UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 2
290 BROADWAY
NEW YORK, NY 10007-1866

DEC 2 1 2011

ACTION MEMORANDUM

SUBJECT: Request for Authorization for a CERCLA Removal Action at the Jewett White Lead Company Site, Staten Island, Richmond County, New York

FROM: Kimberly Staiger, On-Scene Coordinator
Removal Action Branch

TO: Walter E. Mugdan, Division Director
Emergency and Remedial Response Division

THRU: Joseph D. Rotola, Chief
Removal Action Branch

Site ID No.: A218

I. PURPOSE

The purpose of this Action Memorandum is to request and document approval of the selected non-time-critical removal action described herein for the Jewett White Lead Company Site ("Site"), located at 2000-2012 and 2015 Richmond Terrace, Staten Island, Richmond County, New York.

The U.S. Environmental Protection Agency ("EPA") has determined that a response action is appropriate and hereby proposes that a removal action should be taken at the portion of the Site located at "2000-2012 Richmond Terrace" herein after referred to as the "PRC property". Such action shall be performed under the removal authority pursuant to Section 104(a) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended ("CERCLA"), 42 U.S.C. Section 9604(a), and Section 300.415 of the National Contingency Plan ("NCP"), 40 Code of Federal Regulations ("CFR") Part 300.

The remaining portion of the Jewett White Lead Site will be addressed in a separate removal action after the completion of additional removal assessment activities at 2015 Richmond Terrace and adjoining properties.

EPA has determined that a sufficient planning period exists before site activities for this action must be initiated, and accordingly, this response will be conducted as a non time-critical removal action. Site characterization investigations indicate that the wastes and soils located on the Perfetto Realty Corporation ("PRC") property contain hazardous substances. Lead is present at the property at levels that pose a threat to public health, welfare, and the environment. Therefore, EPA has determined that a non-time-critical removal action is appropriate to abate, prevent, minimize, stabilize, mitigate, or eliminate these threats. Specifically, actions will be undertaken to restrict or disassociate human exposure to the contaminated areas at the property, and to prevent or minimize the migration of hazardous substances released at the property to the area soils, sediment, surface water, and groundwater.

This Action Memorandum, if approved, will authorize a total project ceiling of $1,374,000, of this an estimated $1,109,000 comes from the Regional Advice of Allowance. This funding is necessary to provide for the sampling, analysis, excavation, staging,treatment and disposal of lead contaminated soil and waste present on the PRC property.

This Site is not on the National Priorities List ("NPL") and there are no nationally significant or precedent-setting issues associated with this removal action.

II. SITE CONDITIONS AND BACKGROUND

A. Site Description

1. Removal Site Evaluation ("RSE")

In December 2008, EPA and contractor representatives from the Removal Support Team collected soil samples from 16 test pits at the PRC property that were excavated to a depth of approximately four feet below grade. Many of the test pits were found to contain either blackened soil, concrete in the form of slabs and/or footings, asphalt, bricks, or wood. The analyses of the soil samples collected from the test pits included target analyte list ("TAL") metals and polychlorinated biphenyls ("PCBs"). Off-property samples were collected from four locations along Richmond Terrace in order to determine if contamination had migrated from the property.

The analytical results from the sampling event in December 2008 at the property revealed the presence of elevated levels of lead throughout most of that property, both laterally and with depth. The average surface lead concentration was 5,081 milligrams/kilogram (mg/kg). The highest lead concentration detected at the surface was 37,100 mg/kg, near the gate on Park Avenue. The average lead concentration in the soil samples collected at depths of 1-foot, 2-foot,

and 3-foot below grade were 28,245 mg/kg, 61,201 mg/kg, and 53,398 mg/kg, respectively. The highest lead concentration detected in the subsurface was 240,000 mg/kg. In addition, the four off-property sample locations were found to contain lead concentrations ranging from 383 mg/kg to 2,760 mg/kg.

Analytical data collected at the PRC property indicated that elevated levels of lead are present, and activities at the PRC property could potentially cause the soils to become airborne or to migrate beyond the PRC property boundary during dry weather conditions. In addition there is physical evidence that soil had migrated beyond the PRC property boundary onto a portion of Richmond Terrace via runoff during rainfall events and onto Park Avenue via vehicular traffic leaving the PRC property.

At EPA's request, the New York State Department of Health ("NYSDOH"), under cooperation with the Agency for Toxic Substances and Disease Registry ("ATSDR"), prepared a Letter of Technical Assistance dated March 25, 2009. The NYSDOH concluded that the apparent migration of lead-contaminated dust warranted immediate mitigation measures to limit the use of the PRC property to prevent additional migration of lead-containing fugitive dust. It concluded that the concentrations of lead detected in the surface soil at the PRC property and the off-property road dust represent a significant public health concern if people, especially children, are exposed to them.

On April 6, 2009, at EPA's request and under EPA oversight, the owner of the PRC property initiated an interim removal action to stabilize conditions at the PRC property. The interim removal action completed on April 20, 2009 established a grass cover on the lead-contaminated soils to limit the migration of wind-blown lead dusts from the PRC property onto neighboring residential properties. In addition, a silt fence was installed along the PRC property lines to prevent surface water runoff containing lead-contaminated soils/sediments from being transported off the property onto the adjacent sidewalks. While these measures temporarily limit the exposure threat, permanent measures are needed to eliminate the potential for future human exposures to soils contaminated with high levels of lead on the former Jewett White Lead Site.

Lead is a CERCLA designated hazardous substance as defined in Section 101(14) of CERCLA, 42 U.S.C. § 9601(14). The hazardous substances identified in the soil at the Site constitutes a "release," as defined in Section 101(22) of CERCLA, 42 U.S.C. § 9601(22). The Site is defined as a facility under Section 101(9) of CERCLA, 42 U.S.C. § 9601(9).

Conditions at the Site meet the criteria established under Section 300.415(b) of the NCP for undertaking a CERCLA removal action. Factors from the NCP Section 300.415(b)(2) that support conducting a removal action at the Site are discussed below.

2. Physical location

The Jewett White Lead Site consists of the historic footprint of the former Jewett White Lead Company facility and the extent of contamination which includes the 1.07-acre parcel of land located at 2000-2012 Richmond Terrace and the approximately 4.41-acre parcel of land located at 2015 Richmond Terrace (of which, approximately 2.25-acres are not covered by the surface waters of the Kill Van Kull). Investigation of the extent of contamination at the Site is ongoing. The 2000-2012 Richmond Terrace portion of the Site, which is the subject of this Action Memorandum, is bordered to the north and east by Richmond Terrace, to the south by an abandoned elevated railroad line, and to the west by Park Avenue. The 2015 Richmond Terrace portion of the Site (owned by Moran Towing Corporation) is bordered to the east by a shipyard facility, to the west by Cable Queen, a New York submarine contracting company, to the north by the Kill Van Kull (a body of water which is a tributary of the New York Harbor), and to the south by Richmond Terrace. The two portions of the Site are separated by Richmond Terrace, the main roadway running east-west parallel to the Kill Van Kull. Richmond Terrace has been an active roadway since the early nineteenth century, and many of Staten Island's first industries were established on what is now called Richmond Terrace, but was originally named Shore Road.

The Site is located on the north shore of Staten Island in the Port Richmond area. Many of Staten Island's first industries were established along what is now called Richmond Terrace. The Kill Van Kull is less than 0.25 miles from the Site. The area around the Site is a mix of light industrial, commercial, and residential. Barge transport and shipyard facilities are situated to the north and east of the Site adjacent to the Kill Van Kull. A millwork facility and a dry cleaner are located on Park Avenue across the street from the Site. A residential neighborhood commences just south of the elevated railroad line and one block west on Port Richmond Avenue. The nearest residence is located approximately 100 feet south of the Site. New York City MTA Bus Stops are located on both Richmond Terrace and Park Avenue.

The area within one mile of the Site can be characterized as residential with heavy concentrations of industrial and manufacturing use along the waterfront. The Site is located within the Port Richmond section of the Borough of Staten Island, New York. Located along the North Shore of Staten Island, the neighborhood is defined by the Kill Van Kull to the north, the Bayonne Bridge and MLK Expressway to the west, Forest Avenue to the south, and Broadway to the east. Port Richmond is an economically distressed community, with the Borough's second-lowest median household income, the second-highest poverty rate, and the highest concentration of houses constructed in 1939 or earlier in Staten Island.

In 2009, EPA selected Port Richmond, and the adjoining neighborhoods along the north shore of Staten Island, as a nationally-designated Environmental Justice Showcase Community. The Environmental Justice Showcase Community effort brings together governmental and non-governmental organizations and pools their collective resources and expertise on the best ways to address local environmental challenges in more effective, efficient, and sustainable ways.

Because the North Shore of Staten Island contains many abandoned, contaminated, and regulated properties along the waterfront, EPA, in consultation with key community members and state and local environmental and public health agencies, is seeking to develop a community-based environmental health strategy for the area.

3. Site characteristics

Historically, John Jewett & Sons White Lead Company operated a white lead manufacturing facility which originated at 2015 Richmond Terrace where it owned and operated the Site from 1839 until 1890. White lead was formerly used as an ingredient for lead paint. Lead was added to paint to speed drying, increase durability, and resist corrosion from moisture.

On April 3, 1890, National Lead and Oil Company of New York ("National Lead") acquired the Site property. National Lead continued the manufacture of white lead at the Site, and extended the operations across the street to include the 2000 Richmond Terrace property. National Lead owned and operated at both Site properties until approximately 1943.

On December 31, 1943, the Moran Towing Corporation acquired the 2015 Richmond Terrace portion of the Site from National Lead. This portion of the Site is presently owned by the Moran Towing Corporation, an active tug boat facility.

On May 31, 1946 National Lead sold the portion of the Site located at 2000 Richmond Terrace. Between 1949 and 1990, various businesses operated at the 2000-2012 Richmond Terrace property including Sedutto's Ice Cream factory. The buildings on this portion of the Site were eventually razed and cleared in the late 1990s after several fires occurred at Sedutto's Ice Cream factory. The 2000-2012 Richmond Terrace property was eventually sold at auction by the City of New York on January 26, 2007 to Leewood Park Avenue LLC which subsequently sold the property to Perfetto Realty Corporation on October 18, 2007.

The 2000-2012 Richmond Terrace property, presently owned by Perfetto Realty Corporation, is an unpaved vacant lot that was being utilized as a staging/storage area for construction-related materials. The ground surface at this portion of the Site consists of mostly grassy soils with some stone near the entrance. The soils had been disturbed in the past due to the presence of heavy machinery and vehicular movement.

The property owner completed an interim removal action to stabilize conditions at the PRC property in April 2009. This removal action is described in Section II.B of this Action Memorandum.

4. Release or threatened release into the environment of a hazardous substance, or pollutant, or contaminant

The following hazardous substances have been identified at the Site:

Substances Identified	Statutory Source for Designation as a Hazardous Substance
Lead	Clean Water Act ("CWA") § 307(a)

This hazardous substance is acutely and chronically toxic. The effects of lead are the same whether it enters the body through breathing or swallowing. The main target for lead toxicity is the nervous system, both in adults and children. Long-term exposure of adults to lead has resulted in decreased performance in some tests that measure functions of the nervous system. Lead exposure may also cause weakness in fingers, wrists, or ankles. Lead exposure also causes small increases in blood pressure, particularly in middle-aged and older people, and may also cause anemia. At high levels of exposure, lead can severely damage the brain and kidneys in adults or children and ultimately cause death. In pregnant women, high levels of exposure to lead may cause miscarriage. High-level of exposure in men can damage the organs responsible for sperm production.

The Department of Health and Human Services ("DHHS") has determined that lead and lead compounds are reasonably anticipated to be human carcinogens based on limited evidence from studies in humans and sufficient evidence from animal studies, and the EPA has determined that lead is a probable human carcinogen. The pathways for release of these materials into the environment include potential airborne release and the potential for migration of contamination into the surface water and groundwater. Numerous events could trigger releases, but the chief concerns at the Site are wind dispersion of lead-contaminated dust and runoff of contaminated rainwater.

Lead is a cumulative poison where increasing amounts can build up in the body eventually reaching a point where symptoms and disability occur. Particularly sensitive populations are women of child-bearing age, due to the fetal transfer of lead, and children. Cognitive deficits are associated with fetal and childhood exposure to lead. An increase in blood pressure is the most sensitive adverse health effect from lead exposure in adults. Effects on the kidney, nervous system and heme-forming elements are associated with increasing blood lead concentrations, both in children and adults. Other symptoms include: decreased physical fitness, fatigue, sleep disturbance, aching bones, abdominal pains, and decreased appetite.

The relationship between soil lead concentrations and the consequent impact on blood levels in children has been studied through numerous epidemiological studies. Based on these epidemiological studies, it is generally believed that persistent exposure to soil-borne lead results in an increase in blood lead levels (in children) of 1 to 9 ug/dl per 1,000 ppm lead in soil. Although this relationship may become less robust as exposure durations decrease and soil lead levels increase, it nonetheless provides compelling evidence of the potential lead hazard associated with the excessive lead concentrations found in the soil at the Site.

Analytical data collected at the PRC property indicated that elevated levels of lead are present, and activities at the property could potentially cause the soils to become airborne or to migrate beyond the property boundary during dry weather conditions. The NYSDOH, under cooperation with ATSDR, prepared a Letter of Technical Assistance dated March 25, 2009, that concluded the apparent migration of lead-contaminated dust warranted immediate mitigation measures to limit the use of the PRC property to prevent additional migration of lead-containing fugitive dust. In addition, the NYSDOH determined that the concentrations of lead detected in the surface soil at the PRC property and the off-property road dust represent a significant public health concern if people, especially children, are exposed to them.

In response to the EPA's findings, the owner of the PRC property initiated an interim removal action to stabilize conditions at the PRC property with EPA oversight. While these measures temporarily limit the exposure threat, permanent measures are needed to eliminate the potential for future human exposures to soils contaminated with high levels of lead on the former Jewett White Lead property.

5. NPL Status

The Site is not proposed for or listed on the NPL.

6. Maps, Pictures, and Other Graphic Representations

Site figures are included in the following attachments: Attachment A contains an illustration of the historic footprint of the Jewett White Lead manufacturing plant, Attachment B contains a diagram of the conceptual site model, Attachment C contains a groundwater elevation map, and Attachment D contains an isopach map indicating the concentrations of lead present at depth on the Site. Additional maps, figures, and tables are included in the January 2011 Engineering Evaluation/Cost Analysis ("EE/CA").

B. Other Actions to Date

1. Previous actions

EPA was initially notified of the existence of the Site in the 1980's. However, the Site address was incorrectly reported and EPA could not locate the Site. Since the Site could not be found, the investigation was closed and no further actions were taken by EPA at the Site, at that time.

On June 3, 2008, the Council of the City of New York submitted a request to EPA to conduct a review of the Site based on complaints from local residents. In December 2008, EPA conducted soil sampling at the PRC property. The analytical results from the sampling event in December 2008 at the PRC property revealed the presence of elevated levels of lead throughout most of that property, both laterally and with depth. Based upon the elevated levels of lead present in the surface soils, EPA requested that the current property owner initiate an interim removal action to

prevent the migration of lead contaminated soil onto neighboring properties.

The interim removal action completed by the current property owner on April 20, 2009 established a grass cover on the lead-contaminated soils to limit the migration of wind-blown lead dusts from the PRC property onto neighboring residential properties. In addition, a silt fence was installed along the PRC property lines to prevent surface water runoff containing lead-contaminated soils/sediments from being transported off the property onto the adjacent sidewalks. While these measures temporarily limit the exposure threat, permanent measures are needed to eliminate the potential for future human exposures to soils contaminated with high levels of lead on the former Jewett White Lead Site.

2. Current actions

In support of the EE/CA, EPA conducted additional investigations to determine the extent of lead contamination in October 2010 at the Site. The field screening results from the sampling event in October 2010 at the PRC property indicates that the elevated levels of lead at the PRC property are confined to the upper four feet of soil with the exception of a small well defined area located in the southwest corner of the property adjacent Park Ave. The average lead concentrations in the field screened soil samples collected at depths of 1-foot, 2-foot, 3-foot, 4-foot, and 5-foot below grade were 7,083 mg/kg, 20,340 mg/kg, 21,070 mg/kg, 14,388 mg/kg, and 5,752 mg/kg, respectively. The highest lead concentration detected in the subsurface was 97,921 mg/kg at the 2- to 3-foot depth interval. The average lead concentration in the 15 test pits extended to the 6' depth is 350 mg/kg. Following sampling on the PRC property, the test pit locations were seeded with grass seed to encourage the growth of a grass cover to reduce the potential for dust generation.

Soil samples were submitted for laboratory confirmatory analysis, as well as Toxicity Characteristic Leaching Procedure ("TCLP") and Synthetic Precipitation Leaching Procedure ("SPLP") for lead. The TCLP and the SPLP are designed to determine the mobility of both organic and inorganic contaminants contained in wastes. While the TCLP relies on extraction fluids that simulate the organic acids that would form from decomposing wastes in a landfill, the SPLP simulates mid-Atlantic rainfall with a pH of 4.2 (acid rain), and estimates the leaching potential of contaminants that may occur under field conditions. Both TCLP and SPLP results ranged from non-detect to 28 mg/L. The results for both analyses indicate that the higher levels of lead may leach to the groundwater, if not addressed.

Ground water samples were collected from two of the three monitoring wells installed at the PRC property and from the two monitoring wells installed on the Moran Towing property on October 28, 2010. One well, PO-03 located on the PRC property, was found to be dry at the time of sampling, and no samples were collected from this well. Groundwater samples were collected using EPA's low-flow/low-stress methodology, and water quality parameters were measured at each sampling location prior to collection. Utilizing the groundwater elevation measurements from both this portion of the Site and those measured synchronously on October 28, 2011 on the

portion of the Site at 2015 Richmond Terrace, the horizontal direction of groundwater flow is northerly, toward the Kill Van Kull. The figure included in Attachment C depicts groundwater elevations and the direction of groundwater flow beneath the Site.

Lead was not detected in the groundwater samples collected from the two monitoring wells located on the PRC property. However, lead was present in one of the down gradient monitoring wells located on the Moran Towing property portion of the Jewett White Lead Site. Lead was detected at 39 µg/L in monitoring well MSC-1. The lead concentration detected in the monitoring well is below the New York State Department of Environmental Conservation ("NYSDEC") Ground Water Quality Standard ("GWQS") of 50 µg/L, but it may be indicative of lead leaching into the ground water beneath the Jewett White Lead Site.

EPA has met with Congressional representatives, State and local officials, and citizen's groups several times since April 2009 and distributed fact sheets to nearby residents notifying them of all on-site actions. In addition EPA has held several public meetings to discuss the findings of the environmental investigations conducted at the Site.

