

## DECISION DOCUMENT

### **K-Glen Cove MGP Site Glen Cove (C), Nassau County, New York Site No. 130089**

March 2010

#### **Statement of Purpose and Basis**

This Decision Document presents the remedy approved by the New York State Department of Environmental Conservation (the Department) for the Former Glen Cove Manufactured Gas Plant (MGP) Site (the site)

#### **Description of the Site**

The Glen Cove MGP site is located near the intersection of Grove and Stanco Streets in the City of Glen Cove, Nassau County. It is bounded to the north by the Long Island Rail Road (LIRR) tracks, to the south by Grove Street, to the west by Route 107 and Glen Cove Creek and to the east by residential properties. An active, securely fenced, Long Island Power Authority (LIPA) electrical substation currently occupies a large portion of the former MGP footprint. The site is isolated from the surrounding area and sits in a flat depression bounded by about 20-foot high slopes to the north, south and east with limited access. The substation is operated under contract by National Grid.

A small manufactured gas plant operated on the site from 1905 until 1929, providing gas to customers in Sea Cliff, Glen Cove and the Town of Oyster Bay. This plant heated coal and petroleum products to produce a flammable gas mixture which was used for heating, cooking and lighting purposes in much the same way that natural gas is used today. The Long Island Lighting Company (LILCO) acquired the plant in 1923 and operated until it closed it in 1929. The plant structures were demolished shortly after that date. LIPA acquired the site in 1998 during the merger of LILCO and Brooklyn Union to form the KeySpan Corporation. KeySpan was in turn acquired to LIPA by National Grid in 2008.

The attached Figure 1 shows the site boundary and immediate surrounding area, the extent of soil contamination and the selected remedy to address the site contamination.

#### **Nature and Extent of Contamination**

The gas manufacturing process produced a dark, oily liquid waste known as coal tar. Over the years, coal tar has leaked or was released from the former gas holders and other structures resulting in the contamination of soil and groundwater. Tar-contaminated soil was found in the subsurface in a relatively compact area in the vicinity of the former MGP operations. Some of the tar has migrated through subsurface soils to the north and west, just beyond the northern site limits. The chemical compounds of concern include benzene, toluene, ethylbenzene and xylenes (collectively known as

BTEX compounds) and polycyclic aromatic hydrocarbons (PAHs).

Most of the tar contamination resulted from subsurface leakage from pipes and tanks on the site, and consequently the heaviest contamination is found below the ground surface where human contact is unlikely. Tar impacts generally begin at or just above the water table and decrease with depth. The deepest impacts were found approximately 45 feet below the ground surface.

Some PAH impacts were found in surface soils; however, these impacts appear to have resulted from activities on the site after the MGP ceased operations. A background soil survey confirmed that the BTEX and metals content of on-site surface soils is consistent with local conditions in the area surrounding the site. Sampling and analysis of soil vapor samples around the site showed no evidence of soil vapor intrusion into adjacent structures as a result of the operation of the former MGP.

The presence of the LIPA substation, in a fenced and secured enclosure, greatly limits the potential for human exposure to the subsurface contamination located beneath it, while also limiting access to the subsurface contamination for remediation.

### **Description of the Remedy**

Based on the results of the remedial investigation and the alternative analysis, the NYSDEC has selected a remedy for this site. The elements of the selected remedy are as follows:

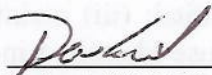
1. Removal of accessible contaminated soils on the site located outside the active LIPA substation, for off-site treatment and/or disposal. MGP related soil contamination and other materials at and below the groundwater table will be removed to depth of up to 15 feet below the ground surface. The final removal depth will vary by area based on site conditions and the extent of impacts.
2. Installation of an oxygen injection system to encourage natural microbial degradation of site related contaminants in the groundwater. The systems have proven effective at other MGP sites, limiting the potential for the contaminated groundwater to migrate into off-site areas.
3. Installation of tar recovery wells within the active substation to collect mobile tar that remains in the subsurface. Tar which moves into these wells will be removed on a periodic basis and shipped off site for proper treatment and disposal.
4. Since the remedy results in contamination above unrestricted levels remaining at the site, an institutional control in the form of a deed restriction will be required for the site. The deed restriction will:
  - (a) restrict the use of the site to commercial or industrial use. Any specific future development of the site must comply with local laws and regulations;
  - (b) restrict the use of groundwater at the site;

