New York State Department of Environmental Conservation

# FACT SHEET

Voluntary Cleanup Program

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Site Name: Busy Bee Cleaners
DEC Site #: V00376
Site Address: 1818 Merrick Road
Merrick, NY 11566

August 2012

## Remedy Proposed for Voluntary Cleanup Site Contamination; Public Comment Period Announced

The New York State Department of Environmental Conservation (NYSDEC or Department) is reviewing one or more cleanup documents for Busy Bee Cleaners ("site") located at 1818 Merrick Road, Merrick, Nassau County. 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."

**Voluntary Cleanup Program:** New York's Voluntary Cleanup Program (VCP) was developed to encourage private sector volunteers to investigate and clean up contaminated properties and return these sites to productive use. Once cleaned up, the properties may be redeveloped for commercial, industrial, residential or public use.

For more information about the VCP, visit: http://www.dec.ny.gov/chemical/8442.html

**How to Comment**

NYSDEC is accepting written comments about the proposed plan for for 30 days, from September 10, 2012 through October 10, 2012. The proposed plan is available for public review at the location(s) identified below under "Where to Find Information." Please submit comments to the project manager listed under Project Related Questions in the "Who to Contact" area below.

**Draft Remedial Action Work Plan and Proposed Decision Document**

The plan that identifies the proposed remedy has several goals:

1) identify cleanup levels to be attained or the process to be used to determine these levels;
2) explain why the proposed remedy will protect public health and the environment; and
3) provide a detailed description of the proposed remedy.

The remedy proposed for the site includes:

1. Remedial Design

A remedial design program will be implemented to provide the details necessary for the construction, operation, maintenance, and monitoring of the remedial program. Green remediation principles and techniques will be implemented to the extent feasible in the design, implementation, and site management of the remedy as per DER-31. The major green remediation components are as follows;

•Considering the environmental impacts of treatment technologies and remedy stewardship over the long term;
•Reducing direct and indirect greenhouse gas and other emissions;
•Increasing energy efficiency and minimizing use of non-renewable energy;
•Conserving and efficiently managing resources and materials;
•Reducing waste, increasing recycling and increasing reuse of materials which would otherwise be considered a waste;
•Maximizing habitat value and creating habitat when possible;
•Fostering green and healthy communities and working landscapes which balance ecological, economic and social goals; and
•Integrating the remedy with the end use where possible and encouraging green and sustainable re-development.

2. Air Sparge/SVE

Air sparging is an in-situ technology used to treat groundwater contaminated with volatile organic compounds (VOCs). The process physically removes contaminants from the groundwater by injecting air into a well that has been installed into the groundwater. As the injected air rises through the groundwater it volatilizes the VOCs from the groundwater into the injected air. The VOCs are carried with the injected air into the vadose zone (the area below the ground surface but above the water table) where a soil vapor extraction (SVE) system is used to remove the injected air. The SVE system pulls a vacuum on wells that have been installed into the vadose zone to remove the VOCs along with the air introduced by the sparging process. The SVE system will also draw air through the soil matrix which carries the VOCs from the soil to the SVE well. The air extracted from the SVE wells is then run through activated carbon (or other air treatment as applicable) which removes VOCs from the air before it is discharged to the atmosphere.

At this site, air injection wells will be installed into shallow and deep intervals of the on-site plume to depths of approximately 16 ft. and 46 ft. deep, which is 10 feet and 40 feet below the water table. To capture the volatilized contaminants, 4 SVE wells will be installed in the vadose zone to a depth of approximately 6 ft. below ground surface. The air containing VOCs extracted from the SVE wells will be treated with activated carbon (or other air treatment as applicable).

3. In-Situ Chemical Oxidation

In-situ chemical oxidation is a technology used to treat chlorinated ethene compounds (a type of volatile organic compound) in the soil and groundwater. The process injects a chemical oxidant into the subsurface via injection wells or an infiltration gallery. The method of injection and depth of injection is determined by location of the contamination. As the chemical oxidant comes into contact with the contaminant, an oxidation reaction occurs that breaks down the contaminant into relatively benign compounds such as carbon dioxide and water. Several chemical oxidants are commercially available. For the purpose of this discussion Potassium Permanganate will be the chemical oxidant evaluated. At this site, the chemical oxidant will be applied through 6 off-site injection wells screened from 40 to 45 feet to target the VOCs, primarily PCE and its degradation products TCE, and DCE.