C. State and Local Authorities Roles

1. State and local actions to date

The Site was referred to EPA by The Council of the City of New York for a possible removal action. At EPA's request, the NYSDOH, under cooperation with ATSDR, prepared a Letter of Technical Assistance for the Site on March 25, 2009. It concludes that the apparent off-site migration of lead-containing dust warrants immediate on-site mitigation measures to prevent additional off-site migration of lead-containing fugitive dust.

A Letter Health Consultation was prepared by NYSDOH under a cooperative agreement with ATSDR on March 25, 2010. It concludes that both NYSDOH and ATSDR concur with EPA's determination that permanent measures should be taken at the Site to ensure the Site remains protective should the use of the land change or the temporary measures taken by the owner at the PRC property deteriorate over time.

The NYSDEC submitted comments to the EE/CA on March 16, 2011. The NYSDEC is supportive of EPA's preferred removal alternative to remove approximately 4,250 cubic yards of lead-contaminated soil from the Site and replace it with clean fill.

2. Potential for continued State/local response

Neither NYSDEC nor the local government agencies have the resources available to conduct a non-time-critical removal action at the Site. These organizations will act in a supporting role throughout the removal action.

III. THREATS TO PUBLIC HEALTH, OR WELFARE, OR THE ENVIRONMENT AND STATUTORY AND REGULATORY AUTHORITIES

The conditions at the PRC property portion of the Jewett White Lead Site meet the criteria for implementation of a CERCLA removal action under Section 300.415(b) of the NCP. The release and potential further release of hazardous substances at and from the PRC property presents a threat to public health, or welfare, or the environment. Factors from the NCP Section 300.415(b)(2) that support conducting a removal action at the PRC property are discussed below.

(i) Actual or potential exposures to nearby human populations, animals, or the food chain from hazardous substances, pollutants, or contaminants;

The PRC property has been used as a construction staging area. As a result, the ground surface has been disturbed and elevated levels of lead are more readily available to migrate from the Site. The area around the Site is mostly residential in nature, although areas along the waterfront have been heavily developed for industrial use. Persons, including school children, use the adjoining sidewalks on Richmond Terrace and Park Avenue as a thoroughfare and to wait for public transportation. Elevated levels of lead have been identified off the PRC property on the sidewalk as a result of storm water runoff prior to the interim removal action. Persons in the vicinity of site-contaminated soils, including workers at the Site, Site visitors, and trespassers, could potentially be exposed to lead-contaminated dust that may migrate from the Site through fugitive dust emissions, should the ground surface be disturbed or the interim removal measures deteriorate.

(iv) High levels of hazardous substances, or pollutants, or contaminants in soils largely at or near the surface, that may migrate;

Analytical data indicates that elevated levels of lead are present in the soil throughout the PRC property, both laterally and with depth. The average surface lead concentration is 5,091 mg/kg (milligrams/kilogram). The average lead concentration in the soil samples collected at depths of 1-foot, 2-foot, and 3-foot below grade were 28,245 mg/kg, 61,201 mg/kg, and 53,398 mg/kg, respectively. In addition, the four soil/sediment samples collected on the neighboring sidewalks and curb lines prior to the April 2009 interim removal action were found to contain lead in concentrations ranging from 383 mg/kg to 2,760 mg/kg. Concentrations of lead detected in the surface soil at the PRC property represent a significant public health concern if people, especially children, are exposed to them.

If disturbed, lead contaminated soil can become airborne and migrate from the PRC property. Contaminants located at or near the surface can also migrate by storm water runoff or vehicular traffic. Although the interim actions taken by the current property owner mitigate the migration of lead contaminants, the potential remains for the migration of those contaminants should these existing controls deteriorate.

(v) Weather conditions that may cause hazardous substances, or pollutants, or contaminants to migrate or be released; and

Weather conditions may cause hazardous substances to migrate or to be released particularly through surface water run-off from precipitation. The soil has been disturbed by the previous activities at the Site and can potentially become airborne and/or migrate when disturbed under dry conditions, especially during on-site operations. There is physical and analytical evidence that contamination migrated onto the adjoining sidewalks and curbline by vehicular traffic and via runoff during rainfall events.

Earlier interim actions have been implemented that temporarily prevent the migrations of high concentrations of lead from the Site and have allowed sufficient time to plan the removal action prior to initiating on-site activities. However, these temporary measures will deteriorate over time allowing lead to potentially migrate off the PRC property.

(vii) There are no other appropriate federal or State response mechanisms currently available to respond to the situation at the Site.

Neither NYSDEC nor the local government agencies have the resources available to conduct a non-time-critical removal action at the Site. These organizations will act in a supporting role throughout the removal action.

IV. ENDANGERMENT DETERMINATION

Actual or potential releases of hazardous substances at or from the Site may present an imminent and substantial endangerment to public health, or welfare, or the environment.

V. PROPOSED ACTIONS AND ESTIMATED COSTS

A. Proposed Actions

1. Proposed action description

The objective of the removal action is to remove hazardous substances/wastes from the PRC property, in order to eliminate the threat of exposure through direct human contact caused by the release of the hazardous materials at the PRC property. The following actions will occur at the PRC property:

- Construction of a vehicle decontamination pad and material stockpile and staging areas, clearing and grubbing, removal of on-site materials, such as construction equipment, decommissioning of the existing monitoring wells, and reconstructing erosion control measures.

- Excavation and off-site disposal of approximately 4,242 cubic yards (yd^3) of soils exceeding the site-specific cleanup levels for lead of 800 mg/kg. The initial excavation dimensions were estimated using geographic information system software based upon the soil lead isopach map presented in Attachment D.

- Post-excavation soil samples will be collected from the walls and base of the excavation and analyzed for metals. If analytical results of the post-excavation samples indicate that residual concentrations in the soil exceed the site-specific cleanup level, additional soil will be excavated, followed by additional confirmatory sampling.

- The excavated areas will be backfilled to restore the property to the existing grade, using certified clean soil from an approved off-site source. The top six inches of backfill will be soil that would meet the needs of the property owner, either organic-rich loam capable of supporting vegetative growth, an inorganic travel layer (i.e., stone dust or crushed stone), or a combination of both. A vegetative cover would be planted immediately following placement of any topsoil layer.

- The three on-site monitoring wells will be replaced following the placement of final cover, and monitored semi-annually for at least two years, to demonstrate the effectiveness of the remedy.

The excavated soils will be transported off-site for disposal in an appropriate disposal facility. All hazardous materials generated from the removal will require disposal. Facilities that are selected for the management of these wastes will be in compliance with the EPA CERCLA's Off-Site Disposal Rule. All hazardous wastes will be disposed of under the authority of CERCLA.

2. Contribution to Remedial Performance

This action will contribute effectively to any long term remedial action with respect to the release or threatened release of hazardous substances and is consistent with any future long-term remedial action that may be undertaken at the Site.

3. EE/CA

The EE/CA Approval Memorandum dated June 7, 2010 documented the need for a CERCLA non-time critical removal action to address the elevated concentrations of lead present in the surface soils and at depth at the Site. The EE/CA Approval Memorandum has been provided as Attachment E.

EPA prepared an EE/CA in January 2011 to analyze the removal action alternatives available and to select the most appropriate alternative to disassociate/restrict human exposure to the

contaminated areas and to prevent or minimize the migration of hazardous constituents to area soils and groundwater. The EE/CA is available for public review at the locations listed below.

- To review online, visit: www.epa.gov/region02/superfund/removal/jewettwhitelead

- Paper copies of the EE/CA are available at these locations:

  New York Public Library, Port
  Richmond Branch located at
  75 Bennett Street
  Port Richmond
  Staten Island, New York 10302

  Superfund Records Center
  US EPA Region 2 located at
  2890 Woodbridge Avenue,
  Edison, New Jersey 08837

The written responsiveness summary to significant comments has been provided as an attachment to this Action Memorandum and has been included in Attachment F.

5. Applicable or Relevant and Appropriate Requirements ("ARARs")

Removal actions are required to attain ARARs to the extent practicable pursuant to the requirements of Section 300.415(j) of the NCP. Applicable requirements are those substantive environmental protection requirements, criteria, or limitations promulgated under federal or State law that specifically address either hazardous substances, the type of action to be implemented at the Site, an aspect specific to the location of the Site, or other circumstances relevant to the Site. Relevant and appropriate requirements are those substantive environmental protection requirements, criteria, or limitations which are promulgated under federal or State law which, while not applicable to either the hazardous substances found at the Site, the type of response action itself, the site location, or other circumstances at the Site, nevertheless address problems or situations sufficiently similar to those encountered at the Site such that they are well-suited to the Site. Other information "To Be Considered" (TBCs), including non-binding criteria, advisories, guidance, and proposed standards are not potential ARARs but are meant to complement the use of ARARs.

Chemical-Specific ARARs

Chemical-specific ARARs for the Contaminants of Potential Concern ("COPCs") at the PRC property (*e.g.,* metals) are discussed below. These ARARs would be the federal standards or the more stringent state standards.

Appropriate federal requirements include Resource Conservation and Recovery Act ("RCRA"), 42 U.S.C. 6901, *et seq.*, which regulates the disposal of hazardous wastes.

New York State surface water standards ("SWSs") have been promulgated by NYSDEC for the protection of human health and/or aquatic life and are legally enforceable. The SWSs are dependent on the federally-assigned classification of the surface water body as well as the carbonate hardness of the surface water for inorganic constituents (6 NYCRR Part 701).

4.2.1.2.2 Location-Specific ARARs

Location-specific ARARs that may govern activities in critical environments such as endangered species habitats and historic locations are as follows.

The Endangered Species Act (16 U.S.C. 1531 *et seq.*) and the Endangered and Threatened Species of Fish and Wildlife; Species of Special Concern (6 NYCRR Part 182) address the protection of threatened and endangered species. There may be threatened or endangered species or habitats expected to be present within the area of study as determined by the NYSDEC, based on a review of the Significant Habitat and Natural Heritage Program files for the Site (NYSDEC, 2010).

The National Historic Preservation Act addresses potential impacts to properties that are listed in the National Register of Historic Places, or ones that are eligible for such a listing. No historic places are located on or near the Site. Therefore, the non time-critical removal action is not expected to have any impact on these potential resources.

4.2.1.2.3 Action-Specific ARARs

RCRA, 42 U.S.C. Sections 6901 *et seq.*, and the New York State Hazardous Waste Regulations deal with the treatment and disposal methods of all hazardous wastes. The wastes from the PRC property must be handled in accordance with the federal hazardous waste regulations (40 CFR Parts 260-268 and 761) promulgated under RCRA, as well as portions of the New York State Hazardous Waste Regulations (6 NYCRR Parts 370-376). Determination of the presence and appropriate waste code for any hazardous wastes at the PRC property or residuals from the treatment of such wastes would be made in accordance with these regulations.

Soils or wastes which are deemed hazardous under RCRA would need to be treated/disposed of at a RCRA Subtitle C facility. Soils or wastes which do not have hazardous characteristics could be treated/disposed of at a RCRA Subtitle D facility (*i.e.*, municipal landfill). Soils or wastes which are deemed hazardous under RCRA and left in place would need to be capped and maintained in accordance with RCRA landfill closure and post-closure care requirements (40 CFR Part 264.310).

The Occupational Safety and Health Administration have promulgated permissible exposure limits ("PELs") for a variety of contaminants in the air (29 CFR 1910, Subpart Z). The PELs are based on time-weighted average ("TWA") concentrations to which workers may be exposed over an eight hour exposure period without adverse health effects. PELs and TWAs are intended for adult workers exposed in an occupational setting, and are not directly applicable to CERCLA Sites. The PELs and TWAs may be used as guidance values to determine whether long-term exposures to contaminants in air may pose a human health risk.

6. Project schedule

The Agency will evaluate its enforcement options, as discussed in Section VII, below, and the removal action may be initiated should it be determined, in the Agency's discretion, that it is appropriate that the action be performed with fund monies.

B. Estimated Costs

The estimated costs for the completion of this project are summarized below:

Extramural Costs	
Regional Allowance Costs (Total cleanup contractor costs, including labor, equipment, materials, laboratory disposal analysis, and a 20% contingency)	$ 1,109,000
Other Extramural Costs not Funded From the Regional Allowance	
Total RST, including multiplier costs	$ 36,000
Subtotal, extramural costs	$ 1,145,000
Extramural Costs Contingency (20%)	$ 229,000
TOTAL REMOVAL PROJECT CEILING	**$ 1,374,000**

VI. EXPECTED CHANGE IN THE SITUATION SHOULD ACTION BE DELAYED OR NOT TAKEN

Delayed action or no action could result in the release of the hazardous substance into the environment, thereby exposing the nearby residents and surrounding commercial businesses to hazardous substances on the Site.

VII. OUTSTANDING POLICY ISSUES

No outstanding policy issues.

VIII. ENFORCEMENT

Efforts have been made to identify the site owner(s) and other potentially responsible parties ("PRPs") to assume responsibility for the cost of the cleanup. The On-Scene Coordinator will continue to work with the Removal Action Branch, the Office of Regional Counsel and NYSDEC in an attempt to locate all viable PRPs to recover cleanup costs, 104(e) information requests have been sent to determine PRP status and viability, and notice letters have been prepared and mailed to the viable parties determined to have liability, to ascertain their willingness to participate in the costs of cleanup.

The total EPA costs for this removal action based on full-cost accounting practices that will be eligible for cost recovery are estimated to be $1,842,859 as follows:

COST CATEGORY	AMOUNT
Direct Extramural Cost	$1,374,000
Direct Intramural Cost	$82,000
Subtotal Direct Costs	$1,456,000
Indirect Costs (Indirect Regional Cost Rate 26.57%)	$386,859
Estimated EPA Costs Eligible for Cost Recovery	$1,842,859

Note: Direct costs include direct extramural costs and direct intramural costs. Indirect costs are calculated based on an estimated indirect cost rate expressed as a percentage of site-specific direct costs, consistent with the full cost accounting methodology effective October 2, 2000. These estimates do not include pre-judgment interest, do not take into account other enforcement costs, including Department of Justice costs, and may be adjusted during the course of a removal action. The estimates are for illustrative purposes only and their use is not intended to create any rights for responsible parties. Neither the lack of a total cost estimate nor deviation of actual costs from this estimate will affect the United States right to cost recovery.

IX. RECOMMENDATION

This decision document represents a request for authorization for the described removal action at Jewett White Lead, Borough of Staten Island, Richmond County, New York in accordance with CERCLA as amended and consistent with the NCP. This decision is based on the Administrative Record for the Site. Conditions at the Site meet the NCP Section 300.415(b)(2) criteria for a removal action.

This Action Memorandum, if approved, will authorize a total project ceiling of $1,374,000, of this an estimated $1,109,000 comes from the Regional Advice of Allowance.

Please indicate your approval of the authorization of funding for the Jewett White Lead Site, as per the current Regional re-delegation of authority, by signing below.

Approved: Doug Garbarini for WM **Date:** 12/21/11
Walter E. Mugdan, Director
Emergency and Remedial Response Division

Disapproved: _____ **Date:** _____
Walter E. Mugdan, Director
Emergency and Remedial Response Division

J. LaPadula, ERRD-DD
J. Rotola, ERRD-RAB
E. Wilson, ERRD-RAB
B. Grealish, ERRD-RAB
D. Garbarini, ERRD-NYRB
T. Lieber, ORC-NYCSFB
J. Doyle, ORC-NYCSFB
H. Guzman, ORC-NYCSFB
M. Mears, PAD
K. Giacobbe, OPM-FMB
M. Fiore, OIG
R. Worley, 5202G
A. English, NYSDEC
A. Raddant, USDOI
L. Rosman, NOAA
L. Battes, NYSEMO
S. Bates, NYSDOH

ATTACHMENT A


RICHMOND
PARK AV. (BROADWAY)
TERRACE
PARK AV.
RICHMOND
130

ATTACHMENT B

RICHMOND TERRACE

DUST EMISSIONS

CHAIN LINK FENCE

ASPHALT PAVING

CATCH BASIN

2015 RICHMOND TERRACE

2000–2012 RICHMOND TERRACE

SURFACE WATER RUNOFF

SURFACE WATER RUNOFF

SHEETPILE RETAINING WALL

FILL

FILL

FILL

UTILITIES

LEAD WASTE

GROUNDWATER TABLE

KILL VAN KULL

WALLS AND FOUNDATIONS

GLACIAL TILL (SILTY CLAY)

BEDROCK (STATEN ISLAND SERPENTINITE – DEPTH UNKNOWN)

LEGEND

LEAD IMPACTED SOILS

NOT TO SCALE

SITE CONCEPTUAL MODEL

JEWETT WHITE LEAD
2000–2012 RICHMOND TERRACE
STATEN ISLAND, NEW YORK

WESTON SOLUTIONS

CONCORD NEW HAMPSHIRE

DRAWN	DATE	DES. ENG.	DATE	W.O. NO.
BEG	JAN 2011			20401.122.018
CHECKED	DATE	SCALE	REVISION	FIGURE NO.
JS	JAN 2011	AS SHOWN		1–3

M:\Design\DWG\Jewett White Lead Company Site\section.dwg, Layout1, 1/4/2011 3:23:10 PM, girardeb, 1:1

ATTACHMENT C

N

Kiull Van Kull

MSC-1
79 FT*

80
81
82
83
84
85
86
87

Direction of
Groundwater Flow

Former Jewett White Lead Site
2015 Richmond Terrace

MSC-2
86.1 FT*

PO-1
86.6 FT*

PO-3
86.7 FT*

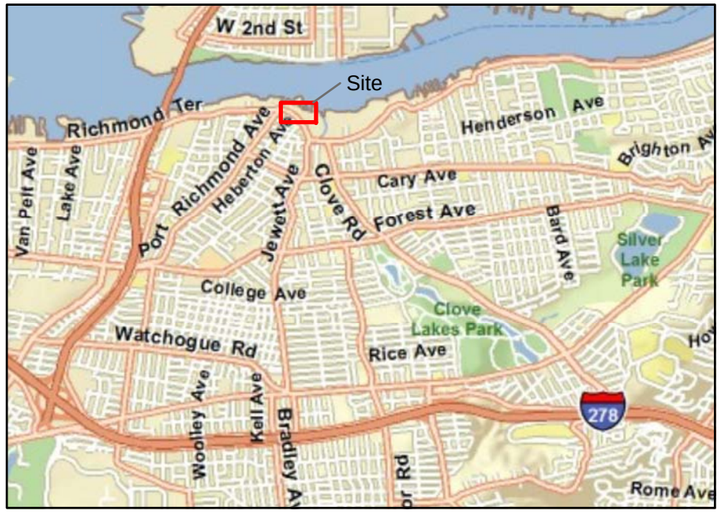
PO-2
<87.8 FT*

Former Jewett White Lead Site
2000-2012 Richmond Terrace

PARK STREET

RICHMOND TERRACE

ABANDONED RAILWAY



0 40 80 160 240 320

Feet

NOTES:
* Groundwater elevations based on arbitrary reference datum of 100 feet established at monitoring well location PO-2.
PO-2 was a "dry well" when sampled. The ground water elevation depicted (<87.8 FT) represents bottom of the screening interval.

