

RECORD OF DECISION AMENDMENT

for the

Li Tungsten Superfund Site

Glen Cove

Nassau County

New York



United States Environmental Protection Agency
Region 2
New York, New York
September 2016

DECLARATION FOR AMENDMENT TO RECORD OF DECISION

SITE NAME AND LOCATION

Li Tungsten Superfund Site
Glen Cove, Nassau County, New York

Superfund Site Identification Number: NYD986882660
Operable Units 01 and 02

STATEMENT OF BASIS AND PURPOSE

This decision document (Record of Decision Amendment, or ROD Amendment) sets forth an amendment to the September 1999 Record of Decision (1999 ROD) at the Li Tungsten Superfund Site (Site). The amendment to the remedy pertains to Operable Unit 1 (OU 1) which is one of two operable units addressed in the 1999 ROD and concerns the former Li Tungsten facility property. This amendment to the remedy is being selected in accordance with the requirements of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended (CERCLA), 42 U.S.C. §9601-9675, and the National Oil and Hazardous Substances Pollution Contingency Plan, 40 CFR Part 300. This ROD Amendment explains the factual and legal basis for amending the remedy for the Site. The attached index (see Appendix III) identifies the items that comprise the administrative record upon which the amended remedy is based.

The New York State Department of Environmental Conservation (NYSDEC) was consulted on the proposed amended remedy in accordance with Section 121(f) of CERCLA, 42 U.S.C. §9621(f), and it concurs with the amended remedy (see Appendix IV).

ASSESSMENT OF THE SITE

Actual or threatened releases of hazardous substances from the Site, if not addressed by implementing the response actions selected in this ROD Amendment, may present an imminent and substantial endangerment to public health, welfare, or the environment.

DESCRIPTION OF THE SELECTED AMENDED REMEDY

The amendment to the remedy selected in this ROD Amendment actively addresses soil contamination at Lower Parcel C of OU 1. All other components of the remedy selected in the 1999 ROD have either been implemented or remain unchanged by this ROD Amendment. EPA's remedial efforts to address the radiological contamination at Captain's Cove (OU 2) are complete. NYSDEC has designated the entire Captain's Cove Property, which includes those areas addressed as EPA's OU 2, as a State Superfund Site. Additional response activities, including monitoring and maintenance, that NYSDEC may deem to be warranted at the Captain's Cove property will be addressed under the New York State Superfund program.

The major components of the amendments to the OU 1 portion of the remedy for the Site include the following:

- Excavation and off-Site disposal of soil contaminated above “impact-to-groundwater” cleanup levels for arsenic and lead in subsurface soils and above direct contact cleanup levels for arsenic and lead in surface soils.
- Implementation of additional institutional controls, such as environmental easements, to ensure the integrity of the cover system that is to be placed over the entire upland area of the Site as part of the development of the Site properties. The cover system at the Site is to include two feet of clean soil over an underlying demarcation layer in areas other than where above-ground structures, such as buildings, or pavement or sidewalks, which are also considered part of the cover system, are located.
- Evaluation and implementation of mitigative actions to address soil vapor intrusion in future buildings developed on Site.
- Continuation of the long-term groundwater monitoring program to assess the recovery of the Upper Glacial Aquifer after the soil remedy set forth in this ROD Amendment is implemented.
- Development of a Site Management Plan (SMP), which will include a soil management plan that addresses excavation and management of remaining contamination during and after Site development and also an Institutional Controls Implementation and Assurance Plan (ICIAP) that identifies all institutional controls and engineering controls and details steps and media-specific requirements necessary to ensure that they remain in place and effective.

DECLARATION OF STATUTORY DETERMINATIONS

The amended remedy meets the requirements for remedial actions set forth in Section 121 of CERCLA, 42 U.S.C. §9621. It is protective of human health and the environment, complies with Federal and State requirements that are legally applicable or relevant and appropriate to the remedial action, and is cost-effective. The amended remedy complies with the statutory preference for remedies that employ treatment that reduce toxicity, mobility or volume as a principal element. Treatment of metals-contaminated soil (as opposed to excavation and off-Site disposal) was considered but not selected in the 1999 ROD, and no further evaluation of treatment was deemed appropriate for the relatively small action under consideration here. Nonetheless, as stated above, some of the soil to be excavated under the selected amended remedy has been found to be Resource Conservation and Recovery Act hazardous waste, and, therefore, is expected to be treated at a licensed waste disposal facility. The physical segregation of radiologically contaminated slag, performed consistent with the 1999 ROD as described in this document, is considered treatment and satisfies CERCLA’s preference for remedies that include treatment as a principal element.

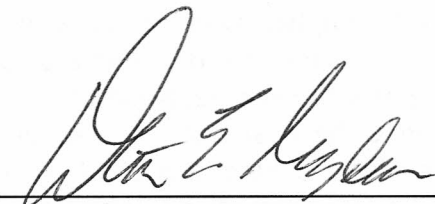
Because the amended remedy will result in hazardous substances, pollutants, or contaminants remaining on the Site above levels that allow for unrestricted use and unlimited exposure, a statutory review will be conducted every five years to ensure that the remedial actions implemented remain protective of human health and the environment.

ROD DATA CERTIFICATION CHECKLIST

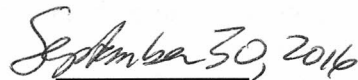
The following information is included in the Decision Summary of this ROD Amendment. Additional information can be found in the administrative record for this Site.

- A discussion of the current nature and extent of soil and groundwater contamination is included in Section 5;
- Chemicals of concern and their respective concentrations may be found in Section 7, "Summary of Site Risks";
- Potential adverse effects associated with exposure to Site contaminants may be found in Section 7, "Summary of Site Risks";
- A discussion of remediation goals for chemicals of concern may be found in Section 8, "Remedial Action Objectives";
- Current and reasonably-anticipated future land use assumptions are discussed in Section 6, "Current and Potential Future Land and Resource Uses";
- Estimated capital, annual operation and maintenance, and total present-worth costs are discussed in Section 9, "Summary of Remedial Alternatives"; and
- Key Factors in the detailed analyses of remedial alternatives (*e.g.*, how the amended remedy provides the best balance of tradeoffs with respect to the balancing and modifying criteria) may be found in Section 10, "Comparative Analysis of Alternatives", and Section 13, "Statutory Determinations".

AUTHORIZING SIGNATURE



Walter E. Mugdan, Director
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Date

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DECISION SUMMARY

1. SITE NAME, LOCATION, AND DESCRIPTION

The Li Tungsten Superfund Site (Site) is located in the City of Glen Cove, Nassau County, New York (**Figure 1 in Appendix I**). The Site consists of the former Li Tungsten facility property located at 63 Herhill Road, which was primarily contaminated with metals and, to lesser degree, radiologically contaminated materials, the radiologically contaminated portions of the Captain's Cove property, and nearby areas where radiologically contaminated materials associated with the former Li Tungsten facility came to be located, including portions of Glen Cove Creek. EPA has designated each of these areas as part of three separate operable units (OUs) (**Figure 2 in Appendix I**) in order to expedite the remediation of the entire Site.

The former Li Tungsten facility property (OU 1) is 26 acres and consists of four parcels that were designated by EPA as A, B, C, and C' (**Figure 3 in Appendix I**). Parcel A is a seven-acre paved area abutting Glen Cove Creek which served as the main operations center when the facility was active. Historically, Parcel A contained the majority of the Li Tungsten buildings, as well as storage and processing tanks. Parcel B, a six-acre tract north of Parcel A, is undeveloped land that was used for parking during facility operations and includes a small pond, an intermittent stream and a small wetland. Parcel C, approximately ten acres in size, is north of Parcel A and west of Parcel B. The former Dickson Warehouse and the Benbow Building were located on Parcel C. Parcel C', an undeveloped four-acre tract adjacent to Parcel C, was not utilized as part of the facility and EPA has determined that it was not contaminated by facility operations.

The 23-acre Captain's Cove property (OU 2) is located west of the former Li Tungsten Property and generally bounded by Hempstead Harbor to the west, Garvies Point Preserve to the north, the Glen Cove Anglers Club to the east, and Glen Cove Creek to the south. A five-acre wetland makes up a portion of the property's southern boundary with the Creek. The portions of Captain's Cove that are part of the Site consist of the areas designated as Areas A and G (**Figure 3 in Appendix I**). Additionally, Areas A' and G' are smaller, adjacent areas. These areas are immediately adjacent to Areas A and G, respectively, and are locations where radioactive ore residuals and related contaminants from the former facility were found to have been disposed of during the time that the former facility operated.

EPA anticipated that OU 3 would include a contaminated building survey on all parcels of the former Li Tungsten facility property and a response action, but this was addressed through a removal action performed between October 1996 and October 1998.

Glen Cove Creek (OU 4) is a mile-long tidal creek stretching from the Charles Street bridge at its eastern end to its confluence with Hempstead Harbor to the west. The Creek was channelized in the early 20th century by the U.S. Army Corps of Engineers (USACE), which continues to maintain it as a federal navigation channel. The Creek contains a bulkhead along its entire length.

2. SITE HISTORY AND ENFORCEMENT ACTIVITIES

The Wah Chang Smelting and Refining Company owned the former Li Tungsten facility from the 1940s until about 1984, and during that period, a number of entities and their successors, including Teledyne Inc. and the Li Tungsten Corp., operated the facility. Operations generally consisted of processing tungsten ore concentrates and scrap metal containing tungsten into ammonium paratungstate, and formulating ammonium paratungstate into tungsten powder and tungsten carbide powder, although other specialty metal products were also produced. Portions of the Captain's Cove property were used as a local dumpsite for a variety of wastes, including the disposal of spent ore residuals by the operators of the former Li Tungsten facility. The Glen Cove Development Corporation (GCDC) acquired the Li Tungsten facility property in 1984 and leased it to the Li Tungsten Corporation, which declared bankruptcy in 1985 and ceased operations. The Captain's Cove property was purchased in 1983 by Mr. Jack Quinn for development as a residential condominium project. Development efforts were abandoned in 1986 when the New York State Department of Environmental Conservation (NYSDEC) designated the Captain's Cove property as a State Superfund site.

In 1989, EPA directed the GCDC to perform various removal activities including disposal of laboratory reagents, drummed chemicals, containment and disposal of a mercury spill, and sampling, analyzing, and inventorying work.

In October 1992, the Site was placed on the National Priorities List, which is a list of known or threatened releases of hazardous substances promulgated under Section 105 of CERCLA, 42 U.S.C. § 9605.

In 1993, EPA initiated a Remedial Investigation and Feasibility Study (RI/FS) to define the nature and extent of contamination on Parcels A, B and C of the former Li Tungsten facility property (OU 1). Later, in 1995, EPA expanded the Site definition to include the two radiologically contaminated waste areas A and G at the Captain's Cove property (OU 2). It should be noted that Areas A and G comprised a small portion of the Captain's Cove property, which had already been designated as a New York State Superfund Site. EPA's RI/FS of the former Li Tungsten facility property and portions of the Captain's Cove property revealed that many contaminants were left behind on the properties as a result of prior facility operations. These contaminants posed a risk to human health and the environment. The primary contaminant categories of concern at the Site were determined to be radionuclides and heavy metals associated with spent ore residuals/slag.

In 1996, EPA performed a second major removal action from October 1996 to October 1998, primarily to address the hazards associated with the remaining Li Tungsten tank wastes. This removal action resulted in the disposal of large volumes of waste liquid and sludge from 271 process and storage tanks, primarily on Parcel A, as well as removal and disposal of asbestos and other hazardous chemicals found at the former facility. EPA also demolished two structures, the Dice Complex and the East Building, on Parcel A because of the physical dangers posed by their structural instability and in order to facilitate access to tanks.

1999 ROD

Based on the results of the RI/FS, EPA issued a Record of Decision (ROD) in 1999 in which it selected a remedy for OU 1 (Parcels A, B and C of the former Li Tungsten facility property) and OU 2 (Areas A and G at the Captain's Cove property) for the Site. The remedy selected in the 1999 ROD required excavation and off-Site disposal of soil primarily contaminated with radionuclides and heavy metals. In addition, EPA selected a "no action" remedy to address groundwater which only required a long-term monitoring program to assess the recovery of the Upper Glacial Aquifer in the vicinity of the former Li Tungsten facility. This monitoring was to be performed after the soil remedy was implemented. The remedial action objectives of the 1999 ROD for soil were to prevent or minimize exposure to contaminants of concern through inhalation, direct contact, or ingestion, and to prevent or minimize cross-media impacts from contaminants of concern in soil/sediments to underlying groundwater. The cleanup levels specified in the 1999 ROD were as follows:

| Parameter (In Soil) | 1999 ROD Cleanup Levels |
|---------------------|--|
| Arsenic | 24 milligrams/kilogram (mg/kg) |
| Lead | 400 mg/kg |
| PCBs ¹ | 1 mg/kg in Surface Soil (0 – 2 feet below ground surface) or 10 mg/kg at Depths Greater than Two Feet |
| Thorium-232 | 5 picocuries per gram (pCi/g) ² |
| Radium-226 | 5 pCi/g ² |

The remedy selected in the 1999 ROD also included institutional controls to restrict the future use of the former Li Tungsten facility property and portions of the Captain's Cove property. Some of these institutional controls were modified in 2005 (see text below regarding the 2005 Explanation of Significant Differences (ESD)). Construction of the remedy selected in the 1999 ROD was completed in 2008, although institutional controls, which were selected as part of the remedy, have not yet been implemented.

In 2000, the USACE initiated navigational dredging for the inner half of the Glen Cove Creek

¹ Because of the limited presence of polychlorinated biphenyls (PCBs) at one parcel at the Site (Parcel B), the selected remedy called for the removal of PCB-contaminated soil that exceeded 1 mg/kg in surface soil or 10 mg/kg at depths greater than two feet.

² The cleanup levels originally developed in the 1999 ROD did not include the naturally occurring background radiation of each radionuclide, i.e., approximately 1 pCi/g. As described below, because the anticipated future use changed to residential, EPA issued an ESD in the May 2005 which revised the radiation cleanup levels for radium and thorium in order for the 1999 remedy to be protective for residential use. For thorium, the cleanup level was lowered from 5 pCi/g for the thorium-232 isotope to 5pCi/g for the sum of two isotopes, thorium-230 and thorium-232. Similarly, the radium cleanup goal was changed from 5 pCi/g for radium-226 to 5 pCi/g for the sum of radium-226 and radium-228.

starting at Charles Street bridge at its eastern end and used Parcel A of the former Li Tungsten property as a temporary dewatering area. In 2001, the USACE placed the dredged material on Parcel A. These sediments were placed on Parcel A for dewatering prior to eventual re-use in accordance with the City's beneficial use determination issued by the NYSDEC. In 2001, EPA directed potentially responsible parties (PRPs) to segregate Creek sediments dredged by the USACE which were found to be contaminated with radionuclide slag from the former facility. The radioactive slag was discovered while dredging was underway, forcing suspension of all dredging activity. Certain PRPs at the Site were directed to segregate radioactive slag from the sediments on Parcel A in the summer of 2002.

The following summarizes the implementation of the 1999 Selected Remedy:

OU 1 - Former Li Tungsten Facility: Soil with contaminant levels that exceeded cleanup standards was excavated on Parcel A and Lower Parcel C by EPA. A total of 528 cubic yards (cy) of soil exceeding radiation criteria were excavated and staged in the Dickson Warehouse for future off-Site disposal. In addition, 2,295 tons of nonradioactive soil exceeding heavy metals criteria was excavated and disposed of off-Site at a licensed Resource Conservation and Recovery Act (RCRA) Subtitle D facility.

In the spring of 2004, certain PRPs agreed to empty the contents of the Dickson Warehouse by properly disposing of 5,180 tons of radiologically contaminated waste materials staged inside. The PRPs also excavated and disposed of 3,530 tons of contaminated soil from upper Parcel C. In addition, EPA razed all buildings on Parcel A, with the exception of the Loung building, which EPA determined to be structurally stable and uncontaminated. EPA also performed storm sewer and sump clean-out, and closed the industrial well on Parcel A.

The performing PRPs re-mobilized to the Site in June 2006 to complete the remedial work for OU 1. The prior-excavated nonradioactive, heavy metals-contaminated soil was properly disposed of at a RCRA hazardous waste disposal facility. Other contaminated waste streams, i.e., radiologically contaminated soil, soil considered hazardous under the RCRA, and PCB-contaminated soil, were staged in the Dickson Warehouse on Parcel C for specialized handling and disposal. The performing PRPs completed all excavation work in July 2007. They then re-mobilized to the Site in November 2007, to perform additional work including proper disposal of the stockpiled radiologically contaminated, RCRA-hazardous, and PCB-contaminated soil staged in the Dickson Warehouse, as well as decontamination of the warehouse itself. The decontamination of the Dickson Warehouse was completed in July 2008.

All buildings on the former Li Tungsten facility property have since been demolished, including the former Dickson Warehouse and Benbow Building on Parcel C and the former Loung Building on Parcel A. In addition, subsurface petroleum fuel tanks and associated petroleum-contaminated soil that were found on Parcel A during a subsurface investigation performed by the prospective developer of the Site have been removed by the developer under the NYSDEC Spills program. Approximately 1,400 tons of petroleum-impacted soils were excavated and transported to an appropriately licensed facility. A formal spill closure for Parcel A is expected to be approved by NYSDEC upon issuance of this ROD Amendment.

OU 2 – Captain’s Cove: An estimated 112,000 tons of soil with exceedances above the cleanup levels were excavated, segregated, and staged by EPA between 2001 and 2003. EPA segregated the waste soil into stockpiles of radiologically contaminated and non-radiologically contaminated soil, as well as a concrete and wood debris. On behalf of EPA, the USACE then mobilized to Captain’s Cove to commence stockpile load-out, transportation, and disposal activities in February 2005. The work was completed in 2006. The 1999 ROD remedy for Captain's Cove called for excavation, volume reduction, and off-Site disposal of all radiologically contaminated chemical wastes, consistent with the cleanup levels developed for the rest of the Site. Post-excavation sampling of the Captain's Cove portion of the Site showed that the remedial action had attained original cleanup levels identified in the 1999 ROD and had also met the ESD-modified radionuclide criteria (further discussed below).

Explanations of Significant Differences for the 1999 ROD

EPA has issued three ESDs relating to the 1999 ROD. The purpose of an ESD is to document and provide the public with information pertaining to significant changes to a remedy, typically because of changes in circumstances experienced during a remedy’s implementation. The first was issued in November 2002 and addressed the significant increase in the volume of soil that required excavation and off-Site disposal.

The second, issued in May 2005, re-evaluated the 1999 ROD’s cleanup criteria in order to address the City of Glen Cove’s decision to revise the Glen Cove Creek waterfront revitalization plan to include residential future use of Parcels B and C at the former Li Tungsten facility property portion of the Site where commercial/industrial use had been previously anticipated. EPA determined that, in order for the remedy to be protective for such a residential use, the radiation cleanup levels for radium and thorium in the 1999 ROD needed to be changed. For thorium, the cleanup level was lowered from 5 pCi/g for the thorium-232 isotope to 5pCi/g for the sum of two isotopes, thorium-230 and thorium-232. Similarly, the radium cleanup goal was changed from 5 pCi/g for radium-226 to 5 pCi/g for the sum of radium-226 and radium-228. The ESD also stated that naturally occurring levels of these substances were present, and that these cleanup levels were for exceedances of naturally occurring levels. The arsenic and lead criteria were determined to be sufficiently protective of future residential use with institutional controls and were not revised.

The 2005 ESD described the impact of the changes in the radiation cleanup criteria on areas previously excavated in conformance with the 1999 ROD, as revised by the 2002 ESD. After reviewing post-excavation confirmatory results, EPA was satisfied that the previous excavations had met the new radioactive cleanup criteria, as well as the existing heavy metals criteria, and EPA further concluded that, with the exception of Parcel A, the implemented remedy was sufficiently protective of future residential uses with the restrictions proposed by the City. In the 2005 ESD, EPA did not make a determination on the appropriateness of residential future use of Parcel A because of the possibility that contaminants other than those included in the ROD’s cleanup criteria could pose a threat to future residential populations.

The City of Glen Cove recently made a renewed request to EPA to allow for residential future use, with restrictions, of Parcel A because of a change in future anticipated use in the area, as described in the Garvies Point Mixed-Use Waterfront Development plan. Under this plan, the Glen Cove Industrial Development Agency (IDA) intends to sell the properties to a developer that will redevelop the Site and include both commercial and residential future uses. Commercial use (e.g., an on-slab parking garage) is envisioned for Lower Parcel C. The City has revised its zoning code accordingly.

Based on this renewed request, EPA issued a third ESD as part of the May 2016 Site Proposed Plan for Remedy Modification, after evaluating recent sampling data and taking into consideration the prospective developer's plans for removal of additional soil contamination at Parcels A and B at the former Li Tungsten facility property. In September 2016, the prospective developer initiated a response action to remove the targeted contaminated soils; this effort is nearly complete and should be concluded by mid-October. This third ESD announced the change in land use from commercial/light industrial to residential with restrictions for Parcel A, as well as to reaffirm that, by reverting the use of Lower Parcel C to commercial/light industrial land use (specified in the 1999 ROD) from residential with restrictions (specified in the 2005 ESD), the remedy would still be protective of human health.

Red Flag Areas

During the implementation of the remedial activities at the former Li Tungsten facility property portion of the Site, EPA determined that excavation of some arsenic-contaminated soil and, to a lesser extent, lead-contaminated soil along the western and eastern edges of Lower Parcel C and on the southern portion of Parcel A was infeasible because of the existing utilities and infrastructure. These areas with remaining soil contamination, referred to as "red flag" areas, are present within the immediate area of the fence line on Parcel C (e.g., along two storm drain systems as well as underground electric and natural gas services) and on Parcel A in close proximity to the bulkhead in place along the Glen Cove Creek.

The "red flag" areas were identified as areas that would need institutional controls to ensure that future development would take remaining contamination into account in managing excavations and soil in these areas. The contamination in these "red flag" areas was also found to be at depths below the top two feet, and, therefore, it was determined that receptors were unlikely to be exposed unless digging occurred in these areas. However, the prospective developer and EPA performed sampling in 2014 and 2015 which indicated some additional remaining soil, in particular, in Lower Parcel C and Parcel A of the former Li Tungsten facility property that exceeded the 1999 ROD cleanup levels. Specifically, the sampling results revealed more arsenic, and, to a limited extent, lead contamination outside the "red flag" areas that had heretofore been identified on Lower Parcel C and on Parcel A. The sampling also identified petroleum-contaminated soil on Parcel A that has been addressed under the NYSDEC Spills program. A formal spill closure for Parcel A is expected to be approved by NYSDEC in conjunction with the issuance of this ROD Amendment. The 2014 and 2015 sampling investigations did not reveal any contamination in excess of the radiological cleanup levels. However, it should be noted that, during the implementation of the September 2016 removal of metals-contaminated soils on Parcel

A, during routine required screening for radiological contamination, the prospective developer identified and subsequently removed less than 0.5 cy of soil that was in excess of the radiological cleanup levels.

Contamination can migrate from soil into the groundwater. While the groundwater quality has continued to improve subsequent to the implementation of the soil excavation portions of the 1999 remedy, arsenic concentrations detected in groundwater at one area of the Site, beneath Lower Parcel C, still exceed the drinking water standard. The cleanup levels selected in the 1999 ROD for arsenic and lead were based upon the more conservative measure of direct-contact exposure and not on impact to groundwater. For this reason, EPA and NYSDEC investigated whether implementing further actions with an alternate “impact-to-groundwater” cleanup level for arsenic and lead was feasible.

After further assessing the cross-media impacts from contaminants of concern in soil/sediments migrating to underlying groundwater, and conducting site-specific analysis and evaluation, EPA and the NYSDEC developed Site-specific impact-to-groundwater (IGW) cleanup levels (discussed in section 5.4, below) of 175 mg/kg for arsenic and 660 mg/kg for lead that, if achieved, EPA believes will be protective of groundwater. EPA determined that the strategy of removing additional contaminated soil above the arsenic and lead IGW soil cleanup levels will further improve the groundwater quality and potentially result in achieving the drinking water standard for arsenic. The IDA’s plan to restrict the use of the Lower Parcel C property to commercial use and to provide and maintain a cover at the Site of either two feet of clean soil with an underlying demarcation layer or above-ground structures, such as buildings, or pavement or sidewalks, will further reduce the potential for human exposure to residual remaining contamination.

2005 ROD

EPA selected a second ROD in 2005 which called for the remedial dredging and removal of radioactive hot spots in the Glen Cove Creek. The following summarizes the implementation of the 2005 remedy:

OU 4 - Glen Cove Creek: On behalf of EPA, USACE initiated on-site response activities in October 2006. Sediment from the Creek was dredged and dewatered on-Site. In August 2007, work began to segregate radionuclide slag from the dewatered sediment. The segregation work typically involved spreading and radiologically scanning a “lift” of material spread out in a layer approximately six inches thick. Radiologically contaminated materials were removed from the sediment and stockpiled for off-Site disposal. The final volume of scanned sediment was 31,374 cy. The slag was properly disposed off-Site.

EPA re-mobilized to the Site in October 2007 to complete dredging of two isolated hot spots, designated 1 and 2, which were against the bulkhead on Parcel A, using a long-reach excavator from land to try to minimize the possibility of bulkhead collapse. After dredging, EPA rebuilt part of the bulkhead along Parcel A that had collapsed earlier. EPA completed this work in July 2008.

The Creek's navigational channel has been effectively cleared of radionuclides that could otherwise impact future navigational dredging operations. There is the potential that radiologically contaminated slag could still be present below the navigational dredging depth in the Creek channel. In addition, it is possible that radiologically contaminated slag may be present underwater in the sideslope of the Creek channel along the Parcel A bulkhead. Therefore, these areas have been identified as areas requiring restrictions on future activity through the use of institutional controls.

3. COMMUNITY PARTICIPATION

On May 31, 2016, EPA released a Proposed Plan for the amended remedy for the Li Tungsten Superfund Site to the public for comment. A Proposed Plan is a document that sets forth various alternatives to address conditions at a site, identifies EPA's preferred alternative among those alternatives, and solicits comments from the public on the alternatives. EPA assembled supporting documentation, which comprises the administrative record for this decision and made it available to the public at the information repositories maintained at the Glen Cove Public Library, Reference Section, 4 Glen Cove Avenue, Glen Cove, New York, and EPA Region 2 Office in New York City.

Notice of the June 1, 2016 start of the public comment period and the availability of the above-referenced documents was published in *The Glen Cove Record Pilot* on June 1, 2016. A copy of the public notice published in *The Glen Cove Record Pilot* can be found in **Appendix V**. EPA accepted public comments on the Proposed Plan from June 1, 2016 through July 1, 2016.

On June 13, 2016, EPA held a public meeting at the Glen Cove High School, located at 150 Dosoris Lane, Glen Cove, New York, to inform local officials and interested citizens about the Superfund process, to present the Proposed Plan for the Site, including the preferred proposed remedial alternatives, and to respond to questions and comments from the attendees. Comments received at the public meeting and in writing during the public comment period are summarized and addressed in the Responsiveness Summary (See **Appendix V**).

4. SCOPE AND ROLE OF RESPONSE ACTION

As noted above, EPA has designated four OUs for the Site. Section 300.5 of the National Oil and Hazardous Substances Pollution Contingency Plan (NCP), 40 C.F.R. Part 300.5, defines an OU as a discrete action that comprises an incremental step toward comprehensively addressing a site's problems. A discrete portion of a remedial response eliminates or mitigates a release, a threat of release, or pathway of exposure. As such, site remediation activities are sometimes segregated into different phases, or operable units, so that remediation of different environmental media or areas of a site can proceed separately, resulting in an expeditious remediation of the entire site. The four operable units for the Li Tungsten Site are as follows:

Operable Unit 1 (OU 1) - the Former Li Tungsten Facility Property
Operable Unit 2 (OU 2) - portions of the Captain's Cove Property
Operable Unit 3 (OU 3) - Building Contamination

Operable Unit 4 (OU 4) - Glen Cove Creek

The 1999 ROD addressed contaminated soil and groundwater for OU 1 and for areas impacted by radiological contamination as well as arsenic and lead from the former Li Tungsten facility at OU 2. Other than certain Site-wide Institutional Controls, this ROD Amendment addresses only the OU 1 soil remedy of the 1999 ROD, specifically, contamination left behind in some of the “red flag” areas and recently-identified metals-contaminated soil. The implementation of the 1999 selected remedy for OU 2 adequately addressed the radiological contamination at Captain’s Cove; any additional actions that may be envisioned by NYSDEC for Captain’s Cove, including the OU 2 areas, will be addressed under the State superfund program. An institutional control in the form of an environmental easement will be implemented, which will contain various restrictions on both the former Li Tungsten property and those portions of the Captain’s Cove property where EPA required work to be performed.

There were two other OUs, OU 3 and OU 4, identified for the Site, which are not changed by this ROD Amendment. OU 3 was intended to address radioactive contamination in buildings. A remedy was not selected for OU 3 because, in 1998, EPA decided to address the radioactive contamination in buildings as part of an EPA removal action. OU 4, the Glen Cove Creek, was addressed through a 2005 ROD for the Site. The remedy selected in the 2005 ROD, which involved remedial dredging and removal of radioactive hot spots in the Creek, has been completed. **Figure 2 in Appendix I** shows OU 1, OU 2, and OU 4.

5. SUMMARY OF SITE CHARACTERISTICS

5.1 Site Geology/Hydrogeology

There are two discrete aquifers in the Glen Cove region - the Upper Glacial and the Lloyd Aquifers. In 1978, the aquifer system underlying Nassau and Suffolk Counties was designated a sole source aquifer by EPA in order to safeguard the capability of these aquifers to provide potable drinking water.

The Upper Glacial Aquifer, which is not currently a source of potable water in the vicinity of the Site, consists of permeable deposits that occur below the water table. The water table at the Site is observed at elevations from mean sea level (MSL) to approximately 60 feet above MSL. Recharge is entirely from precipitation, occurring mostly during the late fall and winter when plant growth is dormant. Regionally, shallow groundwater discharges to streams, springs, and the Long Island Sound and its harbors. No connection or discharge from the Upper Glacial Aquifer to the deeper Lloyd Aquifer exists in the Site area. Groundwater movement in the Upper Glacial Aquifer is generally to the south, with shallow discharge to Glen Cove Creek.

The clay member of the Raritan Formation is a confining, or relatively impermeable, unit that overlies the Lloyd Aquifer. The Port Washington unit occurs above, and is contiguous with, the clay member in some places. These units form an effective confining unit separating the Lloyd Aquifer from the Upper Glacial Aquifer in the Glen Cove region. Glen Cove’s municipal water supply system taps the deeper Lloyd Aquifer at depths in excess of 250 feet below MSL.

5.2 Ecology

Wetlands at the former Li Tungsten facility appear to be associated with natural drainage patterns and impoundments related to human activity. No wetland areas are depicted on either the U.S. Fish or Wildlife Service's National Wetlands Inventory Map or the NYSDEC Freshwater Wetland Map (Sea Cliff, NY quadrangle). However, four delineated areas meet the federal criteria for wetland designation on Parcels B and C. Cumulatively, they occupy one acre of the facility.

There are two surface water systems on the former Li Tungsten facility property. A drainage ditch located on the eastern half of Parcel B runs south approximately two-thirds the length of the Parcel. A small pond is located approximately midway along the drainage ditch. A series of drainage ditches on the western portion of Parcel C end in a pond.

At Captain's Cove, precipitation collects in two man-made interconnected retention basins on the northern border of the property, as well as in low-lying areas in the center of the property. Along the southern border of the property is a five-acre tidal wetland that is inundated at high tide.

Numerous on-site wildlife observations have been made, including the direct observations of many waterfowl and wading birds, as well as red foxes and raccoons. No threatened or endangered birds, mammals, reptiles, amphibians, fish, or invertebrates inhabit this area. However, Hempstead Harbor is listed as a Waterfowl Nesting Area and a Significant Coastal Fish and Wildlife Habitat under New York State's Coastal Management Program.

5.3 Operable Unit 1 and Operable Unit 2 Groundwater

Sampling of groundwater during the 1999 remedial investigation indicated that radionuclides were generally at or below EPA and State maximum contaminant levels (MCLs), although several monitoring wells did reveal groundwater concentrations arsenic above its MCL and the Action Level for lead. Alternatives for remediating the groundwater at the former Li Tungsten facility were considered and no action with monitoring was selected to address groundwater in the 1999 ROD, based on the expectation that the attainment of EPA and State MCLs would result from the soil cleanup considering the sporadic and generally low-level nature of the inorganic soil contamination. While metals contamination was detected in groundwater at Captain's Cove above EPA and State MCLs during the RI, alternatives for remediation of groundwater at Captain's Cove were not developed because radionuclides were present at or below MCLs. The long-term groundwater monitoring program includes monitoring wells at Captain's Cove.

Groundwater monitoring in accordance with the ROD was initiated by certain PRPs subsequent to the Court's entry of the 2007 Consent Judgment. As expected, the groundwater sampling data has indicated that, for the most part, metals concentrations in groundwater at the former Li Tungsten facility have decreased significantly with the implementation of the soil remedial actions required by the 1999 ROD. Prior to the 1999 ROD, during the RI study, arsenic was detected at 14,500 micrograms per liter (µg/L) in 1996 at a monitoring well on Lower Parcel C. The Post-1999 ROD groundwater monitoring network consists of five wells that were sampled

quarterly from September 2008 to June 2009 and annually from 2010 to 2013. Samples were analyzed at a laboratory for metals (including contaminants of concern arsenic and lead), as well as radium-226 and thorium-232. Three of these wells are located on the former Li Tungsten facility property; the other two are located on the Captain's Cove property. Two rounds of samples of the five wells were also collected by EPA in January 2015 and February 2016. All monitoring results reveal that radionuclides remain below MCLs. Well EMW-4 (22 feet deep), which is located on Lower Parcel C, has revealed arsenic concentrations above 10 µg/L MCL; concentrations have varied during the monitoring period, ranging between 54 µg/L (2008) to 510 µg/L (2013) to 85 µg/L (2016). Lead concentrations were also detected and ranged between 10.8 to 1.7 µg/L; however, all lead values are below the EPA Action Level of 15 µg/L. For the remaining two wells on the former Li Tungsten facility property, well MP-6 on Parcel A and well PRA-7 on Parcel B, arsenic and lead concentrations have declined to either non-detect or below their respective MCLs and EPA Action Level.

5.4 Additional Soil Sampling, Impact-to-Groundwater Assessment, and Actions by Other Parties

The selected remedy for OU 1 and OU 2 in the 1999 ROD called for, among other actions, excavation of soil and sediment contaminated above cleanup levels, followed by replacement with clean backfill. During the various remedial activities, some areas were identified where arsenic and, to a lesser degree, lead were left in place in what were classified as “red flag” areas because the feasibility of addressing those soils in those locations was limited. Additional investigations were subsequently performed on Li Tungsten Parcels A and B and Lower Parcel C by the prospective developer. These investigations identified soil contamination on Parcel A and Lower Parcel C in areas outside of those previously identified as “red flag” areas.

Future direct-contact exposure to these identified areas can be managed through engineering and institutional controls, and EPA plans to manage some inaccessible material in place; however, to satisfy a remedial action objective of the 1999 ROD, EPA and NYSDEC have also reevaluated the cross media impacts of contaminated Site soil to groundwater. Based upon groundwater monitoring performed to date, actions to address soil has led to achieving MCLs in most of the Upper Glacial Aquifer, as anticipated in the 1999 ROD, except as noted above regarding Lower Parcel C.

EPA and the NYSDEC decided to assess the potential for cross media impacts of Site soil to groundwater utilizing a test method called the Synthetic Precipitation Leaching Procedure (SPLP). The SPLP test exposes soil to a liquid simulating environmental precipitation and measures the amount of a contaminant that migrates through the soil with the liquid as it passes through the media. Site soil contaminated with arsenic and lead were subjected to the SPLP method. The SPLP test results, and EPA, NYSDEC, and New Jersey Department of Environmental Protection guidance on development of site-specific, impact-to-groundwater cleanup criteria were reviewed. Specific characteristics of the Site and the Site-specific SPLP testing led EPA and NYSDEC to conclude that Site soil that contained less than 175 mg/kg of

arsenic and 660 mg/kg of lead would not have a significant impact on groundwater.

To better define the extent of remaining contamination on Lower Parcel C, EPA performed additional soil sampling in August 2015 and March 2016. EPA assessed the results of the Lower Parcel C sampling event as well as all the recent data to determine how best to address the remaining contamination. The Lower Parcel C soil sampling results revealed several locations where arsenic and lead contamination in soil exceeded the aforementioned, site-specific impact-to-groundwater cleanup levels of 175 mg/kg and/or 660 mg/kg for arsenic and lead, respectively. The most significant contamination was found in the “red flag” areas; thus, while some of these elevated concentrations may still be subject to the same limitations that precluded their removal during the earlier remedial action, an estimated 8,500 cy of contaminated soil exceeding the 175 mg/kg level for arsenic and 660 mg/kg level for lead is expected to be accessible and feasible for excavation and disposal off-Site.

The prospective developer of the properties has initiated several investigatory actions voluntarily in anticipation of acquiring portions of the Site. As part of the Garvies Point Mixed-Use Waterfront Development plan, the developer is implementing a pre-closing response action on Parcel A that will result in the removal and off-Site disposal of identified soil contamination that exceeds levels of 175 mg/kg for arsenic and 660 mg/kg for lead, with the exception of one area that is anticipated to be addressed if its current plans for the development of a marina are implemented. The developer will also remove a small area of PCB-contaminated soil that had become exposed on Parcel B. Should the marina not be developed, Institutional Controls Implementation and Assurance Plans (ICIAP) would be implemented to control disturbance of this area in the future.

6. CURRENT AND POTENTIAL FUTURE LAND AND RESOURCE USES

6.1 Land Use

The Glen Cove Creek area has been industrialized since the mid-1800s. The immediate area now includes light industry, commercial businesses, a sewage treatment plant, a County public works facility, and State and federally-designated hazardous waste sites and Brownfields properties. Other land uses in the vicinity include marinas, yacht clubs, beaches, and the Garvies Point Preserve. There are residences within 100 feet of the former Li Tungsten facility, along Janet Lane and The Place, and on McLoughlin Street within 1,000 feet of the Captain’s Cove property. The Site is situated on approximately 50 acres of waterfront property along the Creek. The Site is split into two roughly equal areas bordering Glen Cove Creek, i.e., Captain’s Cove at the western end of the Creek and the former Li Tungsten facility property about a half mile east of Captain’s Cove near the head of the Creek. The former Li Tungsten facility property has been used for various industrial purposes over the years, but in recent times developers became interested in redeveloping land around the Creek to take advantage of the scenic waterfront. Both commercial as well as residential usages have been envisioned for the Site since the 1980’s, but the many years of industrial use have created several Brownfields and State and federal Superfund sites along the one-mile stretch of the Creek. The City of Glen Cove, which has been designated as an EPA Brownfields Showcase Community, initially had plans to implement its 1998 Glen

Cove Creek Revitalization Plan involving more than 200 acres surrounding the Glen Cove Creek featuring shops, restaurants, parking facilities, museums, and a hotel/conference center for both north and south side of the Glen Cove Creek. Since then, the City of Glen Cove has made a decision to redevelop only the north side of the Glen Cove Creek. The current Garvies Point Mixed-Use Waterfront Development plan for the north side of the Glen Cove Creek calls for redevelopment of 52 acres, which would include both commercial and residential future uses, public amenities and open space, and retail/restaurant/cultural space. Commercial use (i.e., an on-slab parking garage) is now envisioned for the Lower Parcel C. Future use of the Site is discussed in the 1999 and 2005 RODs, the 2005 and 2016 ESDs, and the Site's remedial action reports (RARs).

6.2 Groundwater Use

There are no drinking water wells in the vicinity of the Site. People living near the Site obtain their drinking water from the City's potable water supply. The no action remedy for groundwater was chosen in the 1999 ROD based on the sporadic and generally low-level nature of the inorganic contamination, as well as the impacts of saltwater intrusion on the Aquifer, the tidal influence and isolation of the aquifer in the area bounded by Glen Cove Creek, and the availability of the City's potable water supply to the affected area. In addition, New York Environmental Conservation Law Section 15-527, New York Sanitary Code (Title 10 of the New York Code of Rules and Regulations Section 5-24), and Nassau County Public Health Ordinance Article 4, which prohibits the installation of new private potable water systems in areas served by a public water supply, effectively preclude any future potable water well installations in this portion of the Upper Glacial Aquifer.

7. SUMMARY OF SITE RISKS

Based upon the results of the RI and the focused feasibility study (FFS), EPA conducted baseline human health risk assessments (BHHRAs) and ecological risk assessment (ERA) for the 1999 ROD to estimate the human and ecological risks associated with current and future Site conditions. A baseline risk assessment estimates the human health and ecological risks that could result from the contamination at the Site if no remedial action were taken. A human health risk assessment is a quantitative analysis of the potential adverse human health effects caused by hazardous substance exposure at the Site in the absence of any actions to control or mitigate exposure under current and future land uses. The human health risk discussion below summarizes and updates conclusions from the BHHRAs and the ERA.

7.1 Human Health Risk Assessment Process

The BHHRAs performed considered exposure to chemicals of concern (COCs) at the Site. As required by EPA policy, these assessments estimated the human health risk which could result from the contamination at the Site if no remedial actions were taken at the Site.

For the BHHRAs, a four-step process was used for assessing Site-related cancer risks and noncancer health hazards. The four-step process is comprised of:

Hazard Identification – this step identifies the COCs at a site based on several factors such as toxicity, frequency of occurrence, and concentration;

Exposure Assessment – this step estimates the magnitude of actual and/or potential human exposures, the frequency and duration of these exposures, and the pathways by which humans are potentially exposed (i.e., ingestion and dermal contact with contaminated soil);

Toxicity Assessment – this step identifies the types of adverse health effects associated with chemical exposures, and the relationship between magnitude of exposure (dose) and severity of adverse effects (response); and

Risk Characterization – this step summarizes and combines outputs of the exposure and toxicity assessments to provide a quantitative assessment of site-related risks. During this step, contaminants with concentrations that exceed a risk of 10^{-4} to 10^{-6} , or one-in-ten-thousand to one-in-a-million cancer risk, and a Hazard Index (HI) of greater than 1 (discussed further below) for noncancer health hazards. Contaminants with concentrations that exceed these guidelines are then considered COCs for a site and are typically those that will require remediation. The uncertainties associated with the risk calculations are also evaluated under this step.

7.2 Human Health Risk Assessment

The BHHRAs were conducted as part of the process to determine whether, and if so which, remedial action is appropriate for the Site. The BHHRAs evaluated the potential risks and hazards that may be associated with direct exposure to soil and groundwater contamination at the Site through ingestion, dermal contact, and inhalation of vapors during showering.

Consistent with guidance, EPA identified consumption of groundwater by future residents as a potential exposure pathway when conducting the BHHRAs for the 1999 ROD. However, the BHHRAs ultimately indicated that consumption of groundwater on a Site-wide basis and in the area of Lower Parcel C was not a complete exposure pathway under current conditions (i.e., no inhalation, direct contact or ingestion of COCs occurring). Nassau County Department of Health Ordinance Article 4 prohibits potable water wells in an area serviced by a municipal water supply. EPA guidance calls for the evaluation of potential exposures in the absence of institutional controls, such as the Nassau County ordinance. As such, EPA reevaluated quantitative cancer risks and non-cancer hazards based on future residential exposure to arsenic in groundwater in the area of Lower Parcel C.

