New York State Department of Environmental Conservation

October 2012

FACT SHEET

State Superfund Program

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

Site Name: Pride Solvents and Chemical Co.
DEC Site #: 152025 Operable Unit 01 & 02 *
Address: 78-88 Lamar Street
Babylon, NY 11704

Have questions? See "Who to Contact" Below

Remedy Proposed for State Superfund Site; Public Comment Period and Public Meeting Announced

Public Meeting, Tuesday, 11/13/2012 at 7:00 PM
Wyandanch Senior Nutrition Center, 28 Wyandanch Ave, Wyandanch, NY
NYSDEC invites you to a public meeting to discuss the remedy proposed for the site. You are encouraged to provide comments at the meeting, and during the 30-day comment period described in this fact sheet.

The public is invited to comment on a remedy proposed by the New York State Department of Environmental Conservation (NYSDEC) related to the Pride Solvents and Chemical Co. site ("site") located at 78-88 Lamar Street, Babylon, Suffolk 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."

How to Comment
NYSDEC is accepting written comments about the proposed plan for 30 days, from **October 30, 2012** through **November 30, 2012**. 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.

The site is listed as a Class "2" site in the State Registry of Inactive Hazardous Waste Sites (list of State Superfund sites). A Class 2 site represents a significant threat to public health or the environment; action is required.

Proposed Remedial Action Plan
The remedy proposed for the site includes:

OU1 Remedy Description:

The remedy for OU1 will be an Air Sparge/Soil Vapor Extraction System (AS/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

**Operable Unit:* An administrative term used to identify a portion of a site that can be addressed by a distinct investigation and/or cleanup approach. An operable unit can receive specific investigation, and a particular remedy may be proposed.

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 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.

The SVE system will also remediate unsaturated soil contaminated with VOCs. The vacuum draws air through the soil matrix which carries the VOCs from the soil to the SVE well. The VOC-contaminated soils are in the same locations as the contaminated groundwater.

At this site, approximately 40 air injection wells will be installed in the portion of the site to be treated to a depth of approximately 30 feet, which is 10-20 feet below the water table. To capture the volatilized contaminants, approximately 12 SVE wells will be installed in the vadose zone at a depth of approximately 7 feet below ground surface. The air containing VOCs extracted from the SVE wells will be treated with activated carbon (or other air treatment as applicable).

OU2 Remedy Description:

The remedy for OU2 will be a Permeable Reactive Barrier Using Enhanced Anaerobic Bioremediation. A permeable reactive barrier (PRB) is an in situ method for remediating contaminated ground water that combines a passive chemical or biological treatment zone with subsurface fluid flow management. Treatment media may include zero-valent iron, chelators, sorbents, and microbes to address a wide variety of groundwater contaminants, including chlorinated solvents. The contaminants are either degraded or concentrated and retained in the barrier material, which may need to be replaced periodically. PRBs can be installed as permanent or semi-permanent units.

Bioremediation uses microorganisms that already exist in the substrate to degrade organic contaminants in groundwater or on soil, either extracted/excavated or in situ. The microorganisms break down contaminants by using them as a food source or cometabolizing them with a food source. Aerobic processes require an oxygen source, and the end products typically are carbon dioxide and water. Anaerobic processes are conducted in the absence of oxygen, and the end products can include methane, hydrogen gas, sulfide, elemental sulfur, and nitrogen gas. In situ techniques stimulate and create a favorable environment for microorganisms to grow and use contaminants as a food and energy source. Sometimes, microorganisms that have been adapted for degradation of specific contaminants are applied to enhance the process.

Enhanced Anaerobic Bioremediation will be implemented via the injection of electron donors, carbon, and nutrients (otherwise referred to as "amendments"), into the subsurface. Specifically, the amendments will be injected such that a very thick layer of amendment (essentially a horizontal Permeable Reactive Barrier), will cover the most highly impacted section of the clay layer, which is about 400 ft long by 100 ft wide by 10 ft thick, reducing the

leaching of contamination exceeding the remedial action objectives from the clay into the groundwater. The chemical gradients induced between the Permeable Reactive Barrier and the impacted clay will serve to draw contamination out of the clay layer.