SOURCES:
ESRI_StreetMap_World_2D: http://services.arcgisonline.com/arcgis/services.
Vector map features digitized from aerial imagery, ESRI_Imagery_World_2D: http://services.arcgisonline.com/arcgis/services.

LEGEND:
- Monitoring Well Location
- Groundwater Contour
- Inferred Groundwater Contour
- Waterfront
- Building
- Roadway
- Fence
- Railroad

PROJECT: JEWETT WHITE LEAD COMPANY
REMOVAL ACTION ALTERNATIVES REPORT

CLIENT NAME: USEPA

TITLE:

GROUNDWATER ELEVATION MAP
JEWETT WHITE LEAD COMPANY
2015 RICHMOND TERRACE AND
2000-2012 RICHMOND TERRACE
STATEN ISLAND, NEW YORK

WESTON SOLUTIONS SM

DATE: 01/06/2011

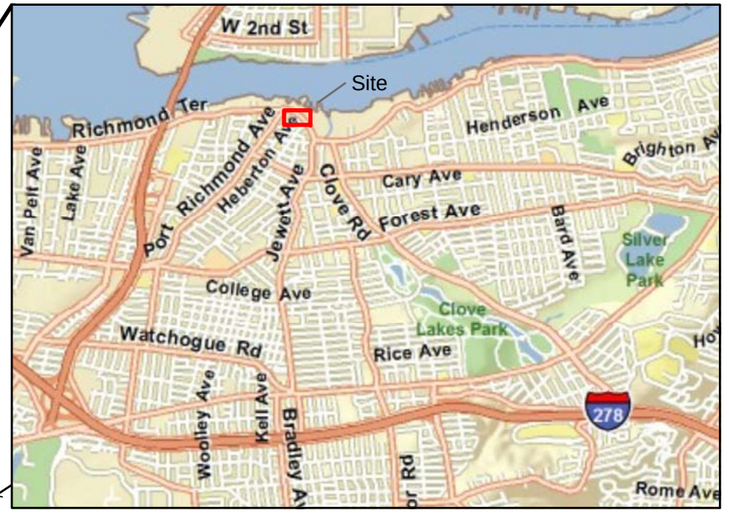
FIGURE #: 1-4

P:\JewettWhiteLead\GIS\MXD\08770_JWL_GWMap.mxd

ATTACHMENT D

N

Former Jewett White Lead SIte
2015 Richmond Terrace



PARK STREET

RICHMOND TERRACE

CHURCH STREET

ABANDONED RAILWAY

Gate

Gravel Driveway

Site Boundary

ZA-1, A-1, A-1.5, AB-1, B-1, A-2, AB-1.5, BC-1, A-2.5, C-1, CD-1, A-3, B-2, BC-1.5, AB-2.5, ZA-3.5, C-2, CD-1.5, DE-1, D-1, ZA-4, AB-3.5, BC-2.5, A-4, B-3, BC-4, D-2, E-1, A-5, AB-4, B-4, C-3, CD-3, DE-2, E-2, F-1, A-5.5, C-4, D-4, EF-2.5, AB-5.5

Catchbasin located under railway overpass

Former Jewett White Lead Site
2000-2012 Richmond Terrace

0 30 60 120 180 240
Feet

NOTES:
1. Contours depicted represent the depth of lead-impacted soils below ground surface measured in feet.

SOURCES:
ESRI_StreetMap_World_2D: http://services.arcgisonline.com/arcgis/services.
Vector map features digitized from aerial imagery, ESRI_Imagery_World_2D: http://services.arcgisonline.com/arcgis/services.

LEGEND:
- 6 — Lead-Impacted Soil (depth below grounds surface, feet)
- 2010 Sample Location
- 2008 Sample Location
- Stormwater Catchbasin
- Site Boundary
- Fence
- Building
- Roadway
- Railroad

PROJECT: JEWETT WHITE LEAD COMPANY
REMOVAL ACTION ALTERNATIVES REPORT

CLIENT NAME: USEPA

TITLE:
LEAD-IMPACTED SOIL ISOPACH MAP
JEWETT WHITE LEAD COMPANY
2000-2012 RICHMOND TERRACE
STATEN ISLAND, NEW YORK

WESTON SOLUTIONS SM

DATE: 01/06/2011

FIGURE #: 3-4

P:\JewetWhiteLead\GIS\MXD\08787_JWL_Pb_Soil_IsopachMap.mxd

ATTACHMENT E

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 2
290 BROADWAY
NEW YORK, NY 10007-1866

JUN - 7 2010

SUBJECT: Documentation of concurrence with the preparation of an Engineering Evaluation/Cost Analysis in support of a CERCLA Non-Time Critical Removal Action at the Jewett White Lead Company Site, Staten Island, Richmond County, New York

FROM: Kimberly Staiger, On-Scene Coordinator
Removal Action Branch

TO: Walter Mugdan, Division Director
Emergency and Remedial Response Division

THRU: Joseph Rotola, Chief
Removal Action Branch

Site ID No.: A218

I. SUBJECT

The purpose of this memorandum is to document your concurrence for the preparation of an Engineering Evaluation/Cost Analysis (EE/CA) for a Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) removal action at the Jewett White Lead Company Site located in Staten Island, Richmond County, New York (the Site).

The Site consists of the historic footprint of the former Jewett White Lead Company facility and the extent of contamination which includes the one acre parcel of land at 2000-2012 Richmond Terrace and the approximately one and one-half acre parcel of land at 2015 Richmond Terrace. The Site is considered a facility as defined by Section 101(9) of CERCLA, 42 U.S.C. Section 9601(9). The mechanism for past releases of hazardous substances to the environment, as defined by CERCLA, appears to have been the use of the Site to manufacture white lead and the possible waste disposal practices associated with the operations.

Although the Site poses a threat to public health, welfare, and the environment, the United States Environmental Protection Agency (EPA) has determined that a sufficient planning period exists before site activities for this action have to be initiated. Accordingly, this response is being conducted as a non-time critical removal action.

II. BACKGROUND

On June 3, 2008, the Council of the City of New York submitted a written request to EPA to evaluate a property located on 2000-2012 Richmond Terrace (hereinafter the "Perfetto property") for potential environmental contamination. Initially, EPA's Pre-remedial Section evaluated the Site. Subsequently, the Site was referred to EPA's Removal Action Branch to conduct a Removal Site Evaluation that would evaluate the property for a removal action under the authority of CERCLA as amended, 42 U.S.C. §9601 et seq.

The area within one mile of the Site can be characterized as a residential neighborhood with concentrations of industrial and manufacturing facilities along the waterfront. The Site is located within the Port Richmond section of the Borough of Staten Island, New York. Located along the North Shore of Staten Island, the neighborhood is bordered by the Kill Van Kull to the north, the Bayonne Bridge and MLK Expressway to the west, Forest Avenue to the south and Broadway to the east. Port Richmond is an economically distressed community with the Borough's second-lowest median household income, the second-highest poverty rate, and the highest concentration of older housing in Staten Island.

Historically, John Jewett & Sons White Lead Company operated a white lead manufacturing facility at the Site. John Jewett & Sons White Lead Company owned the Site from 1839 until April 3, 1890 when National Lead & Oil Company of New York ("National Lead") acquired the Site property. National Lead continued the manufacture of white lead, an additive found in lead-based paint and ceramics, at the Site until a fire destroyed the plant's main building and storage house in 1920.

On December 31, 1943, Moran Towing Corporation acquired the 2015 Richmond Terrace portion of the Site from National Lead (hereinafter the "Moran property"). On May 31, 1946, National Lead sold the one acre portion Perfetto property to Anthony Sedutto, Guiseppe Sedutto, Giovannina Sedutto, Mario Sedutto, Michael Sedutto, and William Sedutto.

Between 1949 and 1990, various businesses operated at Perfetto property including Sedutto's Ice Cream factory. The buildings on this portion of the Site were eventually razed and cleared in 2000 after several fires occurred at the Sedutto's Ice Cream factory. The Perfetto property was sold at auction on January 26, 2007 to Leewood Park Avenue LLC. Perfetto Realty Company purchased the Perfetto property from Leewood Park Avenue LLC on October 18, 2007. Perfetto Realty used the property to store construction equipment and materials from local construction projects.

The portion of the Perfetto property is currently an unpaved vacant lot that was being utilized as a staging area for material being brought to and removed from construction conducted elsewhere in Staten Island. The ground surface at this portion of the Site consists of mostly unvegetated soil with some stone near the entrance. The soils have apparently been disturbed due to the presence of heavy machinery and the vehicular movement.

The portion of the Moran property is presently owned by the Moran Towing Corporation, an active tug boat facility. Most of the tugboat operations conducted at the facility take place at the rear of the property. However, part of the facility adjoining Richmond Terrace is currently used as a storage area for tugboat bumpers. Buildings, concrete, or asphalt cover most of the property, although there are areas where the asphalt and concrete appears to be in disrepair.

In December 2008, EPA and contractor representatives from the Removal Support Team collected soil samples from 16 test pits at the Perfetto property that were excavated to a depth of approximately four feet below grade. Many of the test pits were found to contain either blackened soil, concrete in the form of slabs and/or footings, asphalt, bricks, or wood. The analyses of the soil samples collected from the test pits included target analyte list (TAL) metals and Polychlorinated Biphenyls (PCBs). Off-property samples were collected from four locations along Richmond Terrace in order to determine if contamination had migrated from the Perfetto property.

The analytical results from the sampling event in December 2008 at the Perfetto property revealed the presence of elevated levels of lead throughout most of that property, both laterally and with depth. The average surface lead concentration was 5,081 mg/kg (milligram/kilogram). The highest lead concentration detected at the surface was 37,100 mg/kg, near the gate on Park Avenue. The average lead concentration in the soil samples collected at depths of 1-foot, 2-foot and 3-foot below grade were 28,245 mg/kg, 61,201 mg/kg, and 53,398 mg/kg, respectively. The highest lead concentration detected in the subsurface was 240,000 mg/kg. In addition, the four off-property sample locations were found to contain lead in concentrations ranging from 383 mg/kg to 2,760 mg/kg.

At EPA's request, the New York State Department of Health (NYSDOH), under cooperation with the Agency for Toxic Substances and Disease Registry (ATSDR), prepared a Letter of Technical Assistance for the Site dated March 25, 2009. NYSDOH concluded that the apparent migration of lead-contaminated dust warranted immediate mitigation measures to limit the use of the Site to prevent additional migration of lead-containing fugitive dust.
It concluded that the concentrations of lead detected in the surface soil at the Perfetto property and the off-property road dust represent a significant public health concern if people, especially children, are exposed to them.

In April 2009, at EPA's request and oversight, Perfetto Realty conducted an interim removal action to prevent the migration of lead-contaminated soils from the Perfetto property. The interim removal action included: improving the existing fencing, installing a silt fence and hay bales around the fence line, spreading grass seed and mulch to hold the lead-contaminated soils in place, posting "lead hazard" signs on fencing, and removing the lead-contaminated soils and sediments from the sidewalks and nearby curb line adjacent to this portion of the Site. The ground surface is now mostly covered with grass, and a fabric windscreen has been placed along the entire fence line.

On June 15, 2009, EPA collected 14 surficial soil samples from the Moran property. The soil samples were collected from portions of this property where exposed soil was present or where the concrete and asphalt appeared to be in disrepair. Elevated levels of lead were found to be in the samples collected at concentrations that ranged from 145 mg/kg to 2,730 mg/kg, with the highest lead concentrations present in the surface soils adjacent the Richmond Terrace sidewalk.

III. THREAT TO PUBLIC HEALTH, WELFARE AND THE ENVIRONMENT

As mentioned above, in the March 25, 2009 Letter of Technical Assistance for the Site, NYSDOH concluded that the concentrations of lead detected in the surface soil at the Perfetto property and in the adjacent road dust represent a significant public health concern if people, especially children, are exposed to them.

A Letter of Health Consult dated February 11, 2010 was prepared by the NYSDOH, in cooperation with ATSDR after review of the off-site soil sampling data collected by the EPA in June 2009. NYSDOH concluded that it is appropriate to take permanent measures to eliminate the potential for future human exposures to soils contaminated with high levels of lead on the former Jewett White Lead Site. Such permanent measures would ensure that the Site remains protective should land use at the Site change or the temporary measures taken by the Perfetto Realty Company at the Perfetto property deteriorate over time.

Hazardous substances, pollutants or contaminants present at the Site represent a threat to the public health and welfare as indicated by the presence of factors listed in Section 300.415(b)(2) of the National Contingency Plan (NCP), 40 C.F.R. §300.415(b)(2), in that there is a high potential for releases to occur through continued use of the Site. Factors that supported conducting the removal action at this Site include:

(i) Actual or potential exposures to nearby human populations, animals, or the food chain from hazardous substances, pollutants or contaminants;

Past releases to the environment at the Site appears to have been the result of the generation of wastes from the manufacture of white lead and the waste disposal practices at the Site.

The Perfetto property has been used as a construction staging area. As a result, the ground surface has been disturbed and elevated levels of lead made more available to migrate from the Site. The area around the Site is partly residential. Persons, including school children, use the adjoining streets, Richmond Terrace and Park Avenue, as a thoroughfare and to wait for public transportation. Elevated levels of lead have been identified off-Site on the sidewalk as a result of storm water runoff.

The Moran property is also fenced, and it is currently an active facility. The areas of highest lead contamination detected there are in the bumper storage area and along the fenceline adjacent to Richmond Terrace. Persons accessing the Site will continue to be potentially exposed to the

elevated levels of lead that are present on the surface of the Site. The movement of vehicles and storage equipment on and off the bumper storage area may facilitate the release of surficial lead contamination into the environment potentially exposing pedestrians outside the fenceline on the adjoining sidewalk.

(iv) High levels of hazardous substances or pollutants or contaminants in soils largely at or near the surface, that may migrate;

Analytical data indicates that elevated levels of lead are present in the soil at or near the surface in areas of the Site where historic white lead manufacturing took place. If disturbed, lead contaminated soil can become airborne and migrate from the properties. Contaminants located at or near the surface can also migrate by storm water runoff or vehicle tracking. There is evidence that suggests that contamination may have migrated from the Perfetto property in the past by vehicular traffic and via runoff during rainfall events. Although the interim actions taken by Perfetto Realty Company to mitigate migration of lead contaminants, the potential remains for migration of contaminants at the Site should these existing controls deteriorate.

As noted above in the Letters of Health Consult provided by the NYSDOH in cooperation with ATSDR, actual or potential releases of hazardous substances at or from the Site, if not addressed by implementing a response action, may present an imminent and substantial endangerment to public health and welfare.

IV. ENFORCEMENT ACTIONS

Earlier this year, EPA met with representatives of National Lead, Moran Towing and Perfetto Realty to determine if any or all of the parties would be willing to conduct the EE/CA. In March 2010, none of the parties expressed willingness to conduct the EE/CA. Therefore, EPA determined that it would conduct the EE/CA to select the appropriate removal action at the Site.

If approved, a fund lead EE/CA will be conducted to identify and evaluate removal alternatives to mitigate hazardous conditions at the Site. After the EE/CA is completed and a removal action selected, EPA will determine if any of the present or past owners and/or operators at the Site would be capable and willing to undertake the required removal action.

V. PROJECT COSTS

The objectives of the EE/CA are to determine the nature and extent of contamination, provide detailed delineation of Site environmental media, identify contaminant sources, identify contaminant migration pathways, determine the impact or potential impact of contaminants on public health and the environment, and to collect data to facilitate the selection and design of removal actions for the Site that would comply with Applicable or Relevant and Appropriate Requirements (ARARs) within the scope of the project. It is estimated that the EE/CA will cost approximately $252,000 to complete.

VI. RECOMMENDATION

A CERCLA Non-Time Critical Removal Action is needed to address the elevated concentrations of lead present in the surface soils and at depth at the Site. The proposed EE/CA is considered non-time critical because interim measures have been implemented or are in place that temporarily prevent the migration of high concentrations of lead from the Site. However the deterioration of these measures over time may allow the further migration of lead-contaminated soils from the Site. Conditions at the Site meet the NCP Section 300.415(b)(4) criteria for a removal action, where a planning period of at least six months exists.

I recommend that you approve the preparation of the EE/CA for the Jewett White Lead Site, as per the current Regional redelegation of authority, by signing below.

Approved: _____ Date: 6/7/2010
Walter Mugdan, Director
Emergency and Remedial Response Division

Disapproved: _____ Date: _____
Walter Mugdan, Director
Emergency and Remedial Response Division

J. Lapadula, 2ERRD
J. Rotola, 2ERRD-RAB
W. Ayala, 2CD-PAD
G. Zachos, ERRD
B. Grealish, 2ERRD-RPB
C. Kelley, RST
L. Graziano, ATSDR
C. Duroski, NYSDOH
P. Brandt, 2CD
E. Wilson, 2ERRD-RAB
H. Guzman, 2ORC-NYCSB
A. Tao, 2OPM-GCMB
T. Lieber, 2ORC-NYCSFB
A. English, NYSDEC
I. Beilby, NYSDEC
D. Nagin, NYCDOHMH

ATTACHMENT F

EPA RESPONSIVENESS SUMMARY FOR COMMENTS RECEIVED ON THE ENGINEERING EVALUATION/COST ANALYSIS FOR THE 2000-2012 RICHMOND TERRACE PORTION OF THE JEWETT WHITE LEAD SITE

INTRODUCTION

This Responsiveness Summary provides a summary of comments received during the public comment period related to the 2000-2012 Richmond Terrace property portion of the Jewett White Lead Site and the responses of the U.S. Environmental Protection Agency (EPA). All comments summarized in this document have been considered in EPA's final decision in the selection of a response action to address the contamination at the site. The responses of New York State Department of Environmental Conservation (NYSDEC) to the public comments have also been taken into account in the Responsiveness Summary.

SUMMARY OF COMMUNITY RELATIONS ACTIVITIES

The March 2011 Proposed Response Action Document, which identified the response action preferred by EPA, in which NYSDEC concurs, and the basis for that preference, and the Engineering Evaluation/Cost Analysis (EE/CA) were made available to the public in both the Administrative Record and information repositories maintained in the EPA Region II Edison, New Jersey office and a local information repository at the Port Richmond Branch of the New York Public Library at 75 Bennett Street, Port Richmond, Staten Island, New York. The notice of availability for these documents was published in the *Staten Island Advance* on March 6 and March 9, 2011 and the El Diario La Prensa on March 5, 2011. A public comment period was held from March 4, 2011 to April 17, 2011. On March 16, 2011 EPA conducted a public meeting at the Port Richmond CYO, 120 Anderson Avenue, Staten Island, New York to present the findings of the EE/CA and answer questions from the public about the site and the response actions under consideration. Local residents, representatives from local community groups, representatives from the media, and local government officials, attended the public meeting.