The RI/FS identified a concentration of arsenic at 4,300 µg/L in groundwater in the Lower Parcel C area. This concentration was detected in a well near the former above-ground fuel oil tank on Lower Parcel C. The concentrations of arsenic in this area resulted in a remedial action based on potential future residential exposure to groundwater. Using the same toxicity values used in the original BHHRAs along with comparable exposure assumptions, **Table 1**, below, was developed. **Table 1** summarizes the cancer risks and non-cancer hazards associated with the concentration of

arsenic reported in the 1999 ROD. Of note, the cancer risks exceed the risk range established under the NCP of 1×10^{-6} to 1×10^{-4} (one in a million to one in ten thousand) and the goal of protection of a Hazard Quotient (HQ) of 1 or less.

| Table 1 - Summary of Cancer Risks (Panel A) and Non-Cancer Hazards (Panel B) Associated with Arsenic Concentrations in Groundwater Underlying Lower Parcel C based on the 1999 ROD. The Calculated Cancer Risks and Non-Cancer Hazards Are Based on Future Residential Exposure Assumptions. | | | | |
|---|--|--|--------------------------------|--|
| Panel A. Summary of Cancer Risks from Future Residential Consumption of Groundwater Underlying Lower Parcel C. | | | | |
| Concentration Associated with Risk 10^{-6} (µg/L) | Concentration in Groundwater (µg/L). | Calculated Cancer Risk Associated with Sampling Data from 1999 ROD | MCL at Time of Decision (µg/L) | Conclusions |
| 0.052 | 4,300 Sample reported in 1999 ROD | 8.3E-02 | 50 | Concentration exceeds the risk range for cancer of 10^{-6} to 10^{-4} and the MCL at the time of the 1999 ROD. |
| Panel B. Summary of Non-Cancer Hazards from Future Residential Consumption of Groundwater Underlying Lower Parcel C. | | | | |
| Concentration Associated with HQ = 1 (µg/L) | Concentration in Groundwater (µg/L) | Calculated Non-Cancer Risk Associated with Sampling Data | MCL at Time of Decision (µg/L) | Conclusions |
| 6 | 4,300 Sample reported in 1999 ROD | 716 | 50 | Concentration exceeds the goal of protection of an HQ = 1 and MCL at the time of the 1999 ROD. |

Recent groundwater data collected from Lower Parcel C indicates that while the concentrations of arsenic in groundwater have decreased significantly from the high concentrations identified during the RI, the concentrations in one well are still elevated. The on-going sampling of Well EMW-4 (22 feet deep) located on Lower Parcel C identified concentrations ranging between 54 micrograms per liter (µg/L) in 2008, 510 µg/L in 2013, and 85 µg/L (2016). These concentrations remain above the current arsenic MCL of 10 µg/L. In addition, based on the concentration of

arsenic in the groundwater from that well if used as a source of residential drinking water, **Table 2**, below, shows the associated cancer risks and non-cancer hazards.

| Table 2 - Summary of Cancer Risks (Panel A) and Non-Cancer Hazards (Panel B) Associated with concentration of arsenic in groundwater Underlying Lower Parcel C based on Recent Sampling Results. The Risks Are Based on Future Residential conditions. | | | | |
|--|--|--|--------------------|---|
| | | | | |
| Panel A. Summary of Cancer Risks from Future Residential Consumption of Groundwater Underlying Lower Parcel C Using Groundwater Data Collected from 2008 to 2016. | | | | |
| | | | | |
| Concentration Associated with Risk 10 ⁻⁶ | Concentration in Groundwater (µg/L) And Year Sampled.in Parentheses. | Calculated Cancer Risk Associated with Sampling Data | Current MCL(µg/L) | Conclusions |
| 0.052 µg/L | 54 (2008) | 1.0 x 10-3 | 10 | Concentration exceeds the risk range for cancer of 10 ⁻⁶ to 10 ⁻⁴ for all years and exceed the current MCL for arsenic. |
| | 510 (2013) | 9.8 x 10-3 | 10 | |
| | 85 (2016) | 1.6 x 10-3 | 10 | |
| | | | | |
| Panel B. Summary of Non-Cancer Hazards from Future Residential Consumption of Groundwater Underlying Lower Parcel C. | | | | |
| | | | | |
| Concentration Associated with HQ = 1 | Concentration in Groundwater (µg/L) And Year Sampled in Parentheses. | Calculated Non-Cancer Risk Associated with Sampling Data | Current MCL (µg/L) | Conclusions |
| 6.0 µg/L | 54 (2008) | 9.0 | 10 | Concentration exceeds the non-cancer HQ = 1 and the current MCL. |
| | 510 (2013) | 85 | 10 | |
| | 85 ((2016) | 14.2 | 10 | |

Site-Wide Groundwater Assessment

The groundwater was evaluated under a future consumption assumption based on Site-wide exposure in the 1999 BHHRA. The Site-wide concentrations, excluding the hotspot area on Lower Parcel A, ranged from 0.01 to 10.9 $\mu\text{g/L}$ of arsenic. The future risks for specific receptors

from Site-wide exposure to arsenic in groundwater under a future scenario of site-wide groundwater consumption were:

- Future Worker - cancer risk to the future worker of 3×10^{-3} and the non-cancer HQ was 20. The cancer risks exceed the risk range of 1×10^{-4} to 10^{-6} and the goal of protection of an HQ = 1 for this receptor.
- Future Adult Resident - cancer risk of 9×10^{-3} and the non-cancer HQ = 50. The cancer risks exceed the risk range of 1×10^{-4} to 10^{-6} and the goal of protection of an HQ = 1 for this receptor.
- Future Child Resident – cancer risk of 4×10^{-3} and the non-cancer HQ = 100. The cancer risks exceed the risk range of 1×10^{-4} to 10^{-6} and the goal of protection of an HQ = 1 for this receptor.

For the remaining two wells on the former Li Tungsten facility property, well MP-6 on Parcel A and well PRA-7 on Parcel B, arsenic and lead concentrations have declined to either non-detect or below their respective MCLs and EPA Action Level for Lead, respectively.

Uncertainties

The procedures and inputs used to assess risks in this evaluation, as in all such assessments, are subject to a wide variety of uncertainties. In general, the main sources of uncertainty include:

- environmental chemistry sampling and analysis
- environmental parameter measurement
- fate and transport modeling
- exposure parameter estimation
- toxicological data

Uncertainty in environmental sampling arises in part from the potentially uneven distribution of chemicals in the media sampled. Consequently, there is uncertainty as to the actual levels present. Environmental chemistry-analysis error can stem from several sources including the errors inherent in the analytical methods and characteristics of the matrix being sampled. Uncertainties in the exposure assessments are related to estimates of how often an individual would actually come in contact with the chemicals of concern, the period of time over which such exposure could occur, and in the models used to estimate the concentrations of the chemicals of concern at the point of exposure. Uncertainties in toxicological data occur in extrapolating both from animals to humans and from high to low doses of exposure, as well as from the difficulties in assessing the toxicity of a mixture of chemicals.

These uncertainties are addressed by making conservative assumptions concerning risk and exposure parameters throughout the assessment. As a result, the Risk Assessment provides upper-bound estimates of the risks to populations near the Site and is unlikely to underestimate actual risks related to the Site.

7.3 Ecological Risk Assessment

Ecological risks associated with exposure to surface soil were found during the RI/FS which supported the 1999 ROD. The results of the ecological risk characterization indicated that potential risks were determined for the earthworm, American robin, deer mouse, and the red fox resulting primarily from inorganic contamination in surface soil.

However, the remedy selected in the 1999 ROD addressed contaminated on-Site soil calling for the excavation and off-Site disposal. Therefore, since the terrestrial exposure pathway has been addressed, the Site does not pose any unacceptable risks to terrestrial receptors using surface soil.

7.4 Basis for Taking Action

The results of the investigations and the BHHRA's indicate that the contaminated groundwater within the Lower Parcel C of the former Li Tungsten facility property presents a cancer risk above the risk range and a non-cancer hazard greater than an HQ of one. The contaminated soil within the Lower Parcel C also serves as source material for continued groundwater contamination. Therefore, it is necessary to address the soil contamination. The ecological evaluation indicates that the Site does not pose any unacceptable risks to aquatic or terrestrial ecological receptors.

It is EPA's determination that an amendment to the selected remedy is necessary to protect public health or welfare or the environment from actual or threatened releases of hazardous substances into the environment.

8. REMEDIAL ACTION OBJECTIVES

Remedial action objectives (RAOs) are specific goals to protect human health and the environment. These objectives are based on available information and standards, such as applicable or relevant and appropriate requirements (ARARs), to-be-considered (TBC) guidance, site-specific risk-based levels, and the most reasonably anticipated future land use for a site.

This amendment does not change the RAOs identified in the 1999 ROD. As such, RAOs for this remedy modification are as follows:

- ☐ Prevent or minimize exposure to contaminants of concern through inhalation, direct contact or ingestion.
- ☐ Prevent or minimize cross-media impacts from contaminants of concern in soil/sediments to underlying groundwater.

The arsenic and lead cleanup levels for direct-contact exposure have not changed since the 1999 ROD, although the expected land use has changed several times including in the most recent development plans, as discussed above and memorialized in the ESD issued as part of the May 2016 Li Tungsten Proposed Plan. The arsenic and lead cleanup levels apply to accessible soils

from 0-2 feet below ground surface.

This ROD Amendment establishes new IGW cleanup levels of 175 mg/kg for arsenic and 660 mg/kg for lead for soil remaining at the Site that is contaminated with arsenic and lead and may pose an ongoing threat to groundwater.

The Upper Glacial Aquifer is not currently being used as a drinking water supply. EPA expects to continue to assure the protectiveness of the 1999 remedy as it pertains to groundwater by assuring that the aquifer is not used for drinking water until MCLs are achieved. In support of this approach, EPA expects to continue to rely on the existing Nassau County Public Health Ordinance Article 4, which prohibits the installation of new potable water systems in areas served by a public water supply, and it effectively precludes any future potable water well installations. The City currently provides potable water to the affected area. Furthermore, EPA notes that there is evidence of saltwater intrusion on the Upper Glacial Aquifer, which limits the suitability of the aquifer as a potable water resource.

Soil remediation goals for addressing the soil contamination at Lower Parcel C of the former Li Tungsten facility property are identified in **Table 3**, below.

| Table 3 - Soil Remediation Goals | | |
|---|--|---|
| Chemicals of Concern (In Soil) | 1999 ROD Soil Cleanup Levels | Impact-to-Groundwater (IGW) Cleanup Levels |
| Arsenic | 24 mg/kg | 175 mg/kg |
| Lead | 400 mg/kg | 660 mg/kg |
| PCBs | 1 mg/kg in Surface Soil (0 – 2 feet below ground surface) or 10 mg/kg at Depths Greater than Two Feet | Not Applicable |

9. SUMMARY AND DESCRIPTION OF REMEDIAL ALTERNATIVES

Section 121(b)(i) of CERCLA, 42 U.S.C. § 9621(b)(1), requires that each selected site remedy be protective of human health and the environment, be cost effective, comply with ARARs, and utilize permanent solutions, alternative treatment technologies, and resource recovery alternatives to the maximum extent practicable. In addition, CERCLA includes a preference for the use of treatment as a principal element for the reduction of toxicity, mobility, or volume of the hazardous substances.

The following two soil remedial alternatives were evaluated for the former Li Tungsten facility property portion of the Site: (1) No Further Action, and (2) Additional Excavation and Off-Site

Disposal of Metals-Contaminated Soil.

The alternatives for addressing remaining soil contamination on Lower Parcel C of the former Li Tungsten facility property are provided below and are identified as LS-1 and LS-2. The soil remedy selected in the 1999 ROD resulted in the cleanup of soil exceeding concentrations of 24 mg/kg for arsenic and 400 mg/kg for lead in surface soil and subsurface soil except in red flag areas. Alternative LS-1 would not require any additional active remediation of remaining soil remaining at the Site above the arsenic and lead cleanup numbers. LS-2 would require additional active remediation of the remaining contamination. However, LS-2 differs from the remedy selected in the 1999 ROD in that it uses two distinct cleanup numbers for the nonradiological metals of concern: one cleanup number to protect against exposures to contamination in surface soil and a second cleanup number to address cross-media impacts from soil to groundwater. LS-2 utilizes the same cleanup levels of 24 mg/kg for arsenic and 400 mg/kg for lead from the 1999 ROD to protect against exposure to contaminants in surface soil (0 – 2 feet below ground surface), but, in addition, it utilizes a second set of Site-specific numbers of 175 mg/kg for arsenic and 660 mg/kg for lead in all soil, including subsurface soil, at depths greater than two feet, to minimize cross-media impacts from these contaminants in subsurface soil to groundwater. In addition, as stated above, it is the City of Glen Cove and/or the prospective developer's intention to provide and maintain a cover system at the Site of either two feet of clean soil with an underlying demarcation layer or placement of structures (i.e., buildings, pavement, or sidewalks) over the entire Site property which will further reduce the potential for human exposure to residual remaining contamination.

It should be noted that the selected groundwater remedy in the 1999 ROD was no action, other than a long-term groundwater monitoring to assess the recovery of the Upper Glacial Aquifer following removal of contaminant source soils, and it remains unchanged under either alternative.

The construction time for each remedial alternative reflects only the time required to construct or implement the remedy and does not include the time required to design the remedy, negotiate the performance of the remedy, or procure contracts for design and construction.

Alternative LS-1: No Further Action

| | |
|--|----------------|
| Capital Cost | \$0 |
| Annual Operation and Maintenance (O&M) Cost: | Not Applicable |
| Present Worth Cost | Not Applicable |
| Construction Time | Not Applicable |

The No Further Action Alternative would not include any additional measures to address remaining soil contamination that currently acts as an ongoing source of groundwater

contamination. It would rely on natural processes of dispersion to continue to lower groundwater concentrations to levels below MCLs and the Action Level for lead.

Plans to develop the Site include the placement of either a minimum of two feet of clean soil cover with an underlying demarcation layer or the placement of structures (i.e., buildings, pavement, or sidewalks) over the entire Site property. The SMP would include the maintenance of this cover.

Other aspects of the 1999 ROD would remain unchanged and in place, such as ongoing monitoring of groundwater until MCLs and the Action Level for lead are reached. Because this alternative would result in contaminants remaining on Site above health-based levels, CERCLA requires that the Site be reviewed every five years.

Alternative LS-2: Excavation and Off-Site Disposal of Metals-Contaminated Soil

| | |
|--------------------|-------------|
| Capital Cost | \$2,500,000 |
| Annual O&M Cost: | \$32,000 |
| Present Worth Cost | \$3,200,000 |
| Construction Time | 4 Months |

Under this alternative, soil on Lower Parcel C exceeding the 175 mg/kg arsenic and 660 mg/kg lead IGW cleanup levels would be excavated and disposed of off-Site at appropriately licensed disposal facilities. EPA estimates that 8,500 cy would be removed from Lower Parcel C. It is the City of Glen Cove's and/or the prospective developer's intention to provide and maintain a cover system at the Site of either two feet of clean soil with an underlying demarcation layer or placement of structures (i.e., buildings, pavement, or sidewalks) over the entire Site property which will further reduce the potential for human exposure to residual remaining contamination.

Additional engineering and institutional controls would also be implemented to ensure the integrity of the cover system that is to be placed over the entire upland area of the Site as part of the development of the Site properties. Those controls would be added to the already existing restrictions required in the 1999 ROD such as that future development for residential land use with restrictions for areas other than Lower Parcel C, which would be restricted to commercial/light industrial use (see ESD section below), take remaining contamination into account in managing excavations and soil in these areas. Groundwater monitoring would continue until MCLs and Action Level for lead are achieved, consistent with the 1999 ROD. In addition, the potential for soil vapor intrusion into buildings constructed on-Site in the future will be evaluated, including evaluating the need to perform actions recommended to address exposures related to soil vapor intrusion.

Because this alternative would result in contaminants remaining on Site above levels that would allow for unrestricted use and unlimited exposure, CERCLA requires that the Site be reviewed

every five years.

10. COMPARATIVE ANALYSIS OF ALTERNATIVES

In selecting a remedy for a site, EPA considers the factors set forth in Section 121 of CERCLA, 42 U.S.C. § 9621, by conducting a detailed analysis of remedial alternatives pursuant to the requirements of the NCP at 40 C.F.R. § 300.430(e)(9), EPA's *Guidance for Conducting Remedial Investigations and Feasibility Studies*, OSWER Directive 9355.3-01, and EPA's *A Guide to Preparing Superfund Proposed Plans, Records of Decision, and Other Remedy Selection Decision Documents*, OSWER 9200.1-23.P. The detailed analysis consists of an assessment of the individual alternatives against each of the nine evaluation criteria set forth at 40 C.F.R. § 300.430(e)(9)(iii) and a comparative analysis focusing upon the relative performance of each alternative against those criteria.

The following “**threshold**” criteria are the most important and must be satisfied by any remedial alternative in order to be eligible for selection:

1. **Overall protection of human health and the environment** addresses whether a remedy provides adequate protection and describes how risks posed through each exposure pathway (based on a reasonable maximum exposure scenario) are eliminated, reduced, or controlled through treatment, engineering controls, or institutional controls.
2. **Compliance with ARARs** addresses whether a remedy would meet all of the applicable or relevant and appropriate requirements of other federal and state environmental statutes and regulations or provide grounds for invoking a waiver. Other federal or state advisories, criteria, or guidance are TBCs. While TBCs are not required to be adhered to by the NCP, the NCP recognizes that they may be very useful in determining what is protective of a site or how to carry out certain actions or requirements.

The following “**primary balancing**” criteria are used to make comparisons and to identify the major tradeoffs between alternatives:

3. **Long-term effectiveness and permanence** refers to the ability of a remedy to maintain reliable protection of human health and the environment over time, once remediation goals have been met. It also addresses the magnitude and effectiveness of the measures that may be required to manage the risk posed by treatment residuals and/or untreated wastes.
4. **Reduction of toxicity, mobility, or volume through treatment** is the anticipated performance of the treatment technologies, with respect to these parameters, that a remedy may employ.
5. **Short-term effectiveness** addresses the period of time needed to achieve protection and any adverse impacts on human health and the environment that may be posed during the construction and implementation of the remedy.
6. **Implementability** is the technical and administrative feasibility of a remedy, including the availability of materials and services needed to implement a particular option.

7. **Cost** includes estimated capital, O&M, and present-worth costs.

The following “**modifying**” criteria are used in the final evaluation of the remedial alternatives after the formal comment period, and they may prompt modification of the preferred remedy that was presented in the Proposed Plan:

8. **State acceptance** indicates whether, based on its review of the Proposed Plan and supporting documentation, which comprises the administrative record, the State concurs with, opposes, or has no comments on the proposed remedy.
9. **Community acceptance** refers to the public's general response to the alternatives described in the Proposed Plan and supporting documentation which comprises the administrative record.

10.1 Overall Protection of Human Health and the Environment

Alternative LS-1, the No Further Action Alternative, would rely solely on previously selected and required ICIAP to ensure protection of human health and the environment by requiring that future development take remaining contamination into account in managing excavations and soil in these areas. Since additional contaminated soil would not be removed, there would be no further measures to mitigate cross media impacts to groundwater and additional improvement to the aquifer. Alternative LS-1 depends instead on the past remedial actions, and time, to eventually meet MCLs and the Action Level for lead throughout the aquifer.

Alternatives LS-1 and LS-2 would be equally protective with regard to direct-contact hazards associated with surface soil. LS-2 would also address contaminated soil in Lower Parcel C, with the intended effect of shortening the time until MCLs and the Action Level for lead are reached. LS-2 relies on certain additional institutional controls for protectiveness until MCLs and the Action Level for lead are reached.

10.2 Compliance with ARARs

Because Alternative LS-1 is no further action, there are no additional ARARs beyond those identified in the original remedy for the alternative.

Alternative LS-2 would have to comply with land disposal restrictions (i.e., 40 CFR Part 268) for the proper off-Site disposal of any excavated wastes contaminated with certain heavy metals above land disposal restrictions.

Alternative LS-2 would utilize New York State’s Air Guide-1 to ensure that there are no adverse air/particulate impacts to the surrounding community as a result of excavation and handling of contaminated soil. The removal of additional arsenic-contaminated soil under Alternative LS-2 that is impacting groundwater is expected to improve groundwater quality with respect to arsenic and would likely allow for the achievement of the 10 µg/L drinking water standard MCL for arsenic.

10.3 Long-Term Effectiveness and Permanence

Alternative LS-2 would rely on the implementation of ICIAP to ensure that future development does not expose users to unreasonable risk and hazards and takes remaining contamination into account in managing excavations and soil in these areas.

Alternative LS-1 would not include any additional physical remedial measures to address the soil contamination at the Site. Alternative LS-2 would result in a significant amount of metals-contaminated soil at the Site being permanently removed from the Site through excavation and disposal off Site at appropriately licensed disposal facilities.

10.4 Reduction of Toxicity, Mobility or Volume Through Treatment

Alternative LS-1 would not provide any additional reduction of the toxicity, mobility, or volume of contaminants present at the Site. Alternative LS-2 would further reduce the toxicity, mobility, and volume of contaminants at the Site through excavation and off-Site disposal of the identified metals-contaminated wastes exceeding the cleanup criteria. The evaluation of treatment as opposed to excavation and disposal of limited contaminated soil volume was not deemed worthwhile for addressing the conditions which remain at the Site. However, some of the soil to be excavated has been found to be RCRA hazardous waste, and, therefore, is expected to be treated at a licensed waste disposal facility.

10.5 Short-Term Effectiveness

The No Further Action Alternative LS-1 would not result in any adverse short-term impacts. Potential short-term impacts would be associated with Alternative LS-2 because of the direct contact with soil by workers and through the potential for generation of dust during construction. Such impacts would be minimized through worker health and safety protective measures and dust suppression techniques such as covering waste piles and water spraying during dust generating activities. The vehicle traffic associated with Alternative LS-2 could result in temporary, short-term impacts to the local roadway system and nearby residents through increased noise level and traffic. Proper protective equipment, air monitoring during construction, and soil handling procedures would minimize the short-term risks to workers and the surrounding community.

As discussed earlier, contaminant levels in groundwater decreased significantly at most of the Site after earlier soil remedial actions were performed. However, contaminant levels in the groundwater downgradient of Lower Parcel C still exceeds the MCL for arsenic and the Action Level for lead, and while the concentrations are relatively low, contaminant levels have been persistently elevated above the MCL for arsenic and the Action Level for lead. It is unclear when, if ever, MCLs would be achieved under Alternative LS-1 because contaminated soil at concentrations likely to cause a persistent groundwater problem would be left in place. By contrast, Alternative LS-2 would remove additional soil contamination and is likely to shorten the time frame until MCL for arsenic and the Action Level for lead are reached. Because of the relatively low and sporadic concentrations remaining in groundwater, it is difficult to estimate the

time frames needed before the MCL for arsenic and the Action Level for lead are reached. Alternative LS-1 may take several decades to reach the MCL for arsenic and the Action Level for lead in all monitoring wells, if the MCL for arsenic and the Action Level for lead are reached at all. Alternative LS-2 would be expected to achieve the MCL for arsenic and the Action Level for lead much more quickly, plausibly on the order of 10 years.

10.6 Implementability

Alternative LS-1 can be readily implemented, as it would not include any additional remedial measures at the Site.

Alternative LS-2 would be easily implementable because it uses conventional excavation and disposal technologies with proven reliability. Note that the remaining areas contaminated in excess of the IGW cleanup levels are mostly in the “red flag” areas, directly adjacent to storm sewer systems, underground electric and natural gas services, and/or below the water table. Some of the limitations that curtailed earlier remedial actions near utilities are expected to also be a limiting factor for Alternative LS-2. Under Alternative LS-2, excavations would be expected to approach but in no way compromise existing utilities or infrastructure.

10.7 Cost

The estimated capital, annual O&M (including monitoring), and present-worth costs for the two alternatives are presented in the following Cost Comparison Table.

| Cost Comparison Table | | |
|-----------------------|----------------|-------------|
| Alternative | LS-1 | LS-2 |
| Capital Cost | \$0 | \$2,500,000 |
| Annual O&M Costs | Not Applicable | \$32,000 |
| Present Worth Cost | Not Applicable | \$3,200,000 |

10.8 State/Support Agency Acceptance

NYSDEC concurs with the remedy selected herein.

10.9 Community Acceptance

EPA solicited input from the community on the remedial alternatives proposed for the amended remedy for the Site. A copy of the written comments is provided as Attachment 5 to Appendix V. A summary of significant comments made, as well as EPA’s responses to those comments, are provided in the Responsiveness Summary (**Appendix V**).

11. PRINCIPAL THREAT WASTES

The NCP establishes an expectation that EPA will use treatment to address the principal threats posed by a site wherever practicable (NCP Section 300.430(a)(1)(iii)(A)). The "principal threat" concept is applied to the characterization of "source materials" at a Superfund site. A source material is material that includes or contains hazardous substances, pollutants, or contaminants that act as a reservoir for migration of contamination to groundwater, surface water, or air, or acts as a source for direct exposure. Principal threat wastes are those source materials considered to be highly toxic or highly mobile that generally cannot be reliably contained or would present a significant risk to human health or the environment should exposure occur. The decision of if or how to treat these wastes is made on a site-specific basis through a detailed analysis of the alternatives using the nine remedy selection criteria. This analysis provides a basis for making a statutory finding that the remedy employs treatment as a principal element.

As a potential ongoing source of groundwater contamination, the arsenic- or lead-contaminated soil exceeding the aforementioned IGW criteria would each be considered a principal threat waste. The remedy selected in the 1999 ROD addressed principal threat wastes. The physical segregation of radiologically contaminated slag, performed consistent with the 1999 ROD is considered treatment. Alternative LS-2 would result in some additional principal threat waste being removed and disposed off-site; some small portion of which is hazardous waste and may require treatment prior to disposal. Additional principal threat wastes would not be addressed under Alternative LS-1.

12. THE SELECTED AMENDED REMEDY

12.1 Summary of the Rationale for the Selected Amended Remedy

Based upon the requirements of CERCLA, the results of Site investigations, the detailed analysis of the alternatives, and public comments, EPA has determined that Alternative LS-2: Excavation and Off-Site Disposal of Metals-Contaminated Soil best satisfies the requirements of Section 121 of CERCLA, 42 U.S.C. § 9621, and provides the best balance of tradeoffs among the remedial alternatives with respect to the NCP's nine evaluation criteria, found at 40 CFR § 300.430(e)(9).

The selected amended remedy would require excavation and off-Site disposal of metals-contaminated soil that exceeds 175 mg/kg for arsenic and 660 mg/kg for lead, with the exception of certain areas that are adjacent to storm sewer systems and underground electric and natural gas services, and/or below the water table. Approximately 8,500 cy of metals-contaminated soil are estimated to be present on Lower Parcel C that require removal. Post-excavation sampling would be required to ensure that soil cleanup levels have been met prior to backfilling the excavation areas. Excavated soil that neither exceed cleanup levels nor contain debris could be used as backfill. In addition, it is anticipated that a minimum of two feet of clean fill would then be used to complete the backfilling to match the surrounding grade. As noted above, it is the intention of the City of Glen Cove and the prospective developer that at least two feet of clean soil cover with

an underlying demarcation layer, or structures such as buildings, pavement, or sidewalks, is to be placed over the entire Site property as part of the development.

This selected amended remedy addresses only the OU 1 portion of the 1999 ROD, and specifically the cleanup levels established for soil contaminated with arsenic and lead that are not addressed by the direct contact cleanup levels (i.e., generally subsurface soils) identified in the 1999 ROD. Direct-contact cleanup levels for arsenic and lead are unchanged. Likewise, cleanup levels for PCBs and radionuclides remain unchanged from those identified in the 1999 ROD, as modified in the 2005 ESD.

Institutional controls such as an environmental easement will be implemented, which will contain various restrictions on both the former Li Tungsten property and those portions of the Captain's Cove property where EPA required work to be performed. The selected groundwater remedy for the 1999 ROD, which is no action other than a long-term groundwater monitoring to assess the recovery of the Upper Glacial Aquifer at the former Li Tungsten facility, remains unchanged.

The selected amended remedy would result in an effective, long-term, permanent remedy because the vast majority of metals-contaminated soil on the former Li Tungsten facility property that exceed cleanup levels would be disposed of in a licensed waste disposal facility. Implementation of the selected amended remedy will likely result in the groundwater achieving the drinking water MCL standard for arsenic and the Action Level for lead in a shorter time frame. The placement of these properties back into use would also meet the primary objective of EPA's "Recycling Superfund Sites" initiative.

The selected amended remedy would provide the best balance of trade-offs among alternatives with respect to the evaluating criteria. EPA and NYSDEC believe that the selected amended remedy would be protective of human health and the environment, would comply with ARARs, would be cost-effective, and would utilize permanent solutions to the maximum extent practicable.

Because contaminants will be left in place, five-year reviews of the Site will continue to be required under the law to ensure the protectiveness of the remedy.

12.2 Description of the Selected Amended Remedy

The major components of the amended Operable Unit 1 remedy for the Site include the following:

- Excavation and off-Site disposal of soil contaminated above "impact-to-groundwater" cleanup levels for arsenic and lead in subsurface soils and above direct contact cleanup levels for arsenic and lead in surface soils.
- Implementation of additional institutional controls, such as environmental easements, to ensure the integrity of the cover system that is to be placed over the entire upland area of the Site as part of the development of the Site properties. The cover system at the Site will include two feet of clean soil over an underlying demarcation layer in areas other than

where above-ground structures, such as buildings, or pavement or sidewalks, which are also considered part of the cover system, are located.

- Evaluation and implementation of mitigative actions to address soil vapor intrusion in future buildings developed on Site.
- Continuation of the long-term groundwater monitoring program to assess the recovery of the Upper Glacial Aquifer after the soil remedy set forth in this ROD Amendment is implemented.
- Development of a Site Management Plan (SMP), which will include a soil management plan that addresses excavation and management of remaining contamination during and after Site development and also an Institutional Controls Implementation and Assurance Plan (ICIAP) that identifies all institutional controls and engineering controls and details steps and media-specific requirements necessary to ensure that they remain in place and effective.

12.3 Summary of Estimated Remedy Costs

The cost estimates are based on available information and are order-of-magnitude engineering cost estimates that are expected to be between +50 to -30 percent of the actual project cost. Changes to the cost estimates can occur as a result of new information and data collected during the design and/or construction of the remedy. The estimated capital, annual O&M, and total present-worth costs are presented below:

| Alternative LS-2: Excavation and Off-Site Disposal of Metals-Contaminated Soil | | |
|---|----------------------------|---------------------------|
| Capital Cost | Annual O&M Cost | Present-Worth Cost |
| \$2,500,000 | \$32,000 | \$3,200,000 |

12.4 Expected Outcomes of the Selected Amended Remedy

The selected amended remedy actively addresses soil contamination within Lower Parcel C of the former Li Tungsten facility property. The results of EPA's evaluation of the cross media impacts of Site soil to groundwater indicate that the contaminated soil at Lower Parcel C presents a potential ongoing source of groundwater contamination. The amended remedy will ensure that there is no direct contact threat from arsenic and lead in exposed surface soils. Under the amended remedy, the removal of 8,500 cy of contaminated soil within the Lower Parcel C will reduce the source, further improve the groundwater quality, and potentially result in achieving the drinking water standard for arsenic.

Remediation goals for the Contaminants of Concern at the Site are presented in **Table 3**, above.

13. STATUTORY DETERMINATIONS

Section 121(b)(1) of CERCLA mandates that a remedial action must be protective of human health and the environment, be cost-effective, and utilize permanent solutions and alternative treatment or resource recovery technologies to the maximum extent practicable. Section 121(b)(1) also establishes a preference for remedial actions which employ treatment to permanently and significantly reduce the volume, toxicity, or mobility of the hazardous substances, pollutants, or contaminants at the Site. Section 121(d) of CERCLA further specifies that a remedial action must attain a degree of cleanup that satisfies ARARs under federal and state laws, unless a waiver can be justified pursuant to section 121(d)(4) of CERCLA. The amended remedy will ensure continued protectiveness of human health by further improving the groundwater quality at the Site and potentially result in achieving the drinking water standard for arsenic and the Action Level for lead.

13.1 Protection of Human Health and the Environment

The amended remedy will protect human health and the environment because it will prevent exposure to arsenic and lead through inhalation, direct contact or ingestion in exposed surface soils. The amended remedy will ensure continued protectiveness of human health by further improving the groundwater quality at the Site by addressing the source material (i.e., metals-contaminated soil), which potentially will result in achieving the drinking water standard for arsenic and the Action Level for lead.

There are no short-term threats associated with the amended remedy that cannot be readily controlled. In addition, no adverse cross-media impacts are expected from the amended remedy.

13.2 Compliance with ARARs

The amended remedy complies with chemical-specific, location-specific and action-specific ARARs. A complete list of the ARARs, TBCs and other guidelines for the amended remedy is presented in **Table 1** (chemical-specific), **Table 2** (location-specific) and **Table 3** (action-specific), all of which can be found in **Appendix II**.

13.3 Cost Effectiveness

A cost-effective remedy is one in which costs are proportional to the remedy's overall effectiveness (NCP Section 300.430(f)(1)(ii)(D)). EPA evaluated the "overall effectiveness" of those alternatives that satisfied the threshold criteria (*i.e.*, those that were both protective of human health and the environment and ARAR-compliant). Overall effectiveness was evaluated by assessing three of the five balancing criteria in combination (long-term effectiveness and permanence; reduction in toxicity, mobility, and volume through treatment; and short-term effectiveness). Overall effectiveness was then compared to costs to determine cost-effectiveness. The relationship of the overall effectiveness of this remedial alternative was determined to be proportional to its costs, and hence this alternative represents a reasonable value for the money to be spent.

EPA has performed detailed cost analysis for each of the two alternatives. In that analysis, capital and annual O&M costs were estimated and used to develop present-worth costs. For cost estimating purposes, the annual O&M costs were calculated using a 30-year estimated life of each alternative. The estimated present-worth cost for implementing the amended remedy for the Site is \$3,200,000.

13.4 Utilization of Permanent Solutions and Alternative Treatment (or Resource Recovery) Technologies to Maximum Extent Practicable

The amended remedy complies with the statutory mandate to utilize permanent solutions, alternative treatment technologies, and resource recovery alternatives to the maximum extent practicable. The amended remedy builds upon the portion of the implemented remedy for the OU 1 soils which included segregation of radiologically contaminate slag as well as removal of other metals. The removal of those contaminants and the metals-contaminated soils targeted in this amended remedy will achieve a significant reduction in the source materials constituting principal threats at the Site, and significantly improve groundwater quality.

13.5 Preference for Treatment as a Principal Element

The amended remedy complies with the statutory preference for remedies that employ treatment that reduce toxicity, mobility or volume as a principal element. The physical segregation of radiologically contaminated slag, performed consistent with the 1999 ROD as described in this document, is considered treatment and satisfies CERCLA's preference for remedies that include treatment as a principal element. Treatment of metals-contaminated soil (as opposed to excavation and off-Site disposal) was considered but not selected in 1999, and no further evaluation of treatment was deemed appropriate for the relatively small action under consideration here. Nonetheless, as stated above, some of the soil to be excavated under the selected amended remedy has been found to be RCRA hazardous waste, and, therefore, is expected to be treated at a licensed waste disposal facility.

13.6 Five-Year Review Requirements

The selected amended remedy will result in hazardous substances, pollutants, or contaminants remaining at the Site that would not allow for unrestricted use and unlimited exposure, and as such, use and exposure must be limited. Statutory reviews pursuant to Section 121(c) of CERCLA will be conducted no less often than once every five years to ensure that the remedy is, or will be, protective of human health and environment. Three five-year reviews have been conducted for the Site to date. The next five-year review report for the Site is scheduled for 2020.

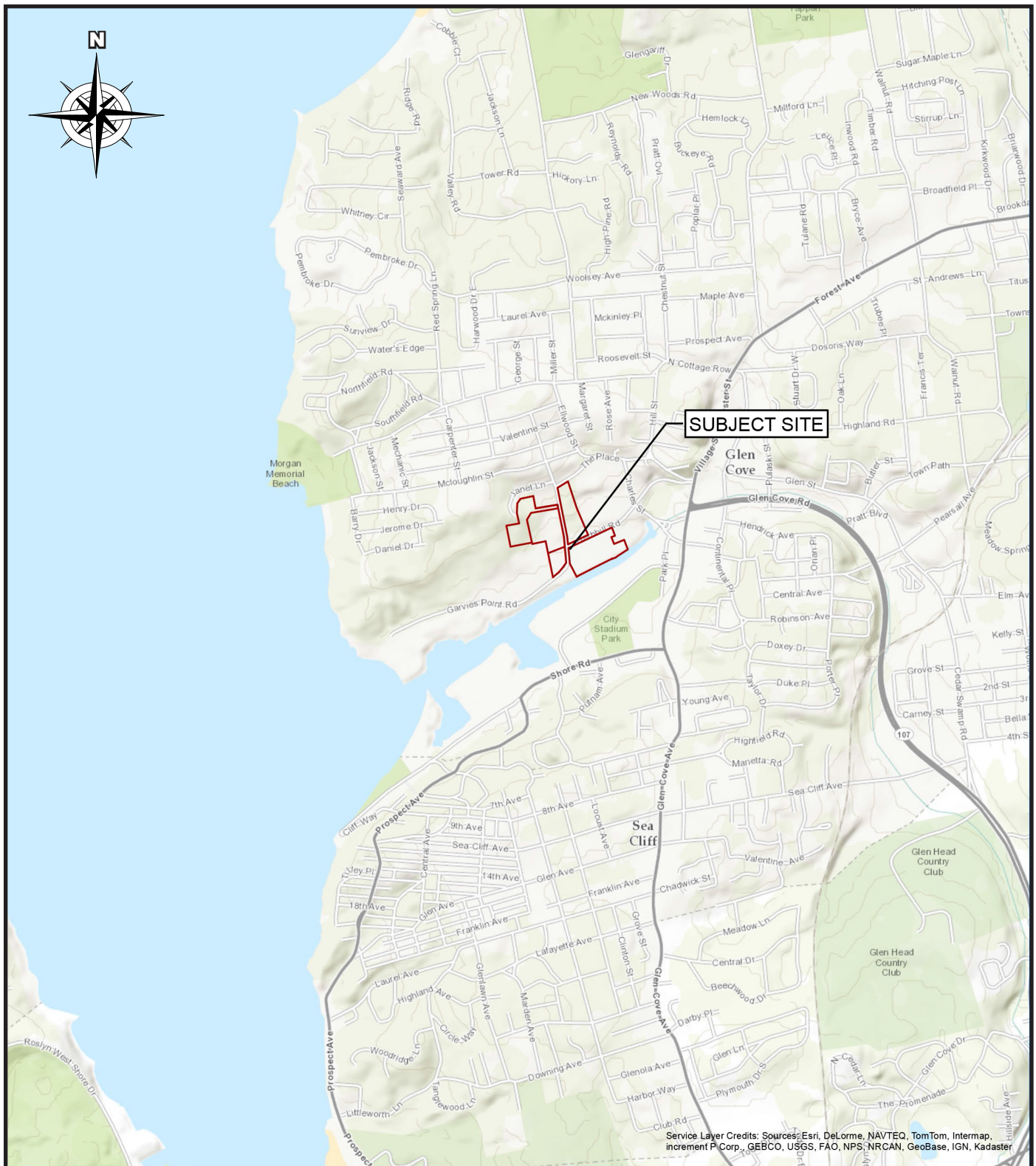
14. DOCUMENTATION OF SIGNIFICANT CHANGES

The Proposed Plan identified Alternative LS-2: Excavation and Off-Site Disposal of Metals-Contaminated Soil as the preferred remedy to minimize, contain and/or eliminate the migration of contaminants in soil to groundwater.

EPA reviewed all written (including electronic formats such as e-mail) and oral comments submitted during the public comment period and has determined that no significant changes to the remedy, as originally identified in the Proposed Plan, are necessary or appropriate.