Institutional and Engineering Controls:

Both remedies will include Institutional and Engineering Controls. Institutional Controls such as an environmental easement that allows the use and development of the controlled property for commercial and industrial uses, restrictions on the use of groundwater as a source of potable or process water, prohibition on agriculture or vegetable gardens on the controlled property, requires the remedial party or site owner to complete and submit to the Department a periodic certification of institutional and engineering controls, and requires compliance with the Department approved Site Management Plan are all components of the Institutional Controls.

The Engineering Controls will include, but are not limited to, an Excavation Plan which details the provisions for management of future excavations in areas of remaining contamination, provision for evaluation of the potential for soil vapor intrusion 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, the steps necessary for the periodic reviews and certification of the institutional and/or engineering controls, a Monitoring Plan to assess the performance and effectiveness of the remedies, and an Operation and Maintenance (O&M) Plan to ensure continued operation, maintenance, monitoring, inspection, optimization, and reporting of the mechanical or physical components of the remedy.

Additional Details

No current or potential site-related surface water impacts have been identified. No site-related groundwater contamination has been identified in the Magothy Aquifer. Therefore, no remediation of groundwater is required for this aquifer. Site related contamination is impacting groundwater in the Upper Glacial Aquifer. Two distinct, contaminated groundwater plumes were identified, a shallow plume (above 20 ft bgs), and a deep plume (below 20 ft bgs). This groundwater is not used as a source of potable water. Protection of this groundwater resource will be addressed in the remedy selection process.

Based upon investigations conducted to date, the contaminants of concern for OU1 and OU2 include tetrachloroethylene (PCE), trichloroethene (TCE), 1,1,1-trichloroethane (TCA), and their break down products.

These contaminants plus toluene and methylene chloride were also found in on-site dry wells and/or storm drains at 88 Lamar, as well as in the on-site soils around and under the former UST and ASTs. PCE disposal has resulted in the contamination of deep, saturated soil which results in groundwater contamination exceeding SCGs.

Concentrations of TCE in indoor air of on- and off-site buildings range from non-detect to 3,200 micrograms per cubic meter (ug/m3); PCE concentrations in the indoor air range from non-detect to 3,500 µg/m3; and concentrations of TCA in indoor air range from non-detect to

160 ug/m3.

Concentrations of TCE in sub-slab soil vapor of on- and off-site buildings range from 7 ug/m3 to 54,000 ug/m3; PCE concentrations in the sub-slab range from 210 ug/m3 to 540,000 ug/m3; and TCA concentrations in the sub-slab soil vapor range from non-detect to 930 ug/m3.

For additional information on human health and exposure issues, please visit the New York State Department of Healths website at:
http://www.health.state.ny.us/environmental/about/exposure.htm

For additional information on some of the cleanup technologies that may be potentially used at this site, please visit the EPAs website at "A Citizens Guide to Clean Up Methods":
http://www.clu-in.org/products/citguide/ or "Contaminated Site Clean Up Information":
http://www.cluin.org/techfocus/

Summary of the Investigation

NYSDEC developed the proposed remedy after reviewing the detailed investigation of the site and evaluating the remedial options in the “feasibility study” submitted under New York’s State Superfund Program.

Next Steps
NYSDEC will consider public comments as it finalizes the remedy for the site. The selected remedy will be described in a document called a "Record of Decision" that will explain why the remedy was selected and respond to public comments. A detailed design of the selected remedy will then be prepared, and the cleanup will be performed.

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

Background
Location: The Pride Solvents site is located at both 78 and 88 Lamar Street, in the “West Babylon” or “Pinelawn Industrial Area” of Suffolk County, NY. It is about 500 feet east, crossgradient, of the Babylon Landfill, Site No. 152039, a class 2 site.