OVERVIEW

The public supports EPA's selected non-time critical removal action[1], which consists of removing approximately 4,242-cubic yards of soil and backfilling the excavation with certified clean soil from an approved off-site source. Responses to the comments received at the public meeting and in writing during the public comment period are summarized below. Attached to this Responsiveness Summary are the following Appendices:

Appendix 1 - Documentation of concurrence with the preferred removal action alternative for a CERCLA Non-Time Critical Removal Action at the Jewett White Lead Company Site, Staten Island, Richmond County, New York (January 31, 2011)
Appendix 2 - Proposed Response Action Document (March 2011)
Appendix 3 - Public Notice Published in the *Staten Island Advance* on March 6 and March 9, 2011
Appendix 4 - Public Notice Published in the *El Diario La Prensa* on March 5, 2011
Appendix 5 - EPA Press Release *EPA Seeks Public Input on Cleanup Options for Lead-Contaminated Site in Staten Island, NY* (March 8, 2011)
Appendix 6 - Letters and E-mails Submitted During the Public Comment Period
Appendix 7 - March 16, 2011 Public Meeting Transcript

[1]The selected response action is considered non-time critical because, although there is a threat to public health, welfare, or the environment, there is sufficient planning time available before the removal action is to be initiated.

SUMMARY OF COMMENTS AND RESPONSES

Throughout the public comment period, EPA received comments from 28 sources, including 12 private citizens and the following groups or individuals:

Congressman Michael G. Grimm
Staten Island Office of the Borough President
Councilwoman Debi Rose
The North Shore Waterfront Conservancy of Staten Island, Inc. (NSWC)
New York State Department of Environmental Conservation (NYSDEC)
Port Richmond Improvement Association
Northfield LDC
Project Hospitality
Staten Island Economic Development Corporation
Coalition for Healthy Ports
Staten Island Advance
NL Industries, Inc.

A public meeting was conducted on March 16, 2010, in Port Richmond, Staten Island to present EPA's preferred removal action for the 2000-2012 Richmond Terrace property portion of the Jewett White Lead Site and respond to questions about the preferred removal action. A transcript of the meeting was prepared. This Responsiveness Summary includes a summary of verbal comments received at the public meeting and corresponding EPA responses. In some instances, the original responses EPA made during the public meetings have been supplemented with additional information for a more complete response.

The various comments received on the EE/CA and EPA's preferred response action document from all parties are presented in this Responsiveness Summary with corresponding EPA responses. The comments include the verbal comments received during the public meeting and written comments submitted to the EPA. Comments and responses presented in this Responsiveness Summary are numbered sequentially with no other designation. The order in which the comments appear has no particular relevance.

A number of the comments received on the preferred response action were expressed by more than one party. The goal in preparing this responsiveness summary was to ensure that the public clearly understands EPA's position on issues raised in the comments received and the rationale which supports EPA's decision for the removal action at the 2000-2012 Richmond Terrace property portion of the Jewett White Lead Site. All documents referenced in this Responsiveness Summary are included in the Administrative Record for the Jewett White Lead Site.

A summary of the comments provided at the March 16, 2011 public meeting and contained in the letters and e-mails that were received during the public comment period, as well as EPA and NYSDEC responses to them, have been organized into the following topics:

- Response Action Implementation
- Health Concerns
- Response Action Evaluation
- Additional Site Investigations
- Communicating Project Status
- Future Use of Site
- Interim Removal Action at 2000-2012 Richmond Terrace Property

A summary of the comments and concerns and the responses, thereto, are provided below:

Response Action Implementation

Comment #1:

A number of commenters expressed support for the selected response action.

Response #1:

EPA relies on public input to ensure that the concerns of the community are considered in selecting an effective response action for each Superfund site. Several members of the Port Richmond Community have provided the EPA with written and verbal expressions of support for the selected removal action, Alternative 2: Excavation and Off-site Disposal/Treatment of the lead contaminated soils at the 2000-2012 Richmond Terrace property portion of the Jewett White Lead Site. The Port Richmond Community is strongly in favor of selecting a removal action that would provide a permanent solution, rather than selecting a removal action that would require long-term monitoring and maintenance by either the property owner or the EPA.

EPA appreciates the commenters' expression of support for the selected removal action, Alternative 2.

Comment #2:

Several commenters expressed concern that removal activities at the Jewett White Lead Site will not be conducted in a manner that prevents the migration of dust generated during all phases of the removal process or prevents the migration of lead contaminated soils via run-off caused by erosion of the site soils during precipitation events.

Response #2:

EPA will ensure that necessary precautions are in place to protect the public from exposure to site contaminants while sampling and cleanup activities are taking place on the Jewett Site.

As part of the cleanup effort, a Community Air Monitoring Plan will be developed and implemented. This plan will include procedures for real-time air monitoring for dust and chemical contaminants and recommended measures (e.g. water misting, smaller work areas, slower truck speeds, temporary work stoppage) to keep airborne releases to a minimum in and around the work areas. If elevated levels of contaminants are detected during air and dust monitoring in and around the work area or on the perimeter of the Site, then the removal activities will be shut down and measures will be taken until the problem can be rectified. These measures may include closing the sidewalks adjoining the property during cleanup activities, which would be done in coordination with officials from the City of New York.

Comment #3:

A commenter asked if EPA will be including other people and City agencies in the decision making process during the removal action.

Response #3:

The Jewett White Lead Site is a federal lead site. However, EPA has been and will continue to coordinate all removal activities with the City of New York and the State of New York. EPA will continue to keep the City and State informed of all actions that EPA has taken and plans to take at the Jewett White Lead Site.

Comment #4:

A commenter asked where the soil will be taken and how it will be treated if EPA does select option 2.

Response #4:

Excavated soils will be treated as necessary to reduce the mobility of lead and disposed at an appropriate landfill in accordance with state and federal environmental regulations.

Comment #5:

A commenter asked where is the money coming from to pay for the cleanup.

Response #5:

The money spent on investigations for the Jewett White Lead Site has come from federal funds. Responsible parties under CERLCA will be asked to implement the selected removal action. If these parties are unwilling or unable to perform the response action, then EPA will conduct the work using federal funds. EPA may then seek to recover the expended costs from the responsible parties.

Comment #6:

A commenter asked if there will be grant money made available to help the owner of the contaminated property do the work.

Response #6:

There are different types of contaminated or potentially contaminated properties in the United States. Some are "Superfund sites" – sites where the federal government is, or plans to be, involved in cleanup efforts, many of which are listed on the National Priorities List (NPL); or where immediate action needs to be taken, properties at which EPA is conducting removal actions. Other properties may be considered "brownfields:" abandoned, idled, or under-used industrial and commercial facilities where expansion or redevelopment is complicated by real or perceived environmental contamination.

While CERCLA also includes authority for EPA to provide grant funding for the assessment and cleanup of brownfield sites, brownfields grant funds may not be used for the cleanup of a contaminated property for which the recipient of the grant or loan may be potentially liable under CERCLA §107 such as a current owner of a site. CERCLA is a strict liability statute that holds potentially responsible parties (PRPs) jointly and severally liable, without regard to fault, for cleanup costs incurred in response to the release or threatened release of hazardous substances. Under CERCLA § 107, a person may be considered a PRP if the person:

- Is the current owner or operator of the contaminated property;
- Owned or operated the property at the time of the disposal of the hazardous substance;
- Arranged for the hazardous substances to be disposed of or treated, or transported for disposal or treatment; or
- Transported the hazardous substances to the property.

A property owner that falls into one of the classes of PRPs described above may be potentially liable under CERCLA. Fortunately, CERCLA includes liability exemptions, affirmative defenses, and

protections that may apply to local governments. Additionally, EPA has enforcement discretion guidance and site-specific tools that may address concerns about potential CERCLA liability.

For a more detailed discussion of Brownfields sites eligible for funding, please refer to the Appendices of the Proposal Guidelines for Brownfields Assessment, Revolving Loan Fund and Cleanup Grants on the EPA website at: www.epa.gov/brownfields.

Health Concerns

Comment #7:

Several commenters asked whether the bus stops located immediately adjacent the 2000-2012 Richmond Terrace property will remain open or be relocated during the cleanup activities. They expressed concern for the health and welfare of residents and children waiting to board buses while ground intrusive work is occurring at the Site.

Response #7:

In April 2009 the property owner implemented an interim removal action under EPA oversight at the 2000-2012 Richmond Terrace property portion of the Jewett White Lead Site. These actions included the installation of hay bales and a silt fence to control stormwater runoff, application of grass seed and mulch to hold soil in place, repairs to existing fencing to prevent trespassers from accessing the area, installation of warning signs and the removal of soil and sediment from the sidewalks and curbs adjacent the property. These controls reduce the potential for contamination to migrate off the site until a cleanup plan is developed for the site.

During ground intrusive sampling performed at the Jewett White Lead Site by the EPA, lead was not detected in the perimeter air samples above both worker safety and National Ambient Air Quality Standards (NAAQS). Based upon the results of the air sampling and the controls put in place to limit the migration of contaminants from the site, there is no need to relocate the two Metropolitan Transit Authority (MTA) bus stops at this time. While EPA does not have the authority to determine the locations of MTA bus stops, we will evaluate the safety of the community as part of the planning process for the cleanup of the Site, and will ensure that appropriate precautions are in place to protect the public from exposure while sampling and cleanup activities are taking place on the Jewett Site.

As discussed in Response to Comment #2 above, a Community Air Monitoring Plan will be developed which will monitor air and dust to keep airborne releases to a minimum around the work areas and to protect the public from exposure to any contaminants during the cleanup activities at 2000-2012 Richmond Terrace. If it is deemed necessary to temporarily relocate the bus stops adjacent the 2000-2012 Richmond Terrace property during the removal action at the 2000-2012 Richmond Terrace property, EPA will work with the appropriate government agencies of the City of New York, including the MTA, to arrange for a temporary relocation of the bus traffic at or near the Site.

Comment #8:

Two commenters wanted to know if residents who lived next to the Jewett White Lead Site were able to garden safely in their yards.

Response #8:

During the off-site sampling performed in June 2009, EPA collected soil samples from neighboring properties and found lead levels that ranged from 11 ppm to 3,510 ppm, with an average surface lead contamination of 549 ppm. The possibility of contamination at a garden site should not keep you from planning an urban garden.

Generally when lead concentrations are in the 400 to 1,200 ppm range, which is quite common for urban areas, it is still possible to safely garden if proper precautions are observed. If you have a garden or plan

to have a garden, the following steps can be taken to minimize exposure to elevated levels of lead present in the soil:

- Add organic matter such as compost, manure, or phosphate containing fertilizers to garden soil. The organic matter binds lead and reduces the amount available to plants. Organic mulch, such as straw, grass clippings, or wood chips can reduce the dust and the "splatter" of soil onto leafy vegetables from rain.
- If the soil is acidic, add lime to the garden to reduce the acidity. Acidic soil increases the amount of lead available to plants.
- Install raised-bed gardens and supplement with clean topsoil.
- Discard the outer leaves of greens, especially from the bottom of plants, before washing. Soil particles are most likely to be located on the outer leaves of leafy plants.
- Wash produce using running water.
- Peel vegetables, especially root vegetables, which are in direct contact with soil.
- Locate gardens away from old painted buildings and roads with heavy traffic.
- Watch over small children to stop them from eating soil through hand-to-mouth play.
- Wash hands immediately after gardening and before eating to avoid accidentally eating soil.
- Wear gloves as a barrier between your hands and the soil.
- Avoid bringing contaminated soil into the home by:
    - Cleaning tools, gloves and shoes before bringing them indoors.
    - Putting highly soiled clothes in a bag before bringing them indoors and washing them promptly in a separate load.
    - Washing off excess dirt from crops, especially root crops and leafy vegetables, before bringing them indoors.

Additional information on gardening in urban environments can be found at the following website: **http://www.clu-in.org/ecotools/urbangardens.cfm**

Response Action Evaluation

Comment #9:

A commenter asked if phytoremediation was considered as a removal action alternative during the Engineering Evaluation.

Response #9:

Phytoremediation is the direct use of living plants for *in situ* remediation of contaminated soil, sludges, sediments, and groundwater through contaminant removal, degradation, or containment. Phytoremediation was not considered as a removal action alternative because this technology has not been shown to be effective in mitigating threats to human health and the environment at sites similar to the Jewett White Lead Site.

There are several distinct limitations to the application of phytoremediation at this site that precluded the consideration of this technology as a removal action alternative:

- Phytoremediation is mostly limited to the treatment of surficial contamination due to the generally shallow distribution of plant roots. The root zones of most metal accumulators are limited to the top foot of soil. Either the plants must be able to extend roots to the contaminants, or the contaminated media must be moved to within range of the plants. This movement can be accomplished with standard agricultural equipment and practices, such as deep plowing to bring soil from 2 or 3 feet deep to within 8 to 10 inches of the surface for shallow-rooted crops and grasses, activities that can create fugitive dust emissions.

- More time may be required to phytoremediate a site as compared with other more traditional cleanup technologies, since phytoremediation is limited by the growth rate of the plants. Excavation and disposal or incineration takes weeks to months to accomplish, while phytoextraction or degradation may need several years.

- High lead concentrations (like those found at the Site) may be phytotoxic, and prevent plant growth. In addition, plant matter that is contaminated will require either proper disposal or an analysis of risk pathways. Harvesting and proper disposal is required for plant biomass that accumulates heavy metals within the plant. The biomass may be subject to regulatory requirements for handling and disposal, and an appropriate disposal facility will need to be identified. Should the phytoremediation effort fail, an increased mass of material will need to be remediated.

- A phytoremediation system can lose its effectiveness during the winter (when plant growth slows or stops) or when damage occurs to the vegetation from weather, disease, or pests.

- Amendments and cultivation practices might have unintended consequences on contaminant mobility. For example, application of many common ammonium containing fertilizers can lower the soil pH, which might result in increased metal mobility and leaching of metals to the groundwater.

- Phytoremediation is inconsistent with the current land use.

Comment #10:

A commenter stated that an institutional control coupled with a containment option l, such as Alternative 4 (Paving), is an appropriate remedy for the 2000-2012 Richmond Terrace portion of the Site but that EPA's preferred response action (Excavation) was selected on the erroneous assumption that the current property owner of 2000-2012 Richmond Terrace would not agree to an institutional control on its property.

Response #10:

The commenter is incorrect in stating that the main reason for EPA's preferred response action, Alternative 2 (Excavation and Off-site Treatment/Disposal), is based on the assumption that the current property owner would not agree to an institutional control for the 2000-2012 Richmond Terrace portion of the Jewett White Lead Site. As stated in the EPA *Guidance on Conducting Non-Time Critical Removal Actions Under CERCLA*, "the purpose of the comparative analysis is to identify the advantages and disadvantages of each alternative relative to one another so that key tradeoffs that would affect the remedy selection can be identified.

The removal action alternatives were evaluated against the following three criteria: Effectiveness, Implementability, and Cost.

- *Effectiveness:* The ability of the alternative to meet the objectives within the scope of the removal action in terms of overall protection of public health and the environment, compliance with ARARs and other guidance, long-term effectiveness and permanence, short-term effectiveness, and reduction of toxicity, mobility or volume;

- *Implementability:* The technical and administrative feasibility of implementing an alternative and the various services and materials required during the implementation;

- *Cost:* The projected cost of each alternative.

Effectiveness-

Overall Protection of Public Health and the Environment:

Removal Alternative 2 (excavation and off-Site disposal) would be the most protective removal action, since the risk of incidental contact with waste by humans and ecological receptors and the potential for contaminant migration from the property would be eliminated by permanently removing the contaminated soils. Removal Alternative 4 (paving) would be protective of human health and the environment; however, it is less protective than Removal Alternative 2 because the potential is greater for direct contact with principle threat wastes if the cap is disturbed or breached. This removal action reduces the risk of incidental contact with waste by humans and ecological receptors by containing the contaminated soil; however, future activities at the property would be restricted by this removal alternative.

Compliance with ARARs:

EPA in consultation with NYSDEC has established a site-specific Preliminary Remediation Goal (PRG) of 800 mg/kg lead for the Jewett White Lead Site, based in part on the Regional Screening Levels for Contaminants at Superfund Sites, Streamlined Human Health Risk Assessment and NYSDEC Part 375 SCOs. Removal Alternative 2 (excavation and off-Site treatment/disposal) will comply with the ARARS and would remove all soils that exceed the site specific PRG. Removal Alternative 4 would also comply

with ARARs, but would not comply with To Be Considered (TBCs), and other criteria. Under Alternative 4 soils will remain in place that exceed the site specific PRGs, however the threat of exposure to the contaminated soils would be greatly reduced by requiring the containment/capping of all those soils and waste material that exceed the PRGs.

Long-Term Effectiveness and Permanence

Removal Alternative 2 (excavation and off-Site treatment/disposal) would provide a high degree of long-term protection of human health and the environment by eliminating the possibility of exposure to contaminants on-Site and the potential for contaminants migrating from the property. The removal of the contaminated soils under Removal Alternative 2 would be effective and permanent.

Removal Alternative 4 (paving) would provide a high degree of long-term protection of human health and the environment; however, the potential exists for direct contact with contaminants if the asphalt cap is disturbed or breached. The depth of the protective cap in this removal alternative, as opposed to Removal Alternative 2 and is significantly less and thus less protective.

Reduction of Toxicity, Mobility, or Volume Through Treatment

Under Removal Alternative 2 (excavation and off-site treatment/disposal), contaminants above the PRG would be removed from the property for treatment/disposal, thereby reducing their toxicity, mobility, and volume. It is not known; however, to what extent the excavated soils would require treatment prior to disposal under this alternative.

Removal Alternative 4 (paving) includes the reduction of toxicity through treatment for that portion of soil removed from the property and treated as a result of TCLP failure (estimated at 500 cubic yards). The mobility or volume of contaminated soil that would be left on-site would not be reduced through treatment. While Alternative 4 would reduce the migration of and potential exposure to contaminated soils and waste materials, the principle threat wastes would remain in place and the potential remains for direct contact with the principle threat wastes if the asphalt cap is disturbed or breached.

Short-Term Effectiveness

Removal Alternative 2 and Alternative 4 would involve excavating, moving, placing, and, in the case of Alternative 4, re-grading waste. While these removal action alternatives present some risk to on-site workers through dermal contact and inhalation, these exposures can be minimized by utilizing proper protective equipment and engineering controls. The vehicle traffic associated with cap construction and the off-site transport of contaminated soils could impact the local roadway system and nearby residents through increased noise level. Alternative 2 would require the off-site transport of a considerable amount of contaminated soil. Alternative 4 would require the delivery of cap construction materials, and off-site transport of a much lower volume of contaminated soil removed to re-grade the property.

Under all of the removal action alternatives except the no action alternative, disturbance of the land during excavation and/or construction activities could affect the surface water hydrology of the property. There is a potential for increased stormwater runoff and erosion during excavation and construction activities that would have to be properly managed to prevent excessive water and waste material loading. Appropriate measures would have to be taken during excavation activities to prevent transport of fugitive dust and exposure of workers and downgradient receptors to contaminants

Implementability-

Removal Alternative 2 (excavation and off-Site treatment/disposal) would use proven earthmoving equipment and techniques and established administrative procedures, and sufficient facilities are available for treatment and disposal of the excavated soils. Therefore, this alternative would be easily implemented.

