

DECISION DOCUMENT

Doxey Site
City of Glen Cove, Nassau County
Site No. S130214
May 2016



Prepared by
Division of Environmental Remediation
New York State Department of Environmental Conservation

DECLARATION STATEMENT - DECISION DOCUMENT

Doxey Site
City of Glen Cove, Nassau County
Site No. S130214
May 2016

Statement of Purpose and Basis

This document presents the remedy for the Doxey site, an oil spill site. The remedial program was chosen in accordance with the New York State Environmental Conservation Law and Title 6 of the Official Compilation of Codes, Rules and Regulations of the State of New York (6 NYCRR) Part 375.

This decision is based on the Administrative Record of the New York State Department of Environmental Conservation (the Department) for the Doxey Site and the public's input to the proposed remedy presented by the Department.

Description of Selected Remedy

During the course of the investigation certain actions, known as interim remedial measures (IRMs), were undertaken at the above referenced site. An IRM is conducted at a site when a source of contamination or exposure pathway can be effectively addressed before completion of the remedial investigation (RI) or alternatives analysis (AA). The IRM(s) undertaken at this site are discussed in Section 6.2.

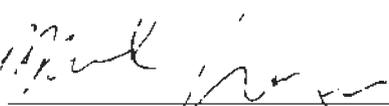
Based on the implementation of the IRM(s), the findings of the confirmation sampling at the site indicate that the site no longer poses a threat to human health or the environment; therefore No Further Action is the selected remedy. The remedy may include continued operation of a remedial system if one was installed during the IRM and the implementation of any prescribed institutional controls/engineering controls (ICs/ECs) that have been identified as being part of the proposed remedy for the site.

Declaration

The remedy conforms with promulgated standards and criteria that are directly applicable, or that are relevant and appropriate and takes into consideration Department guidance, as appropriate. The remedy is protective of public health and the environment.

Date

5/24/16


Michael Cruden, Director
Remedial Bureau E

DECISION DOCUMENT

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Site No. S130214
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SECTION 1: SUMMARY AND PURPOSE

The New York State Department of Environmental Conservation (the Department), in consultation with the New York State Department of Health (NYSDOH), has selected a remedy for the above referenced site. The oil spill at the site resulted in threats to public health and the environment that were addressed by actions known as interim remedial measures (IRMs), which were undertaken at the site. An IRM is conducted at a site when a source of contamination or exposure pathway can be effectively addressed before completion of the remedial investigation (RI) or alternative analysis (AA). The IRMs undertaken at this site are discussed in Section 6.2.

Based on the implementation of the IRM(s), the findings of the confirmation samples at the site indicate that the site no longer poses a threat to human health or the environment. The IRM(s) conducted at the site attained the remediation objectives identified for this site, which are presented in Section 6.5, for the protection of public health and the environment. No Further Action is the selected remedy. A No Further Action remedy may include continued operation of any remedial system installed during the IRM and the implementation of any prescribed controls that have been identified as being part of the remedy for the site. This DD identifies the IRM(s) conducted and discusses the basis for No Further Action.

The Department has issued this document in accordance with the requirements of New York State Environmental Conservation Law and 6 NYCRR Part 375. This document is a summary of the information that can be found in the site-related reports and documents.

SECTION 2: CITIZEN PARTICIPATION

The Department seeks input from the community on all remedies. A public comment period was held, during which the public was encouraged to submit comment on the proposed remedy. All comments on the remedy received during the comment period were considered by the Department in selecting a remedy for the site. Site-related reports and documents were made available for review by the public at the following document repositories:

CITY OF GLEN COVE INDUSTRIAL DEVELOPMENT AGENCY
CITY HALL
9 GLEN COVE STREET
GLEN COVE, NY 11542
PHONE: (516) 676-1625 OPTION 2

NYSDEC CENTRAL OFFICE
Attn: HEIDE-MARIE DUDEK, P.E.
625 BROADWAY
ALBANY, NY 12233-7015
Phone: (518) 402-9813

NYSDEC REGION 1 - SUNY CAMPUS
Attn: WILLIAM FONDA
50 CIRCLE ROAD
STONY BROOK, NY 11790-0350
Phone: (631) 444-0350

A public meeting was held on March 23, 2016, which included a presentation of data and the proposed remedy for the Doxey Site, as well as the nearby Captain's Cove Site. The meeting provided an opportunity for citizens to discuss their concerns, ask questions and comment on the proposed remedies. The comments from that meeting relative to the Doxey Site have been incorporated into this document, where applicable. The public comment period for the draft Decision Document ended on April 15, 2016.