APPENDIX I

FIGURES



0 1/4 1/2 3/4 1 Miles

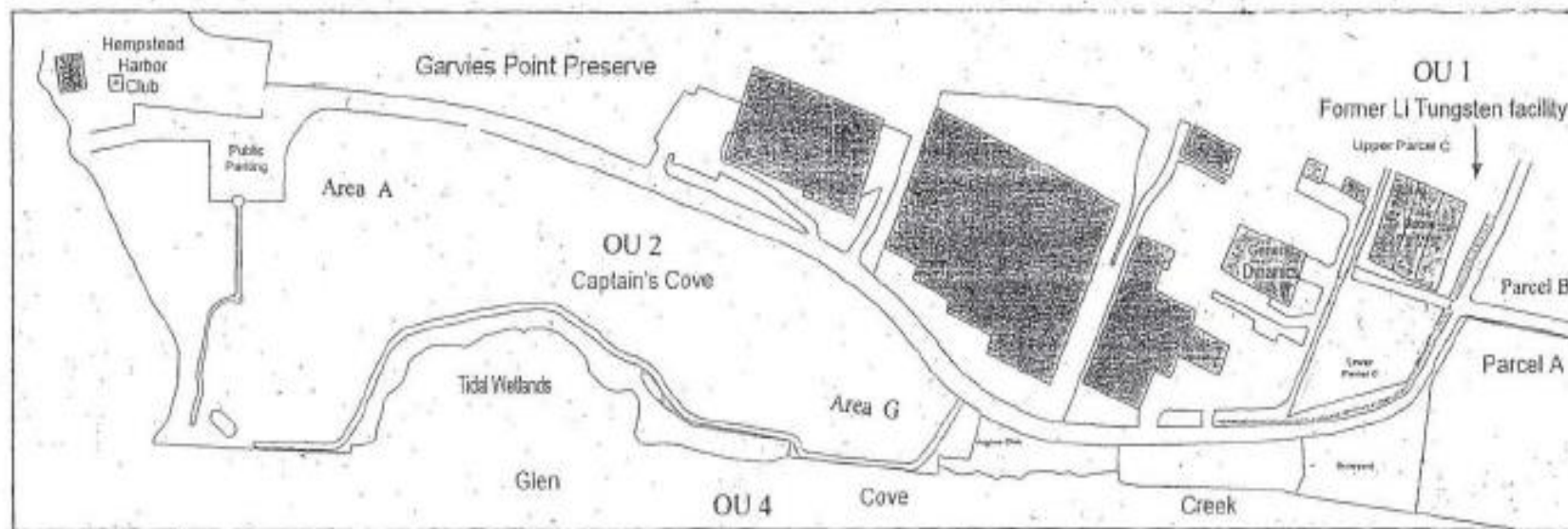


FIGURE 2

Operable Units 1, 2, and 4 Site Map



APPENDIX II

TABLES

Table 1
Chemical-specific ARARs, TBCs, and other Guidelines

| Regulatory Level | Regulatory Authority and Citation | Requirement Synopsis |
|-------------------------|---|--|
| Federal | National Primary Drinking Water Standards-Maximum Contaminant Levels (MCLs) and Maximum Contaminant Level Goals (MCLGs) (42 U.S.C. § 300f et seq. and 40 CFR Part 141, Subpart F) | Establishes health-based standards for public drinking water systems. Also establishes drinking water quality goals set at levels at which no adverse health effects are anticipated, with an adequate margin of safety. |
| State | NYSDOH Drinking Water Standards (10 NYCRR Part 5) | Sets MCLs for public drinking water supplies. |
| State | NYS Environmental Remediation Program Soil Cleanup Objectives (6 NYCRR Section 375-6.4(b)(3) and 375-6.5) | Establishes standards for soil cleanups. |
| State | NYSDEC Commissioner Policy 51 (CP-51/Soil Cleanup Guidance) | Provides the framework and procedures for the selection of soil cleanup levels appropriate for each of the remedial programs. |
| State | NYS Surface Water and Groundwater Quality Standards and Groundwater Effluent Limitations (6 NYCRR Part 703) | Establishes numerical standards for groundwater and surface water cleanups. |

Table 2
Location-Specific ARARs, TBCs, and other Guidelines

| Regulatory Level | Citation | Requirement Synopsis |
|-------------------------|---|--|
| Federal | National Historic Preservation Act (16 U.S.C. §470 et seq. and 36 CFR Part 800) Endangered Species Act (16 U.S.C. §1531-1544) | Establishes procedures to provide for preservation of historical and archeological data that might be destroyed through alteration of terrain as a result of a federal construction project or a federal licensed activity or program. |
| Federal | Endangered Species Act (16 U.S.C. §1531 et seq., 50 CFR Part 200) | Requires that the continued existence of any endangered or threatened species and/or its habitat not be impacted by a federal activity. |
| Federal | Clean Water Act Section 404; 40 CFR Part 230; 33 CFR Part 320-330 | Prohibits discharge into wetlands. |
| Federal | National Environmental Policy Act (NEPA); 40 CFR Part 6 Appendix A § 4. | Provides procedures for floodplain management and wetlands protection. |
| Federal | National Environmental Policy Act (NEPA); 40 CFR 6.302(b)(2005) | Regulates activities within a floodplain. |
| State | Endangered and Threatened Species of Fish and Wildlife (6 NYCRR Part 182) | Provides standards for the protection of threatened and endangered species. |
| State | Freshwater Wetlands; 6 NYCRR 663-665j | Establishes permitting, mapping and classification, and local government and land use requirements for freshwater wetlands. |
| State | Floodplain Management; 6 NYCRR 500 | Describes development permitting requirements for areas in floodplains. |
| State | Use and Protection of Waters; 6 NYCRR 608 | Regulates the use and protection of waters. |
| State | Wild, Scenic, and Recreational Rivers; 6 NYCRR | Provides regulations for the administration and management of the wild, scenic and recreations rivers system in New York State. |
| State | Floodplains; 6 NYCRR 502 | Provides floodplain management criteria for State projects. |

Table 3
Action-specific ARARs, TBCs and other Guidelines

| Regulatory Level | Regulatory Authority and Citation | Required Synopsis |
|--|---|---|
| <i>General Requirement for Site Remediation</i> | | |
| Federal | OSHA ¹ - Record keeping, Reporting, and Related Regulations (29 CFR 1904) | Outlines the record keeping and reporting requirements for an employer under OSHA. |
| Federal | OSHA – General Industry Standards (29 CFR 1910) | Specifies an 8-hour time-weighted average concentration for worker exposure to various organic compounds. Training requirements for workers at hazardous waste operations are specified in 29 CFR 1910.120. |
| Federal | OSHA – Construction Industry Standards (29 CFR 1926) | Specifies the type of safety equipment and procedures to be followed during site remediation. |
| Federal | RCRA ² Identification and Listing of Hazardous Wastes (40 CFR 261) | Describes methods for identifying hazardous wastes and lists known hazardous wastes. |
| Federal | RCRA Standards Applicable to Generators of Hazardous Wastes (40 CFR 262) | Describes standards applicable to generators of hazardous wastes. |
| Federal | RCRA – Preparedness and Prevention (40 CFR 264.30 – 264.31) | Outlines the requirements for safety equipment and spill control. |
| Federal | RCRA – Contingency Plan and Emergency Procedures (40 CFR 264.50 – 264.56) | Outlines the requirements for emergency procedures to be used following explosions, fires, etc. |
| State | New York Hazardous Waste Management System – General (6 NYCRR Part 370) | Provides definition of terms and general standards applicable to hazardous waste management systems. |
| State | New York Identification and Listing of Hazardous Waste (6 NYCRR Part 371) | Describes methods for identifying hazardous wastes and lists known hazardous wastes. |
| State | New York Hazardous Management Facilities (6 NYCRR Part 373) | Regulates treatment, storage, and disposal of hazardous wastes. |
| State | New York Management of Specific Hazardous Waste (6 NYCRR Part 374) | Establishes standards for the management of specific hazardous wastes. |
| State | New York Environmental Remediation Programs (6 NYCRR Part 375) | Identifies process for investigation and remedial action at state funded Registry site; provides exception from NYSDEC permits. |
| State | New York Solid Waste Management Regulations (6 NYCRR 360) | Sets standards and criteria for all solid waste management facilities, including design, construction, operation, and closure requirements for municipal solid waste landfills. |
| <i>Waste Transportation</i> | | |
| Federal | DOT ³ Rules for Transportation of Hazardous Materials (49 CFR Parts 107, 171, 172, 177 to 179) | Outlines procedures for the packaging, labeling, manifesting, and transporting of hazardous materials. |
| Federal | RCRA Standards Applicable to Transporters of Hazardous Waste (4 CFR 263) | Establishes standards for hazardous waste transporters. |
| State | New York Hazardous Waste Manifest System and Related Standards for Generators, Transporters and Facilities (6 NYCRR Part 372) | Establishes record keeping requirements and standards related to the manifest system for hazardous wastes. |
| State | New York Waste Transporter Permit Program (6 NYCRR Part 364) | Establishes permit requirements for transportation of regulated waste. |
| <i>Disposal</i> | | |
| Federal | RCRA Land Disposal Restrictions (40 CFR 268) | Identifies hazardous wastes restricted from land disposal and provides treatment standards under which an otherwise prohibited waste may be land disposed. |

| | | |
|------------------------------|---|---|
| State | New York Standards for Universal Waste (6 NYCRR Part 374-3) and Land Disposal Restrictions (6 NYCRR Part 376) | Establishes standards for the treatment and disposal of hazardous wastes. |
| Groundwater Discharge | | |
| Federal | CWA ⁴ (40 CFR 122, 125) | Provides NPDES ⁵ permit requirements for point source discharges, including the NPDES Best Management Practice Program. These regulations include, but are not limited to, requirements for compliance with water quality standards, a discharge monitoring system, and records maintenance. |
| Federal | CWA - Federal Ambient Water Quality Criteria and Guidance Values (40 CFR 131.36) | Establishes criteria for surface water quality based on toxicity to aquatic organisms and human health. |
| Federal | Safe Drinking Water Act – Underground Injection Control Program (40 CFR 144, 146) | Establishes performance standards, well requirements, and permitting requirements for groundwater re-injection wells. |
| State | New York SPDES ⁶ Regulations (6 NYCRR Parts 750 – 757) | Governs the discharge of any wastes into or adjacent to State waters that may alter the physical, chemical, or biological properties of State waters, except as authorized pursuant to a NPDES or State permit. |
| State | New York Surface Water and Groundwater Quality Standards and Groundwater Effluent Limitations (6 NYCRR Part 703) | Establishes numerical criteria for groundwater treatment before discharge. |
| State | New York State Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations (TOGS ⁷ 1.1.1) | Provides groundwater effluent limitations for use where there are no standards. |
| Off-Gas Management | | |
| Federal | CAA ⁸ – NAAQs ⁹ (40 CFR 50) | Provides air quality standards for pollutants including particulate matter, lead, NO ₂ , SO ₂ , CO, and ozone. |
| State | New York Air Quality Standards/DER-10 (6 NYCRR Part 257) | Provides time-weighted concentrations for particulate matter during excavation activities. |
| State | New York (DAR-1) Air Guide 1, Guidelines for the Control of Toxic Ambient Contaminants | Provides guidance for the control of toxic ambient air contaminants and outlines the procedures for evaluating sources. |
| State | New York Permits and Certificates (6 NYCRR Part 201) | Allows for permits to be exempted for listed trivial activities. |
| State | New York Emissions Verification (6 NYCRR Part 202) | Specifies the sampling and documentation requirements for off-gas emissions. |
| State | New York General Prohibitions (6 NYCRR Part 211) | Provides prohibitions which apply to any particulate, fume, gas, mist, odor, smoke, vapor, pollen, toxic or deleterious emissions. |
| State | New York General Process Emission Sources (6 NYCRR Part 212) | Sets the treatment requirements for certain emission rates. |

-
- 1 OSHA – Occupational Safety and Health Administration
 - 2 RCRA – Resource Conservation and Recovery Act
 - 3 DOT – Department of Transportation
 - 4 CWA - Clean Water Act
 - 5 NPDES – National Pollutant Discharge Elimination System
 - 6 SPDES – State Pollution Discharge Elimination System
 - 7 TOGS – Technical and Operational Guidance Series
 - 8 CAA – Clean Air Act
 - 9 NAAQS – National Ambient Air Quality Standards

Table 4 - Cost Estimate Summary for the Selected Remedy

| | |
|--|--------------------------------|
| Soil Excavation, Stockpile, and Loading for Disposal | \$570,900 |
| Site Materials and Services | \$117,800 |
| Transportation and Disposal of Contaminated Soil | \$968,000 |
| Analytical Services (Clean Fill, Post Excavation, and Disposal Characterization) | \$60,000 |
| Certified Clean Backfill | 300,000 |
| Site Plans and Reports | \$70,000 |
| SUB TOTAL | \$2,086,700 |
| Contingencies @ 20% | \$417,340 |
| SUB TOTAL | \$2,504,040ⁱ |
| Annual O&M Cost: | \$32,000 |
| Present Worth Cost: | \$3,200,000 |

ⁱ On March 28 – 31, 2016, EPA Removal Program conducted sampling delineation of the Lower Parcel C. Sampling areas were based on 30 x 30 feet grids (900 square feet) at 6 inch increments every 1 foot (i.e., 0-6, 12-18, 24-30, 36-42 48-54, 60-66, and 72-78 feet) for an estimated total of 8 samples per 900 square feet. Samples were collected down to groundwater which is estimated at 5 - 7 feet below ground surface (estimated from past test pits and nearby monitoring well).

Based on the March 28 – 31, 2016 sampling event, an estimated 8,500 cubic yards of contaminated soil exceeding the 175 milligrams/kilogram (mg/kg) level for arsenic and 660 mg/kg level for lead, is expected to be accessible and feasible for excavation and disposal off-site. (The 175 mg/kg arsenic and 660 mg/kg lead represent Site-specific impact-to-groundwater (IGW) cleanup levels, developed by EPA and the New York State Department of Environmental Conservation, that, if achieved, will be protective of groundwater, and will further improve the groundwater quality and potentially result in achieving the drinking water standard for arsenic and lead.)

Total estimated capital cost of the Lower Parcel C soil excavation is \$2.5 million over a 12-week duration utilizing Emergency and Rapid Response Services and Removal Support Team contract vehicles. Details of the \$2.5 million capital cost estimate are provided in a table below.

APPENDIX III

ADMINISTRATIVE RECORD INDEX

COMPREHENSIVE ADMINISTRATIVE RECORD INDEX OF DOCUMENTS

FINAL
09/30/2016

REGION ID: 02

Site Name: LI TUNGSTEN CORP.

CERCLIS ID: NYD986882660

OID: 01, 02

SSID: 024L

Action: ROD Amendment OU2 / ESD OU1

| DocID: | Doc Date: | Title: | Image Count: | Doc Type: | Addressee Name/Organization: | Author Name/Organization: |
|------------------------|------------|---|--------------|-----------------------------------|---|---|
| 319888 | 9/30/2016 | COMPREHENSIVE ADMINISTRATIVE RECORD INDEX FOR OU1 AND OU2 FOR THE LI TUNGSTEN CORPORATION SITE | 9 | ARI / Administrative Record Index | | R02: (US ENVIRONMENTAL PROTECTION AGENCY) |
| 36766 | Undated | LI TUNGSTEN CORP. SITE, ADMINISTRATIVE RECORD FILE, INDEX OF DOCUMENTS. | 4 | LST / List/Index | | R02: (US ENVIRONMENTAL PROTECTION AGENCY) |
| 101021 | Undated | LI TUNGSTEN CORP. SITE, ADMINISTRATIVE RECORD UPDATE, INDEX OF DOCUMENTS. | 1 | LST / List/Index | | R02: (US ENVIRONMENTAL PROTECTION AGENCY) |
| 101022 | Undated | LI TUNGSTEN CORP. SITE, ADMINISTRATIVE RECORD UPDATE #2, INDEX OF DOCUMENTS. | 1 | LST / List/Index | | R02: (US ENVIRONMENTAL PROTECTION AGENCY) |
| 36764 | 10/18/1989 | Final Draft Preliminary Assessment Li Tungsten, Glen Cove, New York, prepared by NUS Corporation, Superfund Division, prepared for the Environmental Services Division, U.S. EPA, September 18, 1989 (Revision No.1: October 18, 1989). | 543 | RPT / Report | R02: (US ENVIRONMENTAL PROTECTION AGENCY) | R02: (N U S CORPORATION) |
| 36752 | 9/28/1990 | Final Draft Site Inspection Report, Li Tungsten Corp Site, Glen Cove, New York, Volume I of V, prepared by NUS Corporation, Superfund Division, prepared for the Environmental Services Division, U.S. EPA, September 28, 1990. | 487 | RPT / Report | R02: (US ENVIRONMENTAL PROTECTION AGENCY) | R02: (NUS CORPORATION) |
| 36753 | 9/28/1990 | Final Draft Site Inspection Report, Li Tungsten Corp Site, Glen Cove, New York, Volume II of V, prepared by NUS Corporation, Superfund Division, prepared for the Environmental Services Division, U.S. EPA, September 28, 1990. | 432 | RPT / Report | R02: (US ENVIRONMENTAL PROTECTION AGENCY) | R02: (NUS CORPORATION) |
| 36757 | 9/28/1990 | Final Draft Site Inspection Report, Li Tungsten Corp Site, Glen Cove, New York, Volume III of V, prepared by NUS Corporation, Superfund Division, prepared for the Environmental Services Division, U.S. EPA, September 28, 1990. | 312 | RPT / Report | R02: (US ENVIRONMENTAL PROTECTION AGENCY) | R02: (NUS CORPORATION) |

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|-----------------------|-----------|--|--------------|----------------|---|-------------------------------------|
| 36758 | 9/28/1990 | Final Draft Site Inspection Report, Li Tungsten Corp Site, Glen Cove, New York, Volume IV of V, prepared by NUS Corporation, Superfund Division, prepared for the Environmental Services Division, U.S. EPA, September 28, 1990. | 405 | RPT / Report | R02: (US ENVIRONMENTAL PROTECTION AGENCY) | R02: (NUS CORPORATION) |
| 36759 | 9/28/1990 | Final Draft Site Inspection Report, Li Tungsten Corp Site, Glen Cove, New York, Volume V of V, prepared by NUS Corporation, Superfund Division, prepared for the Environmental Services Division, U.S. EPA, September 28, 1990. | 477 | RPT / Report | R02: (US ENVIRONMENTAL PROTECTION AGENCY) | R02: (NUS CORPORATION) |
| 36745 | 3/1/1993 | Remedial Investigation/Feasibility Study Work Plan, Li Tungsten, Glen Cove, New York, Part I of II, prepared by Malcolm Pirnie, Inc., prepared for U.S. EPA, Region II, March 1993. | 218 | WP / Work Plan | R02: (US ENVIRONMENTAL PROTECTION AGENCY) | R02: (MALCOLM PIRNIE, INCORPORATED) |
| 36746 | 3/1/1993 | Remedial Investigation/Feasibility Study Work Plan, Li Tungsten, Glen Cove, New York, Part II of II, prepared by Malcolm Pirnie, Inc., prepared for U.S. EPA, Region II, March 1993. | 139 | WP / Work Plan | R02: (US ENVIRONMENTAL PROTECTION AGENCY) | R02: (MALCOLM PIRNIE, INCORPORATED) |
| 36747 | 12/1/1994 | Interim Remedial Actions, Revised Work Plan, Li Tungsten, Glen Cove, New York, prepared by Malcolm Pirnie, Inc., prepared for U.S. EPA, Region II, December 1994. | 64 | WP / Work Plan | R02: (US ENVIRONMENTAL PROTECTION AGENCY) | R02: (MALCOLM PIRNIE, INCORPORATED) |
| 36755 | 4/1/1995 | Draft Final Report, Stage Ia Archaeological Survey, Li Tungsten Glen Cove, New York, prepared by Malcolm Pirnie, Inc., prepared for U.S. EPA, Region II, April 1995. | 93 | RPT / Report | R02: (US ENVIRONMENTAL PROTECTION AGENCY) | R02: (MALCOLM PIRNIE, INCORPORATED) |
| 36760 | 9/1/1995 | Report: Final Screening Site Inspection (SSI), Captain's Cove Condominium Site, Glen Cove, Nassau County, New York, Volume I of V, prepared by Ebasco Services Incorporated, prepared for the U.S. EPA, Region II, September 1995. | 378 | RPT / Report | R02: (US ENVIRONMENTAL PROTECTION AGENCY) | R02: (EBASCO SERVICES INC) |

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|-----------------------|-----------|--|--------------|----------------|---|-------------------------------------|
| 36761 | 9/1/1995 | Report: Final Screening Site Inspection (SSI), Captain's Cove Condominium Site, Glen Cove, Nassau County, New York, Volume II of V, prepared by Ebasco Services Incorporated, prepared for the U.S. EPA, Region II, September 1995. | 431 | RPT / Report | R02: (US ENVIRONMENTAL PROTECTION AGENCY) | R02: (EBASCO SERVICES INC) |
| 36762 | 9/1/1995 | Report: Final Screening Site Inspection (SSI), Captain's Cove Condominium Site, Glen Cove, Nassau County, New York, Volume III of V, prepared by Ebasco Services Incorporated, prepared for the U.S. EPA, Region II, September 1995. | 319 | RPT / Report | R02: (US ENVIRONMENTAL PROTECTION AGENCY) | R02: (EBASCO SERVICES INC) |
| 36763 | 9/1/1995 | Report: Final Screening Site Inspection (SSI), Captain's Cove Condominium Site, Glen Cove, Nassau County, New York, Volume V of V, prepared by Ebasco Services Incorporated, prepared for the U.S. EPA, Region II, September 1995. | 372 | RPT / Report | R02: (US ENVIRONMENTAL PROTECTION AGENCY) | R02: (EBASCO SERVICES INC) |
| 36765 | 9/1/1995 | Final Screening Site Inspection (SSI), Captain's Cove Condominium Site, Glen Cove, Nassau County, New York, Volume IV of V, prepared by Ebasco Services Incorporated, prepared for the U.S. EPA, Region II, September 1995. (Confidential) | 1 | RPT / Report | | |
| 36743 | 7/1/1996 | RI/FS Draft Final Field Sampling Plan, Li Tungsten, Glen Cove, New York, prepared by Malcolm Pirnie, Inc., prepared for U.S. EPA, Region II, July 1996. | 358 | WP / Work Plan | R02: (US ENVIRONMENTAL PROTECTION AGENCY) | R02: (MALCOLM PIRNIE, INCORPORATED) |
| 36744 | 7/1/1996 | RI/FS Draft Final Quality Assurance Project Plan, <14> QA Plan, prepared by Malcolm Pirnie, Inc., prepared for U.S. EPA, Region II, July 1996. | 155 | WP / Work Plan | R02: (US ENVIRONMENTAL PROTECTION AGENCY) | R02: (MALCOLM PIRNIE, INCORPORATED) |
| 36754 | 12/1/1997 | Draft Final Work Plan - Volume I, Focused Feasibility Study, Li Tungsten-Captain's Cove Adjunct, Glen Cove, New York, prepared by Malcolm Pirnie, Inc., prepared for the U.S. EPA, Region II, December 1997. | 137 | WP / Work Plan | R02: (US ENVIRONMENTAL PROTECTION AGENCY) | R02: (MALCOLM PIRNIE, INCORPORATED) |

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| DocID: | Doc Date: | Title: | Image Count: | Doc Type: | Addressee Name/Organization: | Author Name/Organization: |
|------------------------|-----------|--|--------------|-------------------|---|---|
| 36748 | 5/1/1998 | Draft Final, Remedial Investigation Report Volume I of IV, Li Tungsten, Glen Cove, New York, prepared by Malcolm Pirnie, Inc., prepared for U.S. EPA, Region II, May 1998. | 340 | RPT / Report | R02: (US ENVIRONMENTAL PROTECTION AGENCY) | R02: (MALCOLM PIRNIE, INCORPORATED) |
| 36749 | 5/1/1998 | Draft Final, Remedial Investigation Report Volume II of IV, Li Tungsten, Glen Cove, New York, prepared by Malcolm Pirnie, Inc., prepared for U.S. EPA, Region II, May 1998. | 242 | RPT / Report | R02: (US ENVIRONMENTAL PROTECTION AGENCY) | R02: (MALCOLM PIRNIE, INCORPORATED) |
| 36750 | 5/1/1998 | Draft Final, Remedial Investigation Report Volume III of IV, Li Tungsten, Glen Cove, New York, prepared by Malcolm Pirnie, Inc., prepared for U.S. EPA, Region II, May 1998. | 645 | RPT / Report | R02: (US ENVIRONMENTAL PROTECTION AGENCY) | R02: (MALCOLM PIRNIE, INCORPORATED) |
| 36751 | 5/1/1998 | Report: Draft Final Remedial Investigation Report, Volume IV of IV, Li Tungsten, Glen Cove, New York, prepared by Malcolm Pirnie, Inc., prepared for U.S. EPA, Region II, May 1998. | 758 | RPT / Report | R02: (US ENVIRONMENTAL PROTECTION AGENCY) | R02: (MALCOLM PIRNIE, INCORPORATED) |
| 36756 | 8/1/1998 | Supplemental Investigation to the Stage Ia Archaeological Survey, Li Tungsten-Captain's Cove Adjunct, Glen Cove, New York, prepared by Malcolm Pirnie, Inc., prepared for U.S. EPA, Region II, August 1998. | 27 | RPT / Report | R02: (US ENVIRONMENTAL PROTECTION AGENCY) | R02: (MALCOLM PIRNIE, INCORPORATED) |
| 102628 | 5/3/1999 | Memorandum to Mr. Richard L. Caspe, Director, Emergency and Remedial Response Division, U.S. EPA, Region II, from Mr. Bruce K. Means, Chair, National Remedy Review Board, U.S. EPA, re: National Remedy Review Board Recommendations for the Li Tungsten... | 4 | MEMO / Memorandum | R02: Caspe, Richard, L (US ENVIRONMENTAL PROTECTION AGENCY) | R02: Means, Bruce, K (US ENVIRONMENTAL PROTECTION AGENCY) |
| 82806 | 7/1/1999 | Draft Final Feasibility Study Report, Li Tungsten, Glen Cove, New York, Volume I of II, prepared by Foster Wheeler Environmental Corporation, prepared for the U.S. EPA, Region II, July 1999. | 389 | RPT / Report | R02: (US ENVIRONMENTAL PROTECTION AGENCY) | R02: (FOSTER WHEELER ENVIRONMENTAL CORP) |

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OUID: 01, 02

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Action: ROD Amendment OU2 / ESD OU1

| DocID: | Doc Date: | Title: | Image Count: | Doc Type: | Addressee Name/Organization: | Author Name/Organization: |
|------------------------|-----------|--|--------------|------------------------|--|---|
| 82832 | 7/1/1999 | Draft Final Feasibility Study Report, Li Tungsten, Glen Cove, New York. Volume II of II, prepared by Foster Wheeler Environmental Corporation, prepared for the U.S. EPA, Region II, July 1999. | 611 | RPT / Report | R02: (US ENVIRONMENTAL PROTECTION AGENCY) | R02: (FOSTER WHEELER ENVIRONMENTAL CORP) |
| 102629 | 8/16/1999 | Public Meeting Transcript: "In the Matter of the Proposed Plan of the Li Tungsten Superfund Site located in The City of Glen Cove, New York", transcribed by Ms. Florence V. Wiles, August 16, 1999. | 125 | MTG / Meeting Document | | R02: (US ENVIRONMENTAL PROTECTION AGENCY) |
| 99976 | 9/30/1999 | RECORD OF DECISION FOR OU1 - FACILITY AND OU2 - CAPTAIN'S COVE FOR THE LI TUNGSTEN CORPORATION SITE | 422 | RPT / Report | | R02: (US ENVIRONMENTAL PROTECTION AGENCY) |
| 351595 | 4/3/2015 | P.W. GROSSER CONSULTING, INCORPORATION'S SPLP INVESTIGATION / RED FLAG AREA CHARACTERIZATION WORK PLAN FOR THE GARVIES POINT ROAD REDEVELOPMENT PROJECT FOR THE LI TUNGSTEN CORPORATION SITE | 224 | WP / Work Plan | R02: (RXR-GLEN ISLE PARTNERS, LLC) | R02: (P.W. GROSSER CONSULTING INCORPORATED) |
| 351596 | 4/13/2015 | P.W. GROSSER CONSULTING, INCORPORATION'S SPLP INVESTIGATION / RED FLAG AREA CHARACTERIZATION WORK PLAN AMENDMENT FOR THE GARVIES POINT ROAD REDEVELOPMENT PROJECT FOR THE LI TUNGSTEN CORPORATION SITE | 7 | LTR / Letter | R02: Koch, Ellis (RXR-GLEN ISLE PARTNERS, LLC) | R02: (P.W. GROSSER CONSULTING INCORPORATED) |
| 351597 | 6/18/2015 | CORRESPONDENCE REGARDING MIGRATION OF ARSENIC TO GROUNDWATER EVALUATION FOR GLEN COVE WATERFRONT REDEVELOPMENT PROJECT FOR THE LI TUNGSTEN CORPORATION SITE | 38 | LTR / Letter | R02: Koch, Ellis (POSILLICO CONSULTING) | R02: Fusillo, Thomas (RAMBOLL ENVIRON) |
| 351598 | 7/10/2015 | CORRESPONDENCE REGARDING MIGRATION OF LEAD TO GROUNDWATER EVALUATION FOR GLEN COVE WATERFRONT REDEVELOPMENT PROJECT FOR THE LI TUNGSTEN CORPORATION SITE | 39 | LTR / Letter | R02: Koch, Ellis (POSILLICO CONSULTING) | R02: Fusillo, Thomas (RAMBOLL ENVIRON) |

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| DocID: | Doc Date: | Title: | Image Count: | Doc Type: | Addressee Name/Organization: | Author Name/Organization: |
|------------------------|-----------|---|--------------|-------------------|------------------------------------|--|
| 351589 | 11/1/2015 | NYSDEC'S PROPOSED DECISION DOCUMENT FOR DOXEY SITE FOR THE LI TUNGSTEN CORPORATION SITE | 13 | RPT / Report | | R02: (NEW YORK DEPARTMENT OF ENVIRONMENTAL CONSERVATION) |
| 351583 | 3/1/2016 | NYSDEC'S PROPOSED AMENDED RECORD OF DECISION FOR OU1 FOR THE LI TUNGSTEN CORPORATION SITE | 13 | RPT / Report | | R02: (NEW YORK DEPARTMENT OF ENVIRONMENTAL CONSERVATION) |
| 351586 | 3/1/2016 | NYSDEC'S PROPOSED REMEDIAL ACTION PLAN FOR OU2 FOR THE LI TUNGSTEN CORPORATION SITE | 16 | WP / Work Plan | | R02: (NEW YORK DEPARTMENT OF ENVIRONMENTAL CONSERVATION) |
| 351587 | 3/1/2016 | NYSDEC'S PROPOSED REMEDIAL ACTION PLAN FOR OU3 FOR THE LI TUNGSTEN CORPORATION SITE | 13 | WP / Work Plan | | R02: (NEW YORK DEPARTMENT OF ENVIRONMENTAL CONSERVATION) |
| 351590 | 3/1/2016 | NYSDEC'S FACT SHEET FOR PETROLEUM REMEDIATION PROGRAM NO FURTHER ACTION FOR DOXEY SITE FOR THE LI TUNGSTEN CORPORATION SITE | 5 | PUB / Publication | | R02: (NEW YORK DEPARTMENT OF ENVIRONMENTAL CONSERVATION) |
| 351591 | 3/1/2016 | P.W. GROSSER CONSULTING, INCORPORATION'S PRE-CONSTRUCTION REMEDIAL ACTION SCOPE OF WORK FOR THE CAPTAINS COVE SITE FOR THE GARVIES POINT WATERFRONT REVITILIZATION PROJECT FOR THE LI TUNGSTEN CORPORATION SITE | 259 | OTH / Other | R02: (RXR-GLEN ISLE PARTNERS, LLC) | R02: (P.W. GROSSER CONSULTING INCORPORATED) |
| 351592 | 3/1/2016 | P.W. GROSSER CONSULTING, INCORPORATION'S PRE-CONSTRUCTION REMEDIAL ACTION SCOPE OF WORK FOR THE LI TUNGSTEN CORPORATION SITE | 271 | OTH / Other | R02: (RXR-GLEN ISLE PARTNERS, LLC) | R02: (P.W. GROSSER CONSULTING INCORPORATED) |
| 351593 | 3/1/2016 | P.W. GROSSER CONSULTING, INCORPORATION'S PRE-CONSTRUCTION INVESTIGATION REPORT FOR 63 HERB HILL ROAD FOR THE LI TUNGSTEN CORPORATION SITE | 68 | RPT / Report | R02: (RXR-GLEN ISLE PARTNERS, LLC) | R02: (P.W. GROSSER CONSULTING INCORPORATED) |
| 351599 | 3/1/2016 | P.W. GROSSER CONSULTING, INCORPORATION'S PRE-CONSTRUCTION INVESTIGATION SUMMARY REPORT FOR FORMER CAPTAIN'S COVE SITE GARVIES POINT ROAD FOR THE LI TUNGSTEN CORPORATION SITE | 16269 | RPT / Report | R02: (RXR-GLEN ISLE PARTNERS, LLC) | R02: (P.W. GROSSER CONSULTING INCORPORATED) |

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Site Name: LI TUNGSTEN CORP.

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| DocID: | Doc Date: | Title: | Image Count: | Doc Type: | Addressee Name/Organization: | Author Name/Organization: |
|------------------------|-----------|--|--------------|------------------------|---|---|
| 351603 | 3/1/2016 | NYSDEC'S FACT SHEET FOR REMEDY PROPOSED FOR OU1, OU2 AND OU3 FOR THE LI TUNGSTEN CORPORATION SITE | 6 | PUB / Publication | | R02: (NEW YORK DEPARTMENT OF ENVIRONMENTAL CONSERVATION) |
| 351588 | 3/9/2016 | NYSDEC'S ENVIRONMENTAL SITE REMEDIATION DATABASE SEARCH DETAILS FOR DOXEY SITE FOR THE LI TUNGSTEN CORPORATION SITE | 3 | OTH / Other | | R02: (NEW YORK DEPARTMENT OF ENVIRONMENTAL CONSERVATION) |
| 351602 | 3/9/2016 | NYSDEC'S ENVIRONMENTAL SITE REMEDIATION DATABASE SEARCH DETAILS FOR CAPTAIN'S COVE CONDOMINIUMS FOR OU1, OU2, AND OU3 FOR THE LI TUNGSTEN CORPORATION SITE | 4 | OTH / Other | | R02: (NEW YORK DEPARTMENT OF ENVIRONMENTAL CONSERVATION) |
| 351582 | 3/23/2016 | NYSDEC'S PUBLIC MEETING FOR OU1, OU2, AND OU3 FOR THE DOXEY AND CAPTAIN'S COVE CONDOMINIUM SITES PROPOSED DECISION DOCUMENTS FOR THE LI TUNGSTEN CORPORATION SITE | 34 | MTG / Meeting Document | | R02: (NEW YORK DEPARTMENT OF ENVIRONMENTAL CONSERVATION) |
| 351600 | 5/19/2016 | NYSDOH'S CONCURRENCE ON US EPA'S MAY 2016 PROPOSED PLAN AND EXPLANATION OF SIGNIFICANT DIFFERENCE FOR THE LI TUNGSTEN CORPORATION SITE | 2 | LTR / Letter | R02: Schick, Robert (NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION) | R02: Anders, Krista, M (STATE OF NEW YORK DEPARTMENT OF HEALTH) |
| 351601 | 5/24/2016 | NYSDEC'S CONCURRENCE ON US EPA'S OU1 AMENDED RECORD OF DECISION AND EXPLANATION OF SIGNIFICANT DIFFERENCES FOR THE LI TUNGSTEN CORPORATOIN SITE | 2 | LTR / Letter | R02: Mugdan, Walter, E (US ENVIRONMENTAL PROTECTION AGENCY) | R02: Schick, Robert (NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION) |
| 351594 | 5/26/2016 | CORRESPONDENCE REGARDING TECHNICAL RATIONALE FOR USE OF 60 DILUTION AND ATTENUATION FACTOR TO DEVELOP IMPACT TO GROUND WATER SOIL REMEDIATION STANDARDS FOR THE LI TUNGSTEN CORPORATION SITE | 2 | LTR / Letter | | R02: Thantu, Lorenzo (US ENVIRONMENTAL PROTECTION AGENCY) |
| 395895 | 5/31/2016 | MEMORANDUM TO FILE FOR THE LI TUNGSTEN CORPORATION SITE | 3 | MEMO / Memorandum | | R02: (US ENVIRONMENTAL PROTECTION AGENCY) |

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|------------------------|-----------|---|--------------|----------------|---|---|
| 395891 | 5/31/2016 | PROPOSED PLAN FOR THE RECORD OF DECISION AMENDMENT FOR OU2 AND EXPLANATION OF SIGNIFICANT DIFFERENCES FOR OU1 FOR THE LI TUNGSTEN CORPORATION SITE | 19 | WP / Work Plan | | R02: (US ENVIRONMENTAL PROTECTION AGENCY) |
| 451829 | 8/29/2016 | NYSDEC'S COMMENTS ON THE DRAFT PRE-CONSTRUCTION REMEDIAL ACTION WORK PLAN - CAPTAIN'S COVE CONDOMINIUM SITE - NYSDEC SITE NO. 130032 - FOR THE LI TUNGSTEN SITE | 3 | LTR / Letter | R02: , Myralee, Machol (CITY OF GLEN COVE) | R02: (NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION) |
| 451832 | 8/29/2016 | US EPA COMMENTS ON THE DRAFT PRE-CONSTRUCTION REMEDIAL ACTION WORK PLAN - NYSDEC SITE NO. 130046 - FOR THE LI TUNGSTEN SITE | 1 | LTR / Letter | R02: Machol, Myralee (CITY OF GLEN COVE) | R02: Thantu, Lorenzo (US ENVIRONMENTAL PROTECTION AGENCY) |
| 451833 | 8/29/2016 | NYSDEC COMMENTS ON THE DRAFT PRE-CONSTRUCTION REMEDIAL ACTION WORK PLAN - NYSDEC SITE NO. 130046 - FOR THE LI TUNGSTEN SITE | 3 | LTR / Letter | R02: Thantu, Lorenzo (US ENVIRONMENTAL PROTECTION AGENCY) | R02: Dudek, Heide-marie (NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION) |
| 451830 | 8/31/2016 | CITY OF GLEN COVE'S RESPONSE TO NYSDEC'S COMMENTS ON THE DRAFT PRE-CONSTRUCTION REMEDIAL ACTION WORK PLAN - CAPTAIN'S COVE CONDOMINIUM SITE - NYSDEC SITE NO. 130032 - FOR THE LI TUNGSTEN SITE | 5 | LTR / Letter | R02: Dudek, Heide-marie (NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION) | R02: Machol, Myralee (CITY OF GLEN COVE) |
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| 451834 | 8/31/2016 | CITY OF GLEN COVE'S RESPONSE TO US EPA AND NYSDEC COMMENTS ON THE DRAFT PRE-CONSTRUCTION REMEDIAL ACTION WORK PLAN - NYSDEC SITE NO. 130046 - FOR THE LI TUNGSTEN SITE | 5 | LTR / Letter | R02: Thantu, Lorenzo (US ENVIRONMENTAL PROTECTION AGENCY) | R02: Machol, Myralee (CITY OF GLEN COVE) |
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COMPREHENSIVE ADMINISTRATIVE RECORD INDEX OF DOCUMENTS

FINAL
09/30/2016

REGION ID: 02

Site Name: LI TUNGSTEN CORP.
CERCLIS ID: NYD986882660
OUID: 01, 02
SSID: 024L
Action: ROD Amendment OU2 / ESD OU1

| DocID: | Doc Date: | Title: | Image Count: | Doc Type: | Addressee Name/Organization: | Author Name/Organization: |
|------------------------|-----------|---|-----------------|-------------------|---|---|
| 453921 | 9/30/2016 | CONCURRENCE FOR THE EXPLANATION OF SIGNIFICANT DIFFERENCES FOR THE LI TUNGSTEN SITE | 2 | MEMO / Memorandum | R02: Mugdan, Walter, E (US ENVIRONMENTAL PROTECTION AGENCY) | R02: Garbarini, Doug (US ENVIRONMENTAL PROTECTION AGENCY) |

APPENDIX IV

NEW YORK STATE CONCURRENCE LETTER

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Environmental Remediation, Office of the Director
625 Broadway, 12th Floor, Albany, New York 12233-7011
P: (518) 402-9706 | F: (518) 402-9020
www.dec.ny.gov

SENT VIA EMAIL ONLY

September 30, 2016

Mr. Walter E. Mugdan (mugdan.walter@epa.gov)
Director
Emergency and Remedial Response Division
United States Environmental Protection Agency
Region 2
290 Broadway, Floor 19
New York, New York 10007-1866

RE: Li Tungsten, Site No. 130046
OU1 Amended Record of Decision and Explanation of
Significant Difference
New York State Concurrence

Dear Mr. Mugdan:

The New York State Department of Environmental Conservation (DEC) and the New York State Department of Health (DOH) have reviewed the Amended Record of Decision and Explanation of Significant Difference (ESD) (dated September 30, 2016) for the Li Tungsten Site. We understand the amended remedy for this site addresses contaminated soil and groundwater, designated as United States Environmental Protection Agency (EPA) Operable Unit 1 (OU1) and documents the change in final designation of appropriate uses for Parcels A and Lower Parcel C. The Amended Remedy and ESD, which conforms to the DEC selected remedy for the Captain's Cove Site remedy, includes:

- Excavation and off-site disposal of metals-contaminated soil that exceeds 175 mg/kg arsenic and 660 mg/kg lead Impact-to-Groundwater (IGW) cleanup levels, with the exception of certain areas that are adjacent to storm sewer systems and underground electric and natural gas services, and/or below the water table. (Removal of approximately 7,000 cubic yards of metals-contaminated soil from Lower Parcel C is estimated.)
- Post-excavation sampling to ensure that soil cleanup levels have been met prior to backfilling.
- A minimum of 2-feet of clean soil, with an underlying demarcation layer, or structures such as buildings, pavement, and sidewalks placed over the entire Site property as part of development.

- Groundwater monitoring until maximum contaminant levels (MCLs) are achieved.
- Development of a Site Management Plan including a soil management plan addressing the excavation and management of remaining contamination.
- 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.
- Implementation of institutional controls in the form of an environmental easement which allows restricted residential use as defined in 6NYCRR Part 375-1.8(g)(2)(ii) for Parcel A, Parcel B and Upper Parcel C; commercial/ use as defined in 6NYCRR Part 375-1.8(g)(2)(iii) for Lower Parcel C; groundwater use controls; evaluation of compliance with an approved Site Management Plan; and periodic certifications.

It is understood that comments received during the May 26, 2016 to June 24, 2016 public comment period and from the June 13, 2016 public meeting have been presented and answered in the Responsiveness Summary. With this understanding, we concur with the amended remedy and ESD for the Li Tungsten OU1.

If you have any questions or need additional information, please contact Mr. Gerard Burke at (518) 402-9813.

Sincerely,



Robert W. Schick, P.E.
Director
Division of Environmental Remediation

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APPENDIX V
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INTRODUCTION

A responsiveness summary is required by the regulations promulgated under the Superfund statute. It provides a summary of comments received during the public comment period, as well as the responses of the U.S. Environmental Protection Agency (EPA) to those comments. All comments received were considered by EPA in its final Record of Decision (ROD) regarding the selection of the operable unit (OU 1) amended remedy for the Li Tungsten Superfund Site (Site).

SUMMARY OF COMMUNITY RELATIONS ACTIVITIES

The Proposed Plan for the OU 1 amended remedy for the Site, attached hereto as Attachment 1, was released to the public on May 31, 2016, along with supporting documentation which comprises the administrative record. EPA's preferred amended remedy and the basis for that preference were identified in the Proposed Plan.

These documents, including the Proposed Plan, and others, were made available to the public in information repositories maintained at EPA Superfund Records Center at the Region 2 Office located at 290 Broadway, 18th Floor, New York, New York and the Glen Cove Public Library located at 4 Glen Cove Avenue, Glen Cove, New York.

A notice that announced the commencement of the public comment period, the public meeting date, a description of the preferred amended remedy, EPA contact information, and the availability of the above-referenced documents, attached hereto as Attachment 2 of the ROD Amendment, was published in *The Glen Cove Record Pilot*, a local newspaper, on June 1, 2016. The public comment period ended on July 1, 2016.

EPA held a public meeting on June 13, 2016 at 7:00 P.M. at the Glen Cove High School, 150 Dosoris Lane, Glen Cove, New York, to explain the alternatives and the preferred amendment and answer questions from the public about the remedial alternatives and the proposed amended remedy. A copy of a transcript of the meeting is attached hereto as Attachment 3 of the ROD Amendment, respectively. Responses to the comments and questions received at the public meeting, along with other written comments received during the public comment period, are included in this Responsiveness Summary.

SUMMARY OF COMMENTS AND EPA RESPONSES

This responsiveness summary responds to all significant questions and comments raised during the public comment period. A copy of the written comments received during the public comment period is provided in Attachment 4 of this Responsiveness Summary. The following are the comments received, with the EPA's responses:

1. A commenter noted how the preferred amended remedy will improve the Glen Cove Creek waterfront in reducing toxicity levels and improving groundwater quality.

Response: Comments noted.

2. Several commenters expressed concerns as to the protectiveness of EPA's preferred remedy as follows:

- a. What is the reliability and effectiveness of sub-slab depressurization systems if they are flooded as a result of major storm events (e.g., Super Storm Sandy)?

Response: The amended remedy includes an evaluation of the potential for vapor intrusion and mitigation, if necessary, for any buildings constructed at the Site. Until the potential for vapor intrusion is evaluated, EPA cannot predict if a sub-slab depressurization system (SSDS) will be recommended, how many would be recommended, or other design details. People will not need to evacuate the building due to a loss of power to a sub-slab depressurization system. The systems can be designed to operate passively during power loss.

In the event that the Site floods to the extent that the SSDS system is inundated with floodwaters, the system would be pumped out and any damage to the electrical or mechanical systems would be repaired. SSDS systems have been installed across the State including the south shore of Long Island that received floodwaters from Super Storm Sandy. If these systems were used and subsequently damaged by floodwaters, they can be repaired and put back into operation.

- b. What assurances can be given that the institutional controls (i.e., governmental or legal controls) would remain in place and also be inspected and maintained on a regular basis by the developer and the regulatory agencies? What entity will commit to that? What will happen if this Site is subjected to another Super Storm Sandy? How will these institutional controls be protective and what happens if they fail to function properly as a result?

Response: The amended remedy includes the development of a Site Management Plan which will include a soil management plan that addresses excavation and management of residual contamination during and after Site development and will also identify all institutional controls and engineering controls and details steps and media-specific requirements necessary to ensure that they remain in place and effective. The Site Management Plan will also provide the operation and maintenance plan, along with any sampling and reporting requirements. The institutional control that will be placed is an environmental easement which will limit residential use of the Site, restrict the use of groundwater, and require the adherence to the Site Management Plan. The environmental easement runs with the land in favor of the State of New York, and are enforceable in perpetuity. The property owners must periodically certify to the New York State Department of Environmental Conservation

(NYSDEC) that the restrictions and requirements included in the easement remain in-place and effective, subject to the provisions of New York Environmental Conservation Law (ECL) Article 71, Title 36. The environmental easement will provide an effective and enforceable means of ensuring the performance of any necessary operation, maintenance, and/or monitoring requirements for a restricted residential reuse of the Site, and annual certifications to the NYSDEC are required.

In addition, statutory reviews pursuant to Section 121(c) of Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) will be conducted by EPA no less often than once every five years to ensure that the remedy is, or will be, protective of human health and environment. Five-year reviews of the Site will continue to be performed to ensure the protectiveness of the remedy. Through the periodic five-year review process, EPA will:

- Determine if the remedy, including the institutional and engineering controls, remains in-place, is performing properly and effectively, and is protective of public health and the environment.
- Evaluate compliance with the decision document(s) and the Site Management Plan.
- Evaluate all treatment units, and recommend repairs or changes, if necessary.
- Evaluate the institutional controls/engineering controls Certification, certifying that the institutional and/or engineering controls remain in-place, and remain effective as well as protective of public health and the environment.

- c. What assurances can be given that the two feet of soil cover would remain in place, so that it is not washed away by storm events?

Response: The Site cover will be vegetated and designed to ensure that it is not easily eroded and can withstand normal weather events and storm erosion, including storm surges. If erosion does occur, the property owner has agreed to notify the regulatory agencies of the erosion and then repair the damaged cover in a timely manner. In addition, the institutional controls will prohibit digging into the protective soil cover without approval by the regulatory agencies or implementation of appropriate soil management measures. In addition, in places where there will not be any buildings and where there is a Site cover, there will be a demarcation layer below the two feet of clean soil. This demarcation layer will serve as a warning

system to the property owner or contractor that the soil cover has been eroded and that the required repair is in order.

Jerry Romano submitted written comments dated June 10, 2016 which included the following comments:

3. If there is no likelihood of human exposure to contaminants at Garvies Point, does that mean that there are still contaminants, what are the contaminants, where are they and is there a plan to remediate?

Response: At present, there are no completed exposure pathways for humans via inhalation, direct contact or ingestion at the Site. Therefore, there is presently no potential risk for human exposure under current Site conditions. The current Garvies Point Mixed-Use Waterfront Development plan for the north side of the Glen Cove Creek calls for redevelopment of 52 acres, which would include both commercial and residential future uses. However, absent remedial action as called for in the amended remedy, there is the potential for human exposure to remaining contamination in the future, as well as continued cross-media impacts from contaminants of concern in soil/sediments to underlying groundwater.

During the implementation of the remedial actions at the Site, EPA determined that excavation of some arsenic-contaminated soil and, to a lesser extent, lead-contaminated soil along the western and eastern edge of Lower Parcel C and the southern portion of Parcel A at the former Li Tungsten property was infeasible because of the existing utilities and infrastructure. These areas with remaining soil contamination, referred to as “red flag” areas, are present within the immediate area of the fence line on the former Li Tungsten property (e.g., along two storm drain systems as well as underground electric and natural gas services) and in close proximity to the bulkhead in place along the Glen Cove Creek.

The “red flag” areas were also identified as areas that would need institutional controls to ensure that future development would take remaining contamination into account in managing excavations and soil in these areas. The contamination in these “red flag” areas was also found to be at depths below the top two feet, and, therefore, it was determined that receptors were unlikely to be exposed unless digging occurred in these areas. However, sampling performed by the proposed developer of the Site and by EPA in 2014 and 2015 indicates that some additional areas of soil, in particular in Lower Parcel C and Parcel A of the Li Tungsten facility property, exceed the 1999 ROD cleanup levels. Specifically, the sampling investigation revealed more arsenic, and, to a limited extent, lead contamination outside the “red flag” areas than had been previously identified on Lower Parcel C and on Parcel A. The sampling also identified petroleum-contaminated soil on Parcel A that needed to be addressed under NYSDEC’s Spills program. Approximately 1,400 tons of petroleum-

impacted soils were excavated and transported to an appropriately permitted facility. A formal spill closure for Parcel A will be approved by NYSDEC upon issuance of the ROD Amendment. In addition, a limited area of polychlorinated biphenyls (PCB) contaminated soil was identified on Parcel B. The prospective developer initiated a pre-closing response action to address soils that exceed the cleanup numbers on Parcel A and Parcel B in September 2016; this effort is nearly complete and should be concluded by mid-October. This work is being performed under EPA and NYSDEC oversight. It should also be noted that, during the implementation of the September 2016 removal of metals-contaminated soils on Parcel A, during routine required screening for radiological contamination, the prospective developer identified and subsequently removed less than 0.5 cubic yard (cy) of soil that was in excess of the radiological cleanup levels.