Removal Alternative 4 (paving) can be accomplished using technologies known to be reliable and readily implemented. Equipment, services and materials for this work are readily available. The actions under this alternative may be administratively difficult since the property owner would have to agree to the granting of an institutional control such as an environmental easement for the controlled property. In addition, the property owner may be required to maintain a Site Management Plan in perpetuity to ensure the institutional and engineering controls remain in place and are effective.

Cost-

While Alternative 2 has a substantially higher cost ($924,153) than the other removal alternatives, it compares favorably to the remaining alternatives and provides a proportionately higher level of protection of human health and the environment. In addition, the excavation and disposal of the lead contaminated soils would result in a permanent action that requires no additional long-term oversight and/or maintenance. Alternative 2

In summation, considering the three evaluation critieria for selecting removal alternatives, Alternative 2 best meets the removal action objectives for this site, provides a proportionately higher level of protection to human health and the environment, is the alternative that meets all of the removal action objectives established in the EE/CA and is supported by the Community of Port Richmond and the New York State Department of Environmental Conservation. This is the basis for selection of Alternative 2 (Excavation and Off-site Treatment/Disposal) for the removal action at the 2000-2012 Richmond Terrace portion of the Jewett White Lead Site

Comment #11:

A commenter stated that Alternative 4 (Paving) is consistent with EPA and NYSDEC Brownfields policies and guidelines, which are intended to put impaired properties back to productive use.

Response #11:

The Jewett White Lead Site is not a Brownfields site. While Brownfields grants are available to return abandoned or underutilized properties to productive use, the EPA Brownfields program is not an appropriate mechanism to initiate a cleanup of the Jewett White Lead Site.

Brownfields Cleanup grants provide funding for a grant recipient to carry out cleanup activities at brownfield sites. Funds may be used to address sites contaminated by petroleum and/or hazardous substances, pollutants, or contaminants (including hazardous substances comingled with petroleum). These grants are awarded on a competitive basis, and are not a guarantee. To qualify for a Brownfields grant, an applicant would need to prepare a proposal for review that would meet the threshold and ranking criteria outlined in the Proposal Guidelines for Brownfields Assessment, Revolving Loan Fund, and Cleanup grants. To date, no entity has applied for a Brownfields Grant to address the Jewett White Lead Site.

In a Removal Site Evaluation dated April 24, 2009, EPA determined that a CERCLA removal action is warranted to address the potential threats posed by the presence of waste and contaminated soil at the Jewett White Lead Site. Removal actions are taken at sites where a threat or potential threat exists and needs to be addressed in a timely manner.

Comment #12:

A commenter stated that Alternative 4 (Paving) meets the threshold criteria, including compliance with ARARs. The commenter also states that the statement in Section 5.2 of the EE/CA that Alternative 4 will not comply with ARARs is erroneous.

Response #12:

The overall protection of human health and the environment and compliance with ARARs are threshold requirements that each alternative must meet in order to be eligible for selection (40 CFR §300.430). While Alternative 4 (Paving) meets the threshold criteria, including compliance with ARARs, it is less protective than Alternative 2 (Excavation) because it leaves wastes containing high concentrations of lead in place and the potential remains for direct contact with principle threat wastes if the cap is disturbed or breached. This alternative reduces the risk of incidental contact with waste by humans and ecological receptors by containing the contaminated soil; however it leaves source material in place.

Alternative 4 (paving) complies with ARARs, however, this alternative does not comply with To Be Considered (TBCs) criteria since soils will remain in place that exceed the site specific Preliminary Remediation Goals (PRGs).

EPA agrees that the statement in Section 5.2 of the EE/CA that Alternative 4 will not comply with ARARs is an inadvertent error.

Comment #13:

A commenter stated that EPA's proposed removal, Alternative 2 (Excavation and Disposal), greatly exceeds the work required by EPA's own guidance to protect humans and the environment at a residential property, even though the Site is an industrial/commercial site, and thus the basis for selecting Alternative 2 is not supported by the site specific conditions or the comparative analysis of alternatives provided in the EE/CA. The Commenter also states that Alternative 4 (Paving) would minimize negative life-cycle impacts associated with the proposed remedy and is more consistent with EPA's Superfund Green Remediation Strategy.

Response #13:

EPA disagrees that Alternative 2 is not supported by site-specific conditions or the comparative analysis provided in the EE/CA. While the commenter states that the only basis EPA provides for selecting Alternative 2 is that Alternative 2 is a "permanent" solution and provides a "proportionately higher level of protection for human health and the environment", EPA would like to point out that several reasons besides those re-stated above were provided in the EE/CA for the selection of Alternative 2 (Excavation and Off-Site Treatment/Disposal). Under section 5.0 Comparative Analysis of Alternatives and Recommended Response Action of the EE/CA, EPA provides a comparative analysis summary of all five removal action alternatives, which includes the reasons that Alternative 2 was selected as the preferred removal alternative for this site. Please see Reponse #10 above.

Alternative 2 (excavation and off-Site treatment/disposal) would be the most protective alternative, since the risk of incidental contact with waste by humans and ecological receptors and the potential for contaminant migration from the property would be eliminated by permanently removing the contaminated soils. Alternative 2 (excavation and off-Site treatment/disposal) would provide a high degree of long-term protection of human health and the environment by eliminating the possibility of exposure to contaminants on-Site and the potential for contaminants migrating from the property. The removal of the contaminated soils under Alternative 2 would be effective and permanent.

EPA disagrees that the additional protections provided by the excavation and removal of the lead-contaminated soils is negligible. Alternative 2 (Excavation) provides a permanent action that addresses the elevated concentrations of lead present in the soils at the surface and at depth on the 2000-2012 Richmond Terrace property portion of the Jewett White Lead Site. This permanent action would result in preventing the migration of lead-contaminated soils into the ground water or onto neighboring properties. It also eliminates the risk of future exposures to the elevated levels of lead present in the Site soils.

Alternative 4, Paving, would not be an appropriate remedy for the 2000-2012 since this removal action would only require the excavation of up to 6" of soil to maintain grade. Elevated levels of lead would be left in place in the soil directly beneath an asphalt cap and at depth. Levels of lead at the concentrations observed at the Jewett White Lead Site are considered source material. Source material is defined as 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 act as a source for direct exposure.

The average lead concentrations in the field screened soil samples collected at depths of 1-foot, 2-foot, 3-foot, 4-foot, and 5-foot below grade were 7,083 mg/kg, 20,340 mg/kg, 21,070 mg/kg, 14,388 mg/kg, and 5,752 mg/kg, respectively. The highest lead concentration detected in the subsurface was 97,921 mg/kg at the 2- to 3-foot depth interval. This is over 2 orders of magnitude above the 400 mg/kg screening criteria for lead in a residential setting. At this concentration, lead at the Jewett White Lead site should be considered a principal threat waste. Principal threat wastes are those source materials that generally cannot be reliably contained or would present a significant risk to human health or the environment

EPA's *Superfund Green Remediation Strategy* sets out current plans of the Superfund Remedial Program to reduce the demand placed on the environment during cleanup actions and to conserve natural resources. Cleanup activities use energy, water and material resources to achieve cleanup objectives and these activities can impact surrounding communities, ecosystems, and natural resources. EPA recognizes that the process of cleanup has the unintended consequence of creating its own environmental footprint. We have learned that we can optimize environmental performance and implement protective cleanups that are greener by increasing our understanding of the environmental footprint caused by cleanup activities and avoiding these unintended consequences while ensuring the primary goal of protecting the public health and environment.

Best management practices consistent with EPA's *Superfund Green Remediation Strategy* can be employed during implementation of the selected removal action including using clean fuels and renewable energy sources for vehicles and equipment, retrofitting diesel machinery and vehicles for improved emission controls, reusing construction and routine operational materials, and installing maximum controls for stormwater runoff. Diesel emissions for all alternatives, with the exception of the no action alternative, would pose a particular concern in the Port Richmond area, an environmental justice community that faces a disproportionate burden of potential exposure to environmental hazards.

EPA disagrees that Alternative 4 (Paving) is more consistent with EPA's *Superfund Green Remediation Strategy*. EPA views green remediation as a means to enhance remedy protectiveness, not as a disincentive to active remediation processes or an approach that reduces remedy protectiveness.

Comment #14:

Alternative 2 is inconsistent with the EPA Lead Handbook.

Response #14:

As stated in the *EPA Lead Handbook* Introduction, the *EPA Lead Handbook* "lays out only the minimum considerations for addressing lead-contaminated residential sites and encourages users to refer to appropriate agency guidance and/or policy to conduct more stringent investigation and clean-up activities on a site-specific basis." While the Lead Handbook provides a consistent national approach for assessing and managing risks associated with lead-contaminated residential sites across the country, it is not appropriate for use at the Jewett White Lead site.

The lead concentrations observed in the soils at the 2000-2012 Richmond Terrace property both surficially and at depth, are much higher than concentrations typically seen on residential properties. One soil sample collected at the two foot depth had a lead concentration as high as 240,000 ppm, or 24% lead. At these concentrations, lead at the Jewett White Lead site should be considered a "principal threat waste." Principal threat wastes are those source materials that generally cannot be reliably contained or would present a significant risk to human health or the environment should an exposure occur. These include materials having high concentrations of toxic compounds.

Principle threat wastes generally should be addressed through treatment-oriented remedies, unless impracticable. Immobilization (Alternative 5) satisfies CERCLA's preference for treatment of principle threat wastes, is generally effective for metals, and is a commercially available and demonstrated technology; however, immobilization is not an appropriate removal alternative for this site as stated in the March 2011 Engineering Evaluation/Cost Analysis. Alternative 2 (Excavation) will address the principle threat wastes present on the 2000-2012 Richmond Terrace property, while Alternative 4 (Paving) would leave the principle threat wastes untreated. According to the EPA's *Guide to Principal Threat and Low Level Threat Wastes*, the lead concentrations observed at the Site confirm high toxicity and qualify as a principal threat waste, which is defined as a source material that generally cannot be reliably contained or would present a significant risk to human health or the environment should exposure occur. While some source materials can be safely contained or adequately treated at effective costs, the exceedingly high toxicity associated with the high levels of lead at the Site reduces confidence in treatment alternatives due to technical limitations, as well as the long-term reliability of containment.

Comment #15:

EPA has found that neither groundwater nor surface water are being impacted by the Site and thus impact to water is not a basis to support a more stringent remedy.

Response #15:

EPA disagrees with this comment. Groundwater samples were collected from two of the three monitoring wells installed at the 2000-2012 Richmond Terrace property on October 28, 2010. One well, PO-03, was found to be dry at the time of sampling. While lead was not detected in the groundwater samples collected from the two monitoring wells installed at the 2000-2012 Richmond Terrace property, impacts were observed at the 2015 Richmond Terrace property. Detectable concentrations of lead (39 µg/L) were

present in the groundwater sample collected from the 2015 Richmond Terrace property portion of the Jewett White Lead site exceeding the EPA Maximum Contaminant Limit (MCL) (15 µg/L).

Results of TCLP analysis indicate that leachable lead is present in the soils throughout the Jewett White Lead Site. Even though the lead was not observed in the groundwater directly beneath the from 2000-2012 Richmond Terrace property, the potential exists for the lead to leach under certain conditions into the groundwater. A removal action is necessary to ensure that the leachable lead does not migrate into the water table. Source removal is an important part of the comprehensive response action for the area.

Surface water samples were collected in the Kill Van Kull to determine if lead contaminated soils and sediments migrating from the 2000-2012 Richmond Terrace property were impacting the waterway. No observable impacts were found during the sampling conducted in October 2010; however, additional sampling in the Kill Van Kull along the 2015 Richmond Terrace property is required to determine if the Site is impacting the water body. It is premature at this time to state that the Jewett White Lead Site is not impacting the Kill Van Kull.

Comment #16:

A commenter stated that the potential cost of Alternative 2 is significantly underestimated. The cost of this option does not provide a proportionate benefit to health and the environment and is a waste of valuable (and scarce) financial resources.

Response #16:

EPA disagrees that the potential cost of Alternative 2 (Excavation) is significantly understated. EPA believes that the vertical extent of contamination throughout the Site has been delineated and that accurate cost estimates based upon the "Lead-Impacted Soil Isopach Map (included in the March 2011 EE/CA as Figure 3-4 in Attachment III) has been made.

As stated in the EE/CA, under Alternative 2, the excavation of all soils containing lead greater than 800 mg/kg for lead will extend across the Site until a hard surface, such as a roadway or sidewalk, is encountered. The only portion of the 2000-2012 Richmond Terrace property that has not been fully delineated horizontally is associated with sample S-C4 located on the southern boundary of the property adjacent the elevated rail line. Additional soils on the adjacent rail line property may need to be addressed if they exceed the preliminary remediation goal of 800 mg/kg; however, the additional soils are not expected to significantly increase the time or costs associated with the excavation and off-site treatment/disposal of the lead-contaminated soils.

As stated in the Preamble to the 1990 National Oil and Hazardous Substances Pollution Contingency Plan (NCP), "the various criteria have been categorized according to their functions in the remedy selection process as threshold, balancing, and modifying criteria. This designation demonstrates that protection of human health and the environment will not be compromised by other factors, including cost." The Preamble to the 1990 NCP also states that "…tradeoffs among alternatives with respect to the long-term effectiveness and permanence they afford and the reductions in toxicity, mobility, or volume they achieve through treatment are the most important considerations in the balancing step by which the remedy is selected."

The effectiveness and permanence of Alternative 4, paving the 2000-2012 Richmond Terrace property, would be entirely dependent upon the effective maintenance of the asphalt pavement cap and access controls and the proper enforcement of the institutional controls. Since Alternative 4 (Paving) does not permanently address the contamination at the 2000-2012 Richmond Terrace property, the long-term

effectiveness is uncertain. In contrast, the effectiveness and permanence of Alternative 2 (excavation) is not dependent upon the maintenance of a long-term engineering or institutional control and affords a higher level of protection to human health and the environment. It also eliminates a source of contamination which may be affecting the downgradient groundwater.

Comment #17:

A commenter stated that the selection of Alternative 2 is not consistent with EPA's "Presumptive Remedy for Metals-in-Soil Sites" (September 1999).

Response #17:

EPA disagrees that that the selected response action, Alternative 2, is inconsistent with EPA's *Presumptive Remedy for Metals-in-Soil Sites (September 1999)*. This guidance identifies the presumptive remedy for contaminated soils constituting principal threat waste at metals-in-soil sites to be: (1) reclamation/recovery, where it is feasible, or (2) immobilization. Although the reclamation/recovery of lead was not evaluated in the EE/CA, the selection of Alternative 2 does not preclude off-site reclamation/recovery as a treatment option. Reclamation/recovery of lead could be incorporated in to Alternative 2 during the planning and implementation phases of the removal action if feasible and practicable.

For low-level threat waste found at metals-in-soil sites, the presumptive remedy is containment. In addition, the NCP states that EPA expects to use "treatment to address the principle threats posed by a site, wherever practicable" and "engineering controls, such as containment, for wastes that pose relatively low long-term threat." (40 CFR §400.430(a)(1)(iii)).

As stated in Response #13 above, the elevated lead concentrations present in the surface and sub-surface soil at the 2000-2012 Richmond Terrace property are considered a principal threat waste, and these principle threat wastes generally should be addressed through treatment-oriented remedies, unless it is considered impracticable. Containment does not involve treatment, does not reduce toxicity or waste volume, will restrict future uses of a site and is not consistent with the presumptive remedy guidance for principal threat waste.

During public meetings held within the Port Richmond, Staten Island community, there was an overwhelming response from the community requesting EPA take an aggressive approach to addressing the lead-contaminated soils at the Jewett White Lead Site. The *Presumptive Remedy for Metals-in-Soil Sites (September 1999)* states that "if the public expresses strong opposition to the presumptive remedy under consideration, site managers may need to include non-presumptive remedy options in the evaluation. In this case, site managers may evaluate alternative technologies along with the presumptive remedy." EPA's inclusion and selection of Alternative 2 (Excavation) as the preferred removal action remains consistent with the *Presumptive Remedy for Metals-in-Soil Sites* Guidance.

It is important to note that the EPA's *Presumptive Remedy for Metals-in-Soil Sites (September 1999)* is intended solely as guidance, and EPA officials may decide to follow the guidance, or act at variance to the guidance based upon an analysis of specific site circumstances. As stated in the Guidance document "this presumptive remedy guidance should be used unless site-specific factors suggest a contrary approach." The presumptive remedy guidance derived from the mandates of CERCLA §121 and based upon previous Superfund experience was developed as a guideline to communicate the types of remedies that the EPA generally anticipates to find appropriate for specific types of wastes. Site specific information is always taken into consideration when determining the most beneficial remedy for a site. There are various

alternatives that can be considered and one remedy is not always the appropriate remedy for all metal soil sites.

Comment #18:

A commenter stated that Alternative 4 is more appropriate than Alternatives 3 or 5.

Response #18:

EPA disagrees that Alternative 4 (Paving) is more appropriate than Alternatives 3 (Capping) or 5 (Immobilization). As discussed in Section 5.2 Comparative Analysis of Alternatives, Alternative 4 (paving) would be protective of human health and the environment; however, it is less protective than Alternative 3 or Alternative 5 because the depth of the cap is less (6 inches as opposed to 2 feet) and the potential is therefore greater for direct contact with principle threat wastes if the cap is disturbed or breached. As discussed in greater detail in the EE/CA, the effectiveness and permanence of alternative 4 would be dependent upon the effective maintenance of the asphalt pavement cap, access controls, a Site Management Plan, and the proper enforcement of the land-use controls to ensure that the institutional and engineering controls remain in place and are effective. In contrast, Alternative 2, Excavation and Disposal, best satisfies the evaluation criteria based on the comparative analysis used to assess each of the alternative removal actions. EPA's selection of Alternative 2 is based on the proven effectiveness of the action, the ease of implementation, and the relative cost.

Comment #19:

A commenter stated that semi-annual groundwater monitoring for a period of 30 years to verify the success of the removal action is not warranted based on site specific information and should not be required as an element of any removal action option.

Response #19:

EPA disagrees that semi-annual groundwater monitoring for a period of 30years is not necessary to verify the success of the removal action. Groundwater samples were collected from two of the three monitoring wells installed at the 2000-2012 Richmond Terrace property on October 28, 2010. One well, PO-03, was found to be dry at the time of sampling. While lead was not detected in the groundwater samples collected from the two monitoring wells installed at the 2000-2012 Richmond Terrace property, impacts were observed at the 2015 Richmond Terrace property. Detectable concentrations of lead (39 µg/L) were present in the groundwater sample collected from the 2015 Richmond Terrace property portion of the Jewett White Lead site exceeding the EPA Maximum Contaminant Limit j(MCL) (15 µg/L).