Receive Site Citizen Participation Information By Email

Please note that the Department's Division of Environmental Remediation (DER) is "going paperless" relative to citizen participation information. The ultimate goal is to distribute citizen participation information about contaminated sites electronically by way of county email listservs. Information will be distributed for all sites that are being investigated and cleaned up in a particular county under the State Superfund Program, Environmental Restoration Program, Brownfield Cleanup Program, Voluntary Cleanup Program, and Resource Conservation and Recovery Act Program. We encourage the public to sign up for one or more county listservs at <http://www.dec.ny.gov/chemical/61092.html>

SECTION 3: SITE DESCRIPTION AND HISTORY

Location: The Doxey site is located at 10 Garvies Point Road in the City of Glen Cove, Nassau County along the northern shore of the Glen Cove Creek. The site is trapezoidal in shape, and is bound to the north by Garvies Point Road and to the south by Glen Cove Creek. (Figures 1 and 2)

Site Features: The site is currently vacant. Prior to remediation, the site contained remnants of the previous uses including aboveground petroleum storage tanks, a garage, pump house, loading rack and office building. All structures and foundations have been removed from the site.

Current Zoning and Land Use: The Doxey site is located within the Garvies Point Redevelopment area and has been zoned Marine Waterfront District 3 as part of the master redevelopment plan. Under the current redevelopment plan the Doxey site will be used as an open area, playground and low sill bulkhead.

Past Use of the Site: From 1938 to 1944, the site was used as a fuel oil storage facility with two aboveground storage tanks (AST) with a capacity of storing 250,000 gallons. From 1944 until 2012, additional structures were added to the site which included garages, office building and a third AST with a storage capacity of 110,000 gallons. In 1996, petroleum storage and distribution ceased and the facility was then used as a storage for junked trucks, automobiles and automobiles parts. In 2012, the City of Glen Cove Industrial Development Agency condemned the property and took possession of the property.

Site Geology and Hydrology: The Site is located along the northern shore of Glen Cove Creek. Soils observed at the site are similar to those observed throughout the Garvies Point Road area, the vadose zone consists of silt or silt and fine grained sand, while the saturated zone consists of sand underlain by an extensive and thick peat layer with a clay layer beneath it (observed off-site at 12- to 16-feet below ground surface).

Groundwater, which varies with tidal cycles, was encountered at the site between 5.5 and 7.5-feet below ground surface. Regional groundwater flow is in a southerly direction towards Glen Cove Creek.

A site location map and site plan are attached as Figures 1 and 2.

SECTION 4: LAND USE AND PHYSICAL SETTING

The Department may consider the current, intended, and reasonably anticipated future land use of the site and its surroundings when evaluating a remedy for soil remediation. For this site, alternatives that restrict the use of the site to restricted residential use as described in Part 375-1.8(g) have been evaluated.

A comparison of the results of the investigation to the appropriate standards, criteria and guidance values (SCGs) for the identified land use and the restricted and unrestricted use SCGs for the site contaminants is available in the Oil Spill Removal Action Predesign Investigation.

SECTION 5: ENFORCEMENT STATUS

The Oil Spill Removal Action is being conducted pursuant to the December 3, 2012 Stipulation Agreement between the City of Glen Cove Industrial Development Agency and the Department.

SECTION 6: SITE CONTAMINATION

6.1: Summary of the Remedial Investigation

A Phase II environmental assessment (Phase II) and Oil Spill Remedial Action Predesign Investigation (Predesign Investigation) serves as the mechanism for collecting data to:

- characterize site conditions;
- determine the nature of the contamination; and
- assess risk to human health and the environment.