EPA's amended remedy calls for excavation and off-Site disposal of metals-contaminated soil on Lower Parcel C that exceeds 175 milligrams/kilogram (mg/kg) arsenic and 660 mg/kg lead specific impact-to-groundwater (IGW) cleanup levels, with the exception of certain areas that are adjacent to storm sewer systems and underground electric and natural gas services, and/or below the water table.

Lenore Bronson submitted written comments dated June 13, 2016 which included the following comments:

4. My family and I are vehemently opposed to the Rechlers' residential-retail complex being built on the toxic site at Garvies Point in Glen Cove New York. What part of TOXIC does the EPA not understand? Please do the right thing, despite the strong pressure from Scott Rechler and Glen Cove officials to do the wrong thing for our community.

Attached is my inquiry of August 2015 regarding the EPA permits issued or to be issued to RXR/Scott Rechler and the City of Glen Cove. New York. As meetings are coming up in which the public will hopefully be permitted to ask questions and give input, I again request specific answers to our questions about this Site. As you know, the land has been and remains highly toxic. How can your agency, or the Army Corps of Engineers, justify permission to the developer to build any edifice that involves human activity there? Residents' health, quality of life, and peace of mind need to take priority over financial gain.

Response: EPA does not have jurisdiction to determine local zoning or specific development plans. In selecting a remedy for the Site, EPA established remedial action objectives (RAOs), which are specific goals to protect human health and the environment, which must be met by the remedy. These objectives are based on available information and standards, such as applicable or relevant and appropriate requirements (ARARs), site-specific risk-based levels for chemicals in various media based on land use, and the most reasonably anticipated future land use for a site. The most reasonably

anticipated future land use has been determined to be residential with restrictions for Parcel A, Parcel B and Upper Parcel C, and commercial/light industrial for Lower Parcel C. EPA has determined that the amended remedy will be protective for these land uses. The amended remedy actively addresses soil contamination within Lower Parcel C of the former Li Tungsten facility property. The results of EPA's evaluation of the cross media impacts of Site soil to groundwater indicate that the contaminated soil at Lower Parcel C presents a potential ongoing source of groundwater contamination. The amended remedy will ensure that there is no direct contact threat from arsenic and lead in exposed surface soils. Under the amended remedy, the removal of 8,500 cy of contaminated soil within the Lower Parcel C will reduce the source, further improve the groundwater quality, and potentially result in achieving the drinking water standard for arsenic and the Action Level for Lead.

EPA replied to Ms. Bronson's July 26, 2015 web inquiry in an August 13, 2015 email. Ms. Bronson requested EPA provide information on permits/permission granted on RXR Corporation's ongoing Glen Cove Waterfront Redevelopment Project, which was approved by the City of Glen Cove Planning Department in October 2014. EPA provided her with the September 1999 ROD, March 2005 ROD, October 2002 Explanation of Significant Differences (ESD), and May 2005 ESD. EPA also informed Ms. Bronson that all permit information and details, required by EPA as well as by all other regulatory agencies, could be found in the Final Environmental Impact Statement for the RXR Glen Isle Mixed-Use Waterfront Development Project, City of Glen Cove, New York (FEIS) (Submitted October 5, 2009 and Revised May 6, 2011, June 27, 2011, and July 28, 2011), which can be accessed in its entirety on the following web link, <http://www.glencove-li.us/index.php/project-updates/27-waterfront-project/38-final-scope>.

Amy Marion, Esq. submitted written comments dated June 1, 2016 concerning EPA's June 1, 2016 press release on the Proposed Plan. Ms. Marion's pertinent questions and comments are provided as follows with EPA responses.

5. Ms. Marion questioned the reference in the press release regarding the cleanup of arsenic and lead contaminated soil and stated that, "the City said the land was cleaned up."

Response: EPA is not aware of any statement or indication made by the City of Glen Cove that the Li Tungsten Site has been fully remediated such that the development being planned for the Garvies Point Mixed-Use Waterfront can proceed without any additional remedial action, including institutional

controls consisting of an environmental easement and/or engineering controls.

6. Ms. Marion questioned the reference in the press release which stated that EPA's cleanup plan will help protect people's health and the environment while commenting that, "the DEC said at the last meeting they held that the land was protective of human health."

Response: Representatives of EPA also attended NYSDEC's March 23, 2016 public meeting on Captain's Cove Condominiums site. Representative of NYSDEC stated that the remedy proposed for OU 1 of the Captain's Cove Condominiums site would be protective of public health and the environment for the intended use as restricted residential.

7. Ms. Marion questioned the reference in the press release which stated that, "Sampling and further studies will be conducted to ensure the effectiveness of the remedy. The EPA will conduct a review within five years to ensure the effectiveness of the cleanup." Ms. Marion alleged that this proved, "THE ARGUMENTS MADE IN THE LEGAL PAPERS THAT THERE WAS NOT EVEN A REMEDY IN PLACE WHEN THE PLANNING BOARD MADE A DETERMINATION NOT TO CONDUCT AN SEIS."

Response: EPA's preferred alternative described in the Proposed Plan calls for excavation and off-Site disposal of metals-contaminated soil that exceeds 175 mg/kg arsenic and 660 mg/kg lead specific IGW cleanup levels, with the exception of certain areas that are adjacent to storm sewer systems and underground electric and natural gas services, and/or below the water table. The sampling referenced in the press release concerned the post-excavation sampling that was performed to determine whether soil cleanup levels had been met prior to backfilling the excavation areas. Because the preferred alternative would result in contaminants remaining on Site above levels that would allow for unrestricted use and unlimited exposure, the CERCLA requires that five-year reviews of the Site continue to be conducted to ensure the protectiveness of a remedy.

EPA does not have the authority to dictate local zoning or specific development plans. The City of Glen Cove is responsible for the zoning and redevelopment approvals of a site, including complying with the Environmental Impact Statement (EIS) requirements per the New York ECL Article 8, Environmental Quality Review, and its implementing regulation (6 NYCRR Part 617 State Environmental Quality Review). It needs to be noted that the response selection and implementation of actions under NYSDEC-approved work plans pursuant to ECL Article 27, Title 13. Inactive Hazardous Waste Disposal Sites are not subject to review pursuant to ECL Article 8 and 6 NYCRR Part 617, as an exempt action pursuant to the enforcement exemption provision.

8. Ms. Marion questioned the reference in the press release stating, “The EPA’s long-term cleanup included excavating and segregating ore residuals, soils and sediments contaminated with heavy metals and radionuclides, and disposing of this material out of the area. The EPA also required that pieces of radioactive slag in nearby Glen Cove Creek be removed,” and stated that, “THIS HASN’T BEEN DONE YET.”

Response: The amended remedy addresses only the OU 1 portion of the 1999 ROD. The remedy selected in the March 2005 ROD OU 4 (Glen Cove Creek), which called for remedial dredging and removal of radioactive hot spots in the Glen Cove Creek, was completed in 2008. The Creek's navigational channel was effectively cleared of radionuclides that could otherwise impact future navigational dredging operations. However, EPA cannot conclusively rule out the potential that radiologically contaminated slag could still be present below the navigational dredging depth in the Creek channel. In addition, it is possible that radiologically contaminated slag may be present underwater in the sideslope of the Creek channel along the Parcel A bulkhead. Therefore, these areas have been identified as areas requiring restrictions on future activity through the use of institutional controls.

9. Ms. Marion asked what portion(s) of the Li Tungsten Site is EPA announcing a change in the future land use as a result of change in the cleanup levels for the Site.

Response: The May 2016 ESD announced the change for Parcel A in land use from commercial/light industrial to residential with restrictions, as well as to reaffirm that, by reverting the use of Lower Parcel C to its original commercial/light industrial land use from residential with restrictions, the remedy would still be protective of human health.

10. Ms. Marion questioned the reference in the press release which stated that, “The city of Glen Cove is implementing its 1998 Glen Cove Creek Revitalization Plan involving more than 200 acres surrounding Glen Cove Creek. The project has been designated as an EPA Showcase Brownfields redevelopment project. The Revitalization Plan projected the future use of the area as a mixed use commercial and residential redevelopment, featuring shops, restaurants, parking facilities and other amenities.” Ms. Marion asked which 200 acres are being redeveloped and whether shops, restaurants, and parking facilities are part of the redevelopment plans.

Response: The original 1998 Glen Cove Creek Revitalization Plan called for commercial redevelopment of 200 acres surrounding the Glen Cove Creek featuring shops, restaurants, parking facilities, museums, and a hotel/conference center for both north and south side of the Glen Cove Creek. Since then, the City of Glen Cove has made a decision to redevelop only the north side of the Glen Cove Creek. The current Garvies Point Mixed-Use Waterfront Development plan for the north side of the Glen Cove Creek calls for redevelopment of 52 acres, which would include both

commercial and residential future uses, public amenities and open space, and retail/restaurant/cultural space. Commercial use (i.e., an on-slab parking garage) is now envisioned for the Lower Parcel C.

Amy Peters submitted written comments dated June 21, 2016 which included the following comments:

11. A figure of over \$100 million dollars is often mentioned as the cost of cleaning up, to date, the Li Tungsten Site as well as some of the other nearby sites related to the Garvies Point Waterfront Development. Would that money NOT have been spent by the Federal government and would the cleanup NOT have happened at all if the property would only have been used solely for commercial as opposed to mixed-use commercial-restricted residential purposes? Would the city NOT have been given grant money by the State and the County if it were only to be cleaned up for commercial use? The Mayor is claiming that the Federal and State governments will seek reimbursements of some or all of the millions of dollars the City has invested in helping to clean up Garvies Point. Is this true?

Response: EPA cannot speak to the amount of money that the City or other parties have spent on the cleanup and development of the Garvies Point Waterfront area. The amount of money that EPA has spent on cleanup to date would be approximately \$55 million dollars. However, EPA has successfully sought reimbursement of a significant portion of these monies from Potentially Responsible Parties identified at the Site.

As for the reimbursement of past cleanup costs from the City of Glen Cove, the Glen Cove IDA (which owns most of the Site properties) and the federal government agreed in 1998 to share in some future proceeds of the sale of Site properties. Therefore, EPA is entitled to receive a small percentage of the sale price of the property from the IDA, pursuant to a formula established in the 1998 agreement between EPA and the IDA.

12. A commenter noted “[t]he Creek's navigational channel has been effectively cleared of radionuclides that could otherwise impact future navigational dredging operations” on page 8 of the Proposed Plan, and “[y]et the U.S. Army Corps of Engineers in August of 2015 drafted a dredging plan impact statement C, which stated that if the Creek were to be dredged, it would likely produce unsuitable material.”

Response: As part of the OU 4 remedy implemented for Glen Cove Creek, described above, the radionuclides in the Creek’s navigational channel were effectively remediated to below navigational depth (8+2 feet below mean low water); however, EPA acknowledges that it is still possible (though unlikely) that radioactive slag could be found at greater depths in the Creek. It is unlikely that future dredging by the U.S. Army Corps of Engineers would go down to below the depth to which radionuclides materials were

removed as part of the OU 4 remedy because we removed material to a depth deeper than the Creek's typical navigational depth of excavation.

13. A commenter expressed concern that contaminants in soil have migrated with groundwater to the Glen Cove Creek and into the Hempstead Harbor, and asked what sampling has been done in the Creek. In addition, the commenter asked what caused June 2009 arsenic and lead concentration spikes of 493 micrograms per liter ($\mu\text{g/L}$) and 10.8 $\mu\text{g/L}$, respectively, and the July 2013 arsenic concentration spike of 510 $\mu\text{g/L}$ (claimed by the commenter to be a result of Hurricane Sandy), in EPA's 2008 – 2016 arsenic and lead concentrations trends figure for monitoring well EMW-4 on Lower Parcel C presented at the at the public meeting.

Response: No samples of sediments or surface water were collected from Glen Cove Creek as part of the Li Tungsten field work, but there had been a Creek annual monitoring program performed pursuant to the June 1991 ROD for the Mattiace Petrochemicals Superfund site also located on Garvies Point Road. Given the industrial nature of this area, there are many potential sources of contamination in the Creek. The former Mattiace monitoring program consisted of four locations along the length of the Creek, at which both the water column and sediments were analyzed for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), inorganic contaminants, pesticides and PCBs. The monitoring program ended in 2010 but, per EPA order, was repeated in 2015. The sediment data from this monitoring program indicate that there are elevated levels of metals which exceed ecological screening values.

The U.S. Army Corps of Engineers initiated navigational dredging for the inner half of the Creek in September 2000 and used Parcel A of the Li Tungsten property as a temporary dewatering area. Based on a survey performed by EPA of those dredged materials, EPA determined that the dredged sediments were contaminated with chunks of radioactive slag from earlier facility operations, which resulted in the dredging activities being halted at that time. EPA then directed responsible parties to segregate the radioactive slag from the dewatered sediment on Parcel A and dispose of it off-Site, while the City agreed to dispose of the dried sediment pursuant to a beneficial use determination it had obtained from the State. Subsequently, in order to address the potential for remaining radioactive slag in the Creek, EPA performed a Focused Feasibility Study using existing data to determine that remedial action was needed to address any remaining radioactively contaminated slag in the Creek.

A risk assessment was conducted for the Glen Cove Creek and found that radiological contaminants posed an acceptable risk to current/future

recreational and construction workers in the Creek. For the sediment that had already been dredged and consolidated on the property, the sediment posed an unacceptable risk to future workers and residents of the property.

A screening level ecological risk assessment was also conducted for the Creek, and EPA concluded that there is potential risk to ecological receptors.

Groundwater monitoring in accordance with the 1999 ROD was initiated through a settlement with responsible parties subsequent to the Court's entry of the 2007 Consent Judgment. As expected, in recent years, the groundwater sampling data has indicated that, for the most part, metals concentrations in groundwater at the Li Tungsten facility have decreased significantly following the implementation of the soil remedial action required by the 1999 ROD. Prior to the 1999 ROD, during the RI study in 1996, arsenic was detected at concentrations of 14,500 micrograms per liter ($\mu\text{g/L}$) at a groundwater monitoring well on Lower Parcel C. The Post-ROD groundwater monitoring network consists of five wells that were sampled quarterly from September 2008 to June 2009 and annually from 2010 to 2013. Samples were analyzed for metals (including contaminants of concern arsenic and lead), as well as radium-226 and thorium-232. Three of these wells are located on the former Li Tungsten facility property; the other two are located on Captain's Cove. Two rounds of samples of the five wells were also collected by the EPA in January 2015 and February 2016. All monitoring results reveal that radionuclides in the groundwater remain below MCLs. Well EMW-4 (22 feet deep) is located on Lower Parcel C. Arsenic concentrations above MCLs at Well EMW-4 have varied during the monitoring period, ranging between 54 micrograms per liter ($\mu\text{g/L}$) (2008), to 510 $\mu\text{g/L}$ (2013), to 85 $\mu\text{g/L}$ (2016). Lead concentrations were also detected and ranged between 10.8 to 1.7 $\mu\text{g/L}$; however, all lead values are below the EPA Action Level of 15 $\mu\text{g/L}$. For the remaining two wells on the Li Tungsten facility property, well MP-6 on Parcel A and well PRA-7 on Parcel B, arsenic and lead concentrations have declined to either non-detect or below their respective MCLs and EPA Action Level for Lead..

As for the June 2009 arsenic and lead concentration spikes and the July 2013 arsenic concentration spike, there could be several factors that result in variability in sample concentrations over time. Subsurface conditions are usually heterogeneous in that they can sometimes change in space and in time. So as groundwater flows through the saturated soil, it can have non-uniform concentrations.

Groundwater concentrations can also be affected by differences in the sampling method, or just changes in the year-to-year sample collection. Efforts are made to try to use similar sampling techniques each time and to collect samples with low agitation methods, but very fine metal-bearing sediment is included in the samples. The groundwater samples at the Li Tungsten Site have usually been analyzed for total (unfiltered) concentrations, except when specified. Therefore, the results include dissolved metals plus metals that might be adsorbed to tiny particles that are included in the samples. Therefore, the chemical variability over time at EMW-4 can be expected as observed in its sampling data. More importantly, the overall concentrations of both arsenic and lead have significantly declined since the implementation of the soil remedial actions required by the 1999 ROD.

The timing of the 2014 arsenic concentration spike does not seem to be close enough in time to Superstorm Sandy, which occurred on October 22, 2012 – November 2, 2012, so it is likely not related. Seasonal effects can sometimes cause concentration changes over time, but the information here does not suggest that this is the cause at well EMW-4.

14. A commenter expressed concern that the two feet of soil cover may not be adequately protective in that the settling and root disturbance process as a result of planting (e.g., planting of roses) could bring the underlying contaminants being covered closer to the surface, thereby exposing children playing on the soil cover or lawn.

Response: The amended remedy for the Site includes institutional controls for the maintenance and monitoring of the cover system to ensure that it remains intact and two feet thick (unless otherwise covered). It is unlikely that the underlying contamination will reach the surface in the manner described above. The amended remedy also includes appropriate engineering and institutional controls. The Site cover will be maintained and monitored, thereby limiting the potential for people to be exposed to remaining contaminated soils.

15. A commenter expressed concern that not all of the Site sampling data (e.g., soil) that are needed to adequately review the Proposed Plan can be made available by EPA within the public comment period that ended on July 1, 2016.

Response: All of the Site sampling data, which EPA relied upon to develop the preferred remedy, have been made available as part of the administrative record in the information repositories maintained at EPA Superfund Records Center at the Region 2 Office located at 290 Broadway, 18th Floor,

New York, New York and the Glen Cove Public Library located at 4 Glen Cove Avenue, Glen Cove, New York.

16. A commenter asked how the construction of EPA's preferred remedy for the Lower Parcel C can be completed in August 2016 if the public comment period for the Proposed Plan only ends on July 1st, 2016.

Response: The implementation of the amended remedy will commence only after the OU 1 ROD Amendment has been issued by EPA and is expected to be completed within about four months.

17. A commenter asked if EPA would provide oversight of the developer's development and construction activities at the Li Tungsten Site for restricted residential use and what would happen should contamination be discovered during that period.

Response: EPA anticipates providing oversight during the initial, preparatory steps at the Li Tungsten Site as well as the developer's pre-closing remediation activities of contaminated soil that exceed arsenic and lead IGW cleanup levels on Parcel A and PCB cleanup levels (1 mg/kg in surface soil (0 – 2 feet below ground surface) or 10 mg/kg at depths greater than two feet) on Parcel B. While EPA does not intend to oversee the construction of the real estate development project after the developer's pre-closing remediation activities and the amended remedy are completed, NYSDEC will perform oversight of all redevelopment construction phases that involve intrusive work.

EPA has reviewed all data collected to date and does not believe that, upon completion of EPA's amended remedy for Lower Parcel C and the developer's pre-closing remediation of contaminated soil on Parcel A and Parcel B, any additional contamination would remain at the Site that would prohibit redevelopment. Nonetheless, in accordance with the Site Management Plan, should any additional contamination above cleanup levels be found during construction or other Site maintenance activities, it must be removed and disposed of properly, under EPA's and/or NYSDEC's oversight, by the property owner. The work and cost will be the responsibility of the property owner.

18. A commenter asked if a Site Management Plan has ever been approved by EPA for the Li Tungsten Site.

Response: The Site Management Plan is required by NYSDEC for the Li Tungsten Site as part of the institutional controls. The environmental easement runs with the land in favor of the State, subject to the provisions of ECL Article

71, Title 36. Therefore, Environmental Easements are administered and regulated under New York State, not Federal, regulations. Because the Site Management Plan is a component of the amended remedy, EPA will review and comment on the draft Site Management Plan along with its review and approval by NYSDEC.

19. A commenter asked when the City of Glen Cove informed EPA that the Lower Parcel C would no longer be developed for restricted residential use and instead for commercial/light industrial use.

Response: In the Spring of 2015, the City of Glen Cove informed EPA that the City was separating out Lower Parcel C from the overall Site to allow for future commercial/light industrial use, in lieu of restricted residential use, based on proposed redevelopment plans then approved by the City's Planning Board. In connection with moving forward with these proposed redevelopment plans, the City informed EPA that a Site Management Plan and environmental easement would be prepared for the Lower Parcel C consistent with regulatory requirements.

20. A commenter expressed concern with the health effects of lead and referenced EPA's September 30, 2015 press release which announced a finalized cleanup plan to remove contaminated soil at the Sherwin-Williams/Hilliards Creek Superfund Site in Gibbsboro, New Jersey, and stated the following, "Lead exposure can have serious, long-term health consequences. Even at low levels, lead in children can cause I.Q. deficiencies, reading and learning disabilities, impaired hearing, reduced attention spans, hyperactivity and other behavioral problems. Lead exposure can also cause health problems in pregnant women and harm fetuses."

Response: Comments noted. Implementation of EPA's amended remedy for Lower Parcel C and the developer's pre-closing remediation of contaminated soil on Parcel A and Parcel B, under EPA's oversight, coupled with institutional and engineering controls, will eliminate potential for human exposure to residual remaining arsenic and lead contamination.

21. A commenter expressed concern with elevated incidences of cancer in the area and asked if EPA has conducted studies on cancer clusters in the area.

Response: EPA does not conduct health studies, but rather coordinates with other federal and State agencies, such as the New York State Department of Health (NYSDOH), that are charged with conducting health studies. The Agency for Toxic Substances and Disease Registry (ATSDR), a federal agency within the U.S. Department of Health and Human Services, is authorized by CERCLA to conduct public health assessments (PHAs) at

hazardous waste sites. At the Li Tungsten Site, EPA has acted quickly to eliminate exposure to hazardous chemicals through the removal and remedial actions conducted to date. EPA has worked closely with NYSDEC and the NYSDOH to determine if health studies might be warranted at the Li Tungsten Site, and, based on remedial investigation studies and other sampling investigations, and also removal and remedial actions conducted to date, these agencies determined that such health studies are not warranted at this time.

22. A commenter expressed concern that recreational users of the Hempstead Harbor, albeit not drinking water from it, may be potentially exposed to contamination from swimming in and eating fish caught from it.

Response: In New York State, a bathing beach must have a state, city or county health department permit to operate in compliance with 10 NYCRR Part 6 Section 6-2. The Nassau County Department of Health has the responsibility to inspect and regulate all public bathing beaches located within Nassau County including areas near Glen Cove Creek (e.g., the Hempstead Harbor). As such, EPA advises that people only swim at regulated bathing beaches.

In addition, the New York State Department of Health issues fish consumption advisories for waterbodies within New York State. Information on fish consumption advisories are available at: https://www.health.ny.gov/environmental/outdoors/fish/health_advisories/regional/long_island.htm.

The subject portion of Hempstead Harbor is presently designated as impaired due to shellfishing, public bathing and recreational uses that are known to be impaired by pathogens, and aquatic life that is known to be impaired by nutrients and resulting low dissolved oxygen. Public bathing and recreational uses are restricted by periodic beach advisories/closures. Fish consumption is also thought to be stressed by PCBs, however these fish consumption advisories are the result of the migratory range of these fish species, and not related to any known contamination in this specific waterbody. Similarly, the Lower Glen Cove Creek is a Class SC waterbody, suitable for general recreation use and support of aquatic life, but not for shellfishing or for public bathing.

Mayor Reginald Spinello of the City of Glen Cove submitted written comments dated June 27, 2016, in support of the Proposed Plan, which included the following:

23. “The City, IDA and CDA convey their support and appreciation of EPA in the development and publication of the Plan. It is clear that the EPA Plan provides a strong and successful

path forward for ensuring a safe environment for the development of the Li Tungsten properties, as part of the Garvies Point Road Waterfront Redevelopment Area. The proposed Plan exhibits the meticulousness of the EPA investigation and cleanup processes and regulatory oversight of these properties in connection with the planned reuse and redevelopment activities. Furthermore, the proposed Plan confirms that appropriate protective measures have been and will be implemented to provide for future use and redevelopment of these properties.

We have been working with EPA, DEC and NYS Department of Health for many years to remediate and bring these properties back to productive reuse. We believe the proposed Plan supports and promotes protection of human health and the environment; the regulatory framework for future EPA oversight and management; as well as the institutional and engineering controls which have been contemplated. As presented in the Proposed Plan, the redevelopment of the properties will occur in conjunction with Environmental Easements which will restrict the type of allowable reuse (e.g., restricted residential, recreational or commercial development), and Site Management Plans which will dictate soils and groundwater management and monitoring, and require the installation of engineering controls. These are the restrictions and controls that we have planned for, and that along with the designated developer will implement under EPA and DEC oversight.

The City, IDA and CDA look forward to EPA's finalization of the proposed Plan to further advance the redevelopment of these properties in a manner which is fully protective of human health and the environment. We thank the EPA for all of its efforts in this regard, and look forward to the redevelopment of the Li Tungsten Site as part of the Garvies Point Road Waterfront Redevelopment Area. Again, we thank all of the agencies for their dedication and assistance.”

Response: Comments noted.

RXR Glen Isle Partners LLC (RXRGIP), developer for the Garvies Point Mixed-Use Waterfront, submitted written comments dated June 27, 2016, in support of the Proposed Plan, which included the following:

24. “RXRGIP is confident that the Plan provides a feasible path to ensuring the successful redevelopment of the Garvies Point Waterfront in Glen Cove, while fully protecting the public health and environment. RXRGIP has worked for many years with its partners, the City of Glen Cove, the Industrial Development Agency and Community Development Agency, along with EPA and the New York State Departments of Environmental Conservation ("DEC") and Health ("DOH") to restore these properties back to public use and benefit.

The Garvies Point Waterfront redevelopment project has been designated by the Long Island Regional Economic Development and Long Island Regional Planning Councils as a

Project of Regional Significance, has been a poster child for brownfield redevelopment and was awarded a 2003 Partnership Award by Coastal America for its partnerships with federal, state and regional agencies. The new Garvies Point development will be a smart-growth, mixed-use community located along the shores of Hempstead Harbor. This dynamic development will re-invent the Garvies Point Waterfront and transform a former brownfield into a vibrant, active mixed-use community accessible to everyone. The development will provide generous expanses of high- quality, public open space for residents and visitors to enjoy.

RXRGIP believes that the EPA Plan fully protects human health and the environment, while simultaneously encouraging much-needed regional economic development. The work involved in redeveloping the Garvies Point Waterfront will occur in accordance with approved Institutional and engineering controls that will be implemented by RXRGIP under EPA and DEC oversight. RXRGIP very much appreciate the agencies' diligent efforts and look forward to continuing our working relationship with the EPA, DEC, DOH and other involved agencies as the Garvies Point redevelopment project moves forward.

The respective agency staff members are to be congratulated for their hard work and dedication, without which this important regional economic development project would not be possible.”

Response: Comments noted.

Attachment 1

Proposed Plan



Superfund Proposed Plan for Remedy Modification

Li Tungsten Superfund Site
Glen Cove
Nassau County
New York

EPA Region 2

May 2016

PURPOSE OF THIS DOCUMENT

This Proposed Plan for Remedy Modification ("Proposed Plan") describes the proposed changes to Operable Unit 1 (the Li Tungsten Facility Property) and Operable Unit 2 (portions of the Captain's Cove Property) of the September 1999 Record of Decision (ROD) issued by the Environmental Protection Agency (EPA), with concurrence by the New York State Department of Environmental Conservation (NYSDEC) for the Li Tungsten Superfund Site (Site), located in the City of Glen Cove, Nassau County, New York. In addition to proposing changes to the 1999 ROD, this Proposed Plan will also serve to document EPA's Explanation of Significant Differences (ESD) with respect to its final designation of appropriate uses for two parcels at the Site.

Portions of the Captain's Cove property have been remediated by NYSDEC under its Superfund program. NYSDEC has designated the entire Captain's Cove Property as a State Superfund Site. Additional remedial activities, including monitoring and maintenance, that may be warranted at the Captain's Cove property are being addressed under the New York State Superfund program.

Proposed Plan - In accordance with Section 117(a) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), as amended, 42 U.S.C. § 9617(a), and Section 300.435(c)(2)(i) of the National Oil and Hazardous Substances Pollution Contingency Plan (NCP), 40 C.F.R. § 300.435(c)(2)(i), if, after the selection of a

remedy in a ROD, a component of the remedy is fundamentally altered EPA must propose an amendment to the ROD. EPA's proposed changes must first be made available for public comment in a proposed plan.

The remedy specified in the 1999 ROD required excavation and off-site disposal of soil primarily contaminated with radionuclides and heavy metals. In addition, the selected remedy for groundwater was "no action," other than a long-term monitoring program to assess the recovery of the Upper Glacial Aquifer in the vicinity of the Li Tungsten facility. This monitoring was to be performed after the soil remedy was implemented. The remedial action objectives of the 1999 ROD for soil were to prevent or minimize exposure to contaminants of concern through inhalation, direct contact or ingestion, and to prevent or minimize cross-media impacts from contaminants of concern in soil/sediments to underlying groundwater.

To achieve the remedial action objectives, soil cleanup levels of 24 milligrams/kilogram (mg/kg) for arsenic, 400 mg/kg for lead, and 5 picocuries per gram (pCi/g) for thorium-232 and radium-226 were established. Because of the limited presence of polychlorinated biphenyls (PCBs) at one parcel at the Site (Parcel B), the selected remedy called for the removal of PCB-contaminated soil that exceeded 1 mg/kg in surface soil or 10 mg/kg at depths greater than two feet. The remedy selected in the 1999 ROD also included institutional controls to restrict the future use of the former Li Tungsten facility property and portions of the Captain's Cove

property. Some of these institutional controls were modified in 2005 (see text below regarding the 2005 ESD). The remedial action reports and the preliminary close out report for the Site indicate that the construction of the remedial action for the Site has been completed, although institutional controls selected as part of the remedy have not yet been implemented.

During the implementation of the remedial actions at the Site, EPA determined that excavation of some arsenic-contaminated soil and, to a lesser extent, lead-contaminated soil along the western and eastern edge of Lower Parcel C and the southern portion of Parcel A was infeasible because of the existing utilities and infrastructure. These areas with residual soil contamination, referred to as “red flag” areas, are present within the immediate area of the fence line on the former Li Tungsten property (e.g., along two storm drain systems as well as underground electric and natural gas services) and in close proximity to the bulkhead in place along the Glen Cove Creek.

The “red flag” areas were identified as areas that would need institutional controls to ensure that future development would take residual contamination into account in managing excavations and soil in these areas. The contamination in these “red flag” areas was also found to be at depths below the top two feet, and, therefore, it was determined that receptors were unlikely to be exposed unless digging occurred in these areas. However, recent sampling by the proposed developer of the Site and by EPA indicates that some additional residual soil, in particular in Lower Parcel C and Parcel A of the Li Tungsten facility property, exceed the 1999 ROD cleanup levels. Specifically, the sampling investigation revealed more arsenic, and, to a limited extent, lead contamination outside the “red flag” areas than had been identified on Lower Parcel C and on Parcel A. The sampling also identified petroleum-contaminated soil on Parcel A that is being addressed under the NYSDEC Spills program. The recent sampling investigation did not reveal any contamination in excess of the radiological cleanup levels.

Contamination can migrate from soil into the groundwater. While the groundwater quality has continued to improve subsequent to the implementation of the soil remedy selected in the 1999 ROD, arsenic concentrations detected in groundwater at one area of the Site, beneath Lower Parcel C, still exceed the drinking water standard. The cleanup levels selected in the 1999 ROD for arsenic and lead were based upon the more conservative measure of direct-contact exposure and not on impact to groundwater. For this Proposed Plan, EPA and NYSDEC investigated whether implementing further actions with an alternate “impact-to-groundwater” cleanup level for arsenic and lead was feasible.

After further assessing the cross-media impacts from contaminants of concern in soil/sediments to underlying groundwater, EPA and the NYSDEC developed Site-specific impact-to-groundwater (IGW) cleanup levels (discussed in more detail below) of 175 mg/kg for arsenic and 660 mg/kg for lead that if achieved EPA believes will be protective of groundwater. EPA has determined that the strategy of removing additional contaminated soil above the arsenic and lead IGW soil cleanup levels will further improve the groundwater quality and potentially result in achieving the drinking water standard for arsenic. The City of Glen Cove’s plan to restrict the use of the Lower Parcel C property to commercial use and to provide and maintain a cover at the Site of either 2 feet of clean soil with an underlying demarcation layer or above ground structures, such as buildings, pavement, and sidewalks, will further reduce the potential for human exposure to residual remaining contamination.

Accordingly, in this Proposed Plan, EPA is proposing as the preferred remedy the additional excavation and off-site disposal of the identified contaminated soil at the former Li Tungsten facility property above levels that exceed the arsenic and lead IGW soil cleanup levels (with limited exceptions, e.g., for some pockets of contamination near an existing gas line, or below the water table). Under the Proposed Plan, institutional controls would be used to ensure that future Site uses/development activities take residual contamination into account.

ESD - This Proposed Plan also includes an ESD with respect to EPA's final designation of appropriate uses for two parcels at Operable Unit 1 (the Li Tungsten Facility Property) of the Site. In accordance with Section 117(c) of CERCLA and Section 300.435(c)(2)(i) of the NCP, if EPA selects a remedial action and, thereafter, determines that there is a significant, non-fundamental change to that action, it must publish an ESD and indicate the reasons for the change. In this Proposed Plan, EPA announces that the anticipated future land use for Parcel A will be changed from commercial/light industrial to residential with restrictions through institutional controls (such restrictions would not allow single family housing but would accommodate multifamily condominiums and apartment buildings), and the use of Lower Parcel C will revert to commercial/light industrial from residential with restrictions.

EPA has previously issued two ESDs documenting significant changes to the 1999 ROD for the Site. The first was issued in November 2002 and addressed the significant increase in the volume of soil that required excavation and off-site disposal. The second, issued in May 2005, re-evaluated the 1999 ROD's cleanup criteria in order to address the City of Glen Cove's decision to revise the Glen Cove Creek waterfront revitalization plan to include residential future use of the Site. EPA determined that, in order for the remedy to be protective of residential use, the ROD's radiation cleanup levels for radium and thorium needed to be changed. For thorium, the cleanup level was lowered from 5 pCi/g for the thorium-232 isotope to 5pCi/g for the sum of two isotopes, thorium-230 and thorium-232. Similarly, the radium cleanup goal was changed from 5 pCi/g for radium-226 to 5 pCi/g for the sum of radium-226 and radium-228. The ESD also stated that naturally occurring levels of these substances were present, and that these cleanup levels were for exceedances of naturally occurring levels. The arsenic and lead criteria were determined to be sufficiently protective of future residential use with institutional controls and were not revised.

The 2005 ESD described the impact of the changes in the radiation cleanup criteria on areas previously

excavated in conformance with the 1999 ROD, as revised by the 2002 ESD. After reviewing post-excavation confirmatory results, EPA was satisfied that the previous excavations had met the new radioactive cleanup criteria, as well as the existing heavy metals criteria, and concluded that, with the exception of Parcel A, the implemented remedy was sufficiently protective of future residential use. In the 2005 ESD, EPA reserved judgment on the residential future use of Parcel A because of the possibility that contaminants other than those included in the ROD's cleanup criteria could pose a threat to future residential populations.

The City of Glen Cove recently made a renewed request to EPA to allow for residential future use, with restrictions, of Parcel A because of a change in future anticipated use in the area, as memorialized in the Garvies Point Mixed-Use Waterfront Development plan. Under this plan, the Glen Cove Industrial Development Agency (IDA) intends to redevelop the Site, to include both commercial and residential future uses. Commercial use (e.g., an on-slab parking garage) is envisioned for Lower Parcel C. The City has revised its zoning code accordingly. This ESD takes into consideration the implemented remedy selected in the 1999 ROD, as revised by the 2002 and 2005 ESDs, as well as additional sampling activity and the recent removal of contamination at Parcel A. EPA has chosen to issue this third ESD as part of this Proposed Plan, to announce the change in land use from commercial/light industrial to residential for Parcel A, as well as to reaffirm that, by reverting the use of Lower Parcel C to its original commercial/light industrial land use from residential, the remedy would still be protective of human health.

This Proposed Plan and associated ESD were developed by EPA in consultation with NYSDEC. EPA is issuing this Proposed Plan as part of its public participation responsibilities under Section 117(a) of CERCLA, 42 U.S.C. § 9617(a), and Section 300.430(f)(2) of the NCP, to inform the public of EPA's preferred changes to the remedy selected in the 1999 ROD and to solicit public comments pertaining to the remedial alternatives evaluated. The preferred alternative is described in this Proposed Plan. Changes to the preferred alternative may be made if public comments or

additional data indicate that such a change will result in a more appropriate remedial action. The final decision regarding the selected amendment to the 1999 ROD will be made after EPA has taken into consideration all public comments. EPA is soliciting public comment on both of the alternatives considered because EPA may select either alternative.

Mark Your Calendar

June 1, 2016 – July 1, 2016: Public comment period on the Proposed Plan.

June 13, 2016 at 7:00 P.M.: Public meeting at the Robert M. Finley Middle School Wunsch Center, 1 Forest Avenue, Glen Cove, NY 11542

COMMUNITY ROLE IN SELECTION PROCESS

EPA relies on public input to ensure that the concerns of the community are considered in selecting an effective remedy for each Superfund site. Similarly, EPA relies on public input when proposing fundamental changes to a remedy previously selected. To this end, this Proposed Plan and all reports referenced herein have been made available to the public for a public comment period which begins on June 1, 2016 and concludes on July 1, 2016.

Comments received at the public meeting, as well as written comments received during the public comment period, will be documented in a Responsiveness Summary section of the ROD Amendment, the document which formalizes the selection of the remedy.

Written comments on this Proposed Plan should be addressed to:

Lorenzo Thantu
Remedial Project Manager
Eastern New York Remediation Section
U.S. Environmental Protection Agency
290 Broadway, 20th Floor
New York, New York 10007-1866

Telefax: (212) 637-3966

Email: thantu.lorenzo@epa.gov

SITE REPOSITORIES

Copies of the Proposed Plan and supporting documentation are available at the following information repositories and at

<https://www.epa.gov/superfund/li-tungsten>

Glen Cove Public Library
Reference Section
4 Glen Cove Avenue
Glen Cove, New York 11542
(516) 676-2130

Hours: Monday - Thursday, 9:00 am-9:00 pm

Friday - Saturday, 9:00 am-5:00 pm

Sunday, 1:00 pm-5:00 pm

And

United States Environmental Protection Agency
Superfund Records Center
290 Broadway, 18th Floor
New York, New York 10007-1866
By Appointment: (212) 637-4308
Hours: Monday - Friday, 9:00 am - 5:00 pm

SCOPE AND ROLE OF ACTION

Site remediation activities are sometimes segregated into different phases, or operable units (OUs), so that remediation of different environmental media or areas of a site can proceed separately, resulting in an expeditious remediation of the entire site. EPA has designated four operable units for the Li Tungsten Site as follows:

Operable Unit 1 (OU 1) - the Li Tungsten Facility Property

Operable Unit 2 (OU 2) – portions of the Captain's Cove Property

Operable Unit 3 (OU 3) – Building Contamination

Operable Unit 4 (OU 4) – Glen Cove Creek

The primary objective of this Proposed Plan is to present an amendment to the 1999 ROD for the Site. The 1999 ROD addressed contaminated soil and groundwater for OU 1 and for areas impacted by radiological contamination as well as arsenic and lead from the Li Tungsten facility at OU2. The amendment presented in this Proposed Plan addresses only the OU 1 soil remedy of the 1999 ROD, specifically, contamination left behind in

some of the “red flag” areas and recently-identified metals-contaminated soil. The implementation of the 1999 selected remedy for OU 2 adequately addressed the radiological contamination at Captain’s Cove. An institutional control in the form of an environmental easement is anticipated to be conveyed to NYSDEC which will contain various restrictions on both the former Li Tungsten property and those portions of the Captain’s Cove property where EPA required work to be performed.

There were two other OUs, OU 3 and OU 4, identified for the Site, which are not changed by this amendment. OU3 was intended to address radioactive contamination in buildings. A ROD was not selected for OU3 because, in 1998, EPA decided to address the radioactive contamination in buildings as part of an EPA removal action. OU4, the Glen Cove Creek, was addressed by a 2005 ROD for the Site. The remedy selected in the 2005 ROD, which involved remedial dredging and removal of radioactive hot spots in the Creek, has been completed. **Figure 1** shows OU 1, OU 2, and OU 4.

SITE BACKGROUND

Site Description and History

The Site is located in the City of Glen Cove, Nassau County, New York (**Figure 2**). It consists of the former Li Tungsten facility property primarily contaminated with metals-contaminated and, to lesser degree, radiologically contaminated materials, the radiologically contaminated portions of the Captain’s Cove property, and nearby areas where radiologically contaminated materials associated with the former Li Tungsten facility came to be located, including portions of Glen Cove Creek.

The Captain’s Cove Property is located west of the Li Tungsten Property on Garvies Point Road, and both are located on the north shore of Glen Cove Creek.

The processing of tungsten and other metals began at the Li Tungsten facility in 1942 and ended in 1985. Operations consisted mainly of processing tungsten ore concentrates and scrap metal

containing tungsten into ammonium paratungstate, and formulating ammonium paratungstate into tungsten powder and tungsten carbide powder. The Captain’s Cove property was formerly used as a general dump site for various users for the disposal of incinerator ash, sewage sludge, rubbish, household debris, dredged sediment from Glen Cove Creek, and industrial wastes, including wastes from the Li Tungsten facility, from the 1950s to the late 1970s. The property was purchased in 1983 for development as a residential condominium project. Development efforts were abandoned in the mid-1980s when the NYSDEC designated the Captain’s Cove property as a State Superfund site.

In October 1992, the Site was placed on the National Priorities List, which is a list of releases promulgated under Section 105 of CERCLA, 42 U.S.C. § 9605. In 1993, EPA initiated a Remedial Investigation and Feasibility Study (RI/FS) to define the nature and extent of contamination on Parcels A, B and C of the former Li Tungsten facility property (OU 1). Later, in 1995, EPA expanded the Site definition to include the two radiologically contaminated waste areas A and G at the Captain’s Cove property (OU 2). It should be noted that areas A and G comprised a small portion of the Captain’s Cove property, which is a New York State Superfund Site. EPA’s RI/FS of the former Li Tungsten facility property and portions of the Captain’s Cove property revealed that many contaminants were left behind on the properties as a result of prior Site practices. These contaminants posed a risk to human health and the environment. The primary contaminant categories of concern at the Site were determined to be radionuclides and heavy metals associated with spent ore residuals/slag.

The Glen Cove Creek area has been industrialized since the mid-1800s. The immediate area now includes light industry, commercial businesses, a sewage treatment plant, a County public works facility, and State and federally designated hazardous waste sites and Brownfield properties. Other land uses in the vicinity of the Glen Cove Creek area include marinas, yacht clubs, beaches, and the Garvies Point Preserve. There are residences within 100 feet of the Li Tungsten property, along Janet Lane and The Place, and

within 1,000 feet of the Captain's Cove property, on McLoughlin Street.

The City of Glen Cove, which has been designated as an EPA Brownfields Showcase Community, has been working to implement its 1998 Glen Cove Creek Revitalization Plan involving more than 200 acres surrounding the Creek. The Revitalization Plan projected the future use of the area as commercial redevelopment, featuring shops, restaurants, parking facilities, museums, and a hotel/conference center. The Glen Cove IDA has entered into an agreement to purchase most of the Site with the Site's proposed developer, RXR Glen Isle Partners, LLC (RXRGIP), and the IDA has revised the Revitalization Plan to include residential development. The City requested that EPA assess whether Site conditions were protective for residential development, with restrictions, of portions of the Li Tungsten Site, including Parcel A, Parcel B, and the Captain's Cove properties, because of the IDA and the City's desire to modify the anticipated future use of portions of the Site.

Site Geology/Hydrogeology

There are two discrete aquifers in the Glen Cove region - the Upper Glacial and the Lloyd Aquifers. In 1978, the aquifer system underlying Nassau and Suffolk Counties was designated a sole source aquifer by EPA in order to safeguard the capability of these aquifers to provide potable drinking water.

The Upper Glacial Aquifer, which is not a source of potable water in the vicinity of the Site, consists of permeable deposits that occur below the water table. The water table at the Site occurs from mean sea level (MSL) to approximately 60 feet above MSL. Recharge is entirely from precipitation, occurring mostly during the late fall and winter when plant growth is dormant. Regionally, shallow groundwater discharges to streams, springs, and the Long Island Sound and its harbors. No connection or discharge from the Upper Glacial Aquifer to the deeper Lloyd Aquifer exists in the Site area.

Groundwater movement in the Upper Glacial Aquifer is generally to the south, with shallow discharge to Glen Cove Creek.