TCLP sampling indicates that leachable lead is present in the soils throughout the Jewett White Lead Site. Even though the lead from 2000-2012 Richmond Terrace was not observed in the groundwater directly beneath the property, the potential exists for the lead to leach under proper conditions into the groundwater. The conditions that induce leaching are the presence of lead in soil at concentrations that either approach or exceed the sorption capacity of the soil, the presence in the soil of materials that are capable of forming soluble chelates with lead, and a decrease in the pH of the leaching solution (e.g., acid rain). If lead-contaminated soils are to be left in place, groundwater would need to be monitored to ensure that the selected removal action remains effective and that lead is not migrating into the water table.

Comment #20:

A commenter stated that EPA misstates NL's participation in the EPA process.

Response #20:

The purpose of the responsiveness summary is to respond to comments received on EPA's preferred remedy. It is not appropriate for EPA to respond to any comments discussing a potentially responsible party's participation in the EPA process.

Additional Site Investigations

Comment #21:

One commenter is very concerned with the Moran property (2015 Richmond Terrace) based upon the reported lead results and its use as an active business with large unpaved areas. The commenter also stated that on p. 3 of EPA's March 2011 report, the average surface lead concentration at the 2015 Richmond Terrace property was 5,082 milligram/kilogram, but the EPA presentation indicated that surface lead concentrations ranged from 145 ppm to 2,730 ppm in surface samples.

Response #21:

Soil sampling conducted at the 2000-2012 Richmond Terrace property (formerly the location of Sedutto's Ice Cream) revealed the presence of elevated levels of lead throughout most of the property, both laterally and with depth. The average surface lead concentration at this property was 5,081 mg/kg (or ppm). The average lead concentration in the soil samples collected at depths of 1-foot, 2-foot, and 3-foot below grade were 28,245 mg/kg, 61,201 mg/kg, and 53,398 mg/kg, respectively.

On June 15, 2009 EPA collected 14 surficial soil samples from the 2015 Richmond Terrace property (Moran Towing Corp.). The soil samples were collected from portions of this property where exposed soil was present or where the asphalt paving appeared to be in disrepair. Elevated levels of lead were found to be in the samples collected at concentrations that ranged from 145 mg/kg to 2,730 mg/kg, with an average concentration of 1,030 mg/kg.

Additional soil sampling conducted at the 2015 Richmond Terrace property in October 2010, revealed the presence of elevated levels of lead throughout most of the property similar to the concentrations found at the 2000-2012 Richmond Terrace property. The 2015 Richmond Terrace is mostly covered with asphalt paving with only a small portion that is unpaved; however significant portions of the asphalt paving are in serious disrepair.

This property is the subject of a separate, on-going removal investigation. Additional environmental samples collected from the 2015 Richmond Terrace property in August and September 2011 will be analyzed and evaluated to determine what actions are necessary at this property.

Comment #22:

One commenter asked if the 2015 Richmond Terrace property has a preferred response action, or if it is going to be handled separately. They also asked if the lead is migrating into the water.

Response #22:

No, the 2015 Richmond Terrace property does not have a preferred response action at this time. Additional information is needed for EPA to determine the most appropriate removal action for this portion of the Jewett White Lead Site.

The additional environmental sampling and analysis to be performed at the 2015 Richmond Terrace property and adjacent properties will provide us information about whether or not the lead contamination is migrating into the groundwater or into the Kill Van Kull.

Communicating Project Status

Comment #23:

One commenter asked if EPA has a timeline for implementing the selected removal action at the 2000-2012 Richmond Terrace property.

Response #23:

EPA expects to the cleanup of the 2000-2012 Richmond Terrace property will start early in 2012.

Comment #24:

Several commenters asked if EPA will continue to share information with the community about the work to be performed at the Jewett White Lead Site.

Response #24:

EPA will continue to coordinate with the appropriate New York City and New York State Agencies to ensure that appropriate measures are in place to protect the public during the selected removal action. EPA will also keep the public informed of future actions at the 2015 Richmond Terrace property portion of the Jewett White Lead Site.

EPA will provide updates to the public in the form of Community Fact Sheets that will be distributed in the community and placed in the Administrative Record available for the public to view at the Port Richmond Branch of the New York Public Library and in the Superfund Records Center located at the EPA offices in Edison, New Jersey.

Comment #25:

One commenter asked if EPA publishes materials, documents, and fact sheets, in Spanish as well as English.

Response #25:

Yes. All documents generated by EPA for distribution to the public have been published in both English and Spanish. EPA will continue to publish bilingual documents for the Jewett White Lead site.

Future Use of Site

Comment #26:

One commenter expressed concern about informing future property owners of work performed by EPA at the property. The commenter asked if there would be any kind of flag on the property if the zoning is changed.

Response #26:

EPA will maintain records that a removal action was taken at the Jewett White Lead Site, and that the removal action will only address soils with lead concentrations greater than 800 mg/kg. If a zoning change is proposed at some date in the future for this property, then it would be incumbent upon the current property owner at the time of the zoning change to ensure that the removal action remains protective to public health and the environment.

Interim Removal Action at 2000-2012 Richmond Terrace Property

Comment #27:

One commenter asked how stable the 2000-2012 Richmond Terrace property is now, and if EPA is taking actions to ensure it is stabilized.

Response #27:

As stated in Response #7, the property owner implemented an interim removal action under EPA oversight at the 2000-2012 Richmond Terrace property portion of the Jewett White Lead Site in April 2009. The control measures in place reduce the potential for lead contaminated soils to migrate off the property until a cleanup plan is developed.

During ground intrusive sampling performed at the Jewett White Lead Site by the EPA, lead was not detected in the perimeter air samples above both worker safety and National Ambient Air Quality Standards (NAAQS). Based upon the results of the air sampling and the controls put in place to limit the migration of contaminants from the site, the site is currently stable. The interim removal action implemented at the 2000-2012 Richmond Terrace property is only temporary, and EPA will implement a more permanent removal action to ensure that the measures taken at the property remain protective should the temporary measures deteriorate over time.

EPA will continue to evaluate the safety of the community as part of the planning process for the cleanup of the site, and will ensure that appropriate actions are taken to protect the community during the cleanup.

Comment #28:

One commenter inquired about the frequency of EPA's visits to the Jewett White Lead Site.

Response #28:

EPA visits the site as needed to conduct on-going investigations and to ensure that existing site controls remain intact and are effective in protecting the public. As such, the frequency of these visits varies. EPA will be present to provide oversight for all removal activities at the Jewett White Lead Site.

Comment #29:

One commenter asked if it is the property owner's responsibility to maintain the interim removal action.

Response #29:

Yes. The maintenance of the interim removal measures is the responsibility of the current property owner. It will also be the responsibility of the property owner and future property owners to ensure that removal actions taken at the property remain protective of human health and the environment.

APPENDIX 1

JAN 3 1 2011

SUBJECT: Documentation of concurrence with the preferred removal action alternative for a CERCLA Non-Time-Critical Removal Action at the Jewett White Lead Company Site, Staten Island, Richmond County, New York

FROM: Kimberly Staiger, On-Scene Coordinator
Removal Action Branch

TO: Walter E. Mugdan, Division Director
Emergency and Remedial Response Division

THRU: Joseph D. Rotola, Chief
Removal Action Branch

Site ID No.: A218

The purpose of this memorandum is to document your concurrence with the preferred removal action alternative for the 2000-2012 Richmond Terrace portion of the Jewett White Lead Company Site located in Staten Island, Richmond County, New York (the Site).

The Jewett White Lead Company Site ("the Site") includes the one-acre parcel of land at 2000-2012 Richmond Terrace, the approximately 4.4-acre parcel of land at 2015 Richmond Terrace, and the areal extent of contamination. The mechanism for past releases of hazardous substances, as defined by CERCLA, to the environment appears to have been the Site's use in the manufacture of white lead and possible waste disposal practices associated with the operations. An Engineering Evaluation/Cost Analysis (EE/CA) was prepared by EPA, Region 2 in support of the Non-Time-Critical Removal Action for the 2000-2012 Richmond Terrace portion of the Jewett White Lead Site.

Five removal action alternatives were identified and evaluated in this EE/CA to address the contaminated soils and shallow groundwater at the 2000-2012 Richmond Terrace portion of the Jewett White Lead Site: No Action (Alternative 1), Excavation and Off-Site Disposal (Alternative 2), Capping (Alternative 3), Paving (Alternative 4), and Immobilization (Alternative 5).

EPA proposes Alternative 2, Excavation and Disposal, as the removal action alternative for the 2000-2012 Richmond Terrace portion of the Jewett White Lead Site. This determination is based on the proven effectiveness of the action, the ease of implementation, and the relative cost.

The preferred alternative would involve the excavation and removal of approximately 4,242-cubic yards of lead contaminated soil from the 2000-2012 Richmond Terrace property. While Alternative 2 has a substantially higher cost ($924,153) than the other removal alternatives, it compares favorably to the remaining alternatives and provides a proportionately higher level of protection of human health and the environment. In addition, the excavation and disposal of the lead contaminated soils would result in a permanent action that requires no additional long-term oversight and/or maintenance.

The proposed removal action is the preferred response action for the Site. Changes to the preferred removal action or a change from the preferred removal action to another removal action may be made if public comments or additional data indicate that such a change will result in a more appropriate action.

The final decision regarding the removal action will be made after EPA has taken into consideration all public comments. The decision will be documented in an Action Memorandum, which will also address public comments received on this proposed removal action. The Administrative Record will include a responsiveness summary which will address all public comments.

I recommend that you concur with the preferred removal action alternative for the 2000-2012 Richmond Terrace portion of the Jewett White Lead Site by signing below.

Approved: _____ Date: JAN. 31, 2011

Walter E. Mugdan, Director
Emergency and Remedial Response Division

Disapproved: _____ Date: _____

Walter E. Mugdan, Director
Emergency and Remedial Response Division

APPENDIX 2

Superfund Proposed Response Action
March 2011

Jewett White Lead Site

Port Richmond, Staten Island, New York

PURPOSE OF THIS DOCUMENT

This document describes the response actions considered for the 2000-2012 Richmond Terrace property portion of the Jewett White Lead Site and identifies the preferred response action with the rationale for this preference.

The document was developed by the U.S. Environmental Protection Agency (EPA) in consultation with the New York State Department of Environmental Conservation (NYSDEC). EPA is issuing this document as part of its public participation responsibilities under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980, as amended, and the National Oil and Hazardous Substances Pollution Contingency Plan (NCP). The response actions summarized here are described in more detail in EPA's Engineering Evaluation/Cost Analysis (EE/CA). EPA and NYSDEC encourage the public to review the EE/CA to gain a more comprehensive understanding of the site and the proposed response action.

This document is being provided as a supplement to the EE/CA to inform the public of EPA's preferred response action and to solicit public comments pertaining to all the response actions evaluated, as well as the preferred response action.

EPA's preferred response action, which is formally referred to as a "non-time-critical removal action," consists of excavating and removing approximately 4,242-cubic yards of lead-contaminated soil from the 2000-2012 Richmond Terrace property for off-site treatment/disposal. The excavated areas would be backfilled with clean fill and re-vegetated.

The response action described in this document is the *preferred* response action for the site. Changes to the preferred response action or a change from the preferred response action to another response action may be made if public comments or additional data indicate that such a change will result in a more appropriate removal action. The final decision regarding the selected response action will be made after EPA has taken into consideration all public comments. EPA is soliciting public comment on all of the response actions considered in the detailed analysis of the EE/CA because EPA may select a response action other than the preferred response action.

MARK YOUR CALENDARS

March 4, 2011 – April 17, 2011: Public comment period related to this document.

Wednesday, March 16, 2011 from 7:00 p.m to 9:00 p.m.: Public meeting at the **CYO** located at 120 Anderson Avenue Staten Island, New York

COMMUNITY ROLE IN THE SELECTION PROCESS

EPA relies on public input to ensure that the concerns of the community are considered in selecting an effective response action for each Superfund site. To this end, the EE/CA and this document have been made available to the public for a public comment period which begins on March 4, 2011 and concludes on April 17, 2011.

A public meeting will be held during the public comment period at the **CYO** at 120 Anderson Avenue, on March 16, 2011 at 7:00 p.m. to present the conclusions of the EE/CA, further elaborate on the reasons for recommending the preferred response action, and to receive public comments.

Comments received at the public meeting, as well as written comments, will be taken into consideration in selecting the removal action, and will be documented as part of the decision document (called an Action Memorandum) which will formalize the selection of the response action.

INFORMATION REPOSITORIES

Copies of this document and supporting documentation are available at the following information repositories:

To review online, visit:
www.epa.gov/region02/superfund/removal/jewettwhitelead

To review a paper copy, please contact:

- **New York Public Library,**
  Port Richmond Branch located at
  75 Bennett Street
  Port Richmond
  Staten Island, NY 10302

Hours: Monday – Wednesday, 10:00 am - 6:00 pm
Thursday, 12:00 pm to 8:00 pm
Friday – Saturday, 10:00 am to 5:00 pm

- **Superfund Records Center US EPA Region 2**
  located at 2890 Woodbridge Avenue,
  Edison, NJ 08837
  (732) 906-6877

Hours: Monday – Friday, 9:00 am – 5:00 pm

Written comments on this document should be addressed to:

Kimberly Staiger, On-Scene Coordinator
U.S. Environmental Protection Agency
2890 Woodbridge Avenue, MS-211
Edison, NJ 08837

Fax: (732) 906-6182
E-mail: staiger.kimberly@epa.gov

SITE BACKGROUND

Site Description

The Jewett White Lead Site consists of the historic footprint of the former Jewett White Lead Company facility and the extent of contamination which includes the 1.07-acre parcel of land at 2000-2012 Richmond Terrace and the approximately 4.41-acre parcel of land at 2015 Richmond Terrace (of which, approximately 2.25-acres is not covered by the surface waters of the Kill Van Kull).

The site is situated within an urban mixed use residential neighborhood with concentrations of industrial and manufacturing facilities situated along the waterfront, within the Port Richmond section of the Borough of Staten Island, New York.

The Site is located on the North Shore of Staten Island in the Port Richmond section. The area around the Site is a mix of residential, light industrial, and commercial. A residential neighborhood commences just south of the elevated railroad line. The nearest residence is located approximately 100 feet south of the Site. Bus stops are present on both sides of Richmond Terrace in front of the Site and on Park Avenue across the street from the entrance to the 2000-2012 Richmond Terrace property.

The 2000-2012 Richmond Terrace portion of the Site is bordered to the south by an abandoned railroad line, to the west by Park Avenue, and to the north and east by Richmond Terrace. The 2015 Richmond Terrace portion of the Site is bordered to the east by a shipyard facility, to the west by Cable Queen, a New York submarine contracting company, to the north by the Kill Van Kull (a body of water which is a tributary of the New York Harbor), and to the south by Richmond Terrace. The two properties are separated by Richmond Terrace, the main roadway running east-west parallel to the Kill Van Kull.

The 2000-2012 Richmond Terrace property portion of the Site, which is the subject of this EE/CA, is presently owned by Perfetto Realty Corporation (PRC). The property is currently an unpaved vacant lot that had been utilized as a staging/storage area for construction-related materials. The 2015 Richmond Terrace property portion of the Site is presently owned by the Moran Towing Corporation, an active tug boat facility. Buildings, concrete, or asphalt cover most of the Moran Towing Corp. property, although there are several areas where the asphalt or concrete is in disrepair exposing bare soil.

In 2009, EPA selected Port Richmond, and the adjoining neighborhoods along the north shore of Staten Island, as a nationally-designated Environmental Justice Showcase Community. The Environmental Justice Showcase Communities effort seeks to bring together governmental and non-governmental organizations and pools their collective resources and expertise on the best ways to achieve real results in communities.

Site History

John Jewett & Sons White Lead Company operations originated at 2015 Richmond Terrace where they owned and operated the Site from 1839 until April 3, 1890 when National Lead acquired the Site property. When National Lead purchased the business, they extended the white lead operations across the street to include the property at 2000 Richmond Terrace. National Lead owned and operated at both properties until approximately 1943.

On December 31, 1943, Moran Towing Corporation acquired the 2015 Richmond Terrace portion of the Site from National Lead. The 2015 Richmond Terrace property portion of the Site is presently owned by the Moran Towing Corporation, an active tug boat facility.

On May 31, 1946 National Lead sold the portion of the Site located at 2000 Richmond Terrace. Between 1949 and 1990, various businesses operated at the 2000-2012 Richmond Terrace property including Sedutto's Ice Cream factory. The buildings on this portion of the Site were eventually razed and cleared after several fires occurred at the Sedutto's Ice Cream factory.

The 2000-2012 Richmond Terrace property was sold at auction on January 26, 2007 to Leewood Park Avenue LLC. PRC purchased the property from Leewood Park Avenue LLC on October 18, 2007, and currently owns the 2000-2012 Richmond Terrace portion of the Jewett White Lead Site. The property was utilized by PRC to store equipment and materials from local construction projects.

The 2000-2012 Richmond Terrace property portion of the Site is currently an unpaved vacant lot. The ground surface at this portion of the Site consists of mostly grassy soils with some stone near the entrance. The soils have been disturbed in the past due to the presence of heavy machinery and vehicular movement.

SUMMARY OF SITE INVESTIGATIONS AND EXTENT OF CONTAMINATION

In December 2008, EPA and contractor representatives from the Removal Support Team collected soil samples from test pits at the 2000-2012 Richmond Terrace property. Off-property samples were collected from four locations along Richmond Terrace in order to determine if contamination had migrated from the property. Elevated levels of lead are present throughout most of that property, both laterally and with depth. The average surface lead concentration was 5,081 milligrams/kilogram (mg/kg). The average lead concentration in the soil samples collected at depths of 1-foot, 2-foot, and 3-foot below grade were 28,245 mg/kg, 61,201 mg/kg, and 53,398 mg/kg, respectively. In addition, the four off-property sample locations were found to contain lead concentrations ranging from 383 mg/kg to 2,760 mg/kg.

On April 6, 2009, at EPA's request and oversight, the property owner of 2000-2012 Richmond Terrace initiated an interim removal action to stabilize conditions at the property. The interim removal action completed on April 20, 2009 established a grass cover on the lead-contaminated soils to limit the migration of wind-blown lead dusts from the property onto neighboring residential properties. In addition, a silt fence was installed along the property lines to prevent surface water runoff containing lead-contaminated soils/sediments from being transported off the property onto the adjacent sidewalks. While these measures temporarily limit the exposure threat, permanent measures are needed to eliminate the potential for human exposures to soils contaminated with high levels of lead on the property.

In June 2009, EPA collected off-site soil samples in the surrounding community, including in residential backyards of the properties immediately adjacent to the former Jewett White Lead Company facility property and in a background area located upwind of the Site. Elevated levels of lead were found in the residential backyards sampled and in the surrounding community with an average lead concentration of 549 mg/kg in the surface soils (0-2" depth) in the backyards, and an average concentration of lead in the surface soils in the background area of 788 mg/kg.

