



FACT SHEET

Manufactured Gas Plant Program

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**Bay Shore former Manufactured Gas Plant
Site 1-52- 172
Bay Shore, NY**

October 2012

Remediation of Former Manufactured Gas Plant Site Update

This Fact Sheet provides an update of remediation activities conducted at the former Bay Shore Manufactured Gas Plant (MGP) site, since the previous Fact Sheet dated March 2011, and provides the major elements completed to date. The investigation and remediation are being performed with the oversight of the New York State Department of Environmental Conservation (NYSDEC) and the New York State Department of Health (NYSDOH).

Summary:

Since March 2011, National Grid has conducted or coordinated various activities for the four site Operable Units.

About Operable Units:

The site has been broken into four separate areas called Operable Units, OU-1 through OU-4 (see attached site map), each of which deals with a specific portion of the project area. OU-1 constitutes the main site area where gas manufacturing operations once took place and where contamination was the most severe. OU-2 consists of the contaminated groundwater plume which originates in OU-1 and has moved southward. OU-3 includes the Brightwaters Yard, where fuel for the gas making process was stored and its associated groundwater plume. OU-4 is an area east of OU-1 where treated MGP waste water was discharged. An updated map of the site and plume paths is provided at the end of this update.

Operable Unit No. 1:

National Grid has received NYSDEC approval to continue investigations on properties adjacent to the former MGP site to confirm the extent of impacts remaining, if any, and identify any additional remedial measures that may be required. In addition, National Grid will be installing an additional recovery well inside of the barrier wall to remove coal tar from the subsurface.

This work is scheduled for September-November 2012. National Grid is working with the Long Island Railroad (LIRR) to remove shallow soils from below the railroad during a LIRR planned upgrade this year. The work will take place during a scheduled LIRR maintenance upgrade of the road crossing at North Clinton Avenue the weekend of October 13th.

About the Manufactured Gas Plant Program:

NYSDEC has one of the most aggressive Manufactured Gas Plant (MGP) Programs site investigation and remediation programs in the country. Since the problems associated with the former MGP sites were identified, NYSDEC has been working with all the utilities on a state-wide basis to identify and address the issue of MGP sites for which they may have responsibility. This effort has resulted in approximately 235 sites identified for action by the eight utilities operating in New York State.

Currently we have multi-site orders or agreements with six utilities, including National Grid, and several other individual site volunteers, to address 222 MGP sites in NYS. Multi-site agreements are under negotiation with a seventh utility and several other responsible parties which have newly-identified sites.

NYSDEC continues to seek to identify any other possible MGP sites throughout the State.

For more information about the NYSDEC's MGP program, visit:

www.dec.ny.gov/chemical/8430.html

Operable Unit No. 2:

National Grid completed the design and installation of the Community Road oxygen injection system and the installation of the OU-1 Union Boulevard oxygen injection system extension. National Grid completed the initial start-up of the Community Road and the OU-1 Union Boulevard oxygen injection system in July 2011.

Operable Unit No. 3:

The OU-3 Community Road oxygen injection line was upgraded in March 2012 to address downgradient groundwater impacts. Monthly groundwater data collected since March 2012 indicate the upgrade was successful in reducing downgradient groundwater impacts. Currently, an evaluation to determine whether or not additional improvements to the existing groundwater treatment system will be required is in progress.

Operable Unit No. 4:

Final restoration activities associated with the OU-4 excavation activities on the Town of Islip LIRR parking lot and the Union Boulevard properties were completed in April 2012.

Current Site Status:

Major remedial activities have been completed in each of the OUs. A list of these projects is shown on the attached table entitled "Project Milestones". In all of the OU's, Groundwater Monitoring (GM) and Operations, Maintenance and Monitoring (OM&M) activities are ongoing to measure the effectiveness of the remedial actions and to ensure that they are continuing to perform to specifications. GM and OM&M Reports can be found in the Major Reports sub-tab of the Key Documents section of Bay Shore MGP website: www.bayshoreworksmgpsite.com.

OU-1 was the former main operating area of the plant. Contaminated soil was excavated from most of the site to depths of between eight and 25 feet, and replaced with clean fill topped with an engineered cap. A barrier wall has been installed along the south side of the site with perforations in the southern portion of the wall to allow treated groundwater to flow through. Prior to groundwater flowing through the perforated section of barrier wall it is treated with ozone gas that is generated in the groundwater treatment facility on-site and injected into the groundwater through a series of injection wells to reduce the concentration of contaminants in the groundwater plume. Recovery wells to extract remaining liquid wastes (primarily Non Aqueous Phased Liquids or NAPL) have also been installed.

OU-2 is the plume path area that runs south from the former main site to Lawrence Creek. Eight oxygen injection lines – with their supporting oxygen generating equipment – have been installed crossing the plume path at the upper, mid and lower sections. As a result of the operation of these systems, and the reduction of contaminant flow from OU-1 because of the

remedial actions there, the plume path is now much smaller than when the project began, and contaminant levels have been significantly reduced, and, in some locations, are now not detectable. The changes in the size of the plume path may be seen on the attached site map.

OU-3 is at the western end of the site, and includes the Brightwaters Yard and the plume path that runs in a narrow band in the vicinity of Lanier Lane. The major completed activities in this OU include the removal of underground storage tanks and structures, the installation of three oxygen injection systems near the top of the plume path, excavation of on-site soils, the completion of an in-situ chemical oxidation system between 2000-2004 and the excavation of contaminated soils to a depth of 12 feet under and adjacent to the Long Island Railroad tracks and impacted soil in the Brightwaters Yard in 2010. The oxygen injection system in the Brightwaters Yard which was in operation since 2004 was abandoned in 2009 to support the excavation activities. A new oxygen injection line was installed along the north side of Community Road in April 2010 to replace the system on the south side of Union Boulevard which was installed in 2000 and was decommissioned in July 2010. In addition, National Grid completed a thorough cleaning and repair of the catch basins in the community storm drain system in the plume path area. The Community Road oxygen injection line was upgraded in March 2012 to address impacts detected downgradient of Union Boulevard. On-going monitoring is demonstrating that all of these remedial activities are further narrowing and reducing the concentrations of contaminants in the plume path.

There have been several significant remedial projects in OU-4 including the remediation and then creek bank restoration of Watchogue Creek/Crum's Brook at the start of this project in 2000, the removal of contaminated soils in the vicinity of the former cesspool structure and replacement of a portion of the Oak Street storm drain line which was completed in 2005. In 2009-2010 an in-situ chemical oxidation project was completed in the Cesspool Area of the site. In the Spring and Summer of 2011 the excavation of remaining contamination in the upper ten feet was completed in designated areas throughout OU4. Site restoration activities were completed in Spring 2012.

For More Information:

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

Bay Shore/Brightwaters Public Library

1 South Country Road
Brightwaters, New York 11718
(631) 665-4350

Repository is open during normal library hours.

NYSDEC Region 1 Office

50 Circle Road
Stony Brook, NY 11790
Contact: Mr. Walter Parish
(631) 444-0240

Hours: M-F: 8:30 AM – 4:45 PM (by appointment)

For additional information about site activities and other related information about the site, please visit National Grid's website for the project at: www.bayshoreworksmgp.com.

Who to Contact:

Comments and questions are always welcome and should be directed to the following:

Project Related Questions

Mr. Richard Dana
Project Manager
NYSDEC
Division of Environmental Remediation
625 Broadway
Albany, NY 12233-7014
(518) 402-9662
rhdana@gw.dec.state.ny.us

Bay Shore MGP Hotline

Terri Kelly-Community Liaison
(516) 545-3839

Site-Related Health Questions

Mr. Steven Karpinski
NYSDOH, BEEI
Public Health Specialist II
Bureau of Environmental Exposure
Investigation
New York State Department of Health
Empire State Plaza, Corning Tower, Room
1787
Albany, New York 12237
Phone: (518)-402-7880
beei@health.state.ny.us

If you know someone who would like to be added to the site contact list, have them contact the NYSDEC Project Manager above. 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.

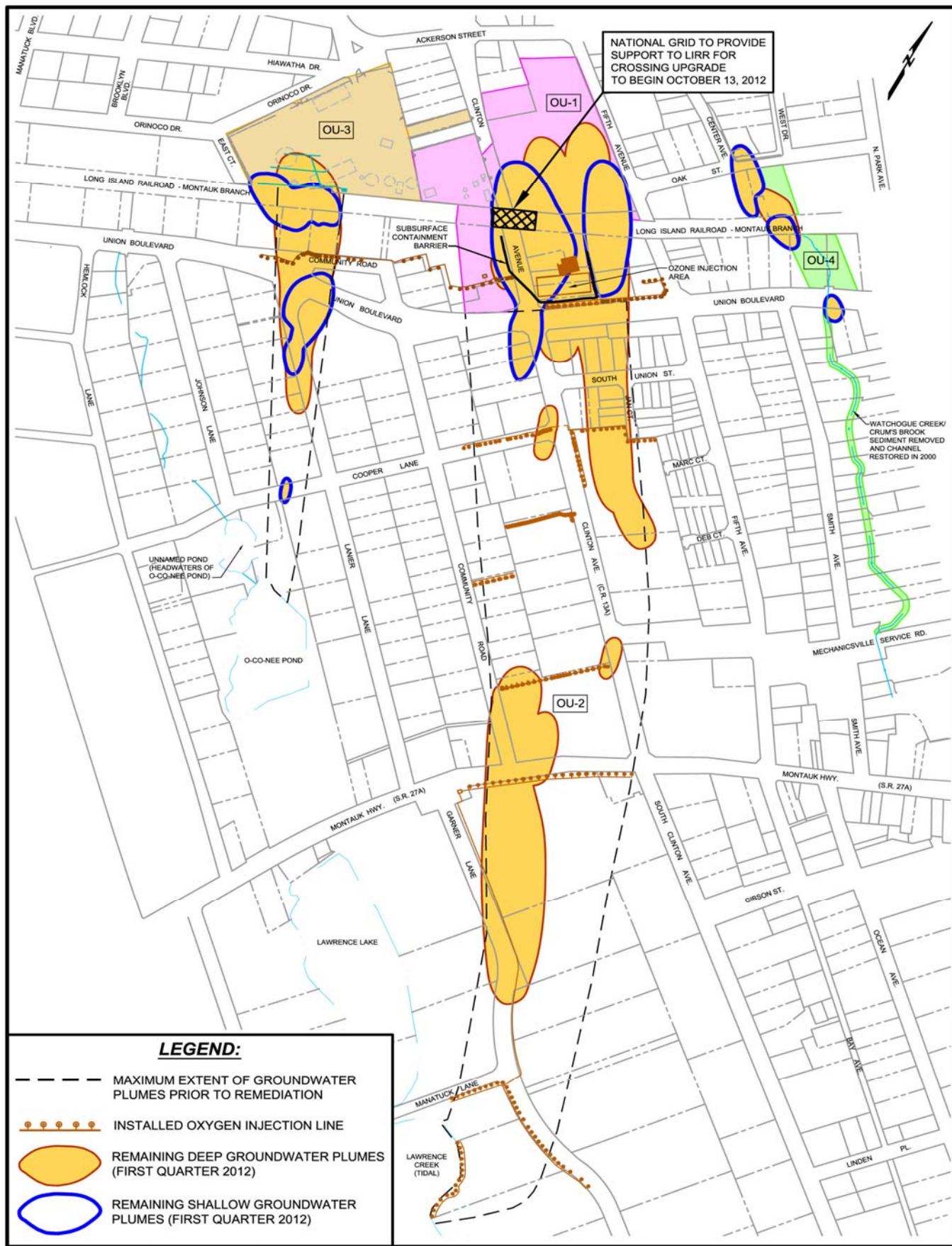
Receive Site Fact Sheets by Email

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: 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.



Project Milestones	
1999	• KeySpan (now National Grid) and NYSDEC enter into Order on Consent • Smith Avenue remediation work start • Brightwaters Yard remediation work • Field work for Remedial Investigation planned
2000	• First Public Meeting (January) • Watchogue Creek/Crum's Brook Interim Remedial Measure (IRM) field work • Brightwaters Yard chemical oxygen injections
2001	• Planning for Supplemental Remedial Investigation • OU 3 chemical oxidation injections in the Brightwaters Yard
2002	• Supplemental Remedial Investigation • OU 3 underground storage tank excavation and chemical oxidation injections
2003	• Final Remedial Investigation Report
2004	• Remedial Action Plan and Record of Decision for Operable Unit 1 • OU 3 soil removal under a temporary movable fabric enclosure • OU-3 additional chemical oxidation injections • OU-3 installation of the Brightwaters Yard oxygen injection system • OU 4 background soil sampling
2005	• OU-2 oxygen system installations begin • OU-1 testing for sheet wall installation • OU-4 excavation of hot spots of contaminated soil in Cesspool Area
2006	• First quarterly Operations, Monitoring and Maintenance (OM&M) Report • Excavation IRM in south cell of OU-1 paves way for full excavation • Indoor air monitoring of OU-2 residences on request begins
2007	• Installation of OU-1 barrier wall • Excavation of OU-1 begins
2008	• OU-1 Barrier wall completed • OU-1 shallow and deep excavation program completed • Three additional oxygen injection lines planned and installed in OU-2 • Storm drain rehabilitation project was completed in OU-3 • www.bayshoreworksmgpsite.com is re-launched
2009	• An additional oxygen injection system installed at the tail end of OU-2. • Cooper Lane line extended • LIRR tracks relocated and excavation of contaminated soils began in OU-3 • In-Situ chemical oxidation injections performed in the cesspool portion of OU-4 • OU-1 Groundwater treatment facility completed and activated
2010	• Areas west of barrier wall in OU-1 investigated and remediated, two additional oxygen lines installed • OU-3 excavations under LIRR tracks and in the Brightwaters Yard completed, tracks restored • Installation of Community Road oxygen injection line and abandonment of Union Boulevard oxygen injection system.
2011	• OU-2 installation of one additional and an extension of an existing oxygen injection system • OU-3 post LIRR excavation groundwater evaluation conducted • OU-4 excavation of MGP impacts, backfilling and restoration completed
2012	• OU-3 post LIRR excavation groundwater evaluation completed • OU-3 upgrade of Community Road oxygen injection line completed • OU-4 restoration of site following excavation activities completed • OU-4 post remediation sampling of Watchogue Creek sediment and surface water completed • OU-1 planned investigative work on adjacent property and recovery well installation