4. Institutional Control

Imposition of an institutional control in the form of a deed restriction for the controlled property that:

- requires the remedial party or site owner to complete and submit to the Department a periodic certification of institutional and engineering controls in accordance with DER 10;
- allows the use and development of the controlled property for commercial use as defined by DER 10, although land use is subject to local zoning laws;
- restricts the use of groundwater as a source of potable or process water, without necessary water quality treatment as determined by the NYSDOH or County DOH;
- prohibits agriculture or vegetable gardens on the controlled property; and
- requires compliance with the Department approved Site Management Plan.

5. Site Management Plan
A Site Management Plan is required, which includes the following:

a. an Institutional and Engineering Control Plan that identifies all use restrictions and engineering controls for the site and details the steps and media-specific requirements necessary to ensure the following institutional and/or engineering controls remain in place and effective:

Institutional Controls: Imposition of an institutional control in the form of a deed restriction that restricts land use and groundwater use as discussed above.

Engineering Controls: Air Sparging along with Soil Vapor Extraction and In-Situ Chemical Oxidation will be utilized to remediate the Site. The proposed remedy will treat impacted groundwater on-site and will achieve mass reduction of volatile organic compounds in on-site and off-site groundwater to the extent practicable as discussed above.

This plan includes, but may not be limited to:
- an Excavation Plan which details the provisions for management of future excavations in areas of remaining contamination;
- descriptions of the provisions of the environmental easement including any land use, and groundwater use restrictions;
- a provision for evaluation of the potential for soil vapor intrusion if use of PCE in the on-site building is discontinued and for any buildings developed on the site, including provision for implementing actions recommended to address exposures related to soil vapor intrusion;
- provisions for the management and inspection of the identified engineering controls;
- maintaining site access controls and Department notification; and
- the steps necessary for the periodic reviews and certification of the institutional and/or engineering controls.

b. a Monitoring Plan to assess the performance and effectiveness of the remedy. The plan includes, but may not be limited to:
- monitoring of groundwater to assess the performance and effectiveness of the remedy;
- a schedule of monitoring and frequency of submittals to the Department;
- monitoring for vapor intrusion for any buildings occupied or developed on the site, as may be required by the Institutional and Engineering Control Plan discussed above.

c. an Operation and Maintenance (O&M) Plan to ensure continued operation, maintenance, monitoring, inspection, and reporting of any mechanical or physical components of the remedy. The plan includes, but is not limited to:

- compliance monitoring of treatment systems to ensure proper O&M as well as providing the data for any necessary permit or permit equivalent reporting;
- maintaining site access controls and Department notification; and
- providing the Department access to the site and O&M records.

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The proposed remedy was developed by the Voluntary Cleanup Program (VCP) volunteer after performing a detailed investigation of the site under New York's VCP.

**Next Steps**

NYSDEC will consider public comments, revise the plan as necessary, and issue a final Decision Document. New York State Department of Health (NYSDOH) must concur with the proposed remedy. After approval, the proposed remedy becomes the selected remedy. The draft Remedial Action Work Plan and Proposed Decision Document are revised as needed to describe the selected remedy, and will be made available to the public. The volunteer(s) may then design and perform the cleanup action to address the site contamination, with oversight by NYSDEC and NYSDOH.

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

**Background**

Location: Busy Bee Dry Cleaners is located in a suburban portion of Nassau County, NY. The site is located in Merrick on Merrick Road between Montauk Ave and Beach Drive.

Site Features: The main site feature is the existing one-story building that is currently used for dry cleaning operations. The building is surrounded by parking areas and has an access road on the west side.

Current Zoning/Use: The site is zoned commercial and is located in the commercial corridor along Merrick Road. A residential neighborhood is located directly south of the Site.

Historic Use: Historic use as a dry cleaning facility and releases of dry cleaning wastes (tetrachloroethylene - PCE) have caused soil, soil vapor, and groundwater contamination at the Site. A soil vapor extraction system was installed in August 1994 and operated through April 1996.

Site Geology and Hydrogeology: Site contamination has impacted the groundwater of the Upper Glacial Aquifer. Groundwater is approximately 5 ft below the ground surface on-site and it flows in a south-southeast direction. The geology of the Site consists of sand with minor amounts of fines from grade down to 47 feet. A clay-confining unit was identified at approximately 47 feet below land surface.

