

(Fact Sheet Begins Next)

## Act Now to Continue Receiving Information About This Site!

DEC's Division of Environmental Remediation (DER) now distributes information about contaminated sites *electronically by email*.

If you would like to continue to receive information about the contaminated site featured in this fact sheet:

**You must sign up for the DER email listserv:**

[www.dec.ny.gov/chemical/61092.html](http://www.dec.ny.gov/chemical/61092.html)

DER cannot register your email address - only the email address owner can do so. If you already have signed up for the listserv for the county in which the site is located, you need do nothing.



**Why You Should Go “Paperless”:**

Get site information faster and share it easily;

Receive information about all sites in a chosen county - read what you want, delete the rest;

It helps the environment and stretches your tax dollars.

**If “paperless” is not an option for you, call or write to the DER project manager identified in this fact sheet. Indicate that you need to receive paper copies of fact sheets through the Postal Service. Include the site name in your correspondence. The option to receive paper is available to individuals only. Groups, organizations, businesses, and government entities are assumed to have email access.**

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FACT SHEET Brownfield Cleanup Program

Receive Site Fact Sheets by Email. See "For More Information" to Learn How.

Site Name: Former Watermark Designs Facility
DEC Site #: C224139
Address: 491 Wortman Avenue
Brooklyn, NY 11208

Have questions? See "Who to Contact" Below

Interim Remedial Measure Proposed; Public Comment Period Announced

The New York State Department of Environmental Conservation (NYSDEC) is proposing an expedited cleanup for the Former Watermark Designs Facility site ("site") located at 491 Wortman Avenue, Brooklyn, NY. Please see the map for the site location. Documents related to the cleanup of this site can be found at the location(s) identified below under "Where to Find Information." NYSDEC is conducting a public comment period because this Interim Remedial Measure (IRM) is likely to represent a significant part of the cleanup for this site.

How to Comment

NYSDEC is accepting written comments about the proposed IRM work plan for 30 days, from April 1, 2015 through May 1, 2015. The proposed plan is available for review at the location(s) identified below under "Where to Find Information." Please submit comments to the NYSDEC project manager listed under Project-Related Questions in the "Who to Contact" area below.

Draft Interim Remedial Measure (IRM) Work Plan

An IRM is a cleanup activity that may be performed when a source of contamination or exposure pathway (the way in which a person may contact contamination) can be effectively addressed without extensive investigation and evaluation.

The draft IRM work plan describes the proposed cleanup activities that include the following.

- 1. A pilot test demonstrated that an air sparging/soil vapor extraction (AS/SVE) system will effectively treat contamination present in soil and groundwater at the warehouse area of the building.
2. The full-scale AS system will consist of an air sparge well network, piezometers, and above ground piping, as summarized below.
a. Radius of Influence (ROI) of 20 feet;
b. Air flow rates ranging from 15 to 20 standard cubic feet per minute (scfm) per well screen; and
c. Design pressure of 8 pounds per square inch (psi) for compressor sizing.
3. A full-scale SVE system will consist of SVE wells, vapor probes, a vent well network and above ground piping, with the following key design parameters.
a. ROI of 20 feet, based on 500 to 1000 pore volume exchanges per year;

- b. Design air flow for each SVE well of approximately 60 scfm; and
- c. Wellhead vacuum of 60 to 70 inches H2O.

Once the system discharge results have demonstrated that it meets the initial design criteria, the system will be optimized by adjusting the injection and extraction rates at individual system wellheads to maximize the mass removal of volatile organic compounds.

#### *Additional Details*

Based on the concentrations of Trichloroethene (TCE) and Tetrachloroethene (PCE) in indoor air and sub-slab samples, the New York State Department of Health (NYSDOH) has determined that the site poses a significant threat to human health.

#### *Summary of the Investigations*

From 2008 to 2014, investigations were completed both on-site and off-site.

- In 2008, TCE in soil was 63 mg/kg at the western side of the site. Metals were detected in soil but did not exceed commercial use soil cleanup objectives (SCOs). In groundwater, TCE was 24,000 ug/l and PCE was 544 ug/l.
- In 2009, TCE in soil was 140 mg/kg and PCE was 5 mg/kg. In groundwater, TCE was 5400 ug/l and PCE was 510 ug/l. In general, concentrations decreased with depth.
- In 2011, TCE in groundwater ranged from 77 ug/l to 2300 ug/l and PCE ranged from 260 ug/l to 3500 ug/l. In indoor air, TCE ranged from 4.3 ug/m<sup>3</sup> to 8.5 ug/m<sup>3</sup>. The maximum concentration of TCE in sub-slab samples was 2,300,000 ug/m<sup>3</sup>. At off-site soil vapor locations, TCE ranged from 130 ug/m<sup>3</sup> to 63,000 ug/m<sup>3</sup>; PCE ranged from non-detect to 3200 ug/m<sup>3</sup>.
- In 2012, the maximum TCE concentration in soil was 12 mg/kg. Lead was detected at 1000 mg/kg (at 0-2 feet) in the pit. In groundwater, the maximum TCE concentration was 8700 ug/l and chromium was 168 ug/l. At off-site locations, the maximum TCE concentration was 26,500 mg/m<sup>3</sup>. No pesticides or Polychlorinated Biphenyls (PCBs) were detected in soil and groundwater.
- In 2014, additional off-site sampling was done for groundwater and soil vapor. In groundwater, TCE concentrations were highest in the intermediate interval (30 to 40 feet bgs), ranging from 37 ug/l to 240 ug/l. PCE concentrations ranged from 11 ug/l to 33 ug/l. High concentrations of PCE and TCE were seen in shallow groundwater (0 to 10 feet bgs) at one off-site well, inconsistent with the other wells at upgradient locations. In soil vapor, TCE ranged from 12 ug/m<sup>3</sup> to 2900 ug/m<sup>3</sup> and PCE ranged from 110 ug/m<sup>3</sup> to 500 ug/m<sup>3</sup>. The highest concentrations were seen at the same location where TCE and PCE concentrations were high in groundwater.