The Phase II investigation is intended to identify the nature (or type) of contamination which may be present at a site and the extent of that contamination in the environment on the site, or leaving the site, while the Predesign Investigation confirms the existing conditions and gathers the requisite data to implement the remedy. The reports summarize the data gathered to determine if the soil, groundwater, soil vapor, indoor air, surface water or sediments may have been contaminated. Monitoring wells are installed to assess groundwater and soil borings or test pits are installed to sample soil and/or waste(s) identified. If other natural resources are present, such as surface water bodies or wetlands, the water and sediment may be sampled as well. Data collected in the reports influence the development of remedial alternatives. The Phase II report and Predesign Report are available for review in the site document repository and the results are summarized in section 6.3.

The analytical data collected on this site includes data for:

- groundwater
- soils

6.1.1: Standards, Criteria, and Guidance (SCGs)

The remedy must conform to promulgated standards and criteria that are directly applicable or that are relevant and appropriate. The selection of a remedy must also take into consideration guidance, as appropriate. Standards, Criteria and Guidance are hereafter called SCGs.

To determine whether the contaminants identified in various media are present at levels of concern, the data from the Phase II and Predesign Investigation Reports were compared to media-specific SCGs. The Department has developed SCGs for groundwater, surface water, sediments, and soil. The NYSDOH has developed SCGs for drinking water and soil vapor intrusion. For a full listing of all SCGs see: <http://www.dec.ny.gov/regulations/61794.html>

6.1.2: Phase II and Predesign Investigation Results

The data have identified contaminants of concern. A "contaminant of concern" is a contaminant that is sufficiently present in frequency and concentration in the environment to require evaluation for remedial action. Not all contaminants identified on the property are contaminants of concern. The nature and extent of contamination and environmental media requiring action are summarized below. Additionally, the Phase II and Predesign Investigation Report contains a full discussion of the data. The contaminant(s) of concern identified at this site is/are:

- Total Petroleum Hydrocarbons
 - Gross Contamination
 - Arsenic
 - Toluene
 - Benzo(b)fluoranthene
 - Benzo(a)pyrene
 - Dibenzo(a,h)anthracene
- Ethylbenzene
m,p-xylene
benzo(a)anthracene
Chrysene
benzo(k)fluoranthene
Indeno(1,2,3-cd)pyrene
mercury

Based on the investigation results, comparison to the SCGs, and the potential public health and environmental exposure routes, certain media and areas of the site required remediation. These media were addressed by the IRM(s) described in Section 6.2. More complete information can be found in the Construction Completion Report.

6.2: Interim Remedial Measures

An interim remedial measure (IRM) is conducted at a site when a source of contamination or exposure path can be effectively addressed before the issuance of the Decision Document. One IRM was conducted at this site as an Oil Spill Removal Action. Remedial activities at the site were completed in accordance to the 2012 NYSDEC Stipulation agreement. Approximately 8,335 cubic yards of the nonhazardous soil were removed from the site from depths ranging from 2-feet below ground surface (bgs) to 15-feet bgs and properly disposed. A demarcation layer and clean fill meeting 6NYCRR Part 375 requirements was installed.

6.3: Summary of Environmental Assessment

This section summarizes the assessment of existing and potential future environmental impacts presented by the site.

Nature and Extent of Contamination:

Pre IRM: A pre-design investigation was conducted in 2010 to determine the extent of gross contamination, total petroleum hydrocarbons (TPH), semi volatile organic compounds (SVOCs), metals, and volatile organic compounds (VOCs) contamination associated with past practices at the site.

The pre-design investigation reported that gross contamination and TPH at concentrations ranging from 111 mg/kg to 16,000 mg/kg was detected throughout the site confirming that the site had been impacted by petroleum. In addition to gross contamination and TPH, SVOCs were detected

above the NYSDEC Part 375 Restricted Residential Cleanup Criteria in areas generally corresponding to petroleum contamination.