The clay member of the Raritan Formation is a confining, or relatively impermeable, unit that overlies the Lloyd Aquifer. The Port Washington unit occurs above, and is contiguous with, the clay member in many places. Together, these units form an effective confining unit separating the Lloyd Aquifer from the Upper Glacial Aquifer in the Glen Cove region. Glen Cove's municipal water supply system taps the deeper Lloyd Aquifer in excess of 250 feet below MSL.

1999 Selected Remedy

As mentioned above, based on the results of the RI/FS, EPA issued a ROD in 1999 in which it selected a remedy for OU 1 (Parcels A, B and C of the former Li Tungsten facility property) and OU 2 (Areas A and G at the Captain's Cove property) for the Site (see **Figure 3**). The selected remedy primarily consists of excavation of soil and sediment contaminated above cleanup levels, segregation of radionuclide-contaminated soil and non-radionuclide soil contaminated with heavy metals, and off-site disposal of all contaminated soil at appropriately licensed facilities. The cleanup levels specified in the 1999 OU 1 ROD were as follows:

| Parameter (In Soil) | 1999 ROD Cleanup Levels |
|---------------------|---|
| Arsenic | 24 mg/kg |
| Lead | 400 mg/kg |
| PCBs | 1 mg/kg in Surface Soil (0 – 2 feet below ground surface) or 10 mg/kg at Depths Greater than Two Feet |
| Thorium-232 | 5 pCi/g ¹ |
| Radium-226 | 5 pCi/g ¹ |

¹ The cleanup levels originally developed in the 1999 ROD do not include the naturally occurring background radiation of each radionuclide, i.e., approximately 1 picocuries per gram (pCi/g). As described above, the May 2005 ESD revised radiation cleanup levels for radium and thorium in order for the 1999 remedy to be protective of restricted residential use. For thorium, the

cleanup level was lowered from 5 pCi/g for the thorium-232 isotope to 5pCi/g for the sum of two isotopes, thorium-230 and thorium-232. Similarly, the radium cleanup goal was changed from 5 pCi/g for radium-226 to 5 pCi/g for the sum of radium-226 and radium-228.

The selected remedy for groundwater was no action, other than a long-term monitoring program to assess the recovery of the Upper Glacial Aquifer after the soil remedy was implemented.

Remedial activities for OU 1 and OU 2 (as well as the OU 4 remedy, which has been implemented consistent with the requirements set forth in the 2005 ROD) were determined to be complete in their respective remedial action reports, although the implementation of all necessary institutional controls required in the Site remedies have not yet been put in place.

Implementation of the 1999 Selected Remedy

OU 1 - Former Li Tungsten Facility: Soil with contaminant levels that exceeded cleanup standards was excavated on Parcel A and Lower Parcel C by EPA. A total of 528 cubic yards (cy) of soil exceeding radiation criteria were excavated and staged in the Dickson Warehouse for future off-site disposal. In addition, 2,295 tons of nonradioactive soil exceeding heavy metals criteria was excavated and disposed of off Site at a licensed Resource Conservation and Recovery Act (RCRA) Subtitle D facility. As noted above, some areas of soil contaminated with arsenic (or, less frequently, lead) above cleanup levels ("red flag" areas) were left in place because of their proximity to storm drain systems and underground electric and/or natural gas services. In addition, some arsenic and, to a lesser degree, lead contamination present in saturated soil below the water table was not targeted for excavation. These "red flag" areas were identified as areas that would need institutional controls to ensure that future development would take residual contamination into account in managing excavations and soil in these areas.

In the spring of 2004, a potentially responsible party, TDY Industries, Inc. (TDY), emptied the contents of the Dickson Warehouse by properly disposing of 5,180 tons of radiologically contaminated waste materials staged inside. TDY also excavated and disposed of 3,530 tons of contaminated soil from upper Parcel C. In addition, EPA razed all buildings on Parcel A, with the exception of the Loung building, which EPA determined to be structurally stable and

uncontaminated. EPA also performed storm sewer and sump clean-out, and closed the industrial well on Parcel A.

TDY re-mobilized to the Site in June 2006 to complete the remedial work for OU 1. The prior excavated nonradioactive, heavy metals-contaminated soil was properly disposed of. Other contaminated waste streams, i.e., radiologically contaminated soil, soil considered hazardous under the RCRA, and PCB-contaminated soil, was staged in the Dickson Warehouse on Parcel C for specialized handling and disposal. TDY completed all excavation work in July 2007. TDY then re-mobilized to the Site in November 2007, to perform additional work including proper disposal of the stockpiled radiologically contaminated, RCRA-hazardous, and PCB-contaminated soil staged in the Dickson Warehouse, as well as decontamination of the warehouse itself. The decontamination of the Dickson Warehouse was completed in July 2008.

All buildings on the former Li Tungsten facility property have since been demolished, including the former Dickson Warehouse and Benbow Building on Parcel C and the former Loung Building on Parcel A. In addition, subsurface petroleum fuel tanks and associated petroleum-contaminated soil, which were found on Parcel A during the developer's subsurface investigation, have been removed under the NYSDEC Spills program.

OU 2 – Captain's Cove: An estimated 112,000 tons of soil with exceedances above the cleanup levels was excavated, segregated, and staged by EPA between 2001 and 2003. EPA segregated waste soil on Site into stockpiles of radiologically contaminated and non-radiologically contaminated soil, as well as a concrete and wood debris. On behalf of the EPA, the U.S. Army Corps of Engineers (USACE) then mobilized to Captain's Cove to commence stockpile load-out, transportation, and disposal activities in February 2005. The work was completed in 2006.

The selected remedy for Captain's Cove called for excavation, volume reduction, and off-site disposal of all radiologically contaminated /chemical wastes, consistent with the cleanup levels developed for the Site. Post-excavation sampling of the Captain's

Cove portion of the Site showed that the remedial action had attained original cleanup levels identified in the 1999 ROD and had also met the ESD-modified radionuclide criteria.

OU 1 and OU 2 – Groundwater: Sampling of groundwater during the remedial investigation indicated that radionuclides were generally at or below EPA and State maximum contaminant levels (MCLs), although several monitoring wells did reveal groundwater concentrations above MCLs for some metals (arsenic and lead). Alternatives for remediating the groundwater at the Li Tungsten facility were considered and a no action remedy with monitoring was selected in the 1999 ROD, based on the expectation that the attainment of EPA and State MCLs would result from the soil cleanup considering the sporadic and generally low-level nature of the inorganic soil contamination. While metals contamination was detected in groundwater at Captain's Cove during the RI, alternatives for remediation of groundwater at Captain's Cove were not developed because radionuclides were present at or below MCLs. The long-term groundwater monitoring program includes monitoring wells at Captain's Cove.

Groundwater monitoring in accordance with the ROD was initiated by TDY Industries, Inc. subsequent to the Court's entry of the 2007 Consent Judgment. As expected, the groundwater sampling data has indicated that, for the most part, metals concentrations in groundwater at the Li Tungsten facility have decreased significantly with the implementation of the soil remedial actions required by the 1999 ROD. Prior to the 1999 ROD, during the RI study, arsenic was detected at 14,500 micrograms per liter ($\mu\text{g/L}$) in 1996 at a monitoring well on Lower Parcel C. The Post-ROD groundwater monitoring network consists of five wells that were sampled quarterly from September 2008 to June 2009 and annually from 2010 to 2013. Samples were analyzed at a laboratory for metals (including contaminants of concern arsenic and lead), as well as Radium 226 and Thorium 232. Three of these wells are located on the Li Tungsten facility property; the other two are located on Captain's Cove. Two rounds of samples of the five wells were also collected by the EPA in January 2015 and February 2016. All monitoring results

reveal that radionuclides remain below MCLs. Well EMW-4 (22 feet deep) is located on Lower Parcel C. Arsenic concentrations above MCLs have varied during the monitoring period, ranging between 54 micrograms per liter ($\mu\text{g/L}$) (2008), to 510 $\mu\text{g/L}$ (2013), to 85 $\mu\text{g/L}$ (2016). Lead concentrations were also detected and ranged between 10.8 to 1.7 $\mu\text{g/L}$; however, all lead values are below the EPA Action Level of 15 $\mu\text{g/L}$. For the remaining two wells on the Li Tungsten facility property, well MP-6 on Parcel A and well PRA-7 on Parcel B, arsenic and lead concentrations have declined to either non-detect or below their respective MCLs and EPA Action Level.

OU 4 - Glen Cove Creek: On behalf of the EPA, USACE initiated on-site response activities in October 2006. Sediment from the Creek was dredged and dewatered on-site. In August 2007, work began to segregate radionuclide slag from the dewatered sediment. The segregation work typically involved spreading and radiologically scanning a "lift" of material spread out in a layer approximately 6 inches thick. Radiologically contaminated materials were removed from the sediment and stockpiled for off-site disposal. The final volume of scanned sediment was 31,374 cy. The slag was properly disposed of.

EPA re-mobilized to the Site in October 2007 to complete dredging of two isolated hot spots, designated 1 and 2, against the bulkhead on Parcel A, using a long-reach excavator from land to try to minimize the possibility of bulkhead collapse. After dredging, EPA rebuilt part of the bulkhead along Parcel A that had collapsed earlier. EPA completed this work in July 2008.

The Creek's navigational channel has been effectively cleared of radionuclides that could otherwise impact future navigational dredging operations. There is the potential that radiologically contaminated slag could still be present below the navigational dredging depth in the Creek channel. In addition, it is possible that radiologically contaminated slag may be present underwater in the sideslope of the Creek channel along the Parcel A bulkhead. Therefore, these areas have been identified as areas requiring restrictions on future activity through the use of institutional controls.

ADDITIONAL SOIL SAMPLING, IMPACT-TO-GROUNDWATER ASSESSMENT, AND ACTIONS BY OTHER PARTIES

The selected remedy for OU 1 and OU 2 in the 1999 ROD called for, among other actions, excavation of soil and sediment contaminated above cleanup levels, followed by replacement with clean backfill. During the various remedial activities, some areas were identified where arsenic and, to a lesser degree, lead were left in place in what were classified as “red flag” areas because the feasibility of addressing those soil in those locations was limited. Additional investigations were subsequently performed on Li Tungsten Parcels A and B and Lower Parcel C by the proposed developer, RXRGIP. These investigations identified soil contamination on Parcel A and Lower Parcel C in areas outside of those previously identified as “red flag” areas.

Future direct-contact exposure to the above-named areas can be managed through engineering and institutional controls, and EPA plans to manage some inaccessible material in place; however, to satisfy a remedial action objective of the 1999 ROD, EPA and NYSDEC have also reevaluated the cross media impacts of Site soil to groundwater. Based upon groundwater monitoring performed to date, actions to address soil has led to achieving MCLs in most of the Upper Glacial Aquifer, as anticipated in the 1999 ROD, except as noted above. The cleanup levels selected in the 1999 ROD for arsenic and lead were based upon the more conservative measure of direct-contact exposure and not on impact to groundwater. For this Proposed Plan, EPA and NYSDEC investigated whether implementing further actions with an alternate “impact-to-groundwater” cleanup level for arsenic and lead was feasible, as discussed below.

EPA and the NYSDEC decided to assess the potential for cross media impacts of Site soil to groundwater utilizing a test method called the Synthetic Precipitation Leaching Procedure (SPLP). The SPLP test exposes soil to a liquid simulating environmental precipitation and measures the amount of a contaminant that migrates through the soil with the liquid as it passes through the media.

Site soil contaminated with arsenic and lead were subjected to the SPLP method. The SPLP test results, and EPA, NYSDEC, and New Jersey Department of Environmental Protection guidance on development of site-specific, impact-to-groundwater cleanup criteria were reviewed. Specific characteristics of the Site and the Site-specific SPLP testing led EPA to conclude that Site soil that contained less than 175 mg/kg of arsenic and 660 mg/kg of lead would not have a significant impact on groundwater.

To better define the extent of residual contamination on Lower Parcel C, EPA performed additional soil sampling in August 2015 and May 2016. EPA assessed the results of the Lower Parcel C sampling event as well as all the recent data to determine how best to address the residual contamination.

The Lower Parcel C soil sampling results revealed seven locations where arsenic and lead contamination in soil exceeded the aforementioned levels of 175 mg/kg and/or 660 mg/kg, respectively. The most significant contamination was found in the “red flag” areas, thus some of these elevated concentrations may still be subject to the same limitations that curtailed the earlier remedial action. An estimated 8,500 cy of contaminated soil exceeding the 175 mg/kg level for arsenic and 660 mg/kg level for lead, is expected to be accessible and feasible for excavation and disposal off-site.

RXRGIP, the proposed developer of the Site, has initiated several investigatory actions voluntarily in anticipation of acquiring portions of the Site. As part of the Garvies Point Mixed-Use Waterfront Development plan, RXRGIP intends to implement a pre-closing response action that will result in the removal and off-site disposal of identified soil contamination that exceeds levels of 175 mg/kg for arsenic and 660 mg/kg for lead on Parcel A, with the exception of one area that is anticipated to be addressed if the current plans for the development of a marina, which is another component to the Development plan, are implemented. RXRGIP will also remove a small area of PCB-contaminated soil that had become exposed on Parcel B. Should the marina not be developed, institutional and engineering controls would be implemented to

ensure protection of human health and the environment.

Principal Threat Waste: The NCP establishes an expectation that EPA will use treatment to address the principal threats posed by a site wherever practicable (NCP Section 300.430(a)(1)(iii)(A)). The "principal threat" concept is applied to the characterization of "source materials" at a Superfund site. A source material is material that includes or contains hazardous substances, pollutants, or contaminants that act as a reservoir for migration of contamination to groundwater, surface water, or air, or acts as a source for direct exposure. Principal threat wastes are those source materials considered to be highly toxic or highly mobile that generally cannot be reliably contained or would present a significant risk to human health or the environment should exposure occur. The decision of if or how to treat these wastes is made on a site-specific basis through a detailed analysis of the alternatives using the nine remedy selection criteria. This analysis provides a basis for making a statutory finding that the remedy employ treatment as a principal element.

As a potential ongoing source of groundwater contamination, the arsenic- or lead-contaminated soil exceeding the aforementioned IGW criteria would each be considered a principal threat waste. Evaluation of treatment of metals-contaminated soil was considered as part of the original RI/FS that led to the 1999 ROD, using the slightly more conservative direct-contact cleanup levels as the point of departure for treatment. Treatment of metals-contaminated soil (as opposed to excavation and off-site disposal) was considered but not selected in 1999, and no further evaluation of treatment was deemed appropriate for the relatively small action under consideration here².

REMEDIAL ACTION OBJECTIVES

Remedial action objectives (RAOs) are specific goals to protect human health and the environment. These objectives are based on available information and standards, such as applicable or

relevant and appropriate requirements (ARARs), site-specific, risk-based levels, and the most reasonably anticipated future land use for a site.

This proposed amendment does not change the RAOs identified in the 1999 ROD. As such, RAOs for this proposed remedy modification are as follows:

- Prevent or minimize exposure to contaminants of concern through inhalation, direct contact or ingestion.
- Prevent or minimize cross-media impacts from contaminants of concern in soil/sediments to underlying groundwater.

The arsenic and lead cleanup levels for direct-contact exposure have not changed since the 1999 ROD, though the expected land use has changed several times, and is changing again under the most recent development plans, as discussed in the "Description of Significant Differences and the Reasons for those Differences" section of this document (see page 15).

This Proposed Plan identifies new IGW cleanup levels of 175 mg/kg for arsenic and 660 mg/kg for lead, to address remaining soil at the Site that is contaminated with arsenic and lead and may pose an ongoing threat to groundwater.

The Upper Glacial Aquifer is not currently being used. EPA expects to continue to assure the protectiveness of the 1999 remedy as it pertains to groundwater by assuring that the aquifer is not used for drinking water until MCLs are achieved. In support of this approach, EPA expects to continue to rely on the existing Nassau County Public Health Ordinance Article 4, which prohibits the installation of new private potable water systems in areas served by a public water supply, and it effectively preclude any future potable water well installations. The City currently provides potable water to the affected area. Furthermore, EPA notes that there is evidence of saltwater intrusion on the Upper Glacial

² The physical segregation of radiologically contaminated slag, performed consistent with the 1999 ROD as described in this document, is considered

treatment and satisfies CERCLA's preference for remedies that include treatment as a principal element.

Aquifer, which limits the suitability of the aquifer as a potable water resource.

SUMMARY OF REMEDIAL ALTERNATIVES

Section 121(b)(i) of CERCLA, 42 U.S.C. § 9621(b)(1), requires that each selected site remedy be protective of human health and the environment, be cost effective, comply with ARARs, and utilize permanent solutions, alternative treatment technologies, and resource recovery alternatives to the maximum extent practicable. In addition, CERCLA includes a preference for the use of treatment as a principal element for the reduction of toxicity, mobility, or volume of the hazardous substances.

EPA has developed this Proposed Plan to evaluate the following two soil remedial alternatives for the former Li Tungsten facility property portion of the Site: (1) No Further Action, and (2) Additional Excavation and Off-Site Disposal of Metals-Contaminated Soil.

The alternatives for addressing remaining soil contamination on Parcel A and Lower Parcel C of the former Li Tungsten facility property are provided below and are identified as LS-1 and LS-2. The components of the original Alternative, the implemented soil remedy selected in the 1999 ROD, resulted in the cleanup of soil exceeding concentrations of 24 mg/kg for arsenic and 400 mg/kg for lead in soil and subsurface soil except in red flag areas. Alternative LS-1 in this Proposed Plan, which was developed based upon existing Site circumstances, does not require any additional active remediation of residual soil above the arsenic and lead cleanup numbers. LS-2 does require additional active remediation of the residual contamination. However, it differs from the remedy selected in the 1999 ROD in that it uses two distinct cleanup numbers for the nonradiological metals of concern: one cleanup number to protect against exposures to contamination in surface soil and a second cleanup number to address cross-media impacts from subsurface soil to groundwater. LS-2 utilizes the same cleanup levels of 24 mg/kg arsenic and 400 mg/kg for lead to protect against exposure to contaminants in surface soil (0 – 2 feet below ground surface), but in addition utilizes a second set

of Site-specific numbers of 175 mg/kg for arsenic and 660 mg/kg for lead in subsurface soil to minimize cross-media impacts from these contaminants in subsurface soil to groundwater. In addition, as stated above, the City of Glen Cove's plan to provide and maintain a cover at the Site of either 2 feet of clean soil with an underlying demarcation layer or structures, such as buildings, pavement, and sidewalks, will further reduce the potential for human exposure to residual remaining contamination.

It should be noted that the selected groundwater remedy in the 1999 ROD was no action other than a long-term groundwater monitoring to assess the recovery of the Upper Glacial Aquifer at the Li Tungsten facility, and it remains unchanged.

Alternative LS-1: No Further Action

| | |
|--|----------------|
| Capital Cost | \$0 |
| Annual Operation and Maintenance (O&M) Cost: | Not Applicable |
| Present Worth Cost | Not Applicable |
| Construction Time | Not Applicable |

The No Further Action Alternative would not include any additional measures to address residual soil contamination that currently acts as an ongoing source to groundwater. It would rely on natural processes of dispersion to continue to lower groundwater concentrations to below MCLs.

Institutional controls can be relied upon to ensure that future development will not result in unacceptable direct-contact exposures to metals-contaminated soil. Specifically, institutional controls would consist of an environmental easement that would memorialize restrictions associated with residential land use with restrictions for areas other than Lower Parcel C, which would be restricted to commercial/light industrial use (see ESD section below), groundwater use controls (i.e., restriction of the use of the Upper Glacial Aquifer as a source of water), compliance with an approved

Site Management Plan (SMP), and periodic certifications.

Plans to develop the Site include the placement of either a minimum of 2 feet of clean soil cover with an underlying demarcation layer, or the placement of structures (i.e., buildings, pavement, and sidewalks), over the entire Site property. The SMP would require the maintenance of this cover.

Other aspects of the 1999 ROD would remain unchanged and in place, such as ongoing monitoring of groundwater until MCLs are reached. Because this alternative would result in contaminants remaining on Site above health-based levels, CERCLA would require that the Site be reviewed every five years.

Alternative LS-2: Excavation and Off-Site Disposal of Metals-Contaminated Soil

| | |
|--------------------|-------------|
| Capital Cost | \$2,500,000 |
| Annual O&M Cost: | \$32,000 |
| Present Worth Cost | \$3,200,000 |
| Construction Time | 4 Months |

Under this alternative, Site soil exceeding the 175 mg/kg arsenic and 660 mg/kg lead IGW cleanup levels would be excavated and disposed of off Site at appropriately licensed disposal facilities. It is estimated that 8,500 cy would be removed, all from Lower Parcel C. The City of Glen Cove's plan to provide and maintain a cover at the Site of either 2 feet of clean soil with an underlying demarcation layer or structures, such as buildings, pavement, and sidewalks, will also further reduce the potential for human exposure to residual remaining contamination. In addition, the potential for soil vapor intrusion into buildings constructed on- Site in the future will be evaluated, including evaluating the need to perform actions recommended to address exposures related to soil vapor intrusion.

The engineering and institutional controls described under Alternative LS-1 would also be implemented to ensure that future development for residential land use with restrictions for areas other than Lower

Parcel C, which would be restricted to commercial/light industrial use (see ESD section below), take residual contamination into account in managing excavations and soil in these areas. Groundwater monitoring would continue until MCLs are achieved, consistent with the 1999 ROD.

Because this alternative would result in contaminants remaining on Site above levels that would allow for unrestricted use and unlimited exposure, CERCLA would require that the Site be reviewed every five years.

EVALUATION OF ALTERNATIVES

In selecting a remedy for a site, EPA considers the factors set forth in CERCLA §121, 42 U.S.C. §9621, by conducting a detailed analysis of the viable remedial alternatives pursuant to the NCP, 40 C.F.R. §300.430(e)(9), and OSWER Directive 9355.3-01. The detailed analysis consists of an assessment of the individual alternatives against each of nine evaluation criteria and a comparative analysis focusing upon the relative performance of each alternative against those criteria.

- Overall protection of human health and the environment addresses whether a remedy provides adequate protection and describes how risks posed through each exposure pathway (based on a reasonable maximum exposure scenario) are eliminated, reduced, or controlled through treatment, engineering controls, or institutional controls.
- Compliance with applicable or relevant and appropriate requirements addresses whether a remedy would meet all of the applicable or relevant and appropriate requirements of federal and state environmental statutes and regulations or provide grounds for invoking a waiver.
- Long-Term effectiveness and permanence refer to the ability of a remedy to maintain reliable protection of human health and the environment over time, once cleanup goals have been met. It also addresses the magnitude and effectiveness of the measures that may be required to manage the risk posed by treatment residuals and/or untreated wastes.

- Reduction of toxicity, mobility, or volume through treatment is the anticipated performance of the treatment technologies, with respect to these parameters, a remedy may employ.
- Short-Term effectiveness addresses the period of time needed to achieve protection and any adverse impacts on human health and the environment that may be posed during the construction and implementation period until cleanup goals are achieved.
- Implementability is the technical and administrative feasibility of a remedy, including the availability of materials and services needed to implement a particular option.
- Cost includes estimated capital and operation and maintenance (O&M) costs, and net present-worth costs.
- State acceptance indicates whether, based on its review of the proposed plan, the State concurs with, opposes, or has no comment on the preferred remedy at the present time.
- Community acceptance will be assessed in the ROD Amendment, and refers to the public's general response to the alternatives described in the Proposed Plan.

Comparative Analysis of Alternatives

Overall Protection of Human Health and the Environment

Alternative LS-1, the No Further Action Alternative, would rely solely on previously selected and required institutional and engineering controls to ensure protection of human health and the environment by requiring that future development take residual contamination into account in managing excavations and soil in these areas. Since additional contaminated soil would not be removed, there would be no further measures to mitigate cross media impacts to groundwater and additional improvement to the aquifer. Alternative LS-1 depends instead on the past remedial actions, and time, to eventually meet MCLs throughout the aquifer.

Alternative LS-2 would be equally protective as LS-1 with regard to direct-contact hazards

associated with surface soil. It would also address contaminated soil in parts of the Site, with the effect of shortening the time until MCLs are reached. Both LS-1 and LS-2 rely on institutional controls for protectiveness until MCLs are reached.

Compliance with ARARs

Alternative LS-2 would have to comply with land disposal restrictions (LDR - 40 CFR Part 268) for the proper off-site disposal of any excavated wastes contaminated with certain heavy metals above LDR levels.

Alternative LS-1 would not expedite the improvement of arsenic concentrations in groundwater as it does not remove additional arsenic-contaminated soil that will continue to impact the groundwater for longer periods of time. Alternative LS-2 would utilize New York State's Air Guide-1 to ensure that there are no adverse air/particulate impacts to the surrounding community as a result of excavation and handling of contaminated soil. The removal of additional arsenic-contaminated soil that is impacting groundwater under Alternative LS-2 is expected to improve groundwater quality with respect to arsenic and would likely allow for the achievement of the drinking water standard for arsenic.

Long-Term Effectiveness and Permanence

Both Alternatives LS-1 and LS-2 would rely on the independently required implementation of institutional and engineering controls to ensure that future development does not expose users to unreasonable risk and takes residual contamination into account in managing excavations and soil in these areas.

While Alternative LS-1 would not include any additional physical remedial measures to address the soil contamination at the Site, Alternative LS-2 would result in a significant amount of metals-contaminated soil at the Site being permanently removed from the Site through excavation and disposal off Site at appropriately licensed disposal facilities.

Reduction in Toxicity, Mobility or Volume through Treatment

Alternative LS-1 would not provide any additional reduction of the toxicity, mobility, or volume of contaminants present at the Site. Alternative LS-2 would further reduce the toxicity, mobility, and volume of contaminants at the Site through excavation and off-site disposal of the identified metals-contaminated wastes exceeding the cleanup criteria. As discussed earlier, evaluation of treatment as opposed to excavation and disposal was not deemed worthwhile for addressing the conditions which remain at the Site.

Short-Term Effectiveness

The No Further Action Alternative LS-1 would not result in any adverse short-term impacts. Potential short-term Impacts would be associated with Alternative LS-2 because of the direct contact with soil by workers and through the potential for generation of dust during construction. Such impacts would be minimized through worker health and safety protective measures and dust suppression techniques such as covering waste piles and water spraying during dust generating activities. The vehicle traffic associated with Alternative LS-2 could result in temporary, short term impacts to the local roadway system and nearby residents through increased noise level and traffic. Proper protective equipment, air monitoring during construction, and soil handling procedures would minimize the short-term risks to workers and the surrounding community.

As discussed earlier, contaminant levels in groundwater decreased significantly after earlier soil remedial actions were performed. More recently, contaminant levels in several monitoring wells still exceed MCLs, and while the concentrations are relatively low, contaminant levels have been persistently elevated. It is unclear when, if ever, MCLs would be achieved under Alternative LS-1, because contaminated soil at concentrations likely to cause a persistent groundwater problem would be left in place. By contrast, Alternative LS-2 would remove additional soil contamination and is likely to shorten the time frame until MCLs are reached. Because of the

relatively low and sporadic concentrations remaining in groundwater, it is difficult to estimate the time frames needed before MCLs are reached. Alternative LS-1 may take several decades to reach MCLs in all monitoring wells, if MCLs are reached at all. Alternative LS-2 would be expected to achieve MCLs much more quickly, plausibly on the order of 10 years.

Implementability

Alternative LS-1 can be readily implemented, as it would not include any additional physical remedial measures to address the remaining soil contamination at the Site.

Alternative LS-2 would be easily implementable because it uses conventional excavation and disposal technologies with proven reliability. Note that the remaining areas contaminated in excess of the IGW cleanup levels are mostly in the “red flag” areas, directly adjacent to storm sewer systems, underground electric and natural gas services, and/or below the water table. Some of the limitations that curtailed earlier remedial actions near utilities are expected to also be a limiting factor for Alternative LS-2. Under Alternative LS-2, excavations would be expected to approach but in no way compromise existing utilities or infrastructure.

Cost

The estimated capital, annual O&M (including monitoring), and present-worth costs for the two alternatives are presented in the following Cost Comparison Table.

| Cost Comparison Table | | |
|-----------------------|----------------|-------------|
| Alternative | LS-1 | LS-2 |
| Capital Cost | \$0 | \$2,500,000 |
| Annual O&M Costs | Not Applicable | \$32,000 |
| Present Worth Cost | Not Applicable | \$3,200,000 |

State Acceptance

NYSDEC concurs with the preferred remedy.

Community Acceptance

Community acceptance of the preferred remedy will be assessed following review of the public comments received on the Proposed Plan.

PREFERRED ALTERNATIVE

Based upon an evaluation of the Alternatives LS-1 and LS-2, EPA and NYSDEC recommend **Alternative LS-2: Excavation and Off-Site Disposal of Metals-Contaminated Soil** for the contaminated soil at the former Li Tungsten facility. The preferred alternative would require excavation and off-site disposal of metals-contaminated soil that exceeds 175 mg/kg arsenic and 660 mg/kg lead IGW cleanup levels, with the exception of certain areas that are adjacent to storm sewer systems and underground electric and natural gas services, and/or below the water table. Approximately 8,500 cy of metals-contaminated soil are estimated to be present on Lower Parcel C that require removal. Post-excavation sampling would be required to ensure that soil cleanup levels have been met prior to backfilling the excavation areas. Excavated soil that neither exceed cleanup levels nor contain debris could be used as backfill. In addition, a minimum of two feet of clean fill would then be used to complete the backfilling to match the surrounding grade. As noted above, at least 2 feet of clean soil cover with an underlying demarcation layer, or structures such as buildings, pavement, and sidewalks, will be placed over the entire Site property as part of the development.

The preferred alternative would also rely upon the previously required implementation of institutional and engineering controls; these controls will also include evaluation of and implementation of mitigative actions to address soil vapor intrusion in future buildings developed on Site, to ensure that future development take residual contamination into account in managing excavations and soil in these areas.

Five-year reviews of the Site will continue to be required under the law to ensure the protectiveness of the remedy.

This amendment addresses only the OU 1 portion of the 1999 ROD, and specifically the cleanup levels established for subsurface soil contaminated with arsenic and lead. Direct-contact cleanup levels for arsenic and lead are unchanged. Likewise, cleanup levels for PCBs and radionuclides remain unchanged from those identified in the 1999 ROD, as modified in the 2005 ESD.

OU 2 areas identified for remediation comprised a portion of the Captain's Cove property. The implementation of the 1999 selected remedy for OU 2 adequately addressed the radiological contamination at Captain's Cove. EPA's remedial efforts for the radiological contamination at Captain's Cove are complete. As described above, the residual arsenic and lead contamination that was subsequently discovered in soil in the OU 2 portion of the Captain's Cove property will be addressed by the NYSDEC under its Superfund program. The selected groundwater remedy for the 1999 ROD, which is no action other than a long-term groundwater monitoring to assess the recovery of the Upper Glacial Aquifer at the Li Tungsten facility, remains unchanged.

The preferred alternative would result in an effective long-term, permanent remedy because metals-contaminated soil on the former Li Tungsten facility property that exceed cleanup levels, described above, would be disposed of in a licensed waste disposal facility. Implementation of the preferred alternative would result in significant benefit in the goal of achieving the drinking water MCL standard for arsenic and lead in a shorter time frame, and would also allow redevelopment of the Li Tungsten Superfund Site in substantial conformance with the City of Glen Cove's Revitalization Plan. The accelerated placement of these properties back into commercial and residential viability would also meet the primary objective of EPA's "Recycling Superfund Sites" initiative.

The preferred alternative would provide the best balance of trade-offs among alternatives with

respect to the evaluating criteria. EPA and NYSDEC believe that the preferred alternative would be protective of human health and the environment, would comply with ARARs, would be cost-effective, and would utilize permanent solutions to the maximum extent practicable.

DESCRIPTION OF SIGNIFICANT DIFFERENCES AND THE REASONS FOR THOSE DIFFERENCES

EPA selected its 1999 remedy in anticipation of the future use of the Site as envisioned in the City's 1998 Glen Cove Creek Revitalization Plan, namely commercial/light industrial use. As mentioned above, in the 2004 the City changed the zoning of uses of portions of the Site, and consequently in the 2005 ESD EPA re-evaluated the cleanup levels associated with the 1999 remedy as well as EPA's anticipated future uses in that decision document. EPA ultimately determined in the 2005 ESD that the 1999 ROD cleanup standards are protective of the newly proposed residential uses of the Site. The zoning of Parcel A of the Li Tungsten property was not changed at that time.

The City has since considered changing the permitted use of Parcel A to a mix of commercial and residential from its original commercial/light industrial use, as part of the Garvies Point Mixed-Use Waterfront Development plan. The IDA is now planning to redevelop the Site to include both commercial and residential future uses, public amenities and open space, and retail/restaurant/cultural space.

EPA made a determination in its 2005 ESD that Parcel A required further evaluation in regard to its being used for residential development because of the presence of organic contaminants in the soil and in the shallow groundwater beneath it. EPA's 1998 RI study indicated that semi-volatile organic compounds (SVOCs) were detected predominantly in the surface and subsurface soil on Parcel A. Based on further evaluation, EPA has determined that the majority of this localized SVOC contamination in soil on Parcel A is co-located with metals-contaminated soil that has or will be removed by RXRGIP in the above-referenced

response action being performed as part of the pre-closing redevelopment activities.

EPA and NYSDEC believe that the response action on Parcel A that RXRGIP is to perform, coupled with institutional controls and an SMP, will allow for an appropriate redevelopment of Parcel A, albeit with related restrictions. This expectation of EPA will be confirmed by confirmation sampling, the purpose of which will be to demonstrate that the metals-contaminated soil are removed as required herein. If this excavation is not performed, or if it is not performed to EPA's satisfaction, the conditions on Parcel A will be revisited by EPA.

As a result of the IDA's recent change in development plans for Lower Parcel C to commercial use (i.e., an on-slab municipal parking garage), EPA and NYSDEC have reassessed the new planned use of Lower Parcel C, which will revert to commercial/light industrial (as originally specified in the 1999 ROD) from residential (as specified in the 2005 ESD). EPA has determined that the selected remedy will be protective for this new land use.

NYSDEC supports the ESD changes identified in this document.

AFFIRMATION OF STATUTORY DETERMINATIONS

This Proposed Plan, which includes a proposed amendment to the 1999 ROD and an ESD, recognizes changes to a remedy that leaves hazardous substances, pollutants, or contaminants above levels that allow for unlimited use and unrestricted exposure. Pursuant to CERCLA Section 121 (c), EPA shall review such remedies no less often than every five years to assure that human health and the environment are protected. Three five-year reviews have been performed for the Site in August 2005, July 2010, and September 2015. A fourth five-year review will be completed before September 2020.

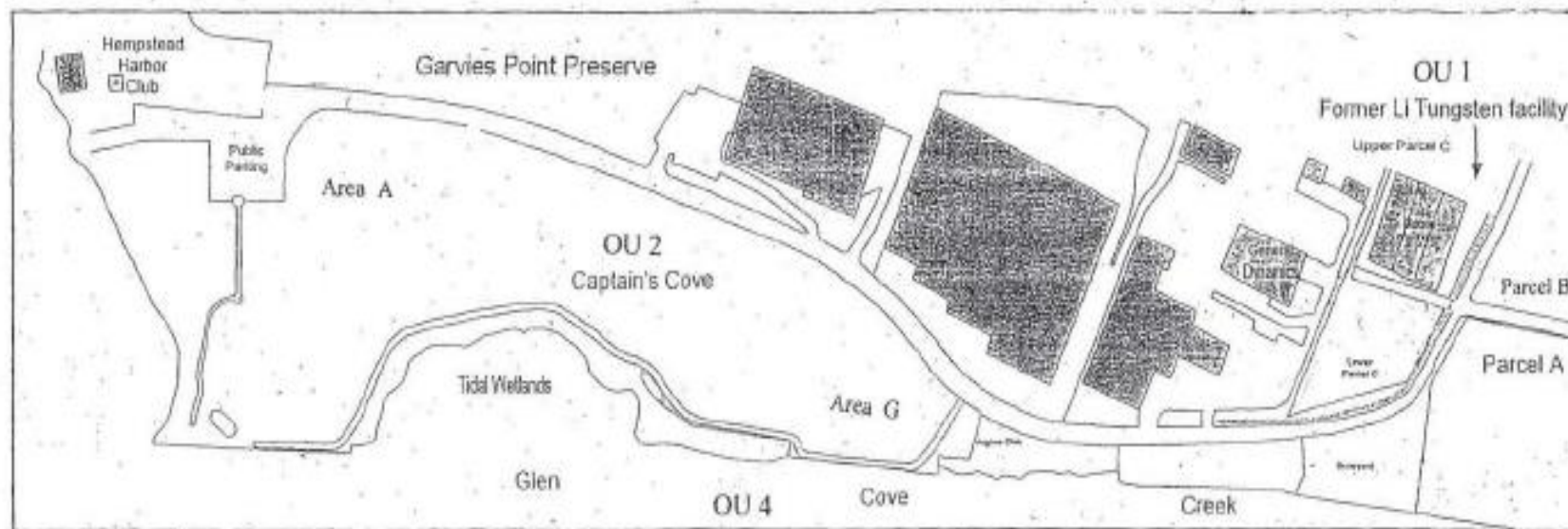
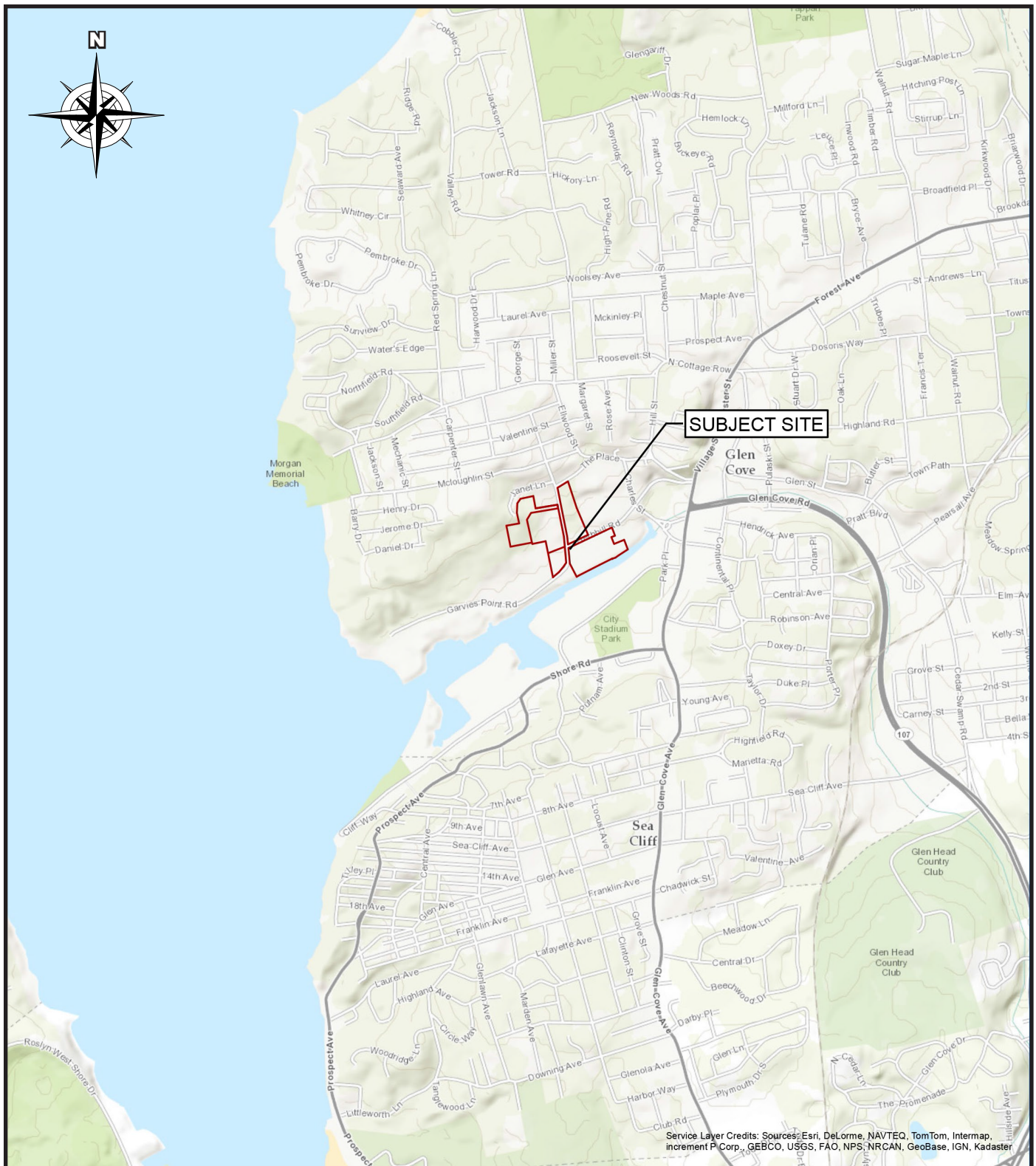


FIGURE 1

Operable Units 1, 2, and 4 Site Map



0 1/4 1/2 3/4 1 Miles



Attachment 2

Public Notice – Commencement of Public Comment Period



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
INVITES PUBLIC COMMENT ON THE
PROPOSED PLAN FOR THE
LI TUNGSTEN SUPERFUND SITE
GLEN COVE, NASSAU COUNTY, NEW YORK

The U.S. Environmental Protection Agency (EPA) announces the opening of a **30-day comment period** on the Proposed Plan and preferred cleanup alternative at the Li Tungsten Superfund Site in Glen Cove, Nassau County, New York. The comment period **begins on June 1, 2016 and ends on July 1, 2016**. As part of the public comment period, EPA will hold a **Public Meeting on Monday, June 13, 2016 at 7:00 PM** at the **Robert M. Finley Middle School Wunsch Center, Glen Cove, 1 Forest Avenue, Glen Cove, New York 11542**.

To learn more about the meeting you can contact Ms. Cecilia Echols, EPA's Community Involvement Coordinator, at 212-637-3678 or 1-877-251-4575 or visit our website at <https://www.epa.gov/superfund/li-tungsten>.

The Li Tungsten site is listed on the Superfund National Priorities List. The primary objective of this Proposed Plan is to present an Amendment to the September 1999 Record of Decision (ROD). Based on further assessment of cross-media impacts from metal contaminants of concern, i.e., arsenic and lead, in soil to underlying groundwater, EPA and the New York State Department of Environmental Conservation (NYSDEC) have developed Site-specific impact-to-groundwater cleanup levels of 175 milligrams/kilogram (mg/kg) for arsenic and 660 mg/kg for lead that, if achieved, will be protective of groundwater. EPA is proposing additional excavation and off-site disposal of contaminated soil that exceed these cleanup levels, which EPA believes will further improve the groundwater quality and potentially result in achieving the drinking water standards.

EPA now seeks to amend the 1999 ROD to implement an Excavation and Off-Site Disposal of Metals-Contaminated Soil remedy for the Li Tungsten Superfund Site.

The cleanup alternatives evaluated were:

- No Further Action
- Excavation and Off-Site Disposal of Metals-Contaminated Soil

During the **June 13, 2016 Public Meeting**, EPA representatives will be available to further elaborate on the reasons for recommending the preferred cleanup alternative and public comments will be received.

EPA is also announcing a change in restrictions on the future uses of portions of the Site that have now been deemed to be suitable for such uses. EPA is announcing that the anticipated future land use for Parcel A will be changed from commercial/light industrial to residential with restrictions through institutional controls (such restrictions would not allow single family housing but would accommodate multifamily condominiums and apartment buildings), and the use of Lower Parcel C will revert to commercial/light industrial from residential with restrictions.

The Proposed Plan and other site-related documents are available for public review at the information repositories established for the Site at the following locations:

Glen Cove Public Library: 4 Glen Cove Avenue, Glen Cove, NY 11542
(516) 676-2130 Hours: Mon. - Thurs. 9 AM - 9 PM, Fri. - Sat. 9AM-5PM, Sun. 1PM-5PM

USEPA Region 2: Superfund Records Center, 290 Broadway, 18th Floor, New York, NY 10007-1866, (212) 637-4308 Hours: Mon. - Fri. 9 AM - 5 PM

EPA relies on public input to ensure that the selected remedy for each Superfund site meets the needs and concerns of the local community. It is important to note that although EPA has identified a preferred cleanup alternative for the Site, no final decision will be made until EPA has considered all public comments received during the public comment period. EPA will summarize these comments along with EPA's responses in a Responsiveness Summary, which will be included in the Administrative Record file as part of the Record of Decision. **Written comments and questions regarding the Li Tungsten Superfund site, postmarked no later than July 1, 2016 may be sent to Mr. Lorenzo Thantu, Project Manager, U.S. Environmental Protection Agency, 290 Broadway, 20th Floor, New York, New York 10007-1866, or faxed to (212) 637-3966, or emailed to Thantu.Lorenzo@epa.gov**

154214 C

OBITUARIES

Lucy Bellidora of Glen Cove d Anthony. Devoted mother of Ra and Joan. Loving grandmother c Great-grandmother of Sal, Gian Cemetery. McLaughlin Kramer

Textboo

For Glen Cove residents atter non-public schools during the 2015-16 school year, textbooks be returned on the following da the Glen Cove High School bas (entrance located at the admini tion building parking lot):

Monday, June 27, from 7:15 to 12:30 p.m.