Site Features: The site is 1.3 acres with two occupied buildings. The remainder of the site is paved except for two small, grassy areas directly in front of the buildings.

Current Zoning/Use(s): Current zoning and uses are commercial in nature. Surrounding parcels are used for commercial and light industrial purposes.

Historic Use(s): This site was occupied by Pride Solvents from 1960 to the late 1990’s/early 2000’s and was operated as a chemical and solvent distribution and reclamation facility. Presently, the property is owned by Pride and leased to a roll-off container distributing company and an autobody shop. The facility was formerly permited to operate as a TSDF facility under the Resource Conservation and Recovery Act (RCRA) program. The site has been included in the USEPA's tracking system under GPRA (Government Performance and Results Act) for corrective action. The RCRA Corrective Action Program requires investigation and cleanup of

releases of hazardous wastes and hazardous constituents that pose an unacceptable risk at RCRA hazardous waste treatment, storage and disposal facilities. This site has not yet met indicators to show compliance with RCRA Corrective Action.

Pride Solvents and Chemicals received and stored waste solvents, both inside and outside, and then reclaimed the material via a filtration and distillation process. The operation at 78 Lamar Street included storage and reclamation of chlorinated and fluorinated solvents by distillation. Operations at the 88 Lamar Street facility were limited, reportedly, to bulk storage, drum packaging, and distribution.

Contamination associated with the Pride site was first identified in 1982 to 1983 by the Suffolk County Department of Health. A Phase I Preliminary Site Assessment was conducted in 1984 followed by a hydrogeologic investigation in 1991. Various investigations were conducted by Pride in 1992, 1993, and 1996, under the RCRA program until the Division of Environmental Remediation took over the project at the end of 1999.

Prior to January 1991, the northernmost yard of 88 Lamar Street contained 16 underground storage tanks. 12 were removed and 4 were filled with concrete and left in place. Despite the reported good condition of the tanks, about 50 cubic yards of soil were removed and disposed off-site during the tank removal. No tank tightness testing data are available.

Operable Units: The Operable Units (OU) were redefined in 2011 to identify the two remedial areas to be addressed; OU1 Shallow Groundwater and Soil Down to 20’ below ground surface (bgs), and OU2 Deep Groundwater Greater than 20' bgs.

Site Geology and Hydrology: Groundwater is present between 10' and 20' bgs and flows to the south-southeast. The site is immediately underlain by the moderately to highly permeable sand, gravel and cobble outwash deposits of the upper glacial aquifer. For most of the site a clay layer is found at approximately 83-92' bgs, underlying the upper glacial aquifer and serves as a confining unit between the upper glacial aquifer and the underlying Magothy aquifers. This clay layer was not found however, in the northern area of the site, rather a clear contact between the Magothy’s gray-white fine sand and the Upper Glacial’s medium to coarse sand, gravel, and cobbles was encountered.

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=152025

State Superfund Program: New York's State Superfund Program (SSF) identifies and characterizes suspected inactive hazardous waste disposal sites. Sites that pose a significant threat to public health and/or the environment go through a process of investigation, evaluation, cleanup and monitoring.

NYSDEC attempts to identify parties responsible for site contamination and require cleanup before committing State funds.

For more information about the SSF, visit: http://www.dec.ny.gov/chemical/8439.html

FOR MORE INFORMATION

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

West Babylon Public Library
Attn: Nicole Haas - Reference Librarian
211 Route 109
West Babylon, NY 11704
phone: (631) 669-5445

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

Project Related Questions
Tara Diaz
Department of Environmental Conservation
Division of Environmental Remediation
625 Broadway
Albany, NY 12233-7015
518-402-9632
tldiaz@gw.dec.state.ny.us

Site-Related Health Questions
Renata Ockerby
New York State Department of Health
Empire State Plaza Corning Tower Room 1787
Albany, NY 12237

BEEI@health.state.ny.us

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.

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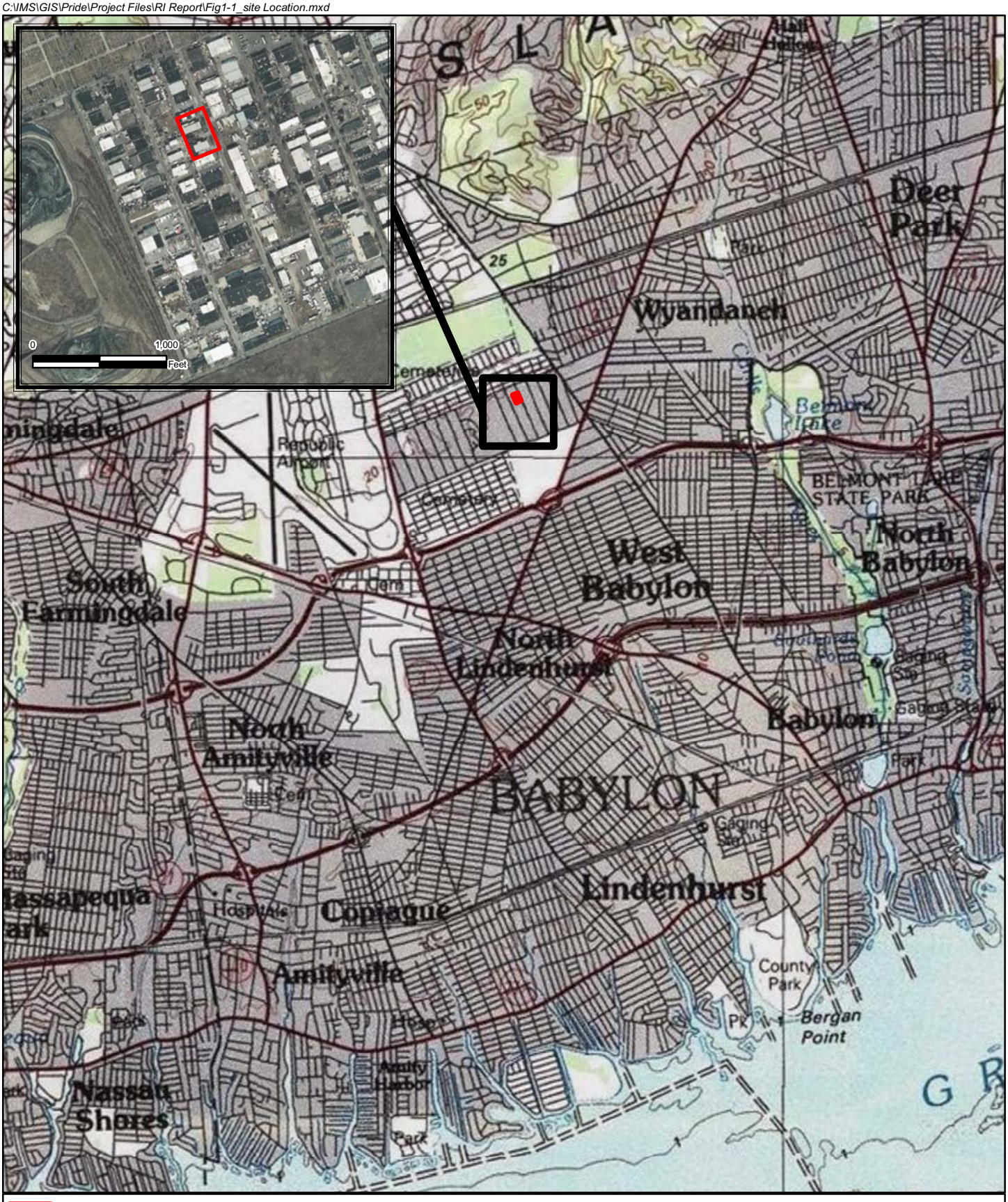

Figure 1
Site Location Map

Pride Solvents and Chemical Company
West Babylon, New York

CDM