Metals analysis indicated that arsenic was present in the surface and subsurface soil throughout the site at concentrations above the NYSDEC Part 375 Restricted Residential Cleanup Criteria.

Post IRM: Remediation at the site is complete. Prior to remediation, the primary contaminants of concern were petroleum related gross contamination, TPH, PAHs, and arsenic. Residual TPH, PAHs and gross contamination above the Site SCOs has been left in place post remediation near the bulkhead beneath the 2-foot soil cover due to uncertain structural integrity of the bulkhead.

Remedial action was completed in Spring 2015. The project is now under long-term site management.

6.4: Summary of Human Exposure Pathways

This human exposure assessment identifies ways in which people may be exposed to site-related contaminants. Chemicals can enter the body through three major pathways (breathing, touching or swallowing). This is referred to as *exposure*.

Measures are in place to prevent contact with contamination remaining at depth beneath the site cover system. Contaminated groundwater at the site is not used for drinking or other purposes and the site is served by a public water supply that obtains water from a different source not affected by this contamination. Volatile organic compounds in the groundwater may move into the soil vapor (air spaces within the soil), which in turn may move into overlying buildings and affect the indoor air quality. This process, which is similar to the movement of radon gas from the subsurface into the indoor air of buildings, is referred to as soil vapor intrusion. As there are no occupied buildings on the site, inhalation of site contaminants in indoor air due to soil vapor intrusion does not represent a current concern. The potential exists for people to inhale site contaminants in indoor air due to soil vapor intrusion in any future on-site building development and occupancy.

6.5: Summary of the Remediation Objectives

Based on the Phase II and Predesign Investigation results the Remedial Action Objectives (RAOs) for the site are:

Groundwater

RAOs for Public Health Protection

- Prevent ingestion of groundwater with contaminant levels exceeding drinking water standards.
- Prevent contact with, or inhalation of volatiles, from contaminated groundwater.

RAOs for Environmental Protection

- Restore groundwater aquifer to pre-disposal/pre-release conditions, to the extent practicable
- Remove the source of groundwater or surface water contamination

Soil

RAOs for Public Health Protection

- Prevent ingestion/direct contact with contaminated soil.
- Prevent inhalation of or exposure from contaminants volatilizing from contaminants in soil.

RAOs for Environmental Protection

- Prevent migration of contaminants that would result in groundwater or surface water contamination.

Soil Vapor

RAOs for Public Health Protection

- Mitigate impact to public health resulting from existing, or the potential for, soil vapor intrusion into buildings at a site.