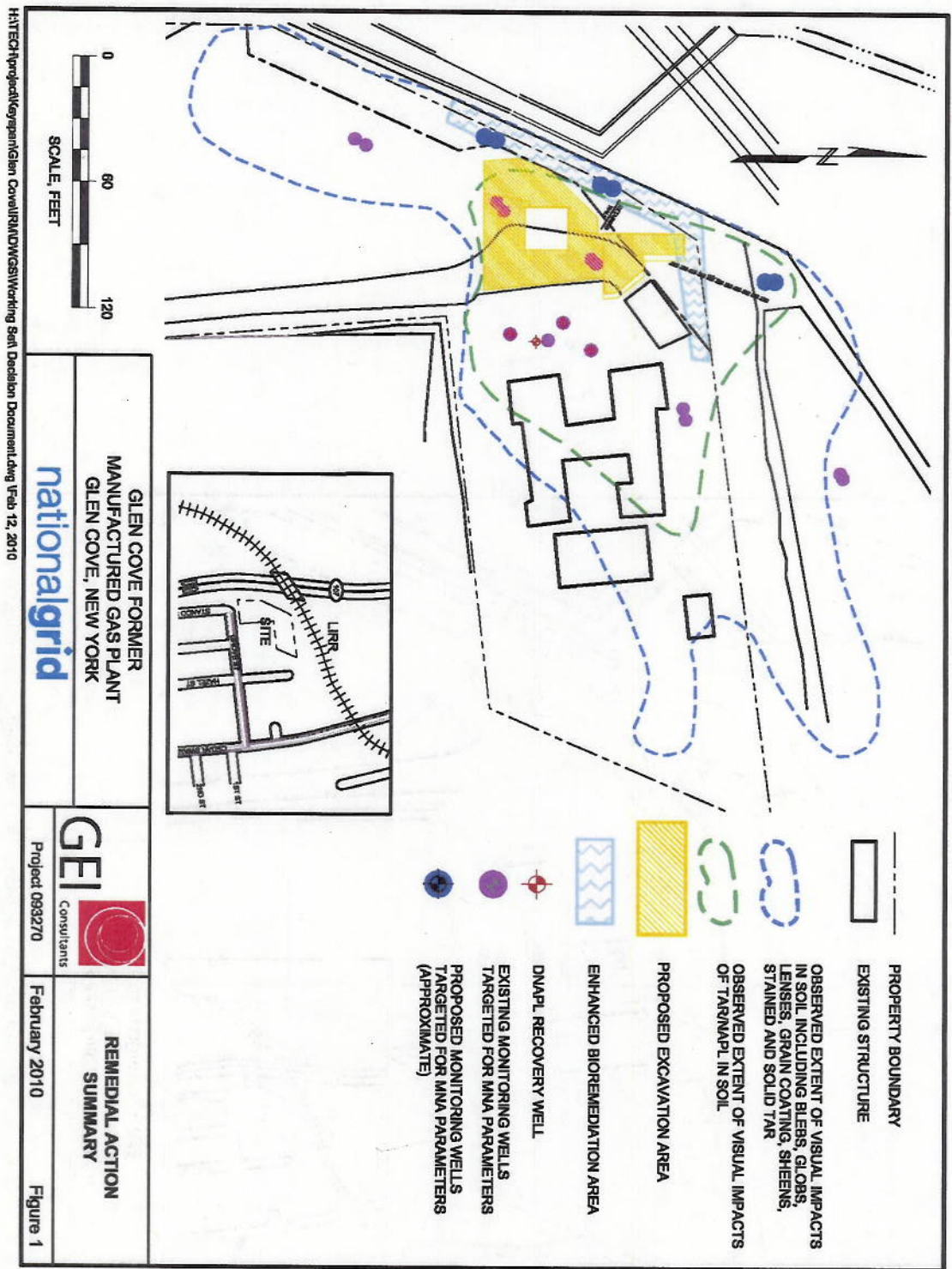
- (c) require the management of the site in accordance with the provisions of the Department approved site management plan; and
  - (d) require the property owner or its authorized agent to complete and submit to the Department a periodic certification.
5. A site management plan (SMP) will be developed and implemented following the completion of the site remedy. The SMP will identify the institutional controls and engineering controls (IC/ECs) required and detail their implementation. The SMP will include:
- (a) An IC/EC plan to establish the controls and procedures necessary to; (i) manage remaining contaminated soils that may be excavated from the site during future activities, including procedures for soil characterization, handling, health and safety of workers and the community as well as, disposal/reuse in accordance with applicable NYSDEC regulations and procedures; (ii) evaluate the potential for vapor intrusion for any buildings developed on the site, including mitigation of any impacts identified; (iii) maintain use restrictions regarding site development or groundwater use identified in the environmental easement; and (iv) require the property owner or its authorized agent to provide the Department an institutional control/engineering control (IC/EC) certification on a periodic basis;
  - (b) A monitoring plan to monitor the groundwater in order to assess the effectiveness of the remedial actions; and
  - (c) An operation and maintenance plan to provide the detailed procedures necessary to operate and maintain the remedy, including the oxygen injection and coal tar recovery program. The operation of the components of the remedy will continue until the remedial objectives have been achieved, or until the Department determines that continued operation is technically impracticable, no longer necessary or not feasible.
6. The property owner or its authorized agent will provide a periodic certification of institutional and engineering controls, prepared and submitted by a professional engineer or such other expert acceptable to the Department, until the Department notifies the property owner in writing that this certification is no longer needed. This submission will certify that:
- (a) the institutional controls and engineering controls are still in place and are either unchanged from the previous certification or are compliant with Department-approved modifications;
  - (b) the Department has access to the site; and
  - (c) that nothing has occurred that will impair the ability of the control to protect public health or the environment, or constitute a violation or failure to comply with the site management plan unless otherwise approved by the Department.

**Declaration**

The selected remedy is protective of human health and the environment, complies with State and Federal requirements that are legally applicable or relevant and appropriate to the remedial action and will allow for the identified use of the site. This remedy utilizes permanent solutions and alternative treatment to the maximum extent practicable, and satisfies the preference for remedies that reduce, remove or otherwise treat or contain sources of contamination and protection of groundwater.

MARCH 8, 2010  
Date

  
Robert W. Schick, P.E.  
Director, Remedial Bureau C



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