Attribution analysis indicates that environmental sources of lead other than from the Site are the primary contributors to lead contamination in this community. Other potential sources of lead include leaded gasoline emissions, exterior lead-based paint, elevated steel structures, and former industrial processes.

On June 15, 2009, EPA collected surficial soil samples from the 2015 Richmond Terrace property portion of the Jewett White Lead Site. The soil samples were collected from portions of the property where exposed soil was present or where the concrete and asphalt appeared to be in disrepair. Elevated levels of lead were found to be in the samples collected at concentrations that ranged from 145 mg/kg to 2,730 mg/kg.

From October 4 to October 28, 2010, EPA and its contractor representatives began collecting additional soil samples at both properties that comprise the Site to determine the extent of contamination. Monitoring wells were installed to determine the ground water impacts from the lead contaminated soils. In addition sediment and surface water samples were collected from storm sewer outfalls to the Kill Van Kull to determine if the lead contamination from the 2000-2012 Richmond Terrace property had impacted the waterway.

The field screening results from the sampling event in October 2010 at the 2000-2012 Richmond Terrace property indicates that the elevated levels of lead at the property are confined to the upper four feet of soil with the exception of a small well defined area located in the southwest corner of the property adjacent Park Ave.

Ground water samples were collected from two of the three monitoring wells installed at the 2000-2012 Richmond Terrace property on October 28, 2010. Lead was not detected in the ground water samples collected from the two monitoring wells installed at the 2000-2012 Richmond Terrace property.

Soil borings were installed to the water table at the 2015 Richmond Terrace property from October 11 to 15, 2010. Elevated levels of lead are present throughout the property beneath the asphalt paving. The average lead concentrations in the field screened soil samples collected at depths of 1-foot, 2-foot, 3-foot, and 4-foot below grade were 3,884 mg/kg, 6,473 mg/kg, 7,591 mg/kg, and 12,541 mg/kg.

SUMMARY OF HEALTH RISKS

Human Health Risk

Based upon the results of the investigations noted above, a streamlined human health risk assessment was conducted to estimate the risks associated with current and future site conditions at the 2000-2012 Richmond Terrace property portion of the Jewett White Lead Site.

The current land use is zoned commercial/industrial, and the future land use is not expected to change. However, this assessment included screening against the residential screening criteria, as a conservative measure to provide a range of the risks associated with each exposure scenario.

In soil, aluminum, antimony, arsenic, copper, iron, lead, manganese and mercury exceeded their respective residential screening criteria and were identified as contaminants of potential concern (COPCs). When compared to their respective screening criteria, a cancer risk or non-cancer hazard was generated for each chemical based upon the maximum detected concentration, whichever was the most sensitive health endpoint. This evaluation was conducted for all

WHAT IS RISK AND HOW IS IT CALCULATED?

A Superfund streamlined human health risk assessment is an analysis of the potential adverse health effects caused by hazardous substance releases from a site in the absence of any actions to control or mitigate these under current- and future-land uses.

When COPCs are compared to their respective screening criteria, a cancer risk or non-cancer hazard is generated for each chemical based upon the maximum detected concentration, whichever was the most sensitive health endpoint. For carcinogens, cancer risks are generally expressed as the incremental probability of an individual developing cancer over a lifetime as a result of exposure to the carcinogen.

The risks associated with exposure to lead are not expressed as a probability of developing cancer. But rather compared to a screening value which corresponds to a threshold of no more than 5% of children exposed would have a blood lead level greater than 10 µg/dL. The CDC has identified a blood lead concentration level of 10 µg/dL as the level of concern above which significant health risks occur. For lead, the toxicity assessment is based on exceeding the 10 µg/dL blood lead concentration.

constituents which exceeded their respective screening level.

The maximum detected concentrations of COPCs (individually) are below the HI = 1 or within the cancer risk range, with the exception of lead and manganese.

Three detected chemicals in groundwater samples exceeded their respective tap water screening criteria. The maximum detected concentration for Iron corresponds to 0.9 HI, which is below EPAs threshold of 1. The maximum detected concentration for manganese corresponds to a 5.6 HI, which slightly exceeds EPAs threshold of 1. The maximum detected concentration of arsenic corresponds to a cancer risk of 1.6×10^{-3}, which exceeds EPA cancer risk range. It should be noted that Arsenic was detected only in one of the three monitoring wells sampled at the site.

The samples collected and analyzed using the XRF indicate that the maximum detected concentration of lead (97,921 mg/kg) exceed its respective screening criteria for the child (400 mg/kg) and adult receptor (880 mg/kg). The average lead concentration at the surface (0-2ft) is 27,443 mg/kg and is much higher when compared to the total soil (surface and subsurface) lead concentration throughout the Site (11,245 mg/kg).

The lead results indicate that the average concentration on the Site (surface and subsurface) presents an unacceptable risk to the current industrial/commercial receptor and the potential future resident.

Ecological Risk

Concentrations of lead and other metals at the 2000-2012 Richmond Terrace portion of the Site are sufficiently high to present risk to ecological receptors. The fact that little viable habitat exists at the property may represent a mitigating factor by reducing the possibility of ecological exposure.

REMOVAL ACTION OBJECTIVES

There are potential exposure pathways, via incidental ingestion of soil and inhalation of fugitive dusts that may present an imminent and substantial endangerment to humans and the environment, and no other party, government or otherwise, is currently taking a timely response action to mitigate the threat. There is a threat of further releases at and from the Site. Without a response action, contaminants at the Site could migrate to area soils, sediment, surface water, and groundwater.

Therefore conditions at the site meet the criteria for a removal action under CERCLA, as documented in Section 300.415(b)(2)(i) of the NCP, namely the actual or potential exposure to nearby human populations from hazardous substances, and Section 300.415(b)(2)(iv) of the NCP, namely that high levels of hazardous substances are in soils largely at or near the surface, that may migrate.

The following removal action objectives were established for the site:

- Prevent or minimize the migration of hazardous substances released at the Site to the area's soils, sediment, surface water and groundwater;
- Abate, minimize, stabilize, mitigate, or remove the contaminants from the soil such that unacceptable risks to human and ecological receptors are eliminated; and
- Restore the property to its current use.

EPA has determined that a non-time-critical removal action is appropriate to abate, prevent, minimize, stabilize, mitigate, or eliminate these threats to public health, welfare, or the environment. The proposed response action is considered non-time-critical because interim removal actions implemented at the 2000-2012 Richmond Terrace property have temporarily limited the exposure threat; however, permanent measures are still needed to eliminate the potential for human exposures to soils contaminated with high levels of lead on the former Jewett White Lead property.

SUMMARY OF REMOVAL ACTION ALTERNATIVES

Five potential removal action alternatives were developed and are described below:

Alternative 1: No Action

Capital Cost: $0

Transportation and Disposal Cost: $0

Operation and Maintenance Cost[1]: $0

Present – Worth Cost: $10,500

Construction Time: 0 months

The Superfund program requires that the "no-action" removal alternative be considered as a baseline for comparison with the other removal alternatives. The no-action removal alternative for soil does not include any physical removal measures that address the problem of soil contamination at the property; however, it would include the implementation of a public awareness program (at a cost of $10,500) so that nearby residents are advised about the threats posed by the contamination located on the Site.

Alternative 2: Excavation and Off-Site Disposal/Treatment

Capital Cost: $171,146

Transportation and Disposal Cost: $626,787

Operation and Maintenance Cost[1]: $14,509

Present – Worth Cost: $924,153

Construction Time: 2-3 months

Under this removal alternative, approximately 4,242-cubic yards of soils would be excavated. The available soil analytical results will be used to determine initial excavation dimensions. Soil samples would be collected from the walls and base of the initial excavation and analyzed for metals. If analytical results of the post-excavation samples indicate that residual concentrations exceed the minimum action level, additional soil would be excavated, followed by additional confirmatory sampling. The process would be repeated until analytical results reveal that all the soils containing metals concentrations greater than 800 mg/kg for lead have been removed, or

[1]O&M costs include the present value of groundwater monitoring and cap maintenance for 30 years.

until a hard surface such as a roadway or sidewalk are encountered.

Once confirmatory sampling results indicate that excavation activities are completed, the excavated areas would be backfilled to restore the property to the existing grade. Backfill would consist of certified clean soil from an approved off-site source. The top 6 inches of backfill would be soil that would meet the needs of the property owner, either organic-rich loam capable of supporting vegetative growth, an inorganic travel layer (i.e., stone dust or crushed stone), or a combination of both. A vegetative cover would be planted immediately following placement of any topsoil layer.

Excavated soil will be sampled at the rate required by the proposed treatment, storage and disposal facility (TSDF), using TCLP analytical methods. As the final phase of this alternative, excavated soils will be transported and disposed of at an appropriate TSDF.

Alternative 3: Capping

Capital Cost:	$119,450
Transportation and Disposal Cost:	$354,618
Operation and Maintenance Cost[1]:	$112,860
Present – Worth Cost:	$644,076
Construction Time:	3 months

Under this removal alternative, an estimated 2,400 cubic yards of soil (the upper 2 feet) would be excavated to maintain the existing grade and accommodate the approximately 1-acre multi-layer cap that would be constructed over the contaminated soils. The cap layers, from bottom to top, would consist of the following:

Grading Layer: Common fill would be placed to create positive surface water run-off. Some on-site materials would be used for common fill.

Barrier Protection Layer: A 40-mil (0.040-inch) thick flexible membrane liner (FML) manufactured from high-density polyethylene (HDPE). The HDPE liner provides a low-permeability layer that would act as the primary liner in retarding infiltration. Common fill layer would be placed at a thickness of 20 inches to provide protection for the HDPE and drainage layer.

Geosynthetic Drainage Layer: The drainage layer would be used to remove surface water that infiltrates through the upper layers of the cap. The drainage layer would tie into a drainage system located within an anchor trench around the perimeter of the cap.

Clean Fill Layer: This layer would provide protection for the barrier and drainage layers, and would comprise approximately 1.5 ft of clean fill.

A Vegetative Soil Layer: A uppermost cover layer that would meet the needs of the property owner, either organic-rich loam capable of supporting vegetative growth, an inorganic travel layer (i.e., stone dust or crushed stone), or a combination of both would be place at a thickness of 6 inches to accommodate the root system of the vegetation selected for the cap

After capping, the property would be landscaped, fenced, and posted. This removal alternative would also include implementing institutional controls necessary to protect the integrity of the cap. Such an approach may include the imposition of an institutional control in the form of an environmental easement granted to NYSDEC for the property, and a Site Management Plan to assure the institutional and engineering controls remain in place and effective.

Property maintenance activities, including maintaining the fence and signs, removal of trees and shrubs on the cap that can puncture the geomembrane with root growth, monitoring for invasion by burrowing animals, and repair of any erosion, would be necessary to maintain the integrity of the cap system.

Groundwater beneath the Site will be monitored at the three onsite wells semi-annually for a

period of up to 30 years, to verify the success of the removal.

Alternative 4: Paving

Capital Cost:	$139,500
Transportation and Disposal Cost:	$73,879
Operation and Maintenance Cost[1]:	$112,860
Present – Worth Costs:	$354,711
Construction Time:	2 months

This removal alternative would involve the construction of an approximately 1-acre asphalt pavement over the graded contaminated soils. In order to maintain the current grade at the Site, the top 6 inches of contaminated soil (500 cubic yards) would be removed, in order to accommodate the pavement.

After paving, the Site would be fenced and posted. This response action would also include implementing institutional controls necessary to protect the integrity of the cap. Such an approach may include the imposition of an institutional control in the form of an environmental easement granted to NYSDEC for the property, and a Site Management Plan to assure the institutional and engineering controls remain in place and effective.

Property maintenance activities, including maintaining the fence and signs, repair of any erosion and/or cracks, would be necessary to maintain the integrity of the paving system.

Groundwater beneath the Site will be monitored at the three onsite wells semi-annually for a period of up to 30 years, to verify the success of the removal.

Alternative 5: Immobilization

Capital Cost:	$145,455
Transportation and Disposal Cost:	$0
Operation and Maintenance Cost[1]:	$112,860
Present – Worth Costs:	$279,315
Construction Time:	2-3 months

Under this removal alternative, the top two feet of lead contaminated soil would be treated in-situ with a concrete additive which would immobilize the lead in the soil, preventing leaching to surface water and groundwater, as well as preventing contact with deeper, untreated, lead-impacted soils. The treatment would be accomplished by adding the concrete additive and water to the soil via an industrial tilling machine, in two, 1-ft lifts. The additive would not significantly increase the volume of treated soils, such that no soil removal will be required to maintain current grade. Once cured, the treated area will provide a surface that precludes vegetation growth and burrowing animals, and a suitable surface for the current site use, storage of construction equipment. No further cover will be required.

After immobilization, the three onsite monitoring wells would be replaced, and their surface completions would be sealed to the ground surface. Following monitoring well installation and development, the Site would be fenced, and posted. Such an approach may include the imposition of an institutional control in the form of an environmental easement granted to the NYSDEC for the property, and a Site Management Plan to assure the institutional and engineering controls remain in place and effective.

Groundwater beneath the Site will be monitored at the three onsite wells semi-annually for a period of up to 30 years, to verify the success of the removal.

EVALUATION OF REMOVAL ALTERNATIVES

To select a removal alternative for a site, EPA conducts a detailed analysis of the viable removal actions. The detailed analysis consists of an assessment of the individual removal actions against each of these evaluation criteria (effectiveness, implementability, and cost) and a comparative analysis focusing upon the relative performance of each removal action against those criteria.

Effectiveness

This criterion refers to a removal action's ability to meet the removal action objectives. The overall assessment of effectiveness is based on a combination of factors, including overall protection of public health and the environment, compliance with ARARs, long-term effectiveness and permanence, reduction of toxicity, mobility, and volume through treatment, and short-term effectiveness, as follows:

- Overall protection of human health and the environment assesses whether the response actions are protective of public health and the environment. The evaluation will focus on how each response action achieves adequate protection and describes how the response action will reduce, control, or eliminate risks at the site through the use of treatment, engineering, or institutional controls.

- Compliance with ARARs addresses whether or not a response action would meet all of the applicable or relevant and appropriate requirements of other federal and state environmental statutes. Other federal or state advisories, criteria, or guidance are "To-Be-Considered" (TBC) criteria. TBCs are not required by the NCP, but may be useful in determining what is protective of a site or how to carry out certain actions or requirements.

- Long-Term Effectiveness and Permanence involves the evaluation of the extent and effectiveness of the controls that may be required to manage the risk posed by treatment residuals and/or untreated wastes at the site. This criterion also considers the adequacy and reliability of controls and addresses the need for post-removal site control.

- Reduction of Toxicity, Mobility, and Volume through Treatment includes evaluating the anticipated performance of specific treatment technologies. This evaluation addresses the statutory preference for selecting response actions that employ treatment technologies to permanently and significantly reduce toxicity, mobility, or volume of wastes. Factors that will be considered, as appropriate, include: the treatment or recycling processes the response actions employ and the materials they would treat; the amount of hazardous materials to be destroyed or treated; the degree of reduction expected in toxicity, mobility, or volume; the degree to which the treatment would be irreversible; the type and quantity of residuals that would remain after treatment; and whether the response action would satisfy the preference for treatment.

- Short-Term Effectiveness examines the effectiveness of response actions in protecting public health and the environment during the construction and implementation period until the removal action objectives have been met. The following factors will be considered: potential for short-term risks to the affected community as a result of the response action; potential impacts on workers during the response action, and the effectiveness and reliability of protective measures that would be taken; potential adverse environmental impacts of the response action, and the effectiveness and reliability of protective measures that would be taken; and time until protection is achieved.

Implementability

Under this criterion, the ease of implementing the removal actions will be assessed by considering the following factors: technical feasibility, including technical difficulties and unknowns associated with the construction and operation of a technology, the reliability of the technology, ease of undertaking additional removal actions, the ability to monitor the effectiveness of the removal action, and the extent to which the removal action contributes to the efficient

performance of any long-term remedial action; administrative feasibility, including activities needed to coordinate with other offices and agencies, the ability to obtain necessary approvals and permits from other agencies (for off-site actions), and statutory limits on removal actions; availability of services and materials, including the availability of adequate on or off-site treatment, storage capacity, and disposal capacity and services; and the availability of necessary equipment and specialists, and provisions to ensure any necessary additional resources; and the availability of prospective technologies for full-scale application. This criterion will also assess state and community acceptance, as described below.

- State Acceptance indicates whether, based on the review of the EE/CA and this document, the State agrees with, opposes, or has no comment on the preferred removal action at the present time.

- Community Acceptance, which will be assessed in the Action Memorandum, refers to the public's general response to the removal actions described in the EE/CA and this document.

Cost

The costs that will be assessed include the capital costs, including both indirect and direct costs; transportation and disposal, operation and maintenance costs, which include annual groundwater monitoring and cap maintenance costs; and present-worth costs, which include the capital costs plus the present value of 30 years of post-removal site control costs (calculated at a 7 percent discount rate).

Comparative Analysis of Removal Actions

A comparative analysis of the removal actions based upon the evaluation criteria noted above follows:

Effectiveness

Overall Protection of Public Health and the Environment

Removal Alternative 1 (no action) would not be protective of human health and the environment since it does not actively address the potential human health and ecological risks posed by the contaminated soils.

Removal Alternative 2 (excavation and off-Site disposal) would be the most protective removal action, since the risk of incidental contact with waste by humans and ecological receptors and the potential for contaminant migration from the property would be eliminated by permanently removing the contaminated soils.

Removal Alternative 3 (capping) would be protective of human health and the environment. This removal action reduces the risk of incidental contact with waste by humans and ecological receptors by containing the contaminated soil beneath a 2' soil cap. Capping would also prevent surface contaminant migration from the property and reduce the potential migration to the groundwater.

Removal Alternative 4 (paving) would be protective of human health and the environment; however, it is less protective than Removal Alternative 2 or 3 because the depth of the cap is less and the potential is therefore greater for direct contact with principle threat wastes if the cap is disturbed or breached. This removal action reduces the risk of incidental contact with waste by humans and ecological receptors by containing the contaminated soil. The asphalt paving would also prevent surface contaminant migration from the property and reduce the potential migration to the groundwater.

Removal Alternative 5 (immobilization) would be protective of human health and the environment. Immobilization of contaminants in the top two feet of contaminated soil via in-situ treatment with a concrete additive would immobilize the lead in the soil, prevent surface contaminant migration from the property and reduce the potential migration to the groundwater, as well as preventing contact with deeper, untreated,

lead-impacted soils. This removal alternative reduces the risk of incidental contact with waste by humans and ecological receptors by treating the top two feet of contaminated soil.

Compliance with ARARs

Since the contaminated soils would not be addressed under Alternative 1 (no action), this removal alternative would not comply with the site specific Preliminary Remediation Goal (PRG) of 800 mg/kg lead. EPA in consultation with NYSDEC has established a site-specific PRG of 800 mg/kg for lead at the Site, based in part on the Regional Screening Levels for Contaminants at Superfund Sites (November, 2010), Streamlined Human Health Risk Assessment and NYSDEC Part 375 SCOs. The PRG was used to estimate the volume of contaminated soils and waste materials at the Site.