Additional site details, including environmental and health assessment summaries, are available on NYSDEC's website at:
http://www.dec.ny.gov/cfmx/extapps/derexternal/haz/details.cfm?pageid=3&progno=V00376

## FOR MORE INFORMATION

### Where to Find Information

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

North Merrick Public Library
Attn: Reference Desk
1691 Meadowbrook Road
North Merrick, NY 11566
phone: (516) 378-7474

New York State Department of Environmental Conservation
Attn: Mr. Bill Fonda
50 Circle Road
Stony Brook, NY 11790-2356
phone: (631) 444-0350

Project documents are also available on the NYSDEC website at:
http://www.dec.ny.gov/chemical/8431.html

### Who to Contact

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


Project Related Questions
Robert Decandia
Department of Environmental Conservation
Division of Environmental Remediation
625 Broadway
Albany, NY 12233-7015
518-402-9621
rddecand@gw.dec.state.ny.us

Site-Related Health Questions
Sharron McLelland
New York State Department of Health
Flanigan Square 547 River Street
Troy, NY 12180-9621
(518) 402- 7880


**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.**

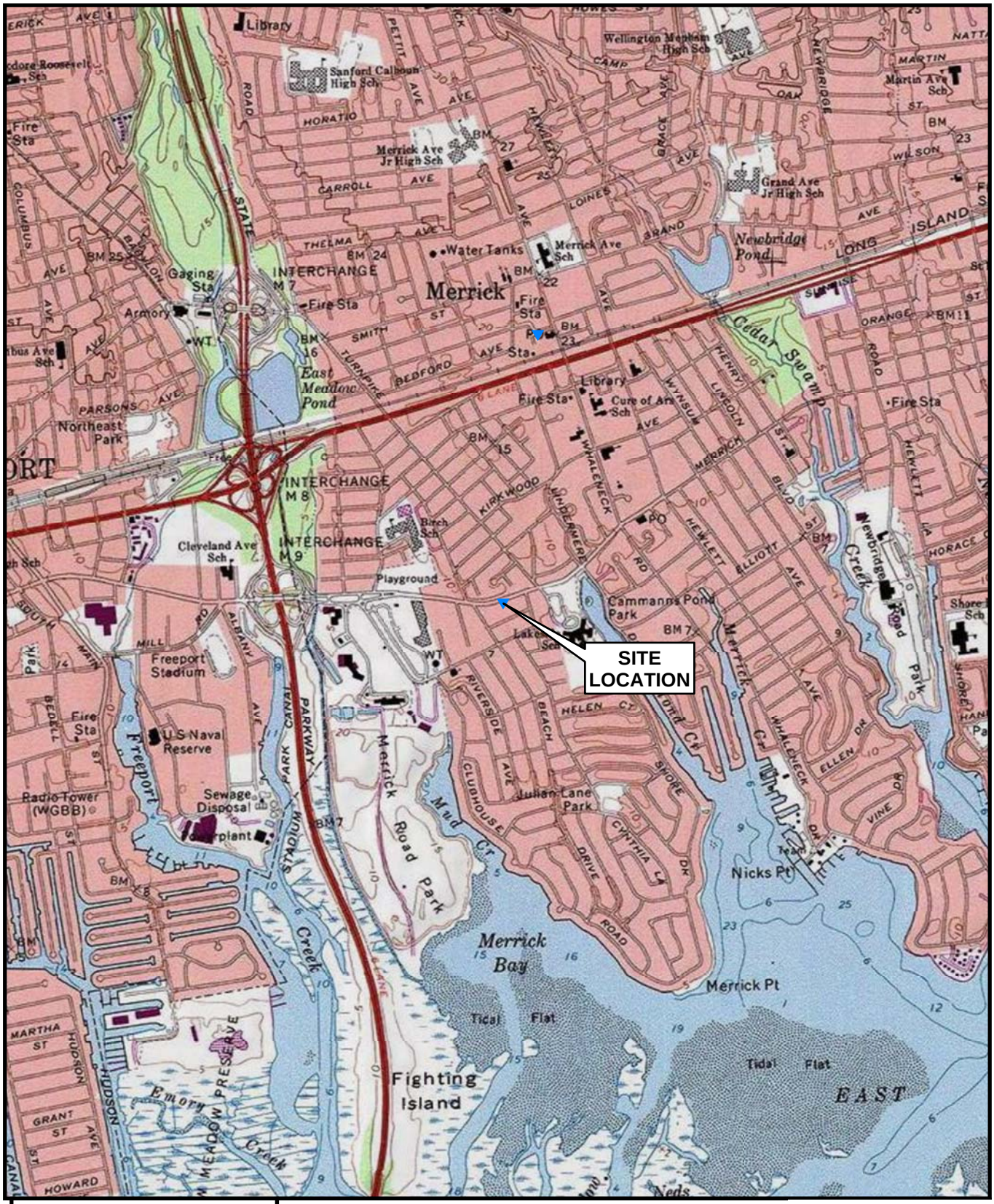
**Receive Site Fact Sheets by Email**

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.

You may continue also to receive paper copies of site information for a time after you sign up with a county listserv, until the transition to electronic distribution is complete.

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




# Figure 1

## Site Location Map

Busy Bee Cleaners

Town of Hempstead, Nassau County

Site No. V00376

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