#### **Next Steps**

NYSDEC will consider public comments, revise the plan as necessary, and approve the IRM work plan in consultation with NYSDOH. The approved work plan will be made available to the public (see "Where to Find Information" below). After the work plan is approved, the activities detailed in the work plan will be implemented. Upon completion of the work, a Construction Completion Report will be prepared that documents the activities that were performed.

NYSDEC will keep the public informed throughout the investigation and cleanup of the site.

## Background -

### Site Location:

The Brownfield Cleanup Program (BCP) site is located at 491 Wortman Avenue in Brooklyn, NY and is approximately .44 acres. It is bounded to the south by Wortman Avenue, to the east by Essex Street, to the west by Linwood Street, and to the north by a commercial and industrial property.

### Site Features:

There is a one story industrial brick and steel building which occupies the entire area of the property. No exposed soil or vegetation is present on the subject property.

### Current Zoning/Use:

The area surrounding the site is for industrial and commercial uses. Since 2007, a portion of the site building has been used by a group for religious activities.

### Historical Use(s):

US Tube & Foundry Company, Inc. operated at the site between 1945 and 1973. The National Hanger Company, Inc. operated at the site in 1976. J & H Holding Company, LLC has owned the property since 1983 and manufacturing activities continued until 2007. The site was previously used to manufacture, store, package, and ship decorative fixtures and hardware for bathrooms and kitchens. Processes involved cleaning, painting, plating, etching, polishing, and specific machining of metals and metal products. A cleaning and degreasing area was located along the west side of the building. The source of contamination is within the on-site building.

### Site Geology and Hydrogeology:

The site is located over the Long Island aquifer system, which underlies all of Nassau, Suffolk, Kings (Brooklyn), and Queens Counties. The unconsolidated aquifer formations form a southward-dipping wedge that attains a maximum thickness in Kings County about 800 feet in the southeast area of Brooklyn. Overlying bedrock is the Lloyd, Magothy, Jameco, and Upper Glacial aquifer systems. The lithologic description of sediments from soil borings identifies the material as fill to approximately five feet below grade, underlain by layers of fine to medium silty sands and silt. Groundwater at the site is encountered at approximately 11 feet below grade. Groundwater beneath the property is class GA denoting potential use as potable water. The property lies within New York City, which utilizes reservoirs from upstate New York as sources of potable water.

Additional site details, including environmental and health assessment summaries, are available on NYSDEC's website at:

<http://www.dec.ny.gov/cfm/external/derexternal/haz/details.cfm?pageid=3&progno=C224139>

**Brownfield Cleanup Program:** New York's Brownfield Cleanup Program (BCP) encourages the voluntary cleanup of contaminated properties known as "brownfields" so that they can be reused and redeveloped. These uses include recreation, housing, business or other uses.

A brownfield is any real property that is difficult to reuse or redevelop because of the presence or potential presence of contamination.

For more information about the BCP, visit: <http://www.dec.ny.gov/chemical/8450.html>

## FOR MORE INFORMATION

### Where to Find Information

Project documents are available at the following location(s) to help the public stay informed.

Brooklyn Public Library-New Lots Branch  
665 New Lots Ave. at Barbery St.  
Brooklyn, NY 11207  
Phone: 718-649-0311

### Who to Contact

Comments and questions are always welcome and should be directed as follows:

#### Project-Related Questions

Alicia Barraza  
NYS Dept of Environmental Conservation  
Division of Environmental Remediation  
625 Broadway  
Albany, NY 12233-7016  
Tel: 518-402-9690  
Email: alicia.barraza@dec.ny.gov

#### Site-Related Health Questions

Dawn Hettrick  
New York State Department of Health  
Bureau of Environmental Exposure Investigation  
Empire State Plaza, Tower Room 178  
Albany, NY 12237  
Tel: 518-402-7860  
Email: BEEI@health.ny.gov

**We encourage you to share this fact sheet with neighbors and tenants, and/or post this fact sheet in a prominent area of your building for others to see.**

#### **Receive Site Fact Sheets by Email**

Have site information such as this fact sheet sent right to your email inbox. NYSDEC invites you to sign up with one or more contaminated sites county email listservs available at the following web page: <http://www.dec.ny.gov/chemical/61092.html>. It's quick, it's free, and it will help keep you *better informed*.



As a listserv member, you will periodically receive site-related information/announcements for all contaminated sites in the county(ies) you select.

Note: Please disregard if you already have signed up and received this fact sheet electronically.

# SITE LOCATION

