet below ground surface (bgs). Fill materials include bricks, slag, cinders, gravels, wood, and miscellaneous debris. Native soils consist of sand and silt with varying amounts of clay. Depth to bedrock ranges from 11 to 28-feet bgs. Groundwater has been encountered at depths ranging from 3 to 8 feet bgs. Groundwater flows to the east toward the Genesee River.

Contaminants of Concern (Including Materials Disposed)

Contaminant Name/Type
1,1-dichloroethane
lead
1,2,4-trimethylbenzene
benzo(a)anthracene
arsenic
unknown petroleum
mercury
PCB aroclor 1260
benzo(a)pyrene
PCB aroclor 1254
xylene (mixed)

Site Environmental Assessment

Nature and Extent of Contamination Soil and groundwater were analyzed for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), metals, polychlorinated biphenyls (PCBs), and pesticides. Based upon investigations conducted to date, the primary contaminants of concern include petroleum related VOCs and SVOCs, polycyclic aromatic hydrocarbons (PAHs) which are a subset of SVOCs, chlorinated VOCs, various metals, and PCBs. Surface Soil: PAHs [especially benzo(a)pyrene (B(a)P) and benzo(a)anthracene

(B(a)A)] and metals (especially arsenic, lead, and mercury) appear to be the primary contaminants in the surface soil. B(a)P and B(a)A exceed the 1 part per million (ppm) soil cleanup objectives (SCOs) for unrestricted and restricted residential use with maximum concentrations of 160 ppm and 203 ppm, respectively. The highest concentrations of PAHs are located in the western portion of 15 Flint Street and the southern portion of 5 Flint Street. Elevated levels of various metals are also present on both properties, with the highest concentrations generally associated with the northern section of 15 Flint Street. Specific metals include lead at up to 3,200 ppm (the unrestricted SCO is 63 ppm and the restricted-residential SCO is 400 ppm), mercury at up to 17 ppm (the unrestricted SCO is 0.18 ppm and the restricted-residential SCO is 0.81 ppm), and arsenic up to 43 ppm (the unrestricted SCO is 13 ppm and the restricted-residential SCO is 16 ppm). PCBs in surface soil are limited to several locations at 15 Flint Street. The maximum PCB concentration is approximately 10 ppm (the unrestricted SCO is 0.1 ppm and the restricted-residential SCO is 1 ppm). PAHs, arsenic and lead in surface soils exceed residential SCOs at the 15 Flint Street northwest property line adjacent to several residential properties. These results indicate the potential for off-site impacts in soil related to the site. Subsurface Soil: VOCs and SVOCs are the primary contaminants in the sub-surface soils. Impacted soils (based on visible sheens and odors) are typically observed between a depth of 5 feet and to the top of bedrock. Impacted soils are primarily present at the north end of 15 Flint Street and throughout 5 Flint Street. Specific VOCs include xylenes up to 101 ppm (the unrestricted SCO is 0.26 ppm, the protection of groundwater SCO is 1.6 ppm and the restricted-residential SCO is 100 ppm) and 1,2.4-trimethylbenzene up to 67 ppm (the unrestricted and protection of groundwater SCOs are 3.6 ppm and the restricted-residential SCO is 52 ppm). VOC tentatively identified compounds (TICs) are reported with a maximum total VOC TIC concentration of 1,399 ppm. While there are no SCOs for TICs, elevated TIC levels are often indicative of nuisance conditions such as visibly stained soil and odors. PAHs, especially B(a)P, are intermittently present in the subsurface soils at elevated levels. The maximum B(a)P concentration is 530 ppm detected at a depth of 5 feet. SVOC TICs are reported at a maximum total SVOC TIC concentration of 2,200 ppm. Petroleum impacted soils are present at the northern site boundary adjacent to Flint Street. Off-site migration to the north was further documented by a 2015 investigation performed by the City of Rochester which identified petroleum impacted soil adjacent to the site within the Flint Street right-of-way. Petroleum impacted soils also appear to extend off-site to the east toward other portions of the former refinery. Groundwater: Petroleum related VOCs and chlorinated VOCs are found in overburden groundwater throughout the site with low to moderate exceedances of groundwater standards [typically 5 parts per billion (ppb) for the VOCs detected]. The highest VOC concentrations detected during the Remedial Investigation were xylenes at 90 ppb, 1,1-dichloroethane at 79 ppb, and VOC TICs at 649 ppb. The chlorinated VOCs are primarily present on 5 Flint Street. There appears to be some potential for low level (less than 10 ppb total VOCs) off-site migration in groundwater north towards Flint Street and east towards other portions of the former refinery. Light Non-Aqueous Phase Liquid (LNAPL): LNAPL up to 1.8-inches thick is present in a monitoring well at the north end of 15 Flint Street and an LNAPL sheen is present throughout 5 Flint Street. Fingerprint analysis identified the material as Lube Oil. LNAPL appears to be migrating off-site toward Flint Street to the north and toward other portions of the former refinery to the east. Soil Vapor and Indoor Air: On-site buildings are vacant so indoor air samples were not collected during the Remedial Investigation. Soil vapor samples were collected along the western boundary of the site adjacent to the residential properties. Data does not indicate any off-site impacts in soil vapor related to this site.

Site Health Assessment

People may come into contact with contaminated soil if they trespass at the site or if contamination is present off-site in their yards. Additional investigation into the extent of off-site contamination, along with actions to reduce exposure if necessary, have been recommended. People are not drinking contaminated groundwater at the site since the area is served by a public water supply that obtains water from a different source not affected by this contamination. Contaminated soil vapor may (air spaces within the soil), may move into overlying buildings and affect the indoor air quality. This process, which is similar to the movement of radon gas from the subsurface into the indoor air of buildings, is referred to as soil vapor intrusion. Since the site is vacant, inhalation exposure via soil vapor intrusion does not represent a current exposure concern. NYSDOH recommends that a soil vapor intrusion evaluation be completed for any buildings which are developed on the site. Environmental sampling indicates that soil vapor intrusion is not a concern for off-site structures.

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Refine This Search