Tuesday, June 28, from 8:45

LEGAL NOTICE

LEGAL NOTICE
Notice of Formation of ECRC GROUP M-1, LLC. Arti- SUPR
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of State of NY (SSNY) on OF M
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Merchants Concourse, Suite NY.
106, Westbury, New York
11590, Attorneys for Plaintiff
6-8-1; 5-25-18-2016-
4T-#153491-RP

Attachment 3

June 13, 2016 Public Meeting Transcript

1 U.S. ENVIRONMENTAL PROTECTION AGENCY

2 * * * * *

3 IN RE: UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

4 SUPERFUND PROPOSED PLAN FOR REMEDY MODIFICATION

5 LI TUNGSTEN SUPERFUND SITE

6 GLEN COVE, NASSAU COUNTY, NEW YORK

7 EPA REGION 2

8 * * * * *

9 PUBLIC HEARING

10 * * * * *

11 BEFORE:

12 EPA:

13 LORENZO THANTU, Remedial Project Manager

14 CECILIA ECHOLS, Community Involvement Coordinator

15 SALVATORE BADALAMENTI, Section Chief

16 LAUREN CHARNEY, Assistant Regional Counsel

17 JAMES DOYLE, Associate Regional Counsel

18

19 NYSDEC:

20 GERARD BURKE, Section Chief

21 HEIDE-MARIE DEDEK, Project Manager

22

23 NYSDOH:

24 BRIDGET BOYD, Project Manager

25

1 HEARING: June 13, 2016

2 7:06 p.m.

3 LOCATION: Glen Cove High School (Auditorium)

4 150 Dosoris Lane

5 Glen Cove, NY 11542

6

7

8 Any reproduction of this transcript

9 is prohibited without authorization

10 by the certifying agency

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13 Reported by: Amanda Gorrone, CLR

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1 CECILIA ECHOLS: Can
2 everybody take a seat. We are ready
3 to begin. Hello, everyone. My name
4 is Cecilia Echols, and I am the
5 Community Involvement Coordinator.
6 Can you all hear me?

7 AUDIENCE: Yes.

8 CECILIA ECHOLS: Great.
9 We're here to discuss the excavation
10 of significant system component of a
11 May 2015 proposed plan, land use
12 restriction change. First of all, I
13 would like to apologize for the
14 venue change. I hope it didn't put
15 any of you out of your way, but I'm
16 glad we're here to present this
17 proposed plan to you tonight.

18 This is a meeting to the
19 proposal cleanup plan, regular
20 petition that was signed in 1999.
21 It will address the soil
22 contamination and groundwater at two
23 possible units. One at the Li
24 Tungsten facility, and the other one
25 at the Captain's Cove property. On

1 the agenda tonight is Lorenzo
2 Thantu. He will do pretty much all
3 of the PowerPoint presentation.
4 This presentation is also on the Li
5 Tungsten website. He will speak
6 about the Superfund Remedial
7 Process, the Li Tungsten Superfund
8 by history, the remedy selected in
9 September of 1999, record of
10 decision, the remedial actions
11 implemented, the explanation of
12 significant difference, EPA's May
13 2016 proposed plan, which is the
14 subject of tonight's meeting, he
15 will address EPA preferred remedy,
16 then we will open up for questions
17 and answers, after his presentation
18 is done, and you will have Salvatore
19 Badalamenti, the section chief of
20 EPA. He will be somewhere between
21 he and I. Of course, you all know
22 that this site is located in Glen
23 Cove, Nassau County, New York, and
24 the community involved in the
25 program is a program to have

1 communities engaged with EPA,
2 regarding of the decision-making
3 process. We want to work together
4 to make sure that how the EPA wants
5 to clean up the site is the way the
6 community would like to see the site
7 cleaned, as well. The public
8 commentary ended on July 1st. There
9 were postcards mailed to whoever's
10 name you were able to see, and I can
11 see that many of you didn't see the
12 postcard but I'm happy you're here,
13 you took notice in the news or maybe
14 you heard from word of mouth.

15 As I said the PowerPoint
16 presentation is on our website. Any
17 site-related documents are at the
18 Glen Cove Public Library. I hope
19 that you were all able to sign in.
20 That will start a new handle for the
21 site. I have a list for the site,
22 it's rather old. The last meeting,
23 if I believe correctly, was 2006.

24 And now we'll open up for
25 Lorenzo to start his presentation.

1 Thank you.

2 (Applause)

3 LORENZO THANTU: Thank you
4 all very much. Good evening. I
5 have about 40 brief PowerPoint
6 slides that I need to go through,
7 and these slides represent very
8 important information that I think
9 that you all should be informed of.
10 So if you could bear with me, as I
11 go through these 40 slides, which
12 should take more than about
13 35 minutes, I greatly appreciate it.
14 I know Cecilia just went through the
15 agenda. I want to quickly go
16 through from the beginning to what
17 and where we are today.

18 So first, I want to quickly
19 go through, I know Cecilia went
20 through it, but I want to go through
21 it quickly. First, I want to
22 explain to you how the Superfund
23 Remedial Process works, and then
24 talk to you about the Li Tungsten
25 Superfund site history from the time

1 we got involved in the 1980s to the
2 present time, and then the record
3 decision, that are selected by EPA
4 issued by EPA in 1999, for the Li
5 Tungsten Superfund site remedy
6 selected in the 1999 recommended
7 decision and remedial action had
8 existed today, as to qualify the
9 1999 record of decision, and then
10 I'm going to talk about the
11 explanation of significant
12 differences, ESD, which is a
13 component of the May 2016 proposed
14 plan, that we just issued a month
15 ago, for which all of you are here
16 tonight, and the major presentation
17 would be the May 2016 Proposed Plan
18 and I will probably wrap up my
19 presentation with the EPA Preferred
20 Remedy, that is presented in the May
21 2016 Proposed Plan.

22 So Superfund is also called
23 the Comprehensive Environmental
24 Response and Compensation Liability
25 Act. It was a statute passed by

1 Congress in the 1980s, which
2 provided funds to the EPA, and also
3 the authority to clean up toxic
4 waste sites nationwide.

5 AUDIENCE: Can't hear you.

6 LORENZO THANTU: Okay. I'll
7 try to get close to the microphone.
8 Is it better like this?

9 AUDIENCE: Yes.

10 LORENZO THANTU: Okay. Thank
11 you.

12 And next up we have the
13 National Priorities List. One site
14 is also on the NPL. We get funded
15 when the site becomes eligible for
16 federal funding and Li Tungsten site
17 was listed on the NPL in October
18 of 1992, and now the Superfund
19 long-term remedy selection process,
20 as I said, was listed on the NPL in
21 1992. One site is listed. We go
22 through the process, known as the
23 removal evaluation. That's when we
24 determined to see if there might be
25 any emergency response actions that

1 might be warranted for EPA to take
2 while we move forward with the rest
3 of the long-term recommended
4 selection process. So after the
5 remedial removal evaluation, we
6 actually began the Remedial
7 Investigation Feasibility Study,
8 RI/FS, in 1993, and then based on
9 the information of the RI/FS, RI/FS
10 looked at the nature of the sediment
11 contamination and various
12 environmental leaders such as soil,
13 groundwater, sediment, surface
14 water, and the Feasibility Study,
15 looked at these contaminant data and
16 then it evaluates the viable
17 remedial alternatives that EPA can
18 look at and see which one might fit
19 best the EPA proposed revenue.

20 So based on the public plan
21 we did, the remedy passed on the
22 public period, once that ends, we
23 get to the next stage, the Record of
24 Decision or ROD. In this case it
25 will be an amendment to the 1999

1 Record of Decision. Once the Law
2 has been issued, we go through the
3 redesign stage. That's the design
4 of the selection of the law or be
5 amended to the law. Once the design
6 is completed, we do Remedial Action
7 implementation, offer cleanup, which
8 is also called construction. Now,
9 once the construction is done, we go
10 through the operation and
11 maintenance, OM, phase.

12 Li Tungsten, as you all know,
13 is located in the City of Glen Cove,
14 Nassau County of New York and right
15 here and has like several parcels.
16 The next slide gives you a zoomed
17 in, actually not this one, but I'm
18 going to go over this slide first,
19 previous slide. What we do
20 oftentimes at Superfund sites is
21 that to expedite the overall
22 cleanup, we oftentimes divide
23 cleanup into separate phases or
24 units so that different
25 environmental media cleanup could

1 proceed separately resulting in a
2 more expedited overall remediation
3 at the site. While Li Tungsten site
4 we have designated four operable
5 units. Operable Unit 1 or OU1 is
6 for the 26-acre formally known as
7 the Li Tungsten Facility Property.
8 Operable Unit 2 is for the adjacent
9 Captain's Cove Property, but only
10 the Areas A and G portions of
11 Captain's Cove.

12 AUDIENCE: Excuse me, can you
13 turn off the lights, so we can
14 actually see the screen.

15 Thank you.

16 LORENZO THANTU: Operable
17 Unit 3 is excess material in certain
18 buildings. Li Tungsten a, parcel
19 removal program, back in 1998 to
20 remove all the radioactive materials
21 in those buildings and Operable Unit
22 4 is Glen Cove Creek, to address the
23 contaminants, sediments to the
24 bottom of Glen Cove Creek.

25 This slide next shows you the

1 OU 1 and OU 2. Over here is the Li
2 Tungsten, and -- you can't see?

3 AUDIENCE: Drop the light.
4 Perhaps you should have practiced.
5 Did you make that paper?

6 LORENZO THANTU: I think
7 we'll get the lights down.

8 CECILIA ECHOLS: Excuse me.
9 Someone is coming to fix the lights.
10 Give us a moment, please.

11 LORENZO THANTU: Can you guys
12 hear me okay?

13 AUDIENCE: Yes.

14 LORENZO THANTU: All right.
15 This shows you the Operable Unit 1
16 and 2, that make up the Li Tungsten
17 site for the following facility
18 property, we have five acres or five
19 parcels, sorry. Parcel A, that's to
20 the south of Herb Hill Road, to the
21 north is Parcel B, and over here you
22 have Parcel C, which is broken up
23 into the lower Parcel C, upper
24 Parcel C and Parcel C prime, and
25 then to the west of the Li Tungsten

1 Facility, you have all of this
2 Captain's Cove Property of which
3 only area A and Area G make up part
4 of the Li Tungsten Superfund site,
5 and this right here shows you the
6 zoomed in diagram of the five
7 parcels. Once again, Parcel A,
8 Parcel B, lower Parcel C, upper
9 Parcel C and Parcel C Prime, and I
10 want to quickly go to the site here,
11 of all the phases that EPA has done
12 from the beginning. First the Li
13 Tungsten Facility, between 1942 and
14 1985, operations consisted mainly of
15 processing tungsten ore concentrates
16 and scrap metal that contained
17 tungsten into tungsten powder and
18 tungsten carbide powder, while
19 subsequently formulated into Li
20 Tungsten powder and Li Tungsten
21 carbide powder. At the operation
22 facility also specialty metal
23 products were also produced during
24 those years, and between 1950s to
25 1970s from the operation of Li

1 Tungsten, tungsten ore residual from
2 the Li Tungsten facility disposed
3 off on portions of nearby Captain's
4 Cove Property, and then in
5 October 1992, it was listed on the
6 NPL. And then in 1993, the Remedial
7 Investigation and Feasibility Study,
8 RI/FS, was initiated for Operable
9 Unit 1 for former Li Tungsten
10 Facility Property, and then in 1995,
11 from the RI/FS information, we found
12 out that there was all residuals
13 disposed of at Areas A and G of
14 Captain's Cove, so we expanded the
15 site definition to also include
16 Areas A and G, adjacent to the
17 Captain's Cove Property.

18 We also did some
19 Time-Critical Removal Actions,
20 between 1989 and 2001. In 1989 we
21 ordered then owner of Li Tungsten
22 Property, Glen Cove Development
23 Corporation to dispose of laboratory
24 reagents, drummed chemicals and also
25 containment and disposal of a

1 mercury spill, most of which were on
2 Parcel A. Those were all done in
3 1989, under EPA order. And then
4 between 1996 and 1998, at this time,
5 the EPA did the second Time-critical
6 Removal Action, conducted to dispose
7 of large volumes of waste, and about
8 270 process and storage tanks,
9 mostly on Parcel A, as well as
10 removal and disposal of asbestos and
11 other hazardous chemicals, that were
12 found on Li Tungsten, and the last
13 two structures on Parcel A,
14 demolished on Parcel A, and actually
15 done in 2001, the third
16 Time-critical Removal Action, to
17 segregate Creek sediments that
18 dredged by the U.S. Army Corps of
19 Engineers from the stretch of Glen
20 Cove Creek, was then found to be
21 contaminated with radionuclide slag
22 from the former facility.

23 Based on all of that
24 information, in September of 1999
25 they issued a ROD for OU 1 and OU 2,

1 Remedial Action began in 2002, and
2 took about seven years until we
3 finally completed it in 2008. And
4 during the remedial Action actual
5 implementation, we identified
6 certain areas where we could not
7 access the contaminated soil and
8 each area near underground storm
9 sewer systems, underground electric
10 and natural gas services and/or
11 below the water table, and we
12 identified these areas as red flag
13 areas, that would require
14 institutional controls, so that --
15 so that they would make that way and
16 no other development would take
17 place on those areas, and we had
18 also done, at the site, a couple of
19 explanational or informational
20 documents, also called ESDs. An ESD
21 is a document that EPA issued when,
22 after we have implemented Remedial
23 Action, we have a change, a
24 significant but not fundamental
25 change, to the Remedy that was

1 implemented, things like what we do
2 Remedial Action or excavation,
3 excavated materials goes up two or
4 three folds, and EPA is required to
5 issue a ESD to let the public know
6 the significant change to the
7 Remedy. Then in March 2005 issued
8 for OU 4 or Glen Cove Creek, and
9 than Remedial Action took been three
10 years, started in 2006 and completed
11 in 2008. And then in August 2005,
12 we did our first five-year Review
13 Report. EPA is required to publish
14 a five-year Review Report, every
15 five years after the Remedial Action
16 has been completed, especially when
17 we have less contamination that
18 we're going to allow either
19 unlimited use or unrestricted
20 exposure, so we did our five-year
21 Review Report in August 2005, and
22 then in August 2006, I'm sorry,
23 2008, based on various Remedial
24 Action Reports, and preliminary
25 close-out Reports, that was also

1 finalized in 2008, we started
2 construction at the Li Tungsten
3 site, was completed with the
4 exception of institutional controls
5 still had yet to be implemented and
6 to document those red-flag areas
7 that would require site management
8 into the future and a few words from
9 institutional controls.
10 Institutional controls are
11 environmental easements, like deep
12 restrictions that would restrict the
13 future land use of the property.
14 Then in July of 2010, we did our
15 second five-year Review Report, and
16 then the third five-year Review
17 Report, we did last year in
18 September of 2015.

19 Then after all that work was
20 done, the developer came in its
21 final stage at Li Tungsten and
22 Captain's Cove Property for like
23 future development and work. They
24 were required to do numerous
25 sampling events that resulted in

1 well over 1,000 samples. One of the
2 sampling was required by the
3 insurance company, so that we could
4 proceed with the development of Li
5 Tungsten and Captain's Cove and data
6 from these sampling events indicated
7 that there were additional residual
8 metal contamination and soil outside
9 the previously identified red-flag
10 areas, remedial actions, and then
11 for years we developed also
12 conducted all the MARSSIM, which
13 stands for the Multi-Agency
14 Radiation Survey, and Site
15 Investigation Manual, and that final
16 status took place a couple of years
17 ago. The following was completed in
18 January of 2015, and the conclusion
19 from the MARSSIM Report was that all
20 of the Li Tungsten site was free of
21 any residual radiological surficial
22 soil contamination, surficial
23 contamination is toxic, and that's
24 all under the Federal Statutes and
25 Regulations. This MARSSIM protocol

1 and then August 15, 2015 last year
2 and March 2016 this year, EPA, we
3 did our own sampling event,
4 conducted by EPA, of lower Parcel C,
5 which is subject of the preferred
6 remedy that I will be going over in
7 a few minutes. I just want to give
8 you a feel of the number of samples
9 that we had collected at Li Tungsten
10 Property, and this is only Parcel A,
11 and if you look at the heading from
12 Parcel A there were about 160 sample
13 locations, we collected almost 360
14 soil samples that were including
15 arsenic, lead and mercury, and so on
16 and so on. For Parcel B, which is
17 to the north of the Parcel A, we
18 selected about 150 samples from
19 about 63 sample locations, and then
20 going to the west, Parcel C, again
21 you have lower Parcel C, upper
22 Parcel C, and Parcel C Prime. We
23 collected about 500 samples from
24 about 170 sample locations, and that
25 does not include the 270 samples

1 that we collected a couple of months
2 ago, so total is almost 800 samples
3 that we have collected to-date of
4 Parcel C.

5 So the subject of tonight's
6 meeting is Operable Unit 1. That's
7 the Li Tungsten Facility properties,
8 26 acres in size. Mainly Parcels A,
9 B and C. As for the review of areas
10 A and G portion of Captain's Cove,
11 EPA's remedial efforts to address
12 radiological contamination is often
13 completely based on prior Remedial
14 Action Reports and the additional
15 residual contamination and soil that
16 we found there there were arsenic
17 and lead, that will be addressed by
18 the New York City Department of
19 Environmental Conservation, under
20 the Superfund Program.

21 Just quickly I want to run
22 through the Baseline Human Health
23 Risk Assessment that we did in the
24 1999 decision, because you'll know
25 how we arrived at the cleanup

1 standards that we had in the 1999
2 ROD. Basically the risk assessment,
3 we go through the four-step process,
4 the first is hazard identification.
5 Based on all the samples that we
6 collect, we look at the
7 concentrations of the potential
8 contaminants that we took. We
9 looked at the concentrations and the
10 frequency of infection. Based on
11 that, we come up with a list of site
12 contaminants of concern and based on
13 that process, we started on arsenic
14 lead, Radium-226, Thorium-232 and
15 PCBs, as site contaminants that
16 would have to be addressed or
17 remediated, and the second step we
18 look at exposure assessment to see
19 what kind of exposure, by which we
20 are looking at by which humans could
21 become exposed to these
22 contaminants. We look at three
23 major pathways. The first is direct
24 contact, as in touching, ingestion,
25 such as eating, drinking like

1 drinking ground water, inhalation,
2 breathing in, and then based on the
3 exposure assessment, we looked at
4 the 16 assessments of all the
5 containments concerned, and finally
6 the final set risk characterization
7 as to conduct quantitative
8 collection to come up with the
9 numeric. So based on the full set
10 we first identified, two major
11 Remedial Action Objectives that must
12 be met in all to provide human,
13 health and environmental protection.
14 The first one is to prevent or
15 minimize exposure to soil
16 contaminants, through the exposure
17 pathways, direct contact, ingestion
18 and inhalation. Second one is to
19 prevent or minimize cross-media
20 impacts from the soil contaminants
21 of concern in soil/sediments to the
22 underlying ground water. So based
23 on the Risk Assessment and Remedial
24 Action Objectives, we established
25 these four cleanup standards in the

1 1999 Record of Decision, Arsenic was
2 24 milligrams per kilogram, lead 400
3 per milligram. For PCB, we had two
4 standards, one for toxicity and the
5 other one for non-toxicity, the
6 toxicity was 1 milligram per
7 kilogram, and non-toxicity was at
8 depths greater than 10 feet, was ten
9 milligrams, and then for the two
10 radionuclides, Thorium-232 and
11 Radium-226, cleanup standard was 5
12 picocuries per gram.

13 So the Remedy selected by the
14 1999-ROD, excavation of soils and
15 sediments contaminated by cleanup
16 levels that I just went over,
17 separation of
18 radionuclide-contaminated soil from
19 non-radionuclide soil that was
20 contaminated with heavy metals,
21 mainly arsenic and lead, off-site
22 disposal of radionuclide and
23 metals-contaminated soil, off-site
24 disposal of radioactive waste that
25 was found in the Dickson Warehouse

1 that was on Parcel C, Building
2 demolition, most of the buildings
3 were on Parcel A, that had to be
4 demolished, and then some storm
5 sewers, and sump clean up on Parcel
6 A, and then decommissioning of
7 Industrial Well around Parcel A, and
8 finally the collection of off-site
9 disposal of contaminated surface
10 water on Parcels B and C.
11 Triggering the investigation, we
12 found water over Parcels B and C,
13 found a lot of spots that were used
14 as pits during the operations, so
15 they were absolutely included in the
16 selected remedy for removal. And
17 for groundwater, groundwater we
18 selected no action other than
19 long-term groundwater monitoring
20 program. The rationale behind that
21 was that Captain's Cove all the
22 radionuclides that we sampled for in
23 groundwater were either present or
24 below the maximum contaminant
25 levels, so we decided, based on that

1 remediation was not necessary and,
2 therefore, we did not evaluate the
3 cleanup for groundwater for
4 Captain's Cove, and also the
5 sediments based on the RI data that
6 site-related arsenic and lead
7 contamination in groundwater was
8 very limited, and was confined to a
9 couple of parcels at Li Tungsten
10 Facility, in particular lower Parcel
11 C and Parcel A. So only for the Li
12 Tungsten portion of Parcel A and
13 Parcel C, we looked at, and
14 groundwater alternatives were
15 developed to address groundwater
16 contamination in those localized
17 areas.

18 So what we came out of the
19 RI/FS and the ROD was that the
20 long-term groundwater monitoring
21 program was needed to assess how the
22 Upper Glacial Aquifer was going to
23 recover after the selected soil
24 remedy is implemented and all of the
25 ROD data indicated that once the

1 selected remedy has been fully
2 implemented there was a strong
3 chance that drinking water for
4 arsenic and lead were the chiefs.
5 So for all the excavation that we
6 did between Captain's Cove and Li
7 Tungsten Facility we excavated for
8 off-site disposal, total of
9 approximately 158,000 cubic yards
10 which is roughly 220,000 tons from
11 OU 1, Li Tungsten Facility, and OU 2
12 areas A and G, at the Captain's Cove
13 property, and we also cleaned out,
14 and still we will remedy on storm
15 sewer, and Industrial Well on Parcel
16 A and all the contaminated surface
17 water were collected and disposed of
18 from retention ponds on Parcels B
19 and C.

20 I just want to say something
21 about the groundwater arsenic and
22 lead, try to give you an idea how we
23 have seen a dramatic decline in
24 arsenic and lead concentration in
25 groundwater at the Li Tungsten

1 Facility Property. The highest
2 arsenic that we had detected was in
3 1996, when we were doing a
4 reinvestigation study, and at that
5 time, in 1996, we detected 14,500
6 micrograms per liter for arsenic and
7 monitoring well, during the RI
8 study, at lower Parcel C for
9 drinking at this concentration
10 14,500, and since then especially
11 after the selected remedy has been
12 implemented, we have seen a
13 significant decline in arsenic and
14 lead concentration, and we
15 anticipate that the additional soil
16 excavation that we are proposing in
17 the proposed remedy for lower Parcel
18 C will further enhance the rate of
19 decline in the area of groundwater
20 at Li Tungsten Facility. This slide
21 shows you the trend between 2008 and
22 2016, for a monitoring well of lower
23 Parcel C and then again, 2008 and
24 2012 levels fluctuating and went up
25 to about 500 micrograms per liter

1 over the last year and in 2010 and
2 2014 or 2013, I should say, and
3 since 2013 has gone down to about
4 905 here and 85 micrograms per
5 liter, just this past February 2016,
6 so lead is in the system above the
7 drinking water standards, however
8 for lead, lead has declined
9 dramatically, the levels have all
10 been below -- its actual level of 15
11 micrograms per liter, as you can
12 see, the highest lead detected was
13 about 11 in 2009, and all these
14 concentrations are slowly going
15 down, and all of them are going to
16 below the actual level of 15
17 micrograms per liter. Just a quick
18 slide explanation of significant
19 differences. Another time that we
20 do ESD is when we document a change
21 in land use. Land use, what we have
22 done in this ESD that was issued as
23 a component of the May 2016 proposed
24 plan was that the City came to meet
25 with us a couple of years ago and

1 said to us that they wanted to
2 develop possible land for mixed use,
3 residential and commercial, and they
4 wanted us to see if that could be
5 allowed and then for lower Parcel C.
6 Many years ago lower Parcel C was
7 slated for residential use for the
8 restriction but the City came to us
9 last year telling EPA that lower
10 Parcel C will no longer be developed
11 for restricted residential, but it's
12 set for commercial use. So what
13 they had in plan, I guess, they're
14 going through some design stage is
15 to design and construct a municipal
16 parking lot on lower Parcel C. So
17 we had looked at all the existing
18 contaminant data, including about
19 1,000 samples, and data we have from
20 the recent two years, and we have
21 documented an ESD in this May 2016
22 Proposed Plan, the change previous
23 commercial, light industrial to
24 residential with restrictions on
25 Parcel A, but very importantly the

1 land now would be coupled with
2 institutional controls will have to
3 be implemented to make sure that
4 that restricted use remains, and
5 just to give you some idea of what
6 kind of restricted residential we're
7 talking about, any kind of
8 single-family housing would be
9 prohibited. The only kind of
10 housing that would be allowed under
11 the restricted residential area
12 would be by multi-family
13 condominiums or apartment buildings
14 and lower Parcel C we have reverts
15 to commercial/light industrial from
16 previous residential restriction, as
17 I just said with the changes inland
18 from the City. I said earlier when
19 I discussed the 1999 Record of
20 Decision, that we looked at two
21 Remedial Action Objectives. The
22 first one is to prevent or minimize
23 soil contaminants of concern through
24 general contact, inhalation or
25 ingestion, and the action will be

1 addressed by the cleanup standards
2 that were selected in the 1999 ROD
3 and second one -- okay. The second
4 one is the cross remedial impact.
5 That's to prevent or minimize
6 migration of soil contaminants of
7 underlying groundwater aquifer. So
8 what we started discussing with New
9 York State Department of
10 Environmental Conservation last year
11 was that we visited the assistant
12 arsenic concentration. It's around
13 100 or 8,500 micrograms per liter on
14 lower Parcel C. We looked at ways
15 to see how we can address that so
16 that drinking water standards could
17 be achieved in a more timely manner.
18 So to do that, we did a test last
19 year called the Synthetic
20 Precipitation Leaching Procedure,
21 which stands for SPLP. The SPLP
22 test certainly exposes soil to
23 liquids, a synthetic liquid, and
24 then it measures the concentration
25 of contaminants in soil that

1 migrates through the soil with the
2 liquid, as the liquid passes through
3 the media. And based on the SPLP
4 testing we established impact to
5 groundwater soil cleanup levels
6 achieved assigning the drinking
7 water standards in the groundwater
8 much faster than doing nothing, and
9 based on the SPLP testing, we have
10 175 milligrams per kilogram arsenic
11 and 660 milligrams per kilogram of
12 lead.

13 So now the 2016 proposed
14 plan. The Remedial Action
15 Objectives and Cleanup Levels, 1999
16 Record of Decision, with the
17 exception of that, so those are the
18 exact groundwater cleanup standard
19 in arsenic and lead, so based on all
20 of that information we assemble to
21 media alternatives for Li Tungsten
22 site for the 1999 Record of
23 Decision. The first one is
24 Alternative LS-1, at no further
25 action. The only thing that would

1 be would be outstanding
2 institutional controls, that were
3 also part of the 1999 ROD.
4 Alternative LS-1 would obviously
5 involve no further action, would not
6 involve any active Remedial Action,
7 so all the costs would either be
8 zero or not applicable.

9 Alternative LS-2 we are
10 looking at excavation and off-site
11 disposal of metals-contaminated
12 soil, and that would impact ground
13 water cleanup standards, capital
14 costs for that would be around
15 \$2.5 million, and it would cost, to
16 calculated for 30 years at \$32,000,
17 and a total present of cost would be
18 around \$3.2 million, and the
19 construction time would be about
20 four months. Back in March a couple
21 of months ago, we had our EPA
22 Removal Program Parcel C to mitigate
23 the Parcel to come up with a value
24 estimate for the amounts of soil to
25 be excavated, from 33 sample

1 locations, we selected for offsite
2 analysis about 270 samples, and
3 based on that delineation
4 assessment, we have a preliminary
5 excavation map, all of the pink
6 shaded areas around lower Parcel C
7 would be where we will be excavating
8 8,500 cubic yards. Of the 8,500
9 about 5,000 will be coming from the
10 lower half and the remaining 3,500
11 from the lower third. On a separate
12 track, they will also be voluntarily
13 excavating about 45 cubic yards of
14 contaminated soil from Parcel A and
15 Parcel B. I guess, you can kind of
16 see these little gray shaded cells.
17 (Indicating), in all there are ten
18 locations. One is on Parcel B, and
19 the other nine are on Parcel A.
20 From these areas about 45 cubic
21 yards contaminated of soil and also
22 excluded the groundwater, it will
23 come out.

24 So, finally, we want to look
25 at the Superfund Criteria for

1 Analysis of Alternatives.

2 First one is the overall
3 protection of human health and the
4 environment, and we want to see to
5 what extent the remedial alternative
6 is relevant and appropriate
7 requirements. Those are things like
8 remediation specific cleanup
9 standard, future land use, long-term
10 effectiveness and permanence,
11 ability of alternatives to achieve
12 reduction of toxicity and mobility
13 and volume, short-term
14 effectiveness, implementability,
15 cost, State acceptance, and
16 community acceptance.

17 We have met the first
18 criteria, New York State and New
19 York State have occurred on the
20 proposed plan, acceptable wait until
21 after the comment period has ended.
22 That's projected for July 1st, so
23 finally here's the preferred remedy.
24 So based on the assessment of the
25 two remedial alternatives, again the

1 Superfund Evaluation Criteria, and
2 Comparative Analysis, focusing on
3 the relative performance of these
4 alternatives against the criteria,
5 we selected Alternative LS-2, that's
6 8,500 cubic yards for offsite
7 disposal of metals and contaminated
8 soil, EPA's excavation of 8,500
9 cubic yards of metals and
10 contaminated soil above 175 mg/kg
11 lead arsenic and 660 mg/kg lead on
12 Lower Parcel C, and also long-term
13 groundwater monitoring until the
14 MCLs are achieved. And the program
15 would also require an evaluation for
16 potential for soil vapor intrusion
17 in the future buildings that will be
18 developed on-site. And based on
19 what the recommended actions are, we
20 will look into implementing that as
21 part of the future development and
22 then outside of the couple of times
23 there will also be implementation of
24 institutional controls, which would
25 be in the form of environmental

1 easement, which would allow
2 restricted residential use of Parcel
3 A, Parcel B, and upper Parcel C, and
4 commercial light industrial use of
5 lower Parcel C, and also groundwater
6 use controls. For example, we're
7 going to take any insulation onsite
8 which wouldn't allow anywhere
9 because there is Nassau County
10 Ordinance, Parcel 4, which prohibits
11 any insulation in areas that are
12 served by public water supply, which
13 is this area. And then the EPA and
14 New York State check to make sure
15 that the site management plan is
16 fully executed. And the site
17 management plan also will also
18 include future developments for any
19 kind of excavation that might be
20 done, so that any soil contamination
21 that might be found would be fully
22 addressed, and also as part of the
23 development, this is very important
24 the developer will be -- place a
25 two-foot-swamp cover over the entire

1 development area. If not two-foot
2 swamp cover, which would have an
3 underlaying demarcation layer, they
4 will put on the property structure
5 such as buildings, pavement or
6 sidewalks, so that would be done for
7 the entire development area and last
8 thing, site management plan will
9 include institutional and
10 engineering control and monitoring
11 plan that would identify how all the
12 institutional controls, provisions
13 of the plan will be followed
14 strictly by the developer, and
15 enforced by New York State DEC and
16 EPA.

17 As I said earlier on, the
18 developer will be voluntarily taking
19 about 45 cubic yards on Parcels A
20 and B. In terms of the time frame
21 of the upcoming cleanup work
22 provided that we will be amending
23 the 1999 Record of Decision for the
24 EPA excavation of 8,500 cubic yards
25 on lower Parcel C, we are looking at

1 August 2016, and Developer's Pre-
2 closing Parcel A and B soil
3 excavation, July 2016 or shortly
4 thereafter, and all of the
5 implementation of institutional
6 controls, which must be put in place
7 before any development occurs, is to
8 take place this summer. Obviously
9 this assures the end of August or
10 early September. The comment period
11 is expected to end July 1st.

12 That pretty much sums up my
13 presentation. It was a little bit
14 longer than 40 minutes.

15 Thank you for bearing with
16 me.

17 (Applause)

18 CECILIA ECHOLS: Tonight we
19 have a stenographer here. She's
20 going to record all of your
21 comments.

22 We would like you please
23 state your name clearly, so she can
24 record it. We have one mic here, in
25 the aisle, and if you need to reach

1 anyone on that side, we can bring
2 the mic over, so there will be a
3 little back and forth.

4 We're ready to open for
5 questioning. Please, stand and come
6 up front, if possible.

7 KAY NICKERSON: My name is
8 Kay Nickerson, K-A-Y
9 N-I-C-K-E-R-S-O-N, and clearly, to
10 me, this is a fairly sophisticated
11 and complicated process, that I
12 don't know that I fully understand
13 but I'd like to thank the EPA for
14 putting forward a plan that seems
15 like it will improve the waterfront,
16 and if I do understand it correctly,
17 at the end of the process, the
18 groundwater will be improved to the
19 point of being better drinking
20 water; is that correct?

21 LORENZO THANTU: Yes.

22 KAY NICKERSON: Okay. And
23 also the toxicity levels will be
24 lowered; is that also correct?

25 LORENZO THANTU: Yes.

1 KAY NICKERSON: So at the end
2 of the day, to me, it sounds like
3 this is going to be a place where we
4 can fully enjoy the waterfront, in
5 new and better ways, that is my
6 thought.

7 Thank you.

8 (Applause)

9 ANNA RANDAL: Good evening.
10 Thank you very much. My name is
11 Anna Randal. I live in Glen Head.
12 I'm sorry I was late this evening,
13 however, I came in right on the
14 time. When you mentioned red flag
15 areas and I thought I heard you
16 correctly those red flag areas were
17 not remediated because of the
18 funding or it was not cost effective
19 to do so?

20 LORENZO THANTU: It was not
21 feasible.

22 ANNA RANDAL: It was not
23 feasible. Okay. So am I to
24 understand, then, that those areas
25 were adjacent to -- what did you

1 say?

2 SALVATORE BADALAMENTI: Some
3 were adjacent to storm sewer
4 systems, gas lines.

5 LORENZO THANTU: This area
6 right here.

7 (Cross-talk)

8 ANNA RANDAL: -- this was a
9 great red flag to me. Again, I
10 apologize because I was late. The
11 remediation of that soil, then,
12 we're going to assume that it is
13 possible that with the movement of
14 that water that contaminants could
15 have gotten into the Creek and in
16 our Harbor. What samples, if any,
17 did you take of the Creek and/or
18 Harbor.

19 (Applause from audience)

20 SALVATORE BADALAMENTI: We've
21 sampled the Creek over the years,
22 yes.

23 ANNA RANDAL: Do you have any
24 data that you can read with regard
25 to the levels of contamination?

1 SALVATORE BADALAMENTI: Yes.

2 ANNA RANDAL: Okay. I also
3 noted that during your presentation
4 that there were two times of a spike
5 in contaminants in arsenic and lead
6 to the drinking water. My question
7 to you is this: Was that during the
8 time of your remediation,
9 specifically?

10 LORENZO THANTU: Let me just
11 go back that.

12 ANNE RANDALL: I believe it
13 was 2009, if I'm not mistaken?

14 LORENZO THANTU: Sometimes it
15 takes time. As I said earlier, the
16 OU 1 Remedial Action started in
17 2000, it was complete in 2008, and
18 one of the PRP was required by the
19 2007 consent judgment to stop doing
20 quality ground monitoring from 2008
21 to 2009 and then 2010 on it was all
22 annual and quarterly, and as I was
23 saying the Remedial Action was
24 completed in 2008, so sometimes it
25 takes time to see the beneficial

1 affect or decline of those
2 contaminants in groundwater.

3 ANNA RANDAL: So your data,
4 then, doesn't reflect sampling at
5 that time. If you can see the rise
6 in both those two indications?

7 UNKNOWN MALE SPEAKER: Why
8 would it rise in 2014?

9 ANNA RANDAL: Thank you.

10 UNKNOWN MALE SPEAKER: It's
11 not drinking water. Make that
12 clear.

13 ANNA RANDAL: I understand
14 that it's not drinking water. Yet
15 we do not drink the water that's in
16 our Harbor, yet we eat the fish that
17 comes out of it and we swim in it,
18 and so we are opening ourselves up
19 to contamination.

20 LORENZO THANTU: The spike in
21 2014, I acknowledge that, that is
22 why I said in my presentation that
23 even though that declined
24 dramatically in groundwater, there's
25 one location in lower Parcel C where

1 there's been persistent, consistent,
2 elevated concentration of arsenic.
3 That's why we are proposing this
4 removal of 8,500 cubic yards, which
5 is going to have a tremendous
6 beneficial affect on accelerating
7 that further decline in groundwater
8 at --

9 ANNA RANDAL: I don't want to
10 belabor my questions because I have
11 I have many. I have so many that it
12 would take up too much time.

13 UNKNOWN MALE SPEAKER: Keep
14 going. Keep going. Keep going.

15 ANNA RANDAL: However, I
16 think that when we see spikes and we
17 realize that there was work being
18 done on these sites, at that time,
19 we see a correlating spike. What's
20 going to happen when below two feet,
21 if anybody in here has ever planted
22 a rose, we know how deep we plant
23 that rose. We're in our soil.
24 You're planning to build a huge
25 development that's not suitable for

1 single families, yet you want all of
2 these people to run around in a
3 nearby park or an area where cars
4 are parked and children play in
5 dirt, I mean, they do.

6 LORENZO THANTU: That's not
7 going to happen.

8 ANNA RANDAL: So if you're
9 closing our question and answer by
10 July 1st that's, that doesn't even
11 give you time to get us data back.
12 That doesn't give you -- you're
13 saying that it takes so much time to
14 get your data back, you're not even
15 giving us an ample opportunity to
16 question the data that you're going
17 to give out.

18 (Applause)

19 LORENZO THANTU: More what
20 you're talking about the other
21 impending data that we want to share
22 with the community.

23 ANNA RANDAL: Wouldn't you
24 want to share with the community the
25 excavation under two feet?

1 LORENZO THANTU: Of course.

2 The data I provided to you is all
3 the samples that we have collected
4 to date, all those data --

5 ANNA RANDAL: -- at what
6 depth? At what depth? At three
7 inches, at two feet?

8 LORENZO THANTU: Parcel C,
9 many of those areas, eight,
10 nine feet, just like at the number,
11 8,500 cubic yards.

12 ANNA RANDAL: Where is our
13 aquifer, in relationship to the
14 depth that's going to be excavated
15 for this huge building? That's
16 going to be quite deep.

17 LORENZO THANTU: Groundwater
18 on the marsh is about seven feet.
19 Some areas could be deeper, around
20 ten feet.

21 ANNA RANDAL: So really when
22 they're excavating, they could
23 probably get into saltwater
24 essentially?

25 LORENZO THANTU: There is

1 saltwater in those areas.

2 ANNA RANDAL: All right. I
3 think that you've answered my
4 question, as amply as you can.

5 However, as a citizen, I'm
6 feeling that the information is
7 really -- it's too soon to make a
8 decision going forward that I
9 believe it really effects all of us
10 here and our children, and we want
11 to know what's going to happen to
12 our Harbor, the drinking water and
13 contamination to our Creek?

14 (Applause)

15 LORENZO THANTU: By the way,
16 I want to answer a question that you
17 asked earlier at Glen Cove Creek. I
18 think I can answer the question.
19 The question was what was sampled in
20 the Creek as part of the Li
21 Tungsten --

22 ANNA RANDAL: As part of any
23 remediation adjacent or within the
24 red flag areas?

25 LORENZO THANTU: I'm the

1 Remedial Project Manager, and we
2 have dredged that from the Creek in
3 the fewer accepted areas that goes
4 all the way to where Charles Bridge
5 is, I believe, Charles Creek Bridge,
6 we took out about 40,000 cubic
7 yards. So that's a concern, as it
8 relates to Li Tungsten
9 radionuclides, and we took out all
10 of it. We, in effect, went down two
11 feet deeper than the navigational
12 depth, that was required which the
13 U.S. Army Corps of Engineers. You
14 probably know the Army Corps of
15 Engineers do their routine
16 navigational regimen within the
17 Creek. That's how the creek was
18 added to Li Tungsten, in routinely
19 dredging, and there were
20 radionuclides. That's why the EPA
21 got involved, and then later it
22 became part of Li Tungsten site. So
23 for that, I can see that Creek, as
24 far as Li Tungsten goes --

25 ANNA RANDAL: Which is really

1 quite deep into the Creek. We're
2 not talking about the area which
3 filters into the Harbor and, you
4 know, I'm sorry, you have to pardon
5 me, I'm not a scientist, I'm a
6 sailor, and I like to go fishing,
7 and this is where I live, and
8 there's a great deal of concern and
9 I would hope that you would continue
10 -- for the education of everyone
11 here, continue testing it. We all
12 know if you're a sailor, and you're
13 a fisherman, you know the tides, and
14 you know how contaminates can cross
15 our Harbors. We also have concern
16 for the health of the Long Island
17 Sound, and I really believe that
18 this -- this construction is not in
19 the best interest in a health and
20 humanitarian way. So sorry, go
21 ahead, sir. I'm going to give up
22 the mic.

23 (Applause)

24 CAROL DIPAOLO: I'm Carol
25 DiPaolo. And regarding this slide

1 that you have still up, I don't
2 understand what the spikes attribute
3 to or whether you know what the
4 spikes would be attributed to and
5 even though there is a decline,
6 there were low levels at the
7 beginning of that and potential for
8 another spike, unless you know what
9 was the cause.

10 (Applause)

11 LORENZO THANTU: Only thing I
12 can respond to your question is
13 that, we all share your concerns.
14 We are aware of that spike in 2014.
15 Do we wish they were much lower, of
16 course. The fact of the matter is
17 that the levels were still elevated.
18 That's why we are proposing this
19 official excavation, as a preferred
20 remedy, and we would take that, as I
21 said, tremendous beneficial affect
22 on further seeing more decline, more
23 likely to below the drinking water
24 standard.

25 CAROL DIPAOLO: Right. There

1 were other events that could have
2 been attributable to those spikes.
3 So this is just a normal spike, as
4 far as you're concerned, just the
5 potential saturation began in the
6 monitoring wells.

7 LORENZO THANTU: I've seen
8 that number now, 100 thousand people
9 a little spike overtime, they do
10 tend to go down gradually.

11 CAROL DIPAOLO: Also, just a
12 question about the last ROD, in
13 1999. Were all of the internal
14 controls that were required at that
15 time put in place, and did you find
16 anything lacking in your 2015
17 five-year review?

18 SALVATORE BADALAMENTI: Do
19 you mean the institutional controls?

20 CAROL DIPAOLO: Yes, I'm
21 sorry. 2015.

22 SALVATORE BADALAMENTI:
23 Institution controls have yet to be
24 implemented.

25 CAROL DIPAOLO: Even though

1 they were required in 1999?

2 JAMES DOYLE: They were
3 required to have in place before you
4 developed, so the fact they weren't
5 put in place does not mean that they
6 were neglected that they were
7 skipped, had they been properly
8 developed in 2006, they would have
9 had to have been in place before
10 2006. Now is when the property's
11 being proposed to be developed, this
12 is now the time that the controls
13 are put in place.

14 CAROL DIPAOLO: Okay. So now
15 you have a new strategy for cleaning
16 up and according to the new
17 strategy, you had developed new
18 institutional controls or similar
19 but to meet the requirements of the
20 cleanup objectives that you have
21 now, correct?

22 JAMES DOYLE: Well, I think
23 it's the same because what you have
24 to understand, the 1999, the remedy,
25 was to do what we did in lower city,

1 and we believed that doing that
2 would cause, over time, the
3 groundwater number to go down, maybe
4 not, that's why we're back. So had
5 it worked, as we had hoped and
6 anticipated, we would not be here
7 tonight, and those numbers would be
8 down to nothing, and realize there
9 was residual contamination still in
10 lower C, that is, in our opinion,
11 causing those levels not to go down;
12 therefore, we are getting back
13 together. So it's consistent with
14 our strategy from 1999, but we are
15 flexible we realize if didn't work
16 exactly, as proposed.

17 CAROL DIPAOLO: Okay. Just
18 two more questions. One, in terms
19 of the time line that you, I had the
20 same question as the other woman,
21 who was just here, if you are ending
22 your comment period July 1st, by the
23 time you read your comment period
24 and signed off, that strategy is
25 signed off, how did you complete

1 construction by August of this
2 summer and do all the excavation?
3 Did I misunderstand?

