



BROWNFIELDS SITES INFORMATION REQUEST

EXXONMOBIL OIL FORMER BUFFALO TERMINAL

625 ELK STREET, BUFFALO, NY 14210

Facility Id: C915201

ADDRESS CHANGE INFORMATION

Revised street: NO CHANGE

Revised zip code: NO CHANGE

Brownfield Program: Brownfield Cleanup Program

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF ENVIRONMENTAL REMEDIATION
BROWNFIELD CLEANUP PROGRAM

CLASSIFICATION CODE: A

REGION: 9

SITE CODE: C915201

CLASSIFICATION CODE DESCRIPTION:

DEC ID: 353134

Work is underway and not yet complete.

NAME OF SITE: ExxonMobil Oil Former Buffalo Terminal

STREET ADDRESS: 625 Elk Street

CITY: Buffalo

ZIP: 14210

TOWN: Buffalo (c)

COUNTY: Erie

ESTIMATED SIZE: 90.4 Acres

SITE TYPE: Dump- Structure- Lagoon- Landfill- Treatment Pond-

INSTITUTIONAL/ENGINEERING CONTROLS:

None reported

CROSS REFERENCES:

IDENTIFIER

SOURCE

915040

HW Site ID

SITE OWNER/OPERATOR/REPOSITORY INFORMATION:

CURRENT OWNER(S):

NAME: Buckeye Terminals, LLC

ADDRESS: 625 Elk Street

Buffalo, NY 14210

NAME: ONE BABCOCK STREET, INC.
ADDRESS: 461 ELK STREET
BUFFALO, NY 14210

NAME: GRO-GREEN REAL ESTATE INC.
ADDRESS: 757 ELK STREET
BUFFALO, NY 14210

NAME: ExxonMobil Environmental Services Company
Elizabeth Zinkevicz
ADDRESS: 647 US Route 1 North
Suite 14, PMB 253
York, ME 03909

OWNER(S) DURING DISPOSAL:

OPERATOR(S) DURING DISPOSAL:

APPLICANT REQUESTOR(S):

NAME: ExxonMobil Environmental Services Company
Elizabeth Zinkevicz
ADDRESS: 647 US Route 1 North
Suite 14, PMB 253
York, ME 03909

DOCUMENT REPOSITORY(S):

NAME: NYS Dept. of Environmental Conservation
Eugene Melnyk
ADDRESS: 270 Michigan Avenue
Buffalo, NY 14203

NAME: Dudley Branch Library
ADDRESS: 2010 South Park Avenue
Buffalo, NY 14220

HAZARDOUS WASTE DISPOSAL PERIOD:

SITE DESCRIPTION:

The remediation of this site is currently being addressed under the Brownfield Cleanup Program (BCP).

Location: The site is 90.4 acres in size and located on Elk Street in the City of Buffalo, Erie County. The site is bisected by Babcock Street running north-south and Prenatt Street, which is a paper street, running east-west. The site is bordered on the north by a mixture of commercial and residential properties, on the east and west by commercial businesses and on the south by the Buffalo River. Site Features: The site is relatively flat with multiple large above ground petroleum storage tanks. Several occupied and vacant buildings exist on-site. An inactive northeasterly-trending railroad right-of-way separates the eastern tank yard area (OU-4) from the balance of the ExxonMobil former Buffalo Terminal site.

Current Zoning and Land Use: The majority of the site is currently zoned industrial. It is located in an urban area, generally surrounded by a mixture of industrial and commercial property. There are a few isolated residential parcels located immediately to the north. A large portion of the site is vacant. The largest active facility on-site is a petroleum distribution terminal. Several smaller commercial businesses operate on the western end of the site. Past Use of the Site: Since the 1880s, the site has been used for petroleum refining and storage. Refining operations terminated in the 1980s. Former refinery, lube plant and terminal activities have impacted this site.

On April 3, 2006, the site entered the Brownfield Cleanup Program to address comprehensive remediation of the site. Operable Units: The site has been segregated into (5) operable units (OU) based on past use and nature of contamination. An operable unit represents a portion of a remedial program for a site that for technical or administrative reasons can be addressed separately to investigate, eliminate or mitigate a release, threat of release or exposure pathway resulting from the site contamination. OU-1 encompasses several former residential parcels north of Elk Street. Remediation of OU-1 was completed in 2007. The remedy included excavation and off-site disposal of 5,615 tons of soil contaminated with metals and SVOCs. OU-2 is located south of Elk street and formerly housed refining and petroleum storage facilities. Remediation completed in OU-2 includes the removal of approximately 22 miles of below ground process piping. OU-2 has been investigated to determine the nature and extent of soil/fill which is grossly contaminated with petroleum products and/or is hazardous based on lead levels. Bench scale and field studies have been completed to assess remedial options to address grossly contaminated soil and hazardous lead soil.

OU-3 is located along the northern shore of the Buffalo River and formerly housed petroleum refining and storage facilities (active petroleum storage presently occurs in this location). A large subsurface plume of free product will be the focus of remedial efforts in OU-3. Currently, ground water and product pumping systems are utilized to capture free product and prevent the migration of free product to the river.

OU-4 is located on the north shore of the Buffalo River. This area was filled with municipal waste to realign the Buffalo River in the early 1900s. More recently, ExxonMobil utilized this area for the disposal of tank bottom sludge and for petroleum storage. Remediation completed in OU-4 includes the operation of a Chem-Ox system (injection of hydrogen peroxide and ozone into the subsurface) to oxidize and mobilize (for extraction) a free product plume. The Chem-Ox injections were terminated in the summer of 2009. The Decision Document outlining the final remedy was issued in March 2011. Implementation of the selected remedy began in the spring of 2013 and was completed in the summer of 2015 including the construction of a slurry wall around the perimeter of OU4, cutting back and removing impacted material from the riverbank, installing a low permeability cover and construction of a treatment wetland. OU-5 includes the river sediment along the north shore of the Buffalo river adjacent to the main site. Limited information is currently available and additional investigation will be necessary.

Site Geology and Hydrogeology: Three unconsolidated deposits exist throughout the majority of the site including a fill layer (cinders, ash, slag, sand, brick, concrete, etc), underlain by an alluvial deposit layer consisting of silt, sands, gravel and clay and an alluvial deposit layer consisting of glacio-Lacustrine clay which acts as a confining layer. Groundwater is approximately 3 to 20+ feet below ground surface and generally flows southwest toward the Buffalo River.

CONFIRMED HAZARDOUS WASTE DISPOSED:

TYPE	QUANTITY
Motor Oil	UNKNOWN
GASOLINE CONSTITUENT	UNKNOWN
benzo(a)anthracene	UNKNOWN
PCB aroclor 1254	UNKNOWN
WASTE SLUDGE	UNKNOWN

MERCURY	UNKNOWN
BENZO(A)PYRENE	UNKNOWN
TOLUENE	UNKNOWN
CHROMIUM	UNKNOWN
PHENOL	UNKNOWN
BENZO[K]FLUORANTHENE	UNKNOWN
indeno(1,2,3-cd)pyrene	UNKNOWN
PCB-AROCLOL 1254	UNKNOWN
Petroleum Products	UNKNOWN
ARSENIC	UNKNOWN
ETHYLBENZENE	UNKNOWN
SELENIUM	UNKNOWN
BENZ(A)ANTHRACENE	UNKNOWN
CADMIUM	UNKNOWN
BENZO(B)FLUORANTHENE	UNKNOWN
BENZENE	UNKNOWN
Chrysene	UNKNOWN
NICKEL	UNKNOWN
1,2,4-TRICHLOROBENZENE	UNKNOWN
METHANE	UNKNOWN
DIBENZ[A,H]ANTHRACENE	UNKNOWN
LEAD	UNKNOWN
XYLENE (MIXED)	UNKNOWN

ASSESSMENT OF ENVIRONMENTAL PROBLEMS:

Nature and Extent of Contamination: Based upon investigations conducted to date, the site wide primary contaminants of concern are petroleum product, petroleum related Semi-Volatile Organic Compounds (SVOCs) especially Polycyclic Aromatic Hydrocarbons (PAHs), petroleum related Volatile Organic Compounds (VOCs) and metals. Characteristically hazardous lead soil exists in the central and eastern portion of OU-2. Tetraethyl lead was detected in the river sediments adjacent to OU-4. Contaminants of concern in groundwater are primarily VOCs, especially in areas where measurable separate phase petroleum product exists on top of the groundwater. Also, considerable quantities of separate phase product have been detected on top of the groundwater, especially near the southern end of the site in OU-3 (north of the Buffalo River) and in OU-4.

Special Resources Impacted/Threatened: The site occupies approximately 3,100 feet of the north riverbank of the Buffalo River. Historic discharges of petroleum product have adversely impacted the Buffalo River. Currently, small quantities of product continue to discharge to the river (evident by intermittent sheen) especially adjacent to OU-4. The noticeable sheen originates from stained soil on the bank of the river, as well as, the existence of the product plume beneath OU-4. Discharges from other areas of the site are mitigated by operation of a well pumping system that acts to retard groundwater discharge to the river.

Significant Threat: The site presents a significant environmental threat due to ongoing releases of contaminants and petroleum product to the Buffalo River, hazardous tetraethyl lead detected in river sediments and the presents of on-site hazardous lead fill.

ASSESSMENT OF HEALTH PROBLEMS:

The site is partially fenced, which limits public access. However, persons who enter the site could contact contaminants in the soil by walking on the site, digging or otherwise disturbing the soil. Soil removal actions have been completed to remove contaminated soil found in off-site residential surface soils. People are not drinking the contaminated groundwater because the

area is served by a public water supply that is not affected by this contamination. Volatile organic compounds in the groundwater may move into the soil vapor (air spaces within the soil), which in turn 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. The potential exists for the inhalation of site contaminants due to soil vapor intrusion for any future on-site redevelopment and occupancy. People using the Buffalo River near the site for recreational purposes such as swimming and boating may come into direct contact with chemical contaminants. People may come in contact with contaminants present in river sediments while entering or exiting the river during recreational activities.

PROJECT COMPLETIONS:

Operable Unit 01 - Remedial Program - Parcels north of Elk Street

PROJECT	DESCRIPTION	END DATE	STATUS
Remedial Design		02/15/2007	Actual
Remedial Investigation		02/15/2007	Actual
Remedial Design	IRM-Soil Removal	04/03/2007	Actual
Remedial Action	IRM-Soil Removal	09/16/2009	Actual

Operable Unit 04 - Remedial program - Southern Tank Yard Area

PROJECT	DESCRIPTION	END DATE	STATUS
Remedial Investigation		03/11/2011	Actual
Remedial Design		05/08/2012	Actual

Operable Unit 04A - IRM - Chemical Oxidation

PROJECT	DESCRIPTION	END DATE	STATUS
Remedial Action	IRM - Chemical Oxidation	10/14/2009	Actual