SECTION 7: ELEMENTS OF THE SELECTED REMEDY

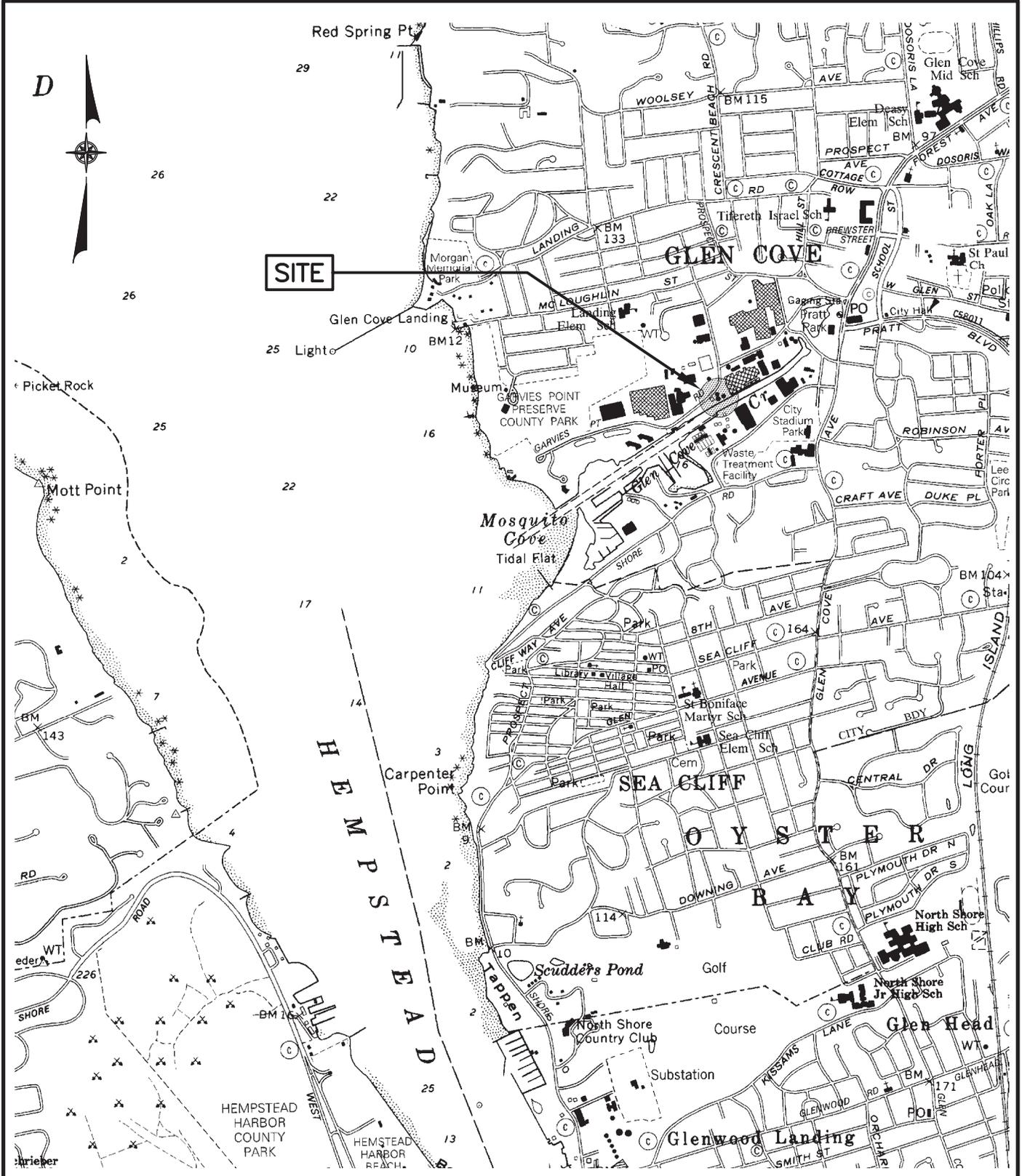
Based on the results of the investigation at the site, the IRM that has been performed, and the evaluation presented here, the Department has selected No Further Action as the remedy for the site. The Department believes that this remedy is protective of human health and the environment and satisfies the remediation objectives described in Section 6.5.

The elements of the IRM already completed, as shown in Figures 3 and 4, are listed below in paragraphs 1 and 2. Additional required institutional and engineering controls follow paragraph 2.

1. **EXCAVATION:** Excavation and offsite disposal of contaminant source areas including:
 - grossly contaminated soil, as defined as 6 NYCRR Part 375-1.2(u)
 - non-aqueous phase liquids
 - soil containing SVOCs exceeding 500 ppm
 - All on-site soils which exceed restricted-residential SCOs as defined by 6 NYCRR Part 375-6-8, will be excavated and transported off-site for disposal.
2. **COVER SYSTEM:** A site cover of two-feet of clean fill currently exists and will be maintained to allow for restricted residential use of the site. Any site redevelopment will maintain the existing site cover, which consists either of site structures such as buildings, pavement, sidewalks or soil where the upper two feet of exposed surface soil meets the applicable soil cleanup objectives (SCOs) for restricted residential use. Any fill material brought to the site will meet the requirements of the identified site use as set forth in 6NYCRR Part 375-6.7(d).

3. **INSTITUTIONAL CONTROLS:** Imposition of an institutional control in the form of an environmental easement that will require: (a) require the site owner to complete and submit to the Department a periodic certification or institutional and engineering controls in accordance with Part 375-1.8 (h)(3); (b) allow the use or the use and development of the property to restricted residential use as defined by Part 375-1.8(g), although land use is subject to local zoning laws; (c) restrict the use of groundwater as a source of potable or process water, without necessary water quality treatment as determined by NYSDOH; and (d) compliance with the Department approved Site Management Plan.
4. **SITE MANAGEMENT PLAN:** A Site Management Plan is required, which include 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 Environmental Easement discussed in Paragraph 3 above.
 - Engineering Controls: The soil cover discussed in Paragraph 2 above.
 - This plan included, but may not be limited to:
 - An excavation plan which details the provisions for management for future excavations of remaining contamination.
 - Descriptions of the provisions of the environmental easement including any land use and/or groundwater use restrictions.
 - A provision for evaluation of the potential for soil vapor intrusion in future buildings developed on site, including provision for implementing actions recommended to address exposures related to soil vapor intrusion.
 - Provision for management and inspection of the identified engineering controls;
 - Maintaining site access controls and Department notifications; and
 - The steps necessary for 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 occupied existing or future buildings developed on the site, as may be required by the Institutional and Engineering Control Plan discussed above.

D



SOURCE: NYSDOT SEACLIFF, NY QUADRANGLE

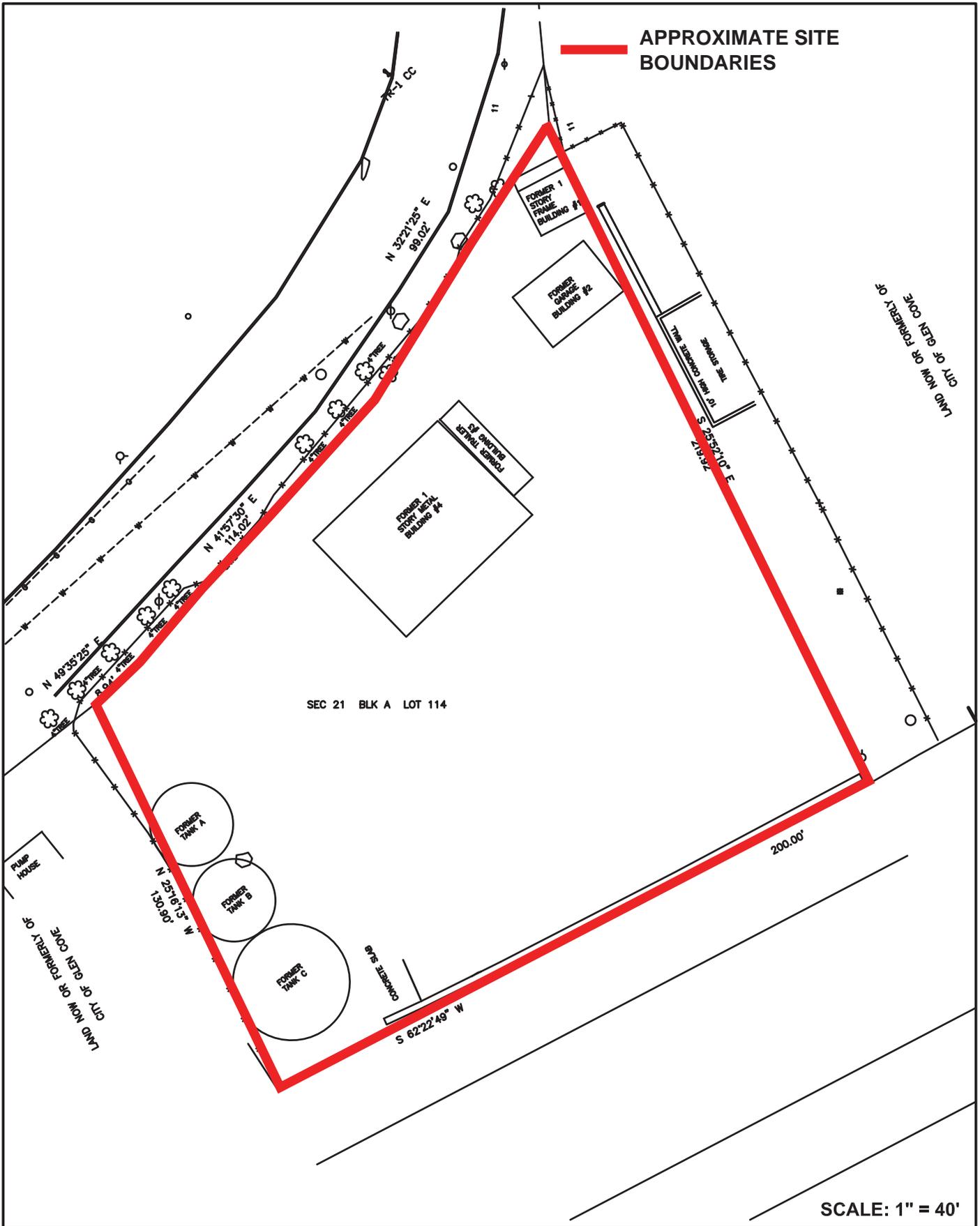


GLEN COVE INDUSTRIAL DEVELOPMENT AGENCY
10 GARVIES POINT ROAD
GLEN COVE, NEW YORK



SITE LOCATION MAP

FIGURE 1



GLEN COVE INDUSTRIAL DEVELOPMENT AGENCY
 10 GARVIES POINT ROAD, GLEN COVE, NEW YORK



SITE PLAN

FIGURE 2

LEGEND:

- EXCAVATION AREA 1 - EXCAVATION COMPLETED TO A DEPTH OF APPROXIMATELY 2 FEET BELOW GROUND SURFACE
- EXCAVATION AREA 1A - EXCAVATION COMPLETED TO A DEPTH OF APPROXIMATELY 15 FEET BELOW GROUND SURFACE
- EXCAVATION AREA 2 - EXCAVATION COMPLETED TO A DEPTH OF APPROXIMATELY 2 TO 10 FEET BELOW GROUND SURFACE
- EXCAVATION AREA 3 - EXCAVATION COMPLETED TO A DEPTH OF APPROXIMATELY 4 TO 8 FEET BELOW GROUND SURFACE
- EXCAVATION AREA 4 - EXCAVATION COMPLETED TO A DEPTH OF APPROXIMATELY 6 TO 10 FEET BELOW GROUND SURFACE
- SUPPLEMENTAL EXCAVATION AREA - FORMER OIL/WATER SEPARATOR - EXCAVATION COMPLETED TO A DEPTH OF APPROXIMATELY 8 TO 10 FEET BELOW GROUND SURFACE

NOTES:

LIMITS OF COMPLETED EXCAVATION ARE TO BE CONSIDERED APPROXIMATE.



SOURCE: GLEN COVE INDUSTRIAL DEVELOPMENT AGENCY
 BROWNFIELD SITE REMEDIATION: 10 GARLIES POINT ROAD
 PREPARED BY: D&B ENGINEERS AND ARCHITECTS, P.C.
 DATE: 02/20/10



APPROXIMATE PHASE A REMEDIAL EXCAVATION AREAS

SCALE: 1"=20'

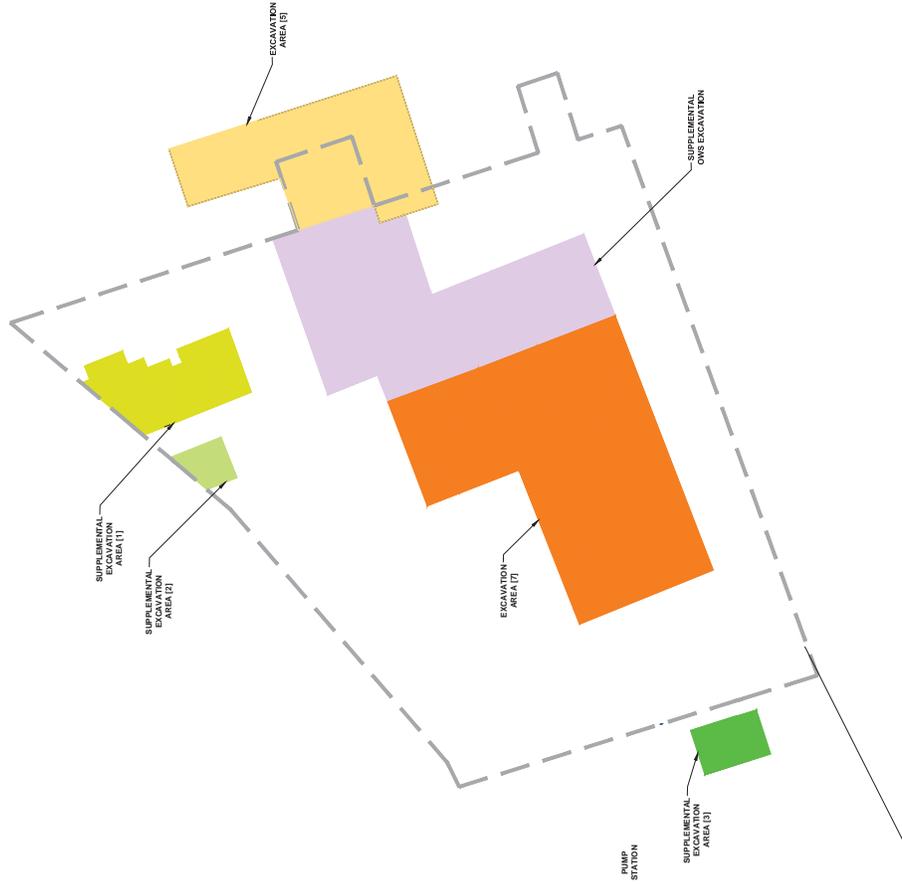


LEGEND:

- APPROXIMATE SITE BOUNDARY
- EXCAVATION AREA 5 - APPROXIMATE LIMITS OF SOIL EXCAVATED TO A TOTAL DEPTH OF APPROXIMATELY 5 TO 10.5 FEET BELOW EXISTING GROUND SURFACE
- EXCAVATION AREA 7 - APPROXIMATE LIMITS OF SOIL EXCAVATED TO A TOTAL DEPTH OF APPROXIMATELY 9 TO 12 FEET BELOW EXISTING GROUND SURFACE
- SUPPLEMENTAL OIL WATER SEPARATOR EXCAVATION - APPROXIMATE LIMITS OF SOIL EXCAVATED TO A TOTAL DEPTH OF APPROXIMATELY 8 TO 12 FEET BELOW EXISTING GROUND SURFACE
- EXCAVATION AREA 1 (S1) - APPROXIMATE LIMITS OF SOIL EXCAVATED TO A TOTAL DEPTH OF APPROXIMATELY 8 TO 17 FEET BELOW EXISTING GROUND SURFACE
- SUPPLEMENTAL EXCAVATION AREA 2 (S2) - APPROXIMATE LIMITS OF SOIL EXCAVATED TO A TOTAL DEPTH OF APPROXIMATELY 6 FEET BELOW EXISTING GROUND SURFACE
- SUPPLEMENTAL EXCAVATION AREA 3 (S3) - PUMP STATION - APPROXIMATE LIMITS OF SOIL EXCAVATED TO A TOTAL DEPTH OF APPROXIMATELY 5 TO 6.5 FEET BELOW EXISTING GROUND SURFACE

NOTES:

LIMITS OF COMPLETED EXCAVATION ARE TO BE CONSIDERED APPROXIMATE.



SOURCE: PROPERTY, GLEN COVE, CREEK, GLEN COVE AND YORK HEIGHTS NORTH, 2010, 21, Bk. A, LOT 114.
 PREPARED BY ALBERT W. TAYLOR, PLANNER, NY, REG. NO. 22, 2010



GLEN COVE INDUSTRIAL DEVELOPMENT AGENCY
 BROWNFIELD SITE REMEDIATION - 10 GARVIES POINT ROAD
 APPROXIMATE PHASE B REMEDIAL EXCAVATION AREAS

SCALE: 1" = 20'

FIGURE 4