4 SALVATORE BADALAMENTI: It's
5 meaning --

6 CAROL DIPAOLO: I thought it
7 was construction.

8 SALVATORE BADALAMENTI: They
9 are relatively small portions of
10 soil.

11 CAROL DIPAOLO: Without
12 assuming that the site is developed
13 for restricted residential, and you
14 said that you would have people
15 onsite throughout the construction
16 period to monitor what is happening
17 through the development, if there is
18 any kind of further contamination
19 discovered during that period, you
20 would be there to monitor that, to
21 discover that?

22 LORENZO THANTU: Site
23 management has all specific ones for
24 each year, so they were addressed
25 when a situation like that might

1 occur. As part of the development,
2 hypothetically speaking, should the
3 construction company for the
4 developer find some hidden
5 contamination that was somehow
6 missed by the regulatory agencies
7 before there are steps in the site
8 management plan that they would have
9 to go through. It's a very, very
10 detailed plan, and that should be
11 made available for review in the
12 near future. I think that's being
13 worked on, as we speak.

14 CAROL DIPAOLO: So is there
15 an EPA site manager onsite, during
16 the development period?

17 LORENZO THANTU: Not onsite.
18 Not at this period of time closing
19 excavation by the developer, that's
20 going to take three or four weeks,
21 and we're going to have full-time
22 EPA during that, active.

23 CAROL DIPAOLO: You do not
24 who, do you?

25 JAMES DOYLE: I think just to

1 be clear, certainly when we're doing
2 work, we're doing work, so it's not
3 a question of whether we're
4 overseeing it but if you're asking,
5 and the prior speaker said we were
6 talking about the building, we're
7 proposing. We're not proposing
8 anything. We're here to talk about
9 the buildings, in the future, that
10 are in the works, whatever they may
11 be, it's not our plan, and we're not
12 going to be out overseeing the
13 contractors construction abilities,
14 that's what the controls are for,
15 that's what the site management plan
16 that Lorenzo is talking about is
17 for, the environmental easements in
18 place, there is State Law, there is
19 Federal Law, if people are out there
20 finding something, they are under
21 obligation of the law to report
22 that, if there are problems, we will
23 be back, and the State will be back,
24 but we will not be out there doing
25 construction management for this

1 project or any other project to be
2 done here in the future.

3 CAROL DIPAOLO: I'm sorry, I
4 have another question. Will there
5 be another five-year review?

6 SALVATORE BADALAMENTI: 2020.

7 JAMES DOYLE: And 25 and 30.

8 (Applause)

9 MARK FERRO: My name is Mark
10 Ferro, F-E-R-R-O. I'd like to
11 applaud this gentleman for all the
12 work he's done, and all the testing
13 you've done, and I think one thing
14 that everyone here is missing, I'm
15 not sure who makes the final
16 decision on whether this 8,500 cubic
17 yards be should be remediated but
18 what I think you should let everyone
19 know is that, correct me if I'm
20 wrong, it can only help, am I right
21 or wrong, it can only help, am I
22 right?

23 (Applause)

24 MARK FERRO: It's not going
25 to hurt. So that's all I have to

1 say.

2 Thank you. Thank you. Thank
3 you very much.

4 (Applause)

5 AMY AMALON: Amy Amalon, I
6 just want to ask a few questions.
7 Has a site management plan ever been
8 approved by the EPA for this, for
9 this site?

10 SALVATORE BADALAMENTI: Not
11 yet.

12 AMY AMALON: So there's never
13 been a site management plan approved
14 for this site; is that correct?

15 LORENZO THANTU: There has
16 been a draft site management plan
17 that the EPA have looked and, it is
18 yet to be approved.

19 AMY AMALON: Okay. So my
20 question is the City of Glen Cove
21 represented a site management plan
22 approved by the EPA, then that's not
23 correct. The EPA never approved a
24 site management plan?

25 JAMES DOYLE: Well, first

1 off, the site management plan, as I
2 explained is part and parcel the
3 institutional controls, they are not
4 in place yet, because we are not --

5 AMY AMALON: I understand.

6 It's a simple question.

7 JAMES DOYLE: It's not that
8 simple. The State of New York has
9 regulations that apply to
10 environmental easements. It is part
11 of the New York State Regulations.
12 They're not Federal Regulations. So
13 we are not the keepers and the
14 approvers. We care about them. We
15 comment on them, but it will be the
16 State of New York, when the easement
17 is signed, that's when they will
18 insist on the site management plan.
19 Frankly, I don't know that we know
20 the actual status of it. It may be
21 the site management plan has been
22 finalized with the State, but we
23 never finalized it.

24 AMY AMALON: I understand
25 that, and that's why my question was

1 very specific as to whether or not
2 the EPA approved a site management
3 plan, that would be right, the
4 EPA --

5 JAMES DOYLE: We never
6 approved it.

7 AMY AMALON: When did the
8 city come to the EPA, and tell the
9 EPA that lower Parcel C would no
10 longer be accepted for residential,
11 you said that happened sometime last
12 year, I believe, in your statement,
13 I just want to know when last year
14 did the City tell the EPA that lower
15 Parcel C would not be developed?

16 LORENZO THANTU: We have had
17 discussions with the City, and it
18 came about.

19 AMY AMALON: Okay. Was that
20 documented anywhere?

21 LORENZO THANTU: Yes, I
22 believe so.

23 AMY AMALON: Okay. Where was
24 that documented?

25 LORENZO THANTU: I'm sorry?

1 AMY AMALON: Where was that
2 documented?

3 LORENZO THANTU: Maybe --
4 (Cross-talk)

5 AMY AMALON: I looked through
6 them and I can't find them.

7 LORENZO THANTU: Let me --

8 SALVATORE BADALAMENTI: We'll
9 have to research it, and get back to
10 you.

11 AMY AMALON: Okay. I think
12 the first one asked a question, I
13 think it was the first woman.
14 Better drinking water, but as I
15 understood it, originally the ROD
16 took into -- the 1999 ROD never
17 looked to make the water okay for
18 drinking; am I correct?

19 SALVATORE BADALAMENTI: In
20 1999, ROD recommended no action for
21 the groundwater.

22 AMY AMALON: Okay. So when
23 the first woman said so we're going
24 to have better drinking water and
25 then the answer that was given was

1 that's correct.

2 SALVATORE BADALAMENTI: The
3 quality of the groundwater at that
4 location would be improved, as a
5 result of the removing these 8,500
6 cubic yards, that Aquifer and that
7 area has never been used as a
8 drinking water source and never
9 will.

10 AMY AMALON: Thank you. I
11 just wanted that clarified. The
12 question that was asked when are we
13 going to have that drinking water
14 and the answer that was given was
15 that's correct, so that was not
16 correct.

17 JAMES DOYLE: No, no, no, the
18 fact of the matter is the
19 groundwater in this area is probably
20 impacted by saltwater. Once the
21 levels drop to a certain level, if
22 the County does not prohibit people
23 from putting wells in and if you
24 chose to put a well there, and
25 desalinate it, you could drink it,

1 so when the woman said will it
2 become drinking water or drinkable,
3 we weren't saying it will be
4 consumed, we were saying if this
5 work, goes as we hope, and the
6 numbers, then it could be potable
7 yes, that's what we said.

8 (Applause)

9 AMY AMALON: Okay. So just
10 to be clear, you said it could be
11 potable, so you're not saying that
12 it was, yes, better drinking water,
13 it could be potable?

14 UNKNOWN MALE SPEAKER: It's
15 not drinking water lady, what don't
16 you understand about it?

17 LORENZO THANTU: I was going
18 to add in the 1999, it was for all
19 of the EPA to eventually achieve
20 drinking water standards, and it
21 still remains that today.

22 AMY AMALON: But to-date
23 there's not. If you said it could
24 be potable, and she said better
25 drinking water --

1 JAMES DOYLE: If there's not
2 arsenic in the water, it will be
3 better drinking water.

4 (Applause)

5 AMY AMALON: Okay. I'm --
6 there is no drinking water, we're
7 clear on that.

8 (Applause)

9 AMY AMALON: You also state
10 in your proposed plan two
11 alternatives, which I very much
12 appreciate, two alternatives, and my
13 question is a technical question,
14 that it's an amendment of the ROD,
15 and you're actually looking at an
16 analysis of two alternatives, then
17 why don't you open up the
18 recommended decision? I'm not
19 understanding why an amendment
20 encompasses the analysis of two
21 alternatives? If you can explain
22 that.

23 LAUREN CHARNEY: So the
24 purpose of this Proposed Plan is
25 evaluate better options to reach

1 those standards. The no action is
2 required any time we do a new
3 proposal of remedy, that's in there,
4 as the first proposed, the first
5 alternative, and then the second one
6 is the preferred alternative.
7 That's the one we're speaking to do.
8 It's statutory.

9 AMY AMALON: Okay. Does the
10 no action look like what was done in
11 1999, the no action didn't look like
12 no action it looked like an
13 alternative.

14 LAUREN CHARNEY: The no
15 action in 1999 for groundwater was
16 -- there were different parts of the
17 remedy for the 1999 ROD, for those
18 parts of soil, and part of the
19 groundwater. So for the groundwater
20 part, we selected no action at that
21 time. At this time, we're
22 presenting no action as an
23 alternative, but we haven't selected
24 that as an alternative.

25 JAMES DOYLE: I think what

1 your getting at -- keep in mind, the
2 selected remedy in 1999, that many
3 components, everything had been done
4 with the exception of the
5 groundwater lower C, we had hopes,
6 would be cleaner or cleaned by now.
7 That part of the many things that
8 we've done has not come to fruition,
9 so we're back. We're not amending
10 the whole ROD, frankly, the rest is
11 done. We're just amending the
12 little part, about, you know, what
13 you said we didn't have to do
14 anything, we were wrong, now we have
15 to do something and that's what this
16 is all about.

17 AMY AMALON: I appreciate
18 that. My follow-up question to that
19 what makes that a significant
20 difference, but not a fundamental
21 one?

22 JAMES DOYLE: It is
23 significant. It's fundamental.

24 AMY AMALON: That's right.
25 That's what I said.

1 JAMES DOYLE: It's
2 fundamental. An ESD is significant
3 --

4 AMY AMALON: So what makes it
5 fundamental, and not significant?

6 JAMES DOYLE: Because before
7 we said we're going to do nothing,
8 now we have to do something, so
9 that's the fundamental change.

10 AMY AMALON: And when you
11 made that change, did you look and
12 at the unrecorded years, draft
13 dredging plan for 2015, in any way?

14 JAMES DOYLE: That's not
15 part --

16 LORENZO THANTU: That's this
17 focus on OU 1.

18 AMY AMALON: Okay. So does
19 your proposed plan also discuss the
20 Creek on Page 8 of 16 of the
21 proposed plan, it states: "The
22 Creek's navigational channel has
23 been effectively cleared of
24 radionuclides that could otherwise
25 impact future navigational dredging

1 operations." Yet the U.S. Army
2 Corps of Engineers in August of 2015
3 drafted a dredging plan impact
4 statement C, that if the Creek were
5 to be dredged, it would likely
6 produce unsuitable material.
7 Additionally, Page 9 of those plans
8 states that: "If the current plans
9 for the development of a marina,
10 which is another component to the
11 Development plan, are implemented,
12 RXT will also remove a small area of
13 PCB-contaminated soil that had
14 become exposed on Parcel B. Should
15 the marina not be developed,
16 institutional and engineering
17 controls would be implemented to..."
18 This past October of 2015, the City
19 did approve plans to create a small
20 vessel marina, and also plans to
21 include the creation of 38 to 39
22 additional slips, which would
23 require construction, dredging,
24 piling, to create these slips. In
25 the City of Glen Cove's Findings

1 Statement, it claims that in 2015,
2 that this small vessel marina will
3 help to facilitate the flow of
4 sediment along the Creek, and into
5 Hempstead Harbor - whose shellfish
6 beds were only recently and finally
7 after so many years opened to
8 shellfish harvesting. These related
9 impacts were not considered or at
10 least not discussed in this proposed
11 plan, as far as I saw the materials
12 put up on your website, only
13 recently, I might add, of this ROD,
14 there were also materials and I said
15 were not even available until very
16 recently. However, even the
17 dredging was discussed by you in the
18 proposed plan, although it conflicts
19 with the Army Corps of Engineers
20 conclusions about the fact that
21 dredging in the Creek, likely to use
22 unsuitable contaminants used, and
23 given that the marina plans, Parcel
24 C, and also discussed by you, why is
25 there -- why are you segmenting this

1 review? Did you not consider all
2 the facts associated with the
3 dredging and the marina, as well as
4 the related impacts associated with
5 the project's incompetent stormwater
6 management plan, as proposed by the
7 City, and pointed out by the Town of
8 Oyster Bay, nor was there any
9 considerations for the impacts to
10 the wetlands nor any consideration
11 for the flow of the Harbor.

12 There's no decision on
13 amending the ROD to take into
14 account all of these issues. In
15 fact, given the newly discovered
16 locations of contaminants, as well
17 as new and ever changing plans for
18 the use of this property. The ROD
19 must be related to those new plans,
20 clearly this has not been done, you
21 have statements regarding if the
22 marina is developed or if it is not,
23 when, in fact, the City has approved
24 it. Evidence says that the
25 problematic issues associated with

1 the segmented review, related
2 impacts have not been considered,
3 let alone been given a hard look,
4 specifically there was also a
5 statement made here, that there were
6 no more radionuclides present. It
7 was my understanding there was
8 sledge left on the bulkhead, with
9 the logistical problems with
10 radioactive sledge, it was said
11 there is no radioactive sledge, but
12 in fact Parcel A, which was the
13 subject of this ROD, was still
14 there. So I applaud the EPA for its
15 work, nobody needs to criticize the
16 work done to date, nobody is
17 criticizing the fact that you are
18 more than willing, at least
19 apparently now, and happy whenever
20 comes to look at a different
21 alternative and an alternative that
22 really entails more removal, but
23 what we are asking, we're asking for
24 this review to not be segmented, we
25 are asking for consideration as to

1 all the related impacts,
2 specifically you're proposed plan
3 also discusses traffic, and the
4 impact that traffic will have from
5 the alternative you pick, as to what
6 you call no action, looks like to me
7 it's alternative 1, how it's stated
8 in here, and I am glad that you're
9 looking at that, but, you know,
10 there have been studies done and
11 conclusions made, and we're just
12 asking you guys to look at all those
13 impacts.

14 (Applause)

15 AMY PETERS: My name is Amy
16 Peters, 45 Harbor Drive, Glen Cove.

17 So I also would like to say
18 to the EPA, I'm a big fan of the
19 EPA, I'm very happy that you're here
20 on the cleanup for toxic waste.
21 It's been a long time. You worked
22 really hard. I really appreciate
23 the work that you do here in Glen
24 Cove, as well as all over the state
25 and country.

1 However, I do have an issue.
2 I don't know who it is that writes
3 your Notices, I received a Notice
4 today from the EPA via E-mail
5 regarding the proposed lead and
6 arsenic cleanup at a site in
7 Gibbsboro, New Jersey. In this
8 Notice it states the EPA proposed to
9 clean up contaminated soil that
10 contains lead and arsenic, the same
11 contaminates that are here on this
12 property. However, the EPA Notice
13 regarding the dump site in New
14 Jersey, the EPA explains the dangers
15 of those contaminants in that notice
16 and it uses the following paragraph:
17 Lead exposure can have serious,
18 long-term health consequences in
19 adults and children. Even at low
20 levels, lead in children can cause
21 IQ deficiencies, reading and
22 learning disabilities, impaired
23 hearing, reduced attention spans,
24 hyperactivity, and other behavioral
25 problems. Lead exposure can also

1 cause health problems in pregnant
2 women and harm to fetuses. Arsenic
3 can cause cancer.

4 The Notice goes on to say
5 that lead to the toxic metal that
6 can curve a child's ability to learn
7 and cause other very serious health
8 problems. Proposed plan is an
9 important step forward in cleanup
10 complex site and protect people's
11 health. Now this is for a site in
12 New Jersey. There is no such
13 mention in the EPA Notice regarding
14 the Li Tungsten property. That --
15 let me just get my notes on that
16 one. It says here that you're going
17 to dispose of arsenic and lead
18 contaminated soil from portions of
19 the site, and it says that this
20 cleanup will help protect people's
21 health and the environment. The EPA
22 helping Glen Cove to turn all of
23 these industrial areas into an asset
24 for the Community.

25 So I'm just really concerned

1 that the wording that's used in the
2 public notice for Glen Cove is very
3 sort of matter of fact, and not too
4 scary, but in New Jersey it's a real
5 scary thing. So I'm just a little
6 concerned by that, and feel like the
7 -- you know, everybody, oh, it's all
8 cleaned up. I mean, how many times
9 has this town heard those words,
10 "It's all cleaned up?" It's still
11 not all cleaned up and it's real
12 dangerous. I just hope and I pray
13 that the work that you do, going
14 forward will get it to the point
15 where it needs to be so people can
16 be there. Whether they can live
17 there, I don't know, but it would be
18 nice, but I personally don't have
19 faith in that scenario.

20 (Applause)

21 MARK FERRO: My name is Mark
22 Ferro. I spoke before. I don't
23 usually speak in front of an
24 audience, and these gentlemen that
25 have put up stuff up here that it's

1 so confusing. Let's face it,
2 mankind has made a mess of this
3 planet. Is there anyone here that
4 can deny that? Raise your hand.

5 (Laughter)

6 I don't see anyone. So we're
7 all in agreement that mankind has
8 made a mess of this planet. Once
9 again I ask, is there anyone that
10 questioned that we haven't done
11 that?

12 These people up front, I
13 believe, they're human beings,
14 they're not perfect, they're not
15 going to have every little answer
16 that everybody's asking. They are
17 only human. They are doing the best
18 -- let me finish, please.

19 UNKNOWN WOMAN SPEAKER: I
20 think --

21 CECILIA ECHOLS: Please,
22 allow him to finish, and then we can
23 move on to the next person, please.

24 UNKNOWN WOMAN SPEAKER: Where
25 does he live and whose paying him?

1 MARK FERRO: Planet earth. I
2 live on planet earth.

3 (Applause)

4 CECILIA ECHOLS: We're going
5 to move on.

6 UNKNOWN WOMAN SPEAKER: What
7 payroll are you on?

8 CECILIA ECHOLS: Please,
9 don't shout out. We want to get to
10 the bottom of your concerns. We
11 want to address them. We want to
12 help you, you will have a clean area
13 where you want to build on. Okay.
14 We're here for that. We're not here
15 for shouting at all. Thank you.

16 DAVID BERG: Thank you.

17 My name is David Berg,
18 B-E-R-G. The City and the
19 developers have announced to the
20 public that there would be shovels
21 in the ground for the development
22 come springtime, clear or not. My
23 first question is: Do you think
24 it's safe or wise to develop or
25 build on a site that has not yet

1 been fully remediated?

2 SALVATORE BADALAMENTI: At
3 this point, we're going to keep
4 remediating hot spots and improve
5 the ground water quality, we feel it
6 is fully remediated. Hot spots and
7 institutional controls and
8 environmental.

9 (Applause)

10 DAVID BERG: I'm sorry. I'm
11 a little confused by that because if
12 it is fully remediated, then why
13 would we be headed back for hot
14 spots?

15 SALVATORE BADALAMENTI: They
16 were missed in the past.

17 DAVID BERG: So it's not
18 fully remediated, it's partially
19 remediated?

20 SALVATORE BADALAMENTI: 98
21 percent.

22 DAVID BERG: Okay. So --

23 SALVATORE BADALAMENTI:
24 Relatively the amount of soil that
25 were removed initially --

1 DAVID BERG: So again my
2 question, and I know it maybe a
3 matter of opinion, but I'm asking
4 your opinion, maybe as people more
5 than panels of EPA members, do you
6 think it's wise or safe to develop a
7 site that has not yet been fully
8 remediated?

9 JAMES DOYLE: They are going
10 to get the hot spots before they
11 build.

12 UNKNOWN FEMALE SPEAKER:
13 Correct.

14 UNKNOWN MALE SPEAKER: You
15 are correct.

16 DAVID BERG: Can you speak
17 your response into the microphone?

18 JAMES DOYLE: In the areas
19 where we have hot spots, it would
20 not be wise to go and start
21 developing there. So that we would
22 then tear the buildings down to get
23 at the hot spots. So the areas
24 where there's no need to go, then
25 whatever developments that -- this

1 is not our development here.
2 Whatever happens can happen safely
3 in those areas where there are hot
4 spots.

5 DAVID BERG: So, in other
6 words, do you have the legal
7 empowerment to keep them from
8 putting shovel into the ground until
9 the site is fully remediated, to the
10 best of your knowledge?

11 LAUREN CHARNEY: Right.
12 That's what's happening and it also
13 would require A two-foot topsoil
14 layer. That's what will be
15 happening as part of the site
16 management plan.

17 DAVID BERG: Thank you. So
18 about what you just mentioned the
19 two-foot soil cover, and it's my
20 understanding that when the
21 developer develops, they're going to
22 be taken down, it was mentioned
23 quite a bit deeper than that, and it
24 might stir up more contaminants that
25 are leached further down into the

1 soil; is that correct?

2 LAUREN CHARNEY: I don't
3 think the concern is that it will
4 stir up more contamination. I think
5 it actually would be beneficial
6 because more contamination would be
7 excavated, more soil would be taken
8 off the site.

9 SALVATORE BADALAMENTI:
10 Although we don't anticipate that if
11 it does occur, it will be brought
12 into the site management plan to
13 remove that soil offsite, if it
14 exceeds the criteria.

15 DAVID BERG: Thank you. To
16 your knowledge, is it true that the
17 study recommended that special
18 containers need to be filled in
19 order to be able to dredge the
20 radioactive material that's
21 currently within Glen Cove Creek, in
22 order to remove the material, so
23 that it may be dredged?

24 SALVATORE BADALAMENTI: We're
25 not dredging experts. It sounds

1 like the Corps of Engineers
2 question.

3 LAUREN CHARNEY: Just to
4 clarify what Lorenzo talked about at
5 this site, what we're here is for
6 Operable Units 1 and 2. Possibly
7 the dredging you're speaking of is
8 Operable Unit 4. It's not effected
9 by the proposed plan that we're
10 presenting today.

11 JAMES DOYLE: I would just
12 add that and I'm the only one that's
13 been on this, since 1989, here on
14 the panel, but we dredged the entire
15 Creek, and the language in the plan
16 that was alluded to by another
17 resident. It's just -- it's
18 language that is acknowledged in the
19 possibility, for example, more
20 explained that we dredge two feet
21 below the navigational channel so in
22 the future as it sits and then the
23 Army Corps comes into the future to
24 redredge ten years, whenever they do
25 it, they won't be dredging down to

1 that, that we dredged. So while
2 it's theoretically possible there's
3 something underneath where we dredge
4 to, it will be covered with at least
5 two feet of sediment, and it will
6 not be -- they wouldn't run into it
7 the next time they dredge. So we
8 don't think there's any -- we're not
9 saying there's nothing -- we're not
10 saying there's anything in the Creek
11 -- we believe there's anything in
12 the Creek, in the plan, it just
13 acknowledges that we can't say with
14 absolute certainty there's not a
15 single nugget of radioactive sledge,
16 you know, how many feet below the
17 channel in the Creek, so that's it.

18 DAVID BERG: I would
19 personally like to comment that
20 while I appreciate that explanation
21 and clarification I don't find a
22 whole lot of comfort in knowing that
23 there's radioactive sledge in Glen
24 Cove Creek or the shellfish being
25 harvested right outside the mouth of

1 the creek in Hempstead Harbor.

2 (Applause)

3 DAVID BERG: I'm stating my
4 opinion.

5 JAMES DOYLE: Okay.

6 DAVID BERG: Thank you. Just
7 answered my next question. Thank
8 you.

9 (Applause)

10 LAURIE MURPHY: Laurie
11 Murphy, 14 Foster Place, Sea Cliff.

12 I'm concerned about the areas
13 that you dismissed as red flag
14 areas. Would you comment on those
15 areas. All that you've told us
16 about red flag areas, are that they
17 are not in a position to be
18 remediated. Would you identify
19 where those red flag areas have been
20 located, would you tell us the
21 characteristics of the red flag
22 areas and any dangers that the red
23 flag areas present to the Creek or
24 to the Harbor? Thank you.

25 LORENZO THANTU: Let me try

1 to get that slide for you to look
2 at. Okay. I have here a slide of
3 Lower Parcel C.

4 I'm going tell you the three
5 main red flag areas that we
6 identified. I'm going to start with
7 Lower Parcel C. When the EPA
8 removal did excavation of Lower
9 Parcel C, here you see the western
10 boundary with 1 Garvies Point. All
11 along here they're trying to
12 excavate all the way to the
13 boundary, and once they got here,
14 they found an underground saltwater
15 line, and we could not take any risk
16 in undermining the integrity of
17 that. So this is one area where we
18 had a red flag, and what we did was
19 we excavated as much of all that
20 material as we could, all the way
21 down to the water table, which was
22 about 10 to 12 feet, at that time,
23 and so this is one red flag area,
24 and then over here, you have some
25 gas lines, and we are required to

1 not go past the six-foot standoff,
2 so we cannot access all of this
3 area, even though this area was
4 deemed to be more, and then down
5 here, we have some electric service
6 lines, and that's another red flag
7 area. So these are the red flag
8 areas, either the excavation came
9 too close to underground saltwater
10 lines, gas lines or electrical
11 utility. Then we have another red
12 flag area on Parcel A. Can you go
13 to Parcel A for me, Sal? I wanted
14 to answer one of the questions asked
15 earlier. I think I can cover that
16 question here. Here is Parcel A,
17 okay, to the south of Herb Hill
18 Road, over here is Parcel A, Parcel
19 B, Lower Parcel C, Upper Parcel C
20 over here. Here is Glen Cove Creek,
21 okay, and all along the stretch of
22 Glen Cove Creek, you have these
23 walls, which are like retaining
24 walls, so that doesn't collapse into
25 the Creek, and as part of the major

1 Creek dredging that we did between
2 2006 and 2008, for the bottom half
3 of Glen Cove Creek, we actually used
4 these cranes, equipment with
5 clamshell buckets to excavate the
6 bottom of the Creek, and we actually
7 went down at least two feet deeper
8 than the navigational depth that US
9 Army Corps typically goes down to,
10 so that was our safety margin. So
11 any time in the next 10, 20 years
12 Army Corps goes back to dredge the
13 Creek, you can be certain that they
14 are not going to end up getting to
15 the current bottom, as we have in
16 the Creek right now. So the only
17 thing that I'll say, the proposed
18 plan is, even though we have gone
19 down two feet below the Army Corps
20 dredging depth, we cannot be certain
21 than, there are not low levels of
22 radionuclides deeper into that
23 current bottom. That's all we are
24 saying, but they should be safe as
25 long as the Army Corps does not get

1 into the current bottom sledge
2 sediment of the Creek. So, in
3 addition to the bottom Creek sledge
4 materials that were excavated, EPA
5 will actually in 19 -- sorry in 2007
6 also excavated using long-reach
7 excavators on top of Parcel A, to
8 excavate the sediment right by the
9 bulkhead. That's in the sight slope
10 area of the Creek. We took out as
11 much as we could, but we decided and
12 concluded that we didn't get any of
13 that. That's what we talked about
14 in the proposed plan. This is the
15 same area that we heard from the
16 City last year that, that area might
17 be developed for marina, but we
18 never got design plans for all that
19 is going to be done, we did not know
20 how many slips the marina was going
21 to have. That's why we have that
22 general language in the proposed
23 plan, basically stating that if the
24 marina development does not move
25 forward, we would implement

1 institutional controls, so that what
2 might be remaining radionuclide in
3 the sight slope in the Creek
4 adjacent to the bulkhead would
5 remain intact and, alternatively, if
6 a developer should develop a marina,
7 and they would be required by the
8 EPA to address all that radionuclide
9 contamination. So right now we're
10 still on the schedule for whether
11 that's going to happen or not.

12 JAMES DOYLE: If it exists.

13 LORENZO THANTU: If it exists
14 but, you know what, right, we don't
15 take any chances, even though we dug
16 down to like two additional feet
17 below navigational depth, after we
18 did that we actually ran our survey
19 to see where else there may be hot
20 spots, based on the survey we did on
21 the bottom, we did hit two hot spot
22 removals along the bottom in 2007,
23 using the long-reach excavators from
24 Parcel A. So, we just taking extra
25 precautionary measures as we

1 normally do. That's why better safe
2 then sorry, that's why put into.

3 UNKNOWN FEMALE SPEAKER: He's
4 answering my question.

5 CECILIA ECHOLS: We're going
6 to take one more question and then
7 we have to take a little break for
8 the stenographer.

9 Thank you.

10 DAVE MARTIN: Dave Martin,
11 Sea Cliff. Could we go back to the
12 slide that shows the graphs, please?

13 LORENZO THANTU: This Lower
14 Parcel C?

15 DAVE MARTIN: The grafts.

16 LORENZO THANTU: Sorry. Went
17 too far.

18 DAVE MARTIN: Thank you.

19 At what point was the
20 remediation done, where was the
21 remediation initially done, looking
22 at that top ground?

23 LORENZO THANTU: Plan for the
24 Remedial Action called soil
25 excavation and renew excavation,

1 started in 2000, but the actual
2 excavation work started in 2003 and
3 was completed in 2008. So it took
4 about almost eight years including
5 initial planing.

6 DAVE MARTIN: Thank you.

7 So after that time, that you
8 had thought this was done, we see
9 two big spikes, and curiously that
10 second one took a year to develop,
11 between 2013 to 2014, so if you're
12 going do some remediation now, it
13 would seem to me that it would be
14 rather important to wait a while
15 before any construction was embarked
16 upon, to see if there was going to
17 be another spike. We don't even
18 know exactly where these came from,
19 so I think doesn't it require some
20 time to find out if it's really
21 working, before construction takes
22 place?

23 LORENZO THANTU: In all
24 likelihood, it's coming from the --

25 (Applause)

1 LORENZO THANTU: --
2 contaminated soil because Li
3 Tungsten arsenic and leads are
4 associated with Li Tungsten most
5 likely in other places, like the TA,
6 just to the northwest of Li
7 Tungsten, they had lots of high
8 contaminant points, but Li Tungsten
9 is real arsenic, it's unlikely the
10 arsenic could be coming from another
11 area in the proximity. So let's get
12 all the stuff out from the soil
13 before continued to reach the
14 groundwater.

15 JAMES DOYLE: I think his
16 point is if we miss it, wait until
17 we see what we got --

18 DAVE MARTIN: Exactly. I'm
19 suggesting that here. You thought
20 you had it, and one spike took an
21 entire year to be discovered, so if
22 you said, in all likelihood, that's
23 not really science. Don't we need
24 some time?

25 JAMES DOYLE: I might add

1 that and, again, it's not our
2 proposed --- it's certainly a
3 municipal garage would be an
4 impermeable structure, which in many
5 of our remedies, I mean, we don't --
6 for example, landfills, dig up an
7 entire landfill, move it and put in
8 another landfill somewhere else. We
9 often cap landfills, so capping
10 soil, that's part of what this two
11 feet that you're hearing about, is
12 to keep people from being exposed to
13 levels that may be down three or
14 four feet below the grade, but a
15 municipal building would certainly
16 reduce, if not eliminate, the amount
17 of rainwater that flushes through --

18 DAVE MARTIN: Absolutely.
19 But the significant difference here
20 is when you're talking about a
21 garage or a municipal building, way
22 up on land, here we're talking about
23 waterfront and if anything goes,
24 it's going into the Creek and the
25 Sound. That's the difference. It's

1 a big difference.

2 JAMES DOYLE: Well, we're
3 going to continue to monitor.
4 That's part of our plan, so we will
5 see whether it's working, and if
6 there's nothing built on top of it,
7 we can go back and get it. If
8 there's a building built on top of
9 it, there will be no precipitation
10 flushing it into the Creek, so it's
11 kind of one or the another, right?

12 DAVID BERG: What about the
13 question? Wouldn't it be better to
14 wait?

15 DAVE MARTIN: It would seem
16 to me that you really want to know
17 that you're not getting anything at
18 the Creek, before you start the
19 construction. Just my opinion. I
20 could be wrong.

21 (Applause)

22 EILEEN COLES: Eileen Coles.
23 C-O-L-E-S. I represent an
24 organization called Greenland Cove,
25 which has 38 members, and hopefully

1 I am speaking for them, as well as
2 myself.

3 First of all, I'd like to
4 thank EPA for doing what you do.
5 Obviously dedicating a lot of time
6 and effort. That said, my father
7 worked for the State, and I know
8 what goes on. So two percent of hot
9 spots is not full mediation and two
10 percent with a little number but 3.2
11 million is not. We are not talking
12 about small things here, and if
13 that's money maybe something that
14 gets the attention of a lot of
15 people, but I'm here for people's
16 health, and the future of my City.
17 It boggles my mind that nobody with
18 a little brain power, no more people
19 here, that it's second peak in 2014
20 represented the results of Hurricane
21 Sandy. Why hadn't anybody caught
22 that? I guarantee you that if you
23 look at the correlation of weather
24 events, you're going to see a
25 pattern that measures those peaks

1 and Hurricane Sandy don't care about
2 Parcel A or Parcel C or the Creek or
3 the institutional controls, and if
4 we have another one of those, this
5 development on this particular
6 location could become very
7 untenable. There's been below two
8 feet, things get stirred up, if
9 there's -- you know, it's very
10 possible that since the Harbor
11 happened in 2007 with dredging, the
12 Creek might have been undone by
13 Sandy. We know that in Brooklyn,
14 Dead Horse Bay, that area took a
15 direct hit from Sandy, and what's
16 going on down there right now could
17 happen here where the pollution that
18 will be under that two feet of soil.
19 They are going to have to dig some
20 kind of a foundation for these giant
21 buildings that they want to build.
22 You know, I worked at World Trade
23 Center and to be there, if we're
24 going to build that close to the
25 water, and if they do that, anything

1 below that two-foot line could end
2 up leaking into the Creek again, so
3 between the potential for
4 construction released stuff into the
5 Creek for -- which we basically,
6 hopefully, have no control over,
7 this area really needs a lot more of
8 in-depth look, and it needs to look
9 at bigger pictures here, whether
10 events need to be part of the
11 paragraph. That's all I have to
12 say. Thanks.

13 (Applause)

14 JOE CRAINE: I'm Joe Craine,
15 C-R-A-I-N-E. I've been listening to
16 everything that's going on and who
17 is the project manager for the
18 remediation?

19 LORENZO THANTU: Li Tungsten.

20 JOE CRAINE: So your
21 remediation is just about complete,
22 you turn it over to Glen Cove, and
23 they want to build. They have the
24 comprehensive storm water pollution
25 program in effect, they start

1 putting down roads, slabs, you
2 touched on it, asphalt, hardscapes,
3 that permeable water now is directed
4 into sewers, which is now directed
5 away, so it does not perk. Am I on
6 the right page here? So, what I'm
7 trying to say is with your
8 professionalism, I don't know how
9 many Superfund sites you've cleaned
10 up, but you said a few of them,
11 starting construction on this
12 project, getting it going, putting
13 down the roads, putting down the
14 sewers, putting down the slabs would
15 be beneficial for the site? Just
16 yes or no, very simple. Yes or no?
17 You're taking out two feet of soil,
18 right?

19 SALVATORE BADALAMENTI:
20 Reduce the permeability and leaching
21 of the water through the soil, and
22 it's drain systems will direct storm
23 water, where it should go.

24 JOE CRAINE: Subsequently, it
25 would be beneficial such that the

1 two feet of soil that you're going
2 to take out and put on top is
3 beneficial. It's a hard word to say
4 but I know you can say it. I know
5 you can say it.

6 SALVATORE BADALAMENTI:
7 Beneficial, sure.

8 (Applause)

9 ALAN GOLDBERG: This is Alan
10 Goldberg. How much has the EPA
11 spent so far on cleaning up this
12 site?

13 JAMES DOYLE: I want to take
14 this one because I was involved in
15 the eight years of litigation. The
16 parties have ended up -- we spent
17 about \$40 million, and then we got
18 reimbursed for most of that and the
19 private parties spent what we
20 estimated, was a total of
21 \$88 million has been spent up to
22 this point, on addressing this
23 problem, on these problems I should
24 say.

25 ALAN GOLDBERG: It seems to

1 me that most of the opposition here
2 is from either from Glen Head or Sea
3 Cliff.

4 AUDIENCE:

5 No. No. No.

6 JOE CRAINE: I certainly hope
7 that the politics seem to be
8 involved here do not affect your
9 decision. Thank you.

10 (Applause)

11 CECILIA ECHOLS: We're going
12 to take a little break, five-minute
13 break. Thank you.

14 (Recess taken.)

15 CECILIA ECHOLS: Please,
16 state your name.

17 KAREN P: Karen Peppgricio
18 (ph), Coalition -- born and bred in
19 Glen Cove, and all I want to say is,
20 first of all, thank you for all of
21 your work. I've been at meetings
22 since I was 16 at the Glen Cove City
23 Hall, on EPA, at that point, but I
24 have seen such changes, and all I
25 can say is I concur with a lot of

1 people about not being sure about
2 this cleanup, being where it should
3 be and that's what you're working
4 on. At this point I do applaud
5 that, but I will say if this goes
6 forward, I just ask you, as the DEC
7 said they would be onsite more when
8 this developer comes. We've seen
9 Jack Quinn come and build Captain
10 Cove homes, and then it was ready to
11 implode, and then you had to come in
12 and go backwards. I just don't
13 trust the City or the developer, I
14 should say, to do the right thing.
15 I've seen it my whole life. I'm 56
16 and I have watched this place
17 develop and I've seen things go up,
18 go down, become Superfund, the whole
19 gamut, and I really, really implore
20 you that you look at everything with
21 a very hard look, and then when and
22 if a developer comes in that you
23 really, really have somebody either
24 onsite or there very often, weekly,
25 watching, not trusting anybody,

1 because they've already proved you
2 can't trust them, so thank you.

3 (Appause)

4 JANET BLACK: Janet Black,
5 Glen Cove. I have a question
6 involving concerns about soil vapor
7 intrusion. Is that a concern that
8 would only exist if you had not done
9 away with the possibility of ever of
10 there being low single family
11 housing or is that going to be an
12 ongoing problem for the apartments
13 that are being built. Are the
14 apartments being built right down
15 from the ground up or is there going
16 to be parking for residents under
17 the buildings, in an open space,
18 which would be the cars would be
19 impacted by soil vapor intrusion.
20 Also I'd like some kind of
21 information on that.

22 SALVATORE BADALAMENTI:
23 Typically, we want to have tested if
24 vapors would come up with a subslab
25 a slab of the building being, if

1 that's -- there's a possibility that
2 they put in systems below the slab
3 before it's contracted, as a
4 proportion so that such vapors don't
5 get into the building.

6 JANET BLACK: Ventilation
7 systems of some sort?

8 SALVATORE BADALAMENTI:
9 Ventilate below the old slab, so
10 that it never gets into the
11 building. That's one possibility of
12 how that can be handled. Another
13 method I thought in the past
14 discussions of any residential
15 construction being off the ground
16 level so --

17 JANET BLACK: There was maybe
18 ten years ago.

19 SALVATORE BADALAMENTI: Yeah.
20 I'm not sure whether that's still
21 the case or not. There's other ways
22 to avoid that.

23 JANET BLACK: I took a very
24 quick look at the computer-generated
25 pictures of the apartment houses. I

1 don't know, which might be in Long
2 Island City, but I think it's more
3 for Glen Cove, but recognizing that
4 this going to be built, have a soil
5 vapor intrusion problem, so it
6 concerns, not that I'm -- it would
7 concern me.

8 SALVATORE BADALAMENTI: That
9 would be one of the goals vapor
10 intrusion needs to be looked at for
11 buildings to look at.

12 JANET BLACK: What other
13 institutional controls and
14 monitoring are going to be required
15 of the developers to have, and who's
16 going to monitor and how frequently
17 will the monitoring take place over
18 the years?

19 SALVATORE BADALAMENTI:
20 Another one control would be that no
21 wells can be installed in the area
22 for drinking water purpose.

23 JANET BLACK: Well, there are
24 none now and unless somebody's got
25 accounting approved, there never

1 would be unless there would be too
2 much of a problem but you know long
3 after I'm dead, there might be --
4 I'm 73, so, you know, nothing would
5 surprise me, but I wouldn't be
6 around to see it. There are no
7 other institutional controls besides
8 concern, in terms of groundwater and
9 the soil vapor intrusion?

10 SALVATORE BADALAMENTI: In
11 those red flag areas, it remains
12 that we can't get to that material
13 that's filtering those utilities.
14 They are be special process for
15 excavation in that area, aside
16 excavating in that area.

17 JANET BLACK: One last thing
18 just came to my mind. Government
19 regulations regarding how clean is
20 clean, how clean the soil has to be,
21 how clean the water has to be, how
22 clean the air has to be? Change. I
23 don't know how frequently. I don't
24 know the last time they changed in
25 regard to various toxins that have

1 been on that site, but since there's
2 never 100 percent cleanup, what
3 happens if those levels that are
4 acceptable now change before
5 construction is completed here or
6 even after, given the fact that
7 there's not going to be, can't
8 possibly be 100 percent cleanup?

9 SALVATORE BADALAMENTI:
10 That's the reason why we continue to
11 do those five-year reviews, we're
12 changing the state of that, and the
13 effectiveness of the remedy that's
14 been implemented is evaluated such
15 change in standards will be
16 considered by reviewing
17 recommendations. We come out to do
18 something more for a standard,
19 change became more stringent.

20 JANET BLACK: What do you
21 consider the time span from when the
22 soil starts to be removed to
23 completion of that removal?

24 SALVATORE BADALAMENTI: The
25 excavation remedy that we're talking

1 about here tonight?

2 JANET BLACK: Yes, right.

3 SALVATORE BADALAMENTI: Six
4 months duration, at maximum.

5 JANET BLACK: From when it
6 starts, if nothing shows up while
7 you're doing it?

8 SALVATORE BADALAMENTI:
9 That's exclusive of it, when
10 development starts, if something
11 else happens.

12 JANET BLACK: That's on other
13 parts of the site?

14 SALVATORE BADALAMENTI:
15 Right.

16 JAMES DOYLE: Just to answer
17 your question about the verification
18 of institutional controls. Once the
19 environmental piece is in place,
20 there's an annual monitoring
21 requirement, annual certifications,
22 I should say, annually certified for
23 the State DEC, that they have gone
24 to in constitutional controls are
25 still in effect, no one period, no

1 one had drilled a well, and started
2 drinking, it those verifications go
3 annually to the State.

4 JANET BLACK: They higher
5 someone and take a look, check it
6 out, or people on staff.

7 JAMES DOYLE: It's a
8 certification by an engineer whether
9 they hire or up to the State when
10 you say, they, I assume you mean the
11 property owners?

12 JANET BLACK: Yes.

13 JAMES DOYLE: Yes. A
14 certification from -- not just the
15 office assistant, it's somebody who
16 knows the stuff we're talking about.

17 JANET BLACK: Thank you.

18 LESLIE GUERCI: My name is
19 Leslie Guerici, G-U-E-R-C-I. You'd
20 never get that.

21 I want to go back to the
22 issue of hurricane and storm surges,
23 since this is low to the water,
24 water table is very high in the
25 area. If there is a storm surge,

1 then even ground underneath
2 buildings and foundations are going
3 to be effected, and when that water
4 drains out, it's going to pull
5 contaminates outside of that soil
6 into the Harbor. What is your
7 experience? We certainly saw that
8 in New Orleans, and hurricanes where
9 they had pollutants pulled out. Do
10 any of you have experience on sites
11 where they're on the water and
12 there's a problem, when you have a
13 storm surge?

14 SALVATORE BADALAMENTI: I'm
15 sure any development that gets
16 designed will consider the storm
17 surges and good protection as part
18 to protect the projects.

19 LESLIE GUERCI: You're sure
20 of that? Do we have a
21 representative?

22 SALVATORE BADALAMENTI: I'm
23 sure any responsible developer
24 would --

25 LESLIE GUERCI: I would say

1 that's an oxymoron so is the EPA
2 going to require that as part of
3 your plan?

4 SALVATORE BADALAMENTI: We're
5 not part of the development. We're
6 here to --

7 LESLIE GUERCI: No, I
8 understand but you're making the
9 recommendation for the plan that
10 goes to the developer, that they
11 have to --

12 JAMES DOYLE: That's not our
13 role.

14 SALVATORE BADALAMENTI:
15 That's not our role.

16 JAMES DOYLE: We're cleaning
17 up the land whether it's a one-story
18 ranch house, we're here to clean up,
19 to clean up to the best that we can.
20 Whether in the future it's a
21 one-storey ranch house or
22 100-storey, yeah, I mean that's not
23 our business.