Removal Alternative 2 (excavation and off-Site treatment/disposal) will comply with the ARARS (e.g., the RCRA disposal regulations).

Removal Alternatives 3 (capping), 4 (paving), and 5 (immobilization) will not comply with ARARs, TBCs, and other criteria since soils will remain in place that exceed the site specific PRGs, however the threat of exposure to the contaminated soils would be greatly reduced by requiring the containment/capping of all those soils and waste material that exceed the PRGs.

Long-Term Effectiveness and Permanence

Removal Alternative 1 (no action) would involve no controls and, therefore, would not be effective in preventing exposure to contaminants on-Site or the migration of contaminants from the property.

Removal Alternative 2 (excavation and off-Site treatment/disposal) would provide a high degree of long-term protection of human health and the environment by eliminating the possibility of exposure to contaminants on-Site and the potential for contaminants migrating from the property. The removal of the contaminated soils under Removal Alternative 2 would be effective and permanent.

Removal Alternatives 3 (capping) and 5 (immobilization) would both provide a high degree of long-term protection of human health and the environment in that they would eliminate the possibility of exposure to contaminants on-site and the potential for contaminants migrating from the property. The effectiveness and permanence of both of these removal alternatives would be dependent upon the effective maintenance of the cap and the proper enforcement of the institutional controls.

Removal Alternative 4 (paving) would provide a high degree of long-term protection of human health and the environment; however, the potential exists for direct contact with contaminants if the asphalt cap is disturbed or breached. The depth of the protective cap in this removal alternative, as opposed to Removal Alternatives 2 and 3, is significantly less and thus less protective.

Reduction of Toxicity, Mobility, or Volume Through Treatment

Removal Alternative 1 (no action) would provide no reduction in toxicity, mobility or volume.

Under Removal Alternative 2 (excavation and off-site treatment/disposal), contaminants above the PRG would be removed from the property for treatment/disposal, thereby reducing their toxicity, mobility, and volume. It is not known, however, to what extent the excavated soils would require treatment prior to disposal under this alternative.

Removal Alternatives 3 (capping) and 4 (paving) include the reduction of toxicity through treatment for that portion of soil removed from the property and treated as a result of TCLP failure (estimated at 2,400 and 500 cubic yards, respectively). The mobility or volume of contaminated soil that would be left on-site would not be reduced through treatment. These Alternatives would reduce the migration of and potential exposure to contaminated soils and waste materials.

Removal Alternative 5 (immobilization) would not result in the reduction of the toxicity or volume of contaminants in Site soils through treatment. The mobility of the contaminants would be greatly reduced, preventing the migration of contamination to the ground water and/or surface water.

Short-Term Effectiveness

Since Removal Alternative 1 (no action) does not include any physical construction measures in any areas of contamination, it would not present a risk to the community as a result of its implementation.

Removal Alternative 2 (excavation and off-site treatment/disposal), Alternative 3 (capping), Alternative 4 (paving), and Alternative 5 (immobilization) would involve excavating, moving, placing, and, in the case of Alternatives 3 and 4, re-grading waste. While all of these four removal action alternatives present some risk to on-site workers through dermal contact and inhalation, these exposures can be minimized by utilizing proper protective equipment and engineering controls. The vehicle traffic associated with cap construction and the off-site transport of contaminated soils could impact the local roadway system and nearby residents through increased noise level. Alternative 2 would require the off-site transport of a considerable amount of contaminated soil. Alternative 3 and 4 would require the delivery of cap construction materials, and off-site transport of a much lower volume of contaminated soil removed to re-grade the property. Alternative 5 would require the delivery of a concrete additive.

Under all of the removal action alternatives except the no action alternative, disturbance of the land during excavation and/or construction activities could affect the surface water hydrology of the property. There is a potential for increased stormwater runoff and erosion during excavation and construction activities that would have to be properly managed to prevent excessive water and waste material loading. Appropriate measures would have to be taken during excavation activities to prevent transport of fugitive dust and exposure of workers and downgradient receptors to contaminants.

Implementability

There are no implementability issues for the No Action, Removal Alternative 1.

Removal Alternative 2 (excavation and off-Site treatment/disposal) would use proven earthmoving equipment and techniques and established administrative procedures, and sufficient facilities are available for treatment and disposal of the excavated soils. Therefore, this alternative would be easily implemented.

Removal Alternatives 3 (capping), 4 (paving) and 5 (immobilization) can be accomplished using technologies known to be reliable and can be readily implemented. Equipment, services and materials for this work are readily available. The actions under these alternatives may be administratively difficult since the property owner would have to agree to the granting of an institutional control such as an environmental easement for the controlled property. In addition, the property owner may be required to maintain a Site Management Plan in perpetuity to ensure the institutional and engineering controls remain in place and are effective.

State Acceptance

The State of New York provided input on the EE/CA during its preparation and agrees with the preferred removal action.

Community Acceptance

Community acceptance of the preferred removal action will be assessed in the Action Memorandum following review of the public comments received on the EE/CA and this document.

Cost

The estimated capital, transportation and disposal costs, operation and maintenance costs[1], and present-worth costs for each of the response

actions are presented below.

Response Alt.	Capital Cost	T&D[2] Cost	O&M Cost	Present-Worth Costs
1	$0	$0	$0	$10,050
2	$171,146	$626,787	$14,509	$924,153
3	$119,450	$354,618	$112,860	$644,076
4	$139,500	$73,879	$112,860	$354,711
5	$145,455	$0	$112,860	$279,315

Alternative 2 has the highest present worth cost ($924,153) of the alternatives considered, but it has no operation and maintenance costs. Alternative 5 has low capital cost, no transportation and disposal costs, but it is not a permanent solution and has on-going operation and maintenance costs.

PREFERRED RESPONSE ACTION

Both Alternatives 3 and 5 use two feet of soil in combination with engineering and institutional controls to prevent exposure to contaminated soils (below the two-foot depth of excavation and at the surface, respectively). The actions under these removal alternatives address the principle threat, but may be challenging since the property owner would have to agree to the granting of an institutional control such as an environmental easement for the controlled property. In addition, the property owner may be required to maintain a Site Management Plan in perpetuity to ensure the institutional and engineering controls remain in place and are effective.

Alternative 4 (paving) would only remove the top six inches of contaminated soil, leaving principle threat wastes at or near the surface, and the potential exists for direct contact with the contaminants if the asphalt cap is disturbed or breached. While this alternative may provide long-term protection of human health and the environment; since the depth of the protective cap is only six inches, as opposed to the two feet in Alternatives 3 and 5, this alternative is less protective and not a viable removal alternative.

While Alternative 2 has a substantially higher cost ($924,153) than the other removal alternatives, it compares favorably to the remaining removal actions and provides a proportionately higher level of protection of human health and the environment. In addition, the excavation and disposal of the lead contaminated soils would result in a permanent removal action that requires no additional long-term oversight, operation and maintenance, and monitoring.

Based upon an evaluation of the various response actions, EPA recommends the following as a non-time critical removal action at the 2000-2012 Richmond Terrace property portion of the Jewett White Lead site. This preference is based on the proven effectiveness of the response action, the ease of implementation, and the relative cost.

Removal Alternative 2: Excavation and Off-Site Treatment/Disposal

Capital Cost:	$171,146
Transportation and Disposal:	$626,787
Operation and Maintenance:	$14,509
Present – Worth Cost:	$924,153
Construction Time:	2-3 months

Under this removal action, approximately 4,242-cubic yards of soils would be excavated. The available soil analytical results will be used to determine initial excavation dimensions. Soil samples would be collected from the walls and base of the initial excavation and analyzed for metals. If analytical results of the post-excavation samples indicate that residual

[1]O&M costs include the present value of groundwater monitoring and cap maintenance for 30 years.
[2]T&D includes all transportation and disposal costs.

concentrations exceed the minimum action level, additional soil would be excavated, followed by additional confirmatory sampling. The process would be repeated until analytical results reveal that all the soils containing metals concentrations greater than 800 mg/kg for lead have been removed, or until a hard surface such as a roadway or sidewalk are encountered.

Once confirmatory sampling results indicate that excavation activities are completed, the excavated areas would be backfilled to restore the property to the existing grade. Backfill would consist of certified clean soil from an approved off-site source. The top 6 inches of backfill would be soil that would meet the needs of the property owner, either organic-rich loam capable of supporting vegetative growth, an inorganic travel layer (i.e., stone dust or crushed stone), or a combination of both. A vegetative cover would be planted immediately following placement of any topsoil layer.

As the final phase of this action, excavated soils will be transported and disposed of at an appropriate TSDF.

EPA believes that the preferred response action would provide the best balance of tradeoffs among the response actions with respect to the evaluating criteria. EPA also believes that the preferred response action would be protective of human health and the environment, would comply with ARARs, would be cost-effective, and would utilize permanent solutions and response action treatment technologies or resource recovery technologies to the maximum extent practicable.

Where can I review the EE/CA?

The EE/CA for the 2000-2012 Richmond Terrace property portion of the Jewett White Lead Site is available for public review at the locations below.

To review online, visit:
www.epa.gov/region02/superfund/removal/jewettwhitelead

To review a paper copy, please contact:

- **New York Public Library, Port Richmond Branch** located at
  75 Bennett Street
  Port Richmond
  Staten Island, NY 10302

- **Superfund Records Center**
  US EPA Region 2 located at
  2890 Woodbridge Avenue
  Edison, NJ 08837

How can I submit comments about the EE/CA?

The public comment period for the EE/CA is open from March 4, 2011 until April 17, 2011. EPA asks that the public submit comments on or before the comment period closes on April 17, 2011.

Comments can be submitted by:

- Postal Mail - Mail comments to:
  Kimberly Staiger, OSC
  U.S. EPA, Region 2
  2890 Woodbridge Avenue
  Edison, NJ 08837

- E-mail
  E-mail comments to:
  Staiger.kimberly@epa.gov or

- In-person at the Public Meeting
  Wednesday, March 16, 2011
  from 7:00 pm to 9:00 pm
  Location: CYO
  120 Anderson Avenue
  Staten Island, New York

EPA relies on public input to ensure that the concerns of the community are considered in selecting an effective removal action. Comments will be taken into consideration in selecting the removal action and documented in an Action Memorandum which will formalize the selection of the removal action. EPA encourages the public's input on the EE/CA.

APPENDIX 3

THE U.S. ENVIRONMENTAL PROTECTION AGENCY (EPA) WILL HOLD A PUBLIC MEETING TO DISCUSS THE FINDINGS OF ITS ENGINEERING EVALUATION/COST ANALYSIS (EE/CA), AND THE PROPOSED RESPONSE ACTION FOR THE JEWETT WHITE LEAD REMOVAL SITE

The EPA invites you to attend a public meeting to present the conclusions of the EE/CA to further elaborate on the reasons for recommending the preferred response action and to receive public comment.

The meeting will be held at the:

CYO

120 Anderson Avenue

Staten Island, NY 10302

Date: March 16, 2011

Time: 7:00 to 9:00 pm

Comments received at the meeting, as well as written comments, will be documented as part of the decision document (called an ***Action Memorandum***) which will formalize the selection of the response.

To view paper copies of all administrative records, please contact:

New York Public Library, Port Richmond Branch
located at
75 Bennett Street
Port Richmond
Staten Island, NY 10302

For additional information you can contact Wanda Ayala, Community Involvement Coordinator at (212) 637-3676 or ayala.wanda@epa.gov

You can also visit EPA's website at www.epa.gov/region02/superfund/removal/jewettwhitelead

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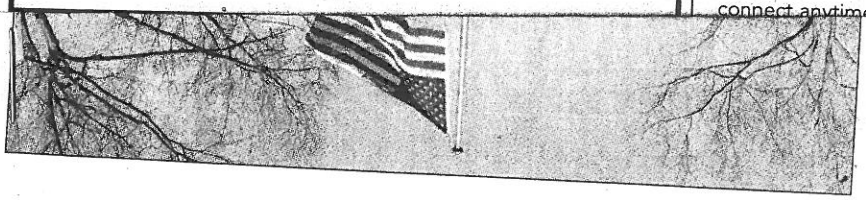
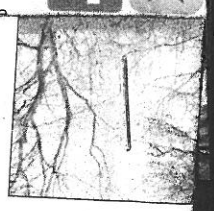




rks to save Pouch?


KELLY


MORRIS


RUSSO


SIMMONS

Video series to profile 4 Island women

STATEN ISLAND ADVANCE

Four Staten Island women will be among 31 success stories featured in the upcoming "NYC Women: Make it Here, Make It Happen."

The featured women are: Kerry Kelly, Dolores Morris, Teri Russo and Karen Simmons.

The program is a video series honoring the achievements and successes of 31 local women in honor of Women's History Month. The series of one-minute videos will show the women discussing their individual experiences, including overcoming obstacles, reaching top positions in their fields, serving as role models and how the work they are doing affects the communities around them.

Ms. Kelly is the first female chief medical office of the FDNY; Ms. Morris has won five Primetime Creative Arts Emmys as a vice president of HBO Family; Ms. Russo, a 1988 Woman of Achievement, founded the Down Syndrome Foundation, and Ms. Simmons is executive director of the Children's Law Center in New York City.

Their profiles will run on NYC Life Ch. 25 at 7:30 p.m. The dates are: Ms. Kelly, this Saturday; Ms. Morris, March 25; Ms. Russo, March 25; Ms. Simmons, March 27.

The series is a collaboration between the City's Commission on Women's Issues and NYC Media, the official network of the City of New York. All the profiles can be viewed at http://www.nyc.gov/html/media/wcproject/wc_home.html.

Water pipe ruptures at Borough Hall

Broken service line in basement sends some workers home early

By TOM WROBLESKI
ADVANCE POLITICAL EDITOR

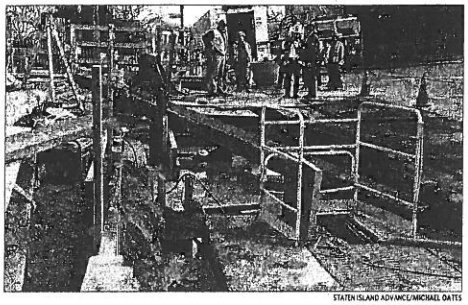
A broken service line sent water cascading into the basement of Borough Hall yesterday, sending agency workers home early.

It was the second mishap in the last few months at Borough Hall. The seat of Staten Island government was temporarily shut after a fire damaged its electrical plant in January.

Officials said that the 6-inch water line ruptured yesterday around 3 p.m. while contractors working for Consolidated Edison were doing on-going repair work stemming from the fire in a dug-out area on the Stuyvesant Place side of Borough Hall.

An FDNY official said that the workers were not working in the area of the rupture, and it was not known how the pipe was damaged.

Con Ed spokesman Christopher Olert said he didn't think that the electrical work being done impacted the pipe.


STATEN ISLAND ADVANCE/MICHAEL OATES

Con Ed and National Grid workers responded to the scene of a broken water pipe at Borough Hall yesterday.

He said a newly installed electrical vault, meant to boost Borough Hall's power service, was flooded during the incident.

Con Ed and National Grid workers responded to the scene, as did officials with the city Office of Emergency Management and Department of Environmental Protection.

With the water shut off and bathrooms disabled, city Buildings Department and Department of Transportation offices in the building were closed shortly after the break, with employees leaving early.

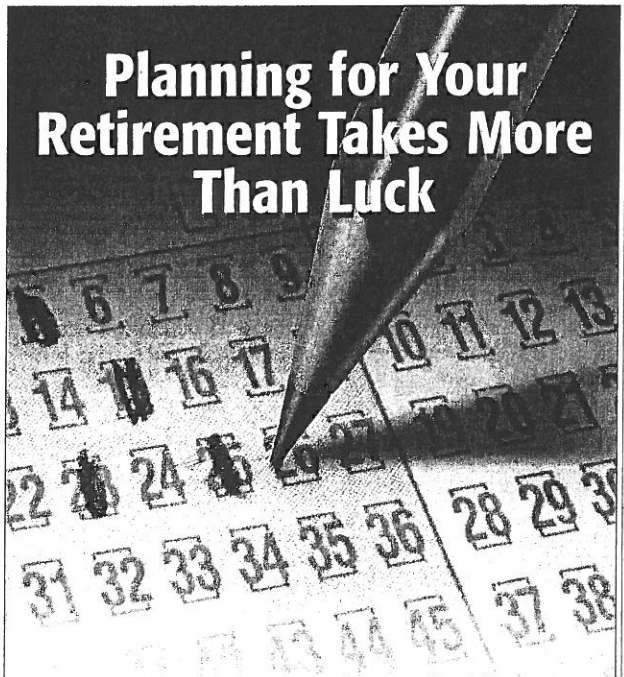
Members of Borough President James Molinaro's staff stayed until 5 p.m.

It was unclear if the building would be open today. As a precaution, Molinaro postponed a Red Cross recognition event that was to held at Borough Hall today.

"What can you do?" said Molinaro.

Water flooding into the basement was rerouted to an interior drain. The basement is used mainly for storage. Crews also worked to drain water from the busted pipe that flooded a deep trench in the outside work area.

Tom Wrobleski may be reached at wrobleski@siadvance.com. Read his polit.bureau blog at http://www.silive.com/newslogs/politics/.



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†Contact your tax advisor for more information.

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Schumer: Release strategic oil reserve

STATEN ISLAND ADVANCE

Democratic U.S. Sen. Charles E. Schumer called yesterday on President Barack Obama to tap the strategic oil reserve in order to "clamp down on skyrocketing gas prices in New York and around the country."

In the wake of unrest in the Middle East and surging oil prices, New York's senior senator, in a letter to Obama, urged the administration to tap the reserve in order to address the supply disruption and offset the rising cost of gasoline.

Schumer underscored that last Friday, the weekly U.S. average price per gallon of gas climbed to $3.51, a 33-cent jump from two weeks ago and the second-largest price increase in a two-week period in U.S. history, and up 78 cents from a year ago, the highest price posted since September 2008.

"With oil prices surging day after day, Americans are being squeezed at the pump and paying more for everything from groceries to plane tickets," said Schumer in a prepared statement. "The unrest in Libya and the Middle East has disrupted supply and triggered rapid price hikes that are gobbling up an ever bigger share of consumer spending. Tapping the Strategic Oil Reserve would not only provide much needed relief to New Yorkers and Americans across the country — it would also help ensure that our economy doesn't slip back into a decline. Even a commitment by the administration that it stands ready to tap the reserve could help calm jittery markets."

THE U.S. ENVIRONMENTAL PROTECTION AGENCY (EPA) WILL HOLD A PUBLIC MEETING TO DISCUSS THE FINDINGS OF ITS ENGINEERING EVALUATION/COST ANALYSIS (EE/CA), AND THE PROPOSED RESPONSE ACTION FOR THE JEWETT WHITE LEAD REMