New York State Department of Environmental Conservation

FACT SHEET

Manufactured Gas Plant Program

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Bay Shore former Manufactured Gas Plant
Site 1-52- 172
Bay Shore, NY **March 2011**

Remediation of former Manufactured Gas Plant Site Moves into Final Phase; Work Plan Approved for Operable Unit 4; Public Meeting Scheduled

Public Meeting
Tuesday, April 26, 2011
7:00 p.m.

Bay Shore High School
155 Third Avenue
Bay Shore, NY

NYSDEC invites you to a public meeting to discuss the progress on this site and plans for the final phase of remediation.

Representatives of the NYSDEC, NYSDOH and National Grid will participate.

The New York State Department of Environmental Conservation (NYSDEC), the New York State Department of Health (NYSDOH) and representatives of National Grid will hold a Public Meeting on **Tuesday**, **April 26 at 7:00 p.m.** at the Bay Shore High School to discuss projects in the final phase of remediation of the former Bay Shore Manufactured Gas Plant (MGP) site and to review all of the major elements completed to date. The investigation and remediation are being performed with the oversight of the NYSDEC and the NYSDOH.

Summary

National Grid continues remediation of the Bay Shore/Brightwaters former MGP Site under the oversight of the NYSDEC.

During the fourth quarter of 2010, National Grid completed and the NYSDEC approved a Work Plan to remove any remaining tar at Operable Unit (OU)-4 at depths less than 10 feet below the ground surface to reduce the likelihood of exposure to site related compounds by underground utility workers.

At OU-2, constituents in the groundwater plume and pre-design data was collected for the design of two additional oxygen injection lines. The groundwater treatment plant in OU-1 continued to operate as designed and restoration of the recently excavated area near the LIRR tracks in OU-3 was completed.

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**

About Operable Units

As a reminder, the site has been broken into four separate areas called Operable Units (OU-1 through OU-4), 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 project milestones may be found on the center pages of this Fact Sheet**.**

Operable Unit 4 Work Plan, Schedule

The excavation of areas of OU-4 is expected to begin in late April and will require 4-6 months to complete. The area to be excavated is identified on the map on the last page of this Fact Sheet. The excavations will be completed using standard construction methods. Soils not directly loaded for transportation off-site to an approved disposal facility will be stockpiled in a temporary fabric structure. All trucks will be inspected before proceeding on local roads to the expressway and to an approved disposal site. Clean fill will be returned. The work will be done on weekdays between 7:00 a.m. and 6:00 p.m. with the potential for weekend work if required to maintain project schedule. There will be temporary disruptions to normal street traffic during the work. Signs and flagmen will be present. A Community Air Monitoring Program will be in place during the excavation activity. The Work Plan can be found in the Major Reports sub-tab under the Key Documents tab on the site's website: www.bayshoreworksmgpsite.com. National Grid will post weekly updates on this remedial measure on the website, including notifications of planned traffic disruptions.

Current Site Status

Major remedial activities have been completed in OUs 1, 2 and 3. A timeline and graphic summary of those projects, the time periods during which they were undertaken and their completion dates are outlined in the special insert included in this edition of the NYSDEC Fact Sheet. In all of the OU's, 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. OM&M Reports can be found in the Major Reports sub-tab of the Key Documents section of the 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. Seven oxygen injection lines – with their supporting oxygen generating equipment – have been installed crossing the plume path at the upper, mid and lower ends. 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 demonstrably 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 site map on Page 6. Two additional oxygen lines are schedule to be installed this spring.

OU-3 is at the western end of the site, and includes 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 two oxygen injection systems near the top of the plume path, excavation of on-site soils, the completion of an in-situ chemical oxidation program between 2000-2004 and the excavation of contaminated soils to a depth of 12 feet under and adjacent to the Long Island Railroad tracks in 2010. Upon completion of the excavations beneath and adjacent to the LIRR tracks in 2010, a new oxygen injection system was installed along the north side of Union Blvd and the two previously installed systems (one system was located on the south side of Union Blvd. and one system on the north side of the LIRR tracks located on the National Grid property) were decommissioned. After the excavation, National Grid installed groundwater monitoring wells in the excavated area north of the railroad tracks, and resumed monitoring in this area. This expands the dimensions of the area being monitored as shown in the map in this Fact Sheet. National Grid has also completed a thorough cleaning and repair of the catch basins in the community storm drain system in the plume path area. Again, 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. Beginning in Spring 2011 an excavation of remaining contamination in the upper ten feet will be completed in designated areas throughout OU4. A copy of the NYSDEC approved work plan can be found on the project website: www.bayshoreworksmgp.com.

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

Site-Related Health Questions
Mr. Steven Karpinski
NYSDOH, BEEI
Flanigan Square
547 River St., Room 300
Troy, NY 12180-2216
(518) 402-7880
(800) 458-1158 Ext. 27880
beei@health.state.ny.us

National Grid Community Representative
James Christman
(516) 545-5035

Bay Shore MGP Site Hotline
(516) 545-3839

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.

Special Insert
Project Milestones

1999:

- KeySpan (now National Grid) and NYSDEC enter into Order on Consent
- Smith Avenue remediation work start
- Brightwaters Yard remedation 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
- Expansion of OU-3 chemcial oxygen injections to Community Avenue

2002

- Supplemental Remedial Investigation

2003

- Final Remedial Investigation Report

2004

- Remedial Action Plan and Record of Decision for Operable Unit 1
- Operable Unit 3 soil removal under a temorary movable fabric enclosure
- Operable Unit 4 background soil sampling

2005

- Operable Unit 2 oxygen system installations begin
- Operable Unit 1 testing for sheet wall installation

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
- Excavation of hot spots of contaminated soil in OU-4

2008

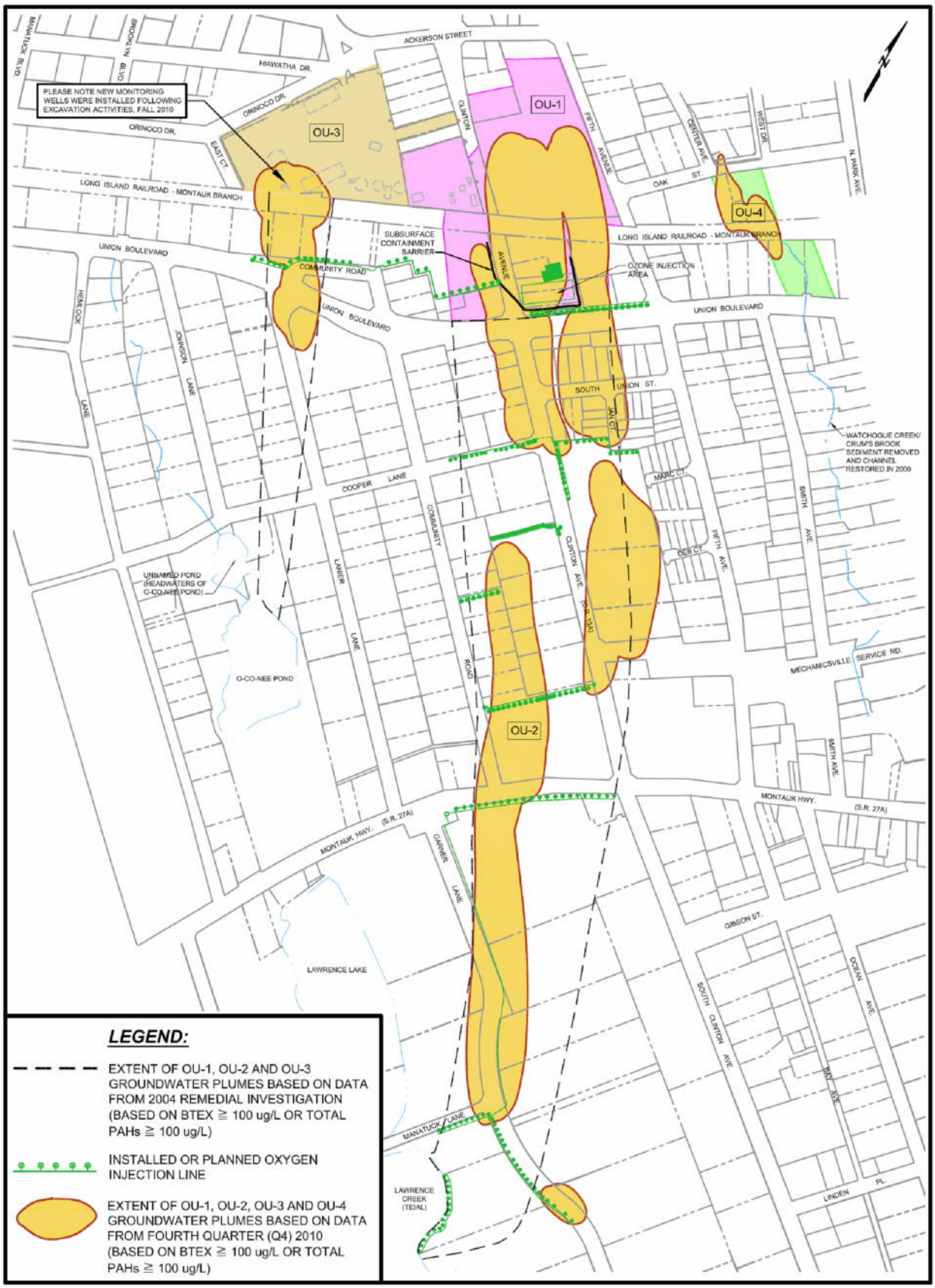
- OU-1 Barrier wall completed
- OU-1 shallow and deep excavation program completed
- Three additional oxygen injection lines planned and installed in OU-2
- Storm drain rehabilitation project was completed in OU-3
- www.bayshoreworksmgpsite.com is re-laumched

2009

- An additional oxygen injection system installed at the tail end of OU-2. Cooper Lane line extended
- Oxygen injections performed in the cesspool portion of OU-4
- LIRR tracks relocated and excavation of contaminated soils began in OU-3

2010

- OU-1 Groundwater treatment facility completed and activated
- Areas west of barrier wall in OU-1 investigated and remediated, two additional oxygen lines installed
- OU-3 excavations under LIRR tracks completed, tracks restored


PLEASE NOTE NEW MONITORING WELLS WERE INSTALLED FOLLOWING EXCAVATION ACTIVITIES, FALL 2010
OU-1
OU-2
OU-3
OU-4
ACKERSON STREET
HIAWATHA DR.
ORINOCO DR.
EAST CT
LONG ISLAND RAILROAD - MONTAUK BRANCH
UNION BOULEVARD
COMMUNITY ROAD
SUBSURFACE CONTAINMENT BARRIER
OZONE INJECTION AREA
CLINTON AVENUE
FIFTH AVENUE
CENTER AVE.
WEST DR.
OAK ST.
N. PARK AVE.
SOUTH UNION ST.
UNION CT.
MARC CT.
DEB CT.
SMITH AVE.
WATCHOGUE CREEK/ CRUM'S BROOK SEDIMENT REMOVED AND CHANNEL RESTORED IN 2000
COOPER LANE
COMMUNITY ROAD
LANER LANE
UNNAMED POND (HEADWATERS OF O-CO-NEE POND)
O-CO-NEE POND
MECHANICSVILLE SERVICE RD.
MONTAUK HWY. (S.R. 27A)
GARNER LANE
LAWRENCE LAKE
MANATUCK LANE
LAWRENCE CREEK (TIDAL)
GIBSON ST.
SOUTH CLINTON AVE.
OCEAN AVE.
BAY AVE.
LINDEN PL.
LEGEND:
EXTENT OF OU-1, OU-2 AND OU-3 GROUNDWATER PLUMES BASED ON DATA FROM 2004 REMEDIAL INVESTIGATION (BASED ON BTEX ≧ 100 ug/L OR TOTAL PAHs ≧ 100 ug/L)
INSTALLED OR PLANNED OXYGEN INJECTION LINE
EXTENT OF OU-1, OU-2, OU-3 AND OU-4 GROUNDWATER PLUMES BASED ON DATA FROM FOURTH QUARTER (Q4) 2010 (BASED ON BTEX ≧ 100 ug/L OR TOTAL PAHs ≧ 100 ug/L)