24 LESLIE GUERCI: Who does that
25 gets addressed to?

1 JAMES DOYLE: That is your
2 local building code, if you are in
3 harm's way, where I live, we're on
4 the waterfront, on the Hudson River,
5 we have all new flood plan statutes,
6 that you have to take all these
7 things in consideration when you're
8 building on the water, or in the
9 flood plain, so to your earlier
10 question, you know, like, New
11 Orleans, there were underground
12 storage tanks and things full of --
13 which is a different scenario from
14 what I think you're describing, when
15 a storm surge comes in, and anything
16 that's in the soil now will be
17 flushed out as opposed to 500
18 gallons of fuel oil that gets washed
19 out all over the place. So here,
20 you know, that's the underground
21 storage tank program is not
22 something that we're dealing with
23 here today. We know with Captain's
24 Cove, and Li Tungsten, there aren't
25 all kinds of buried underground

1 tanks full of material.

2 LESLIE GUERCI: But we have
3 all red spots that you couldn't
4 clean up that serves the groundwater
5 would flow into and overwhelm the
6 whatever --

7 JAMES DOYLE: Well, that's --
8 I believe that's your
9 characterization, the levels that
10 are in those red flag areas would
11 overwhelm the Creek. I think our
12 risk assessments might not agree
13 with you about that level of risk.
14 We have a concentrated slope of oil
15 that's going to be gushing out is
16 one thing but --

17 LESLIE GUERCI: Well, so I'm
18 asking, did your experts look at the
19 issue of a storm surge of 12 feet or
20 --

21 JAMES DOYLE: I mean, I don't
22 know that -- the precipitation is
23 precipitation.

24 LESLIE GUERCI: Precipitation
25 is coming out of the clouds isn't

1 the same as --

2 JAMES DOYLE: Well, it's
3 flushing water through soil. In
4 other words, I don't know that it
5 goes. I'm not an expert. I don't
6 know if anyone here is going to be
7 able to answer the question of
8 whether if there's a storm surge,
9 you know, the land being under water
10 will cause this stuff to migrate
11 much faster or slower because the
12 land only accepts so much
13 precipitation at whatever rate it
14 can but we certainly evaluate the
15 whole point of this activity is the
16 precipitation is not flushing the
17 stuff out the way we thought in
18 1999. We're going back to dig it
19 out, because it's not responding the
20 way we thought it would.

21 LESLIE GUERCI: Right. But
22 precipitation is from the sky, a
23 storm surge is water coming in from
24 the Harbor onto the land, and then
25 when it leaves, it's going to drain.

1 LAUREN CHARNEY: Right.
2 Well, I think what we're proposing
3 tonight is only going to help your
4 concern. We're taking it --
5 proposed to take away 8,500 cubic
6 yards of contaminated soil, so there
7 will be less there for a storm surge
8 to watch out into the Harbor. I
9 understand your other concerns about
10 what's left behind but, again, I
11 will direct you to your local
12 municipality, as far as what rules
13 they have now for redevelopment in
14 flooded areas.

15 RICK SMITH: Rick Smith, Glen
16 Cove. I'm a little confused. This
17 gentleman, Salvatore, said that the
18 property was completely remediated,
19 then you backed up and said
20 98 percent remediated. Can you
21 explain to me if that's the case and
22 whether it's 100 percent remediated?
23 Can you explain why it's not
24 suitable then for one-family
25 residential housing?

1 SALVATORE BADALAMENTI: They
2 will always be some contaminants
3 left below our cleanup standards and
4 some that might have been missed, as
5 well. I mean, this area has been
6 industrial for decades and our
7 sampling doesn't cover every square
8 inch, so there's a possibility of
9 some material left behind but --

10 RICK SMITH: Well, if that's
11 the case, and if it's not suitable
12 for residential one-family houses,
13 why would it be suitable for
14 condominiums or co-op or condominium
15 ownership housing, a multiple unit
16 it says?

17 LAUREN CHARNEY: Because of
18 the interaction that the resident
19 would have with their surface soil
20 and the upper stories, there's less
21 interaction. If you have a
22 single-family home, and you are
23 gardening more, you are sure to
24 touch the soil.

25 RICK SMITH: So, in other

1 words, the people that would live
2 high up in the air, above the
3 ground, would be theoretically safer
4 then the ones that are actually
5 living above the ground or perhaps
6 walking on the ground, or perhaps
7 playing on the grounds, is that what
8 you're saying?

9 LAUREN CHARNEY: No, I mean,
10 that's not what we're saying.

11 RICK SMITH: Well, what are
12 you saying?

13 SALVATORE BADALAMENTI: From
14 a vapor intrusion standpoint, that
15 would be accurate, because vapors
16 would not be able to get in but from
17 direct contact exposure, from
18 walking, from touching dirt, we
19 expect the dirt to be safe,
20 protected for human health.

21 RICK SMITH: Two feet of soil
22 on top of soil, on top of the porous
23 soil, which has the vapor and other
24 contaminants either rising up or
25 going down deeper when it rains,

1 what happens when this porous soil
2 remit the vapor and people are
3 walking on this soil?

4 SALVATORE BADALAMENTI: Vapor
5 is only an issue when contained,
6 you're not in the home 24 hours a
7 day.

8 JAMES DOYLE: Windows are
9 closed --

10 RICK SMITH: Still seems very
11 strong to me. Don't know why you
12 wouldn't prevent single houses on
13 the ground, but multiple dwellings
14 on the ground higher up in the air
15 facilities. I don't believe, for a
16 minute, I'm going to tell you, first
17 that I'm in favor absolutely in
18 favor Garvies Point being developed
19 one end to the other, in a Mystic
20 Sea point type operation, and I
21 think all of this money you are
22 spending, \$8 million is unfortunate,
23 I think a long time ago could have
24 been resolved by paving over the
25 whole place, sealing in the ground

1 water would come from the sky and
2 wash all of the contaminants deeper
3 into the ground doing this since
4 1942. In any event, it's a
5 wonderful to build anything but
6 housing, and I believe that you
7 believe that the statements about
8 the one-family housing not being
9 suitable for that purpose rather.

10 (Applause)

11 AMY PIERCE: I have a quick
12 question about the differences
13 between institutional controls and
14 the engineering controls. My
15 understanding is that the
16 institutional controls are the deep
17 restrictions and the types of things
18 used on the land types of use that
19 can be the land can be used for. So
20 the areas that are more contaminated
21 would be used for, like, parking
22 garages or commercial buildings or
23 office buildings, but it's office
24 building people still living in
25 those buildings a lot of stores

1 restaurants, people working,
2 spending a major part of their day
3 in those buildings, as well. I'm
4 concerned about that.

5 SALVATORE BADALAMENTI: The
6 exposure is different.

7 AMY PIERCE: Well, a lot of
8 people work more hours than they're
9 home, right?

10 JAMES DOYLE: The short
11 answer is institutional controls are
12 legal controls.

13 AMY PIERCE: Right. No, I
14 understand that.

15 JAMES DOYLE: And engineering
16 controls are fences and walls and
17 things like that, and we consider
18 exposure scenarios. You are saying,
19 well, someone could be living in
20 this situation, be there 24 hours a
21 day, seven days a week for 70 years.
22 That's what we assume.

23 AMY PIERCE: Okay.

24 JAMES DOYLE: If we say, if
25 that happens, what would the level

1 come up to, the commercial standard
2 and say, they are going to be here
3 60 hours a week, park standards, are
4 you're going to be in a park running
5 around, eating dirt for X amount of
6 hours, different assumptions and
7 different situations, and et cetera,
8 here, we don't have any common area,
9 we're relegating it to commercial,
10 we're saying we're comfortable, it's
11 okay, it's restricted residential
12 but we're not saying over the dirt
13 sports, we're going to put the
14 commercial and the workers are all
15 going to be -- that's not what we're
16 saying.

17 AMY PIERCE: You're not,
18 okay. That's one thing I wanted to
19 say, and the other thing I want to
20 talk about is as far as engineering
21 concerns are these, for example, the
22 soil vapor intrusion remedies, okay,
23 you say it's like a ventilation
24 system that goes under the slab. Is
25 that thing a passive thing or an

1 active thing? Is that something
2 that you have to have they're
3 running on electricity to run the
4 fans or is it passive ventilation?

5 SALVATORE BADALAMENTI:
6 There's both types available,
7 passive as well as active with the
8 fans with active control.

9 AMY PIERCE: Right. And then
10 if there's a storm surge, and those
11 systems fail is that --

12 SALVATORE BADALAMENTI: It
13 could be repaired.

14 AMY PIERCE: Then who is
15 responsible for maintaining and
16 monitoring the condition of those
17 systems?

18 SALVATORE BADALAMENTI: The
19 property.

20 AMY PIERCE: The property
21 owner. Okay. They were okay. I
22 hope they are done.

23 GABOR KARSAI: I'm Gabor
24 Karsai, K-A-R-S-A-I. First name is
25 G-A-B-O-R. I'm a Glen Cove

1 resident.

2 Thank you. I wanted to join
3 the people to thank you. I want to
4 thank you, too. I think what you do
5 is fantastic. Keep us safe and make
6 sure that the site is cleaned up.

7 (Applause)

8 GABOR KARSAI: And also, I'd
9 like to ask you a question but
10 before that, you are the utmost
11 expert, correct? You are for
12 20 years. You know, the
13 contamination levels way back when,
14 you know where they came from, you
15 know the history, you know where we
16 are, and basically you are the
17 utmost expert person. I have a
18 question, and I apologize, would you
19 move to this site, once it's been
20 cleaned up?

21 (Applause)

22 SALVATORE BADALAMENTI: If --

23 JAMES DOYLE: What's the
24 place?

25 SALVATORE BADALAMENTI: If I

1 was in the market for real estate
2 along the shore, and if the property
3 developed according to our
4 requirements, and all of the
5 institutional controls put in place
6 and the excavation that we propose
7 does take place, I would have no
8 problem living there.

9 (Applause)

10 JAMES DOYLE: It's safe, it's
11 safe.

12 LAUREN CHARNEY: Yeah, I
13 agree with what Sal said, except you
14 don't live on Long Island.

15 GABOR KARSAI: It was a
16 hypothetical. I appreciate your
17 candor. Thank you. And I apologize
18 for making it personal.

19 Thank you.

20 (Applause)

21 LIN GILIBERTI: Lin, L-I-N,
22 and the last name is spelled
23 G-I-L-I-B-E-R-T-I.

24 Well, you used -- you're
25 talking about the institution

1 controls. I don't know whether this
2 was under your domain or under the
3 DECs domain, but I don't know why
4 people haven't made a much bigger
5 deal about having 1,000 calls in
6 that area down there. I can't --
7 that's so beyond me, not only
8 because of this is a demographic,
9 the population density of that
10 population in that area. It's just
11 so unfathomable that the City can
12 think that that will work. I want
13 to state that. So, it's so absurd.

14 UNKNOWN FEMALE SPEAKER: It's
15 2,000 cars --

16 LIN GILIBERTI: Right. That
17 makes it even worse. Oh, that makes
18 it worse, 2,000 cars, in other
19 words, the other thing in regard to
20 that 2,000 cars, what about air
21 pollution? That's going to be a
22 tremendous amount of excessive air
23 pollution permeating the Sound, the
24 animals, the natural wildlife in
25 addition to our beautiful coast, and

1 I just think it's so incredibly
2 irresponsible for the City and the
3 developers to think that this is
4 going to be so hunky-dory, and also,
5 I mean, all of you, you seem to --
6 everything is going well. You're
7 thinking in terms of optimally, how
8 it will be on an optimum level.
9 Well, we know that life isn't really
10 like that. So I was also very, very
11 -- there's always little mistakes,
12 and lots of imperfections. I was
13 also very concerned about the
14 sewage. They're supposed to -- I
15 mean the Corps of Engineers, they're
16 taking care of that, right? They're
17 going to be make sure that that
18 whole sewage problem, going into the
19 Sound. That's what they're there
20 for, right? That, and you monitor
21 that, right? Or does the DEC
22 monitor it?

23 JAMES DOYLE: All three
24 points you made are very
25 understandable. Many people are

1 pretty concerned about these issues
2 but this is not what we're here for.
3 We're here to propose how we're
4 going to clean up the property, and
5 I said earlier, whether there's one
6 house on these 70 acres or whether
7 there's, you know, something that
8 you obviously don't want to be there
9 in a much larger realm, we're not
10 here promoting any developer. We're
11 here explaining to you how we're
12 going to try to complete cleanup of
13 this property. So these are
14 concerns that aren't even in our
15 wheelhouse, as far as should we
16 clean this up or not, because there
17 might be 1,000 cars, 2,000 cars or
18 air pollution from the cars.

19 LIN GILIBERTI: Well, I guess
20 I hadn't realized that but I just
21 want to say that.

22 You are the EPA,
23 environmental protection for the
24 population, you don't say this
25 blindly. I understand what you mean

1 technically, but it really is a very
2 serious problem. I think you know
3 that. I also wanted to state it for
4 the fact that I think it's a
5 terrible mistake, the whole
6 developer.

7 JAMES DOYLE: We do care. If
8 Federal Law is violated, then we
9 will be back.

10 LIN GILIBERTI: You'll be
11 back?

12 JAMES DOYLE: Yes. We don't
13 prospectively.

14 LIN GILIBERTI: And the DEC
15 are they responsible for monitoring
16 it also, like, after it's done, if
17 it does get done?

18 JAMES DOYLE: We are
19 partners, yes.

20 (Applause)

21 CECILIA ECHOLS: At this
22 point, we have another ten minutes,
23 and then we'll close up, and if you
24 have any questions for us, you can
25 come to the front of the room.

1 GLENN HOWARD: Glenn Howard,
2 G-L-E-N-N, H-O-W-A-R-D.

3 First of all, I want to thank
4 you for coming again, and I just
5 want to say that considering that
6 I've been watching this since the
7 late 80s, when I was on the Planning
8 Board at Glen Cove, and this was
9 made into the 3rd District with the
10 purpose of moving forward into
11 something better for Glen Cove, and
12 cleaning it up, I'm glad to see that
13 it's reached this point.

14 The thing that surprises me
15 is people complain about what you've
16 done to the point of which you've
17 gotten essentially the level of, if
18 you want to call it that,
19 contamination, because quite frankly
20 this room is contaminated, if you
21 can measure it. Anything is
22 contaminated. If it's something
23 that is not normally there, it's a
24 contaminate. Instead of saying what
25 you had 20 years ago, when there was

1 a heavy rain or a hurricane or
2 runoff or somebody dumped it into
3 the Creek, and thanking you for
4 cleaning that up to the point, where
5 anything that possibly might get
6 into the Creek would be so diluted
7 that once it got out into the
8 Harbor, they wouldn't be able to --
9 even bothered to measure what the
10 lead and arsenic levels were in the
11 ocean right now. You wouldn't find
12 it. Micrograms don't make
13 milligrams when you dilute. So
14 you've done a great job. You got
15 this site to the point where it is
16 no longer a garbage dump and a
17 hazard to the point where it can
18 actually be put back on the tax
19 rolls and used by the Community in a
20 safe way.

21 (Applause)

22 GLENN HOWARD: I realize that
23 there's a tremendous cost to this,
24 you -- not only in dollars but in
25 thousands of hours of labor in

1 laboratory testing and inspections,
2 in reports, and all of that, and
3 it's a phenomenal job. Frankly, I
4 wouldn't want to be doing this, I've
5 got enough to do, but I really
6 appreciate what you've done, and it
7 will be a real asset to this City,
8 once this site can be used for
9 something other than the tax drain.
10 In other words, once taxes come in,
11 once you get people in here, you
12 support the stores, you support the
13 businesses, you support everything,
14 and I want to thank you very much.

15 (Applause)

16 ALICIA PAGLIARA: My name is
17 Alicia Pagliara, P-A-G-L-I-A-R-A,
18 and I'm from Glen Cove. I have a
19 question. Because you estimated to
20 a certain point. So how safe is it
21 for somebody to come and excavate
22 deeper than that? What's under
23 there? Are we safe? Are we, you
24 know, are we going to be safe? All
25 of the things that are going to come

1 out from underground, because you
2 only estimated, like, ten feet, but
3 if you're going to ten -- I don't
4 know how many feet you estimated,
5 you said, but if you're going to
6 build a building that's 15,
7 20 stories high, you have to go
8 further than that.

9 SALVATORE BADALAMENTI: There
10 will be health and safety plans in
11 place that the contractor and
12 developer will follow for their
13 workers, construction workers, so
14 that if any material is encountered,
15 they will be safe and it will be
16 removed in a safe manner.

17 DAVID BERG: Who created
18 those plans? Who designed those
19 health and safety plans?

20 SALVATORE BADALAMENTI: The
21 health and safety plans, all of the
22 site management plans, they're
23 developed by the City for EPA, and
24 State review and approval.

25 ALICIA PAGLIARA: Now, the

1 other question that I have is I live
2 very close to the place, and they
3 were carting all kinds of stuff out
4 of there, so what's going on in the
5 environment? You know, what's
6 coming out of the -- all of those
7 vapors and things that are coming
8 out because, you know, the arsenic
9 and radioactive, and all of these
10 things, and then you're going to
11 count -- and you're also going to
12 count those buildings so, you know,
13 those things are not coming out from
14 underneath but they are there in, I
15 think, that's what I understood.
16 They're still there. So they're
17 coming out. And how safe are we,
18 that we live down the street that
19 you guys are, you know, picking up
20 all this soil, so that this guy can
21 build these houses?

22 LAUREN CHARNEY: That's not
23 why we're doing it.

24 ALICIA PAGLIARA: Yeah, but
25 you're, you know, maybe I

1 misunderstood your name, but you are
2 the Environmental Protection, so
3 you're not really protecting
4 anything except somebody's land, not
5 our land.

6 SALVATORE BADALAMENTI: We're
7 removing additional contamination to
8 try and protect the groundwater, to
9 try and clean up the groundwater,
10 and any excavation that takes place
11 will be done in a safe manner, and
12 with respect to the community,
13 surrounding site, when and if
14 development occurs, it should be air
15 samples that takes place, dust
16 control plans are put into place,
17 and there should be no impact in the
18 surrounding community, if you're
19 doing construction.

20 ALICIA PAGLIARA: When you
21 insulate those red flag areas, do
22 you wear protection suits, like you
23 do when you do asbestos removal?

24 SALVATORE BADALAMENTI: I'm
25 not sure whether that level of

1 protection that has been required in
2 those areas. I mean, I don't think
3 so.

4 ALICIA PAGLIARA: That's what
5 the lady said, that when they were
6 going to be excavating for the
7 building, they're going to -- you
8 know, the workers that are
9 excavating are going to be wearing
10 those protective suits.

11 SALVATORE BADALAMENTI: Those
12 workers may need extra levels of
13 protection, yes. I didn't see the
14 health and safety plans. I'm not
15 sure.

16 ALICIA PAGLIARA: Okay.

17 (Applause)

18 KATHLEEN SHIELDS: Kathleen
19 Shields, S-H-I-E-L-D-S, and a
20 life-long resident of Glen Cove.
21 For two years, I've lived on Garvies
22 Point Road, in Dr. Garvies' house,
23 with no running water. We went to
24 the well down the driveway, across
25 the street, down the hill. A lot of

1 my family, I'm from a large family,
2 and relatives from Sea Cliff, have
3 got serious medical illnesses from
4 air, perhaps, God knows what. The
5 air goes east, west, north and
6 south. There's cancer, there's ALS,
7 Lou Gehrig's disease, Floppy Baby,
8 spina bifida, stillborns,
9 Alzheimer's, and all the areas in
10 the -- in our neighborhood. We
11 don't have any Glen Covers here
12 talking about the illnesses, the
13 sicknesses that they have from
14 living in this area, since 1942 on.
15 This stuff has affected next
16 generations and my grandnephews and
17 nieces and does the EPA have any
18 kind of numbers on these kinds of
19 serious medical conditions, and
20 would you drink the water here, and
21 like someone else asked, would you
22 live here? Thank you.

23 UNKNOWN FEMALE SPEAKER: Good
24 luck.

25 KATHLEEN SHIELDS: Our

1 benefit, and we don't need RSR has
2 built maybe four-storey high
3 buildings, off the LIE in East
4 Hills. Yesterday, I was in Jones
5 Beach, and Trump did not build his
6 towers there. Because people don't
7 want it, the water surges, storms,
8 wasn't a good idea. We do not need
9 where they're going to be two-storey
10 garages, like the Avalon, across
11 from the police station, the condos
12 for the single family people, are
13 they going to have two-car garages
14 to protect them underneath their
15 little condos? We do not need
16 something that's 14-stories high.
17 The pollution that will come from
18 the air conditioners, the heating
19 systems, everything else, and who's
20 going to be our volunteer
21 firefighters anymore? We're going
22 to have to have a paid department.

23 UNKNOWN FEMALE SPEAKER:

24 That's right.

25 KATHLEEN SHIELDS: Et cetera,

1 et cetera. It's out of control.

2 Thank you.

3 (Applause)

4 CECILIA ECHOLS: Two more.

5 MAXINE MAYREIS: I'll be

6 quick.

7 CECILIA ECHOLS: Okay.

8 MAXINE MAYREIS: Maxine

9 Mayreis, M-A-Y-R-E-I-S. Glen Cove.

10 I am a lifelong resident of Glen

11 Cove. I live here. I have a

12 business here, and I am very exited

13 about the development of the

14 waterfront, and the cleanup, and I

15 know you guys are the EPA. I know

16 you have invested probably \$100

17 million in government funds to clean

18 up this site, and I have every

19 confidence that you will continue to

20 protect the citizens, and make it a

21 viable place to live, and thrive for

22 our Community, and for visitors and

23 for children and adults, and the

24 like, and your response to the

25 question before, was would you live

1 here? One my vote of confidence
2 that you will do the right thing and
3 that's all I wanted to say. I
4 wanted to thank you for being here
5 and for doing this clean up.

6 (Applause)

7 MARSHA SILVERMAN: I live in
8 Glen Cove. This woman who just
9 spoke about illnesses just struck a
10 chord with me. I was wondering have
11 there been any studies about cancer
12 clusters in this area?

13 SALVATORE BADALAMENTI: I
14 would defer to the State Department
15 of Health on that question. I'm not
16 certain. I know there's been some
17 cancer cluster studies on Long
18 Island. I'm not sure if any focused
19 on this area.

20 JAMES DOYLE: We never do
21 them.

22 SALVATORE BADALAMENTI: The
23 EPA does not do that type of work.

24 MARSHA SILVERMAN: So once
25 you clear and say no further

1 remediation needed, do you monitor
2 anything like that in the future?

3 LAUREN CHARNEY: That's not
4 within our Agency's purview.

5 JAMES DOYLE: We monitor the
6 conditions of the site, but we don't
7 monitor the health of the residents
8 in the vicinity.

9 MARSHA SILVERMAN: Okay.

10 JAMES DOYLE: So, we'll come
11 back and take samples and see if
12 things work, but we don't take blood
13 samples, for example.

14 MARSHA SILVERMAN: You're the
15 EPA. I know you cover the entire
16 country, and you said there was a
17 list of Superfund sites. How many
18 other sites in the country have been
19 fully remediated, and how many have
20 had residential development on them
21 to date?

22 LAUREN CHARNEY: I don't have
23 a specific answer for you but
24 there's 1,000s of Superfund sites
25 across the country, and just for

1 clarification, the way our statute
2 works is that we list the site on
3 national priority list, and then
4 several maybe perhaps decades pass,
5 while we're cleaning it up or we're
6 doing monitoring the sites are not
7 officially delisted, but can be put
8 back into productive reviews, so I
9 don't know the exact numbers for
10 you, how many sites have been
11 delisted, but there are significant
12 number of sites that have been put
13 back into beneficial use.

14 MARSHA SILVERMAN: Do you
15 know if that was used for
16 residential?

17 LAUREN CHARNEY: Yeah.

18 MARSHA SILVERMAN: You don't
19 do any studies on the health of the
20 people, after they move in?

21 LAUREN CHARNEY: Right. That
22 doesn't fall within the provisions
23 of the laws that we work with.
24 Again the State Department of Health
25 has those abilities.

1 MARSHA SILVERMAN: I'd just
2 like to add one other thing, for the
3 record. You know, I think it was
4 Mr. Goldberg earlier stated there
5 was hardly anybody in Glen Cove.
6 I'm from Glen Cove. There are a
7 number of people in the audience
8 tonight from Glen Cove. Besides the
9 fact, that this is within the
10 boundaries of the City of Glen Cove,
11 there are parts of other neighboring
12 areas like Sea Cliff, that are
13 actually closer to the site, by
14 actual distance, then parts of Glen
15 Cove. So that's one thing. And the
16 other thing is that, there are a
17 number of people who I have spoken
18 to in Glen Cove, who are afraid to
19 come here and speak out, because
20 there has been retaliation, by the
21 City's administration. So I just
22 want you to be aware of that, the
23 gentleman earlier said that the
24 people who live here, aren't even
25 here. We are here, and the ones who

1 aren't here are afraid.

2 LAUREN CHARNEY: Okay.

3 Just to let you know, for the
4 people that didn't want to come
5 tonight, the public comment period
6 is still open. You can submit
7 anonymous comments if you feel so.

8 MARSHA SILVERMAN: Well,
9 obviously, I'll tell them. I have
10 been retaliated against in the past.
11 Just so you know, so, I mean, I'm
12 not really that afraid anymore,
13 because I've been through it, been
14 there done than, my family and I,
15 and you know somebody has to speak
16 up because if we don't, we're going
17 to have a City that nobody else
18 wants to live in either. Thank you.

19 (Applause)

20 CECILIA ECHOLS: On that
21 note, we're going to end this
22 meeting. We're going to put up a
23 slide that has all of our
24 information regarding the website,
25 Lorenzo's E-mail address. If you

1 want to send any comments, you can
2 let anyone that couldn't be here to
3 send any comments through E-mail,
4 they can do so.

5 Thank you very much for
6 coming out tonight. Good night.

7 (Time noted: 10:05 p.m.)

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1 C E R T I F I C A T I O N

2

3 I, AMANDA GORRONO, a Certified Live Note,
4 Shorthand Reporter and Notary Public, within and for the
5 State of New York, do hereby certify that I reported the
6 public hearing in the within-entitled matter on Monday,
7 June 13, 2016 at Glen Cove High School (Auditorium), 150
8 Dosoris Lane, Glen Cove, New York, and that this is an
9 accurate transcription of this public hearing.

10 IN WITNESS WHEREOF, I have hereunto set my hand
11 this 12th day of July, 2016.

12

13

14

AMANDA GORRONO, CLR

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Attachment 4

Written Comment Submitted During Public Comment Period

From: Amy Peters <stringrrl1@verizon.net>

Sent: Tuesday, June 21, 2016 2:29 PM

To: Thantu, Lorenzo

Subject: Glen Cove Superfund sites

Hello Mr. Thantu,

I was at the EPA Public Meeting on the Li Tungsten Proposed Remedy last week and I have another question...

And this is regarding the Li Tungsten site as well as some of the other sites related to the Garvies Point development.

The figure of over \$100 Million dollars already spent on cleanup is often mentioned.

My question is this:

Would that money NOT have been spent by the federal gov't and would the cleanup NOT have happened at all if the property would only have been used solely for commercial as opposed to mixed use purposes?

Would the city NOT have been given grant money by the state and county if it were only to be cleaned up for commercial use?

The Mayor is claiming:

The federal and state governments will seek reimbursements of some or all of the millions of dollars they invested in helping to clean up Garvies Point.

Is this true?

Your timely response would be greatly appreciated.

Thank you,

Amy Peters

From: [Rodriguez, Elias](#)
To: [Thantu, Lorenzo](#)
Cc: amarion@barketmarion.com
Subject: FW: the email address for Mr. Thantu in your public notice keeps bouncing back - please forward these comments to him - thank you
Date: Wednesday, June 01, 2016 2:42:36 PM

From: Amy Marion [mailto:amarion@barketmarion.com]
Sent: Wednesday, June 01, 2016 2:34 PM
To: Rodriguez, Elias <Rodriguez.Elias@epa.gov>
Subject: the email address for Mr. Thantu in your public notice keeps bouncing back - please forward these comments to him - thank you

PLEASE SEE MY HIGHLIGHTS AND COMMENTS BELOW -

THE CITY HAS SAID THE SITE IS ALL CLEANED UP - REALLY ? THAN WHY IS THE EPA PROPOSING A PLAN "TO DO SOME ADDITIONAL EXCAVATION OF CONTAMINATED SOIL IN SOME AREAS OF THE FORMER LI TUNGSTEN PROPERTY" WHICH IT SAYS IS "CONTAMINATED WITH HEAVY METALS INCLUDING ARSENIC AND LEAD, WHICH CAN HARM PEOPLE'S HEALTH" ????? BECAUSE YOUR VOICES ARE FINALLY BEING HEARD !

EPA Proposes to Excavate More Soil at the former Li Tungsten Property

Public Meeting to Discuss Plan on June 13 in Glen Cove, N.Y.

Contact: Elias Rodriguez, (212) 637-3664, rodriguez.elias@epa.gov

(New York, N.Y. – June 1, 2016) The U.S. Environmental Protection Agency has proposed a plan to do some additional excavation of contaminated soil in some areas of the former Li Tungsten Property in Glen Cove, N.Y. Soil at the site is contaminated with heavy metals including arsenic and lead, which can harm people's health.

The EPA plan includes removing and disposing of arsenic and lead-contaminated soil from portions of the site and backfilling the area with clean soil or provide covering. The soil would be dug up and disposed of at facilities licensed to handle the waste. In total, approximately 7,000 cubic yards of contaminated soil will be removed. I THOUGHT THE CITY SAID THAT THE LAND WAS CLEANED UP ?!!

"By removing soil that is contaminated with arsenic and lead, our cleanup plan will help protect people's health and the environment," said Judith A. Enck, Regional Administrator. **I THOUGHT THE DEC SAID AT THE LAST MEETING THEY HELD THAT THE LAND WAS PROTECTIVE OF HUMAN HEALTH ?????!!!!** "By cleaning up the Li Tungsten site and giving support through the brownfields program, the EPA is helping Glen Cove turn a blighted industrial area into an asset for the community."

The EPA will hold a public meeting on June 13, 2016 to explain the proposed plan and is encouraging public comments. The meeting will be held at 7:00 p.m. at the Robert Finley Middle School Wunsch Center, One Forest Avenue, Glen Cove, N.Y. Public comments will be accepted until July 1.

The proposed plan requires continued restrictions on how the site can be used in the future to

From: [Jerry Romano](#)
To: [Thantu, Lorenzo](#)
Subject: Garvies Point
Date: Friday, June 10, 2016 6:10:28 PM

Thantu,

As you were quoted in Newsday, If there is no likelihood of human exposure to contaminants at Gravies Point does that mean that there are still contaminants, what are the contaminants, where are they and is there a plan to remediate?

Thank you,

Jerry Romano
516-695-4688
Sea Cliff NY

From: [Lenore Bronson](#)
To: [Thantu, Lorenzo](#)
Cc: [DEPPermitting@dec.ny.gov](#); [michelle.hinman@dec.ny.gov](#); [Badalamenti, Salvatore](#); [Murphy, Tom](#); [Boykin, Danla](#); [Ramadhin, Lee](#)
Subject: Re: Web Inquiry: EPA Permits/Li Tungsten - Glen Cove Waterfront Redevelopment Project
Date: Monday, June 13, 2016 12:44:06 PM
Attachments: [image004.png](#)

Attached is my inquiry of August 2015 regarding the EPA permits issued or to be issued to RXR/Scott Rechler and the City of Glen Cove. New York.

As meetings are coming up that in which the public will hopefully be permitted to ask questions and give input, I again request specific answers to our questions about this site. As you know, The land has been and remains highly toxic.

How can your agency, or the Army Core of Engineers, justify permission to the developer to build any edifice that involves human activity there?

Residents' health, quality of life, and peace of mind need to take priority over financial gain.

I look forward to hearing from you at your earliest convenience.

Thank you.

L. W. Bronson

Sent from my iPhone

On Aug 13, 2015, at 12:45 AM, Thantu, Lorenzo <Thantu.Lorenzo@epa.gov> wrote:

Dear Ms. Hinman,

We have received and reviewed your July 26, 2015 web inquiry request from Lenore Bronson which was forwarded by your Office to EPA. Ms. Bronson requests EPA information on permits/permission granted on RXR Corporation's ongoing Glen Cove Waterfront Redevelopment Project, which was approved by the City of Glen Cove Planning Department in October 2014. Approvals that have been issued to date by EPA for the Glen Cove Waterfront Redevelopment Project are: Li Tungsten Record of Decision (ROD) (Dated & Signed 9-30-99), Li Tungsten ROD (Dated & Signed 3-30-05), Li Tungsten Explanation of Significant Differences (ESD) - (10-28-02), and Li Tungsten ESD - (May 2005). ROD is a public document that explains which cleanup alternatives will be used to clean up a Superfund site, in this instance, Li Tungsten Superfund Site. An ESD is a decision document prepared by EPA when there has been a significant change in cost, performance, or cost of a remedy selected in a ROD; the significant change to the remedy may be as a result of new information. I have attached these four EPA documents. Final pending approvals are still needed from EPA for the following documents on the Glen Cove Waterfront Redevelopment Project: (1) Site Management

From: [Rodriguez, Elias](#)
To: [Thantu, Lorenzo](#); [Badalamenti, Salvatore](#); [Garbarini, Doug](#); [Echols, Cecilia](#)
Subject: FW: Glen Cove Garvies Point
Date: Tuesday, June 14, 2016 9:13:36 AM

Forwarding public comment.

-----Original Message-----

From: Lenore Bronson [<mailto:lwb828@yahoo.com>]
Sent: Monday, June 13, 2016 11:05 PM
To: Rodriguez, Elias <Rodriguez.Elias@epa.gov>
Subject: Glen Cove Garvies Point

My family and I are vehemently opposed to the Rechlers' residential-retail complex being built on the toxic site at Garvies Point in Glen Cove New York.

What part of TOXIC does the EPA not understand?

Please do the right thing, despite the strong pressure from Scott Rechler and Glen Cove officials to do the wrong thing for our community.

Thank you.

Sent from my iPhone

Reginald A. Spinello
Mayor

Phone: (516) 676-2000
Fax: (516) 676-0108



City Hall
9 Glen Street
Glen Cove, NY 11542-4106

June 27, 2016

Lorenzo Thantu, Remedial Project Manager
U.S. Environmental Protection Agency
290 Broadway, 20th Floor
New York, NY 10007-1866

Re: USEPA Superfund Proposed Plan for Remedy Modification, Li Tungsten Superfund Site,
Glen Cove Nassau County, New York

Dear Mr. Thantu:

On June 1, 2016 the United States Environmental Protection Agency ("EPA") issued a Proposed Plan for Remedy Modification, Li Tungsten Superfund Site, Glen Cove Nassau County, New York ("Plan"). On behalf of the City of Glen Cove ("City"), the Industrial Development Agency ("IDA") and Community Development Agency ("CDA") the following are supporting comments and relative to the proposed Plan. As you know, EPA held a public meeting to discuss the Plan on June 13th which was well attended. The NYS Department of Environmental Conservation ("DEC") was also present at the meeting.

The City, IDA and CDA convey their support and appreciation of EPA in the development and publication of the Plan. It is clear that the EPA Plan provides a strong and successful path forward for ensuring a safe environment for the development of the Li Tungsten properties, as part of the Garvies Point Road Waterfront Redevelopment Area. The proposed Plan exhibits the meticulousness of the EPA investigation and cleanup processes and regulatory oversight of these properties in connection with the planned reuse and redevelopment activities. Furthermore, the proposed Plan confirms that appropriate protective measures have been and will be implemented to provide for future use and redevelopment of these properties.

We have been working with EPA, DEC and NYS Department of Health for many years to remediate and bring these properties back to productive reuse. We believe the proposed Plan supports and promotes protection of human health and the environment; the regulatory framework for future EPA oversight and management; as well as the institutional and engineering controls which have been contemplated. As presented in the proposed Plan, the redevelopment of the properties will occur in conjunction with Environmental Easements which



June 27, 2016

Lorenzo Thantu, Remedial Project Manager
U.S. Environmental Protection Agency
290 Broadway, 20th Floor
New York, NY 10007-1866

Re: EPA Region 2 Superfund Proposed Plan for Remedy Modification, Li Tungsten
Superfund Site, Glen Cove, Nassau County, New York (May 2016)

Dear Mr. Thantu:

I write on behalf RXR Glen Isle Partners LLC ("RXRGIP") in support of the United States Environmental Protection Agency ("EPA") Region 2 Proposed Plan for Remedy Modification ("Plan") relative to the Li Tungsten Superfund Site, Glen Cove Nassau County, New York. On June 13, 2016, representatives of RXRGIP attended the public meeting held by EPA to discuss the Plan. RXRGIP is confident that the Plan provides a feasible path to ensuring the successful redevelopment of the Garvies Point Waterfront in Glen Cove, while fully protecting the public health and environment. RXRGIP has worked for many years with its partners, the City of Glen Cove, the Industrial Development Agency and Community Development Agency, along with EPA and the New York State Departments of Environmental Conservation ("DEC") and Health ("DOH") to restore these properties back to public use and benefit.

The Garvies Point Waterfront redevelopment project has been designated by the Long Island Regional Economic Development and Long Island Regional Planning Councils as a Project of Regional Significance, has been a poster child for brownfield redevelopment and was awarded a 2003 Partnership Award by Coastal America for its partnerships with federal, state and regional agencies. The new Garvies Point development will be a smart-growth, mixed-use community located along the shores of Hempstead Harbor. This dynamic development will re-invent the Garvies Point Waterfront and transform a former brownfield into a vibrant, active mixed-use community accessible to everyone. The development will provide generous expanses of high-quality, public open space for residents and visitors to enjoy.

RXRGIP believes that the EPA Plan fully protects human health and the environment, while simultaneously encouraging much-needed regional economic development. The work involved in redeveloping the Garvies Point Waterfront will occur in accordance with approved institutional and engineering controls that will be implemented by RXRGIP under EPA and DEC oversight. RXRGIP very much appreciate the agencies' diligent efforts and look forward to continuing our working relationship with the EPA, DEC, DOH and other involved agencies as the Garvies Point redevelopment project moves forward.

The respective agency staff members are to be congratulated for their hard work and dedication, without which this important regional economic development project would not be possible.

Thank you.

Sincerely,

A handwritten signature in dark ink, appearing to read "Frank Haftel", written in a cursive style.


Frank Haftel
FVP, Development and Asset Management
RXR Glen Isle Partners LLC

cc: Doug Garbarini
James F. Doyle
Lauren Charney
Robert Schick
Heide-Marie Dudek

will restrict the type of allowable reuse (e.g., restricted residential, recreational or commercial development), and Site Management Plans which will dictate soils and groundwater management and monitoring, and require the installation of engineering controls. These are the restrictions and controls that we have planned for, and that along with the designated developer will implement under EPA and DEC oversight.

The City, IDA and CDA look forward to EPA's finalization of the proposed Plan to further advance the redevelopment of these properties in a manner which is fully protective of human health and the environment. We thank the EPA for all of its efforts in this regard, and look forward to the redevelopment of the Li Tungsten Site as part of the Garvies Point Road Waterfront Redevelopment Area. Again, we thank all of the agencies for their dedication and assistance.

Sincerely,



Reginald A. Spina
Mayor

cc: Doug Garbarini
James F. Doyle
Lauren Charney
Robert Schick
Heidi-Marie Dudek

Plan, (2) Environmental Easement, and (3) final ESD.

All permit information and details, required by EPA as well as by all other regulatory agencies, Ms. Bronson is requesting can be found in the Final Environmental Impact Statement for the RXR Glen Isle Mixed-Use Waterfront Development Project, City of Glen Cove, New York (Final FEIS) (Submitted October 5, 2009 and Revised May 6, 2011, June 27, 2011, and July 28, 2011). The Final FEIS, in its entirety, can be accessed on the following web link, <http://www.glencove-li.us/index.php/project-updates/27-waterfront-project/38-final-scope>. I have also attached to this response an excerpt from the Final FEIS, Section I. F. Summary of Permits and Approvals Required, which lists the types and number of approvals and permits required by local, county, state and federal agencies for the Glen Cove Waterfront Redevelopment Project.

Please note that I am also ccn'g this email response to the requestor, Ms. Bronson.

Please let me know if you have any further question. Thank you for your web inquiry.

Lorenzo

Lorenzo Thantu, Remedial Project Manager
Emergency and Remedial Response Division
U.S. Environmental Protection Agency - Region II
290 Broadway - 20th Floor
New York, NY 10007
Tel: (212) 637-4240
Fax: (212) 637-3966
Email: thantu.lorenzo@epa.gov

<!--[if !vml]--><!--[endif]-->From
dec.sm.DEPPermitting <DEPPermitting@dec.ny.gov>
Delivered Date 07/27/2015 08:49 AM
Subject EPA Permits

Please respond, thank you.

Michelle J. Hinman
Secretary I, Division of Environmental Permits

New York State Department of Environmental Conservation

625 Broadway, 4th

Floor, Albany NY 12233-1750

P: (518) 402-9167 | F: (518) 402-9168 | michelle.hinman@dec.ny.gov

www.dec.ny.gov | <image002.gif> | <image003.gif>

----- Message from Lenore Bronson <lwb828@yahoo.com> on Sun, 26 Jul 2015 16:54:17 +0000 -----

To: dec.sm, [DEPPermitting <DEPPermitting@dec.ny.gov>](mailto:DEPPermitting@dec.ny.gov)

Subject Glen Cove/Sea Cliff Rechler Corp condo/commercial
: project

Please send us EPA information on the permits/permission granted the current development project of RXR Corp., CEO Scott Rechler, which has been approved by the City of Glen Cove, Long Island, NY 11542.

The project consists of 2 complexes: one 12 story condo building of approx. 1100 units

and another 5 story, with commercial and retail space (75,000 s f) to be constructed on former landfill and land with a history of substantial chemical and toxic waste infusion located on Long Island Sound, specifically Hempstead Harbor.

What permits were/are required for this project? What permission has the developer been granted from the EPA to build on this site?

Thank

you.

Sincerely

yours..

L. W. Bronson

[Log](#)

<Final FEIS Section I. F. Summary of Permits and Approvals Required.pdf>

<Li Tungsten ESD - Final (Dated 10-28-02).pdf>

<Li Tungsten ESD - Final (May 2005).pdf>

<Li Tungsten ROD - Final (Dated & Signed 3-30-05).pdf>

<Li Tungsten ROD - Final (Dated & Signed 9-30-99).pdf>

ensure that activities at the site do not interfere with the cleanup. **Sampling and further studies will be conducted to ensure the effectiveness of the remedy. The EPA will conduct a review within five years to ensure the effectiveness of the cleanup.** **THUS, PROVING THE ARGUMENTS MADE IN THE LEGAL PAPERS THAT THERE WAS NOT EVEN A REMEDY IN PLACE WHEN THE PLANNING BOARD MADE A DETERMINATION NOT TO CONDUCT AN SEIS !!!!!!!!!!!!!!!**

The proposed Li Tungsten Superfund site soil cleanup announced today builds on the previous work. The Li Tungsten site included an inactive tungsten processing facility on 26 acres of land, as well as portions of a nearby area known as the Captain's Cove property where the tungsten facility operators disposed of waste tungsten material.

The EPA previously excavated about 120,000 cubic yards of contaminated waste, some of it radioactive, from Captain's Cove and stored it on the property. The EPA removed the contents of approximately 270 chemical storage tanks and demolished two unstable buildings from the former Li Tungsten facility property. The EPA's long-term cleanup included excavating and segregating ore residuals, soils and sediments contaminated with heavy metals and radionuclides, and disposing of this material out of the area. **The EPA also required that pieces of radioactive slag in nearby Glen Cove Creek be removed. BUT THIS HASN'T BEEN DONE YET !!!!**

The EPA is also announcing a change in the future land use for a portion of the site due to a change in the cleanup levels for contaminated soil at a portion of the site, which was based on updated sampling. WHICH PORTION(S)? The modified cleanup levels remain protective of public health. The city of Glen Cove is implementing its 1998 Glen Cove Creek Revitalization Plan **(THIS PLAN IS NOT AN APPROVED REVITALIZATION PLAN - THE CITY ADMITTED THIS IN ITS PAPERS SUBMITTED TO THE COURT)** involving more than 200 acres surrounding Glen Cove Creek **(WHICH 200 ACRES ?? GARVIES POINT PRESERVE ???!!)**. The project has been designated as an EPA Showcase Brownfields redevelopment project. The Revitalization Plan projected the future use of the area as a mixed use commercial and residential redevelopment, **featuring shops, restaurants, parking facilities and other amenities. (REALLY ??? WHAT SHOPS? THERE IS ONE RESTAURANT PLANNED NOT RESTAURANTS ! THERE ARE NO PARKING FACILITES - IN FACT THE CITY IS REQUIRED TO PROVIDE PARKING ON GARVIES POINT ROAD - SOMETHING THE PLANNING BOARD COMPLAINED ABOUT DURING THE MEETINGS)**

The Superfund program operates on the principle that polluters should pay for the cleanups, rather than passing the costs to taxpayers. The EPA searches for parties legally responsible for the contamination at sites that are placed on the Superfund list and it seeks to hold those parties accountable for the costs of investigations and cleanups.

Amy Marion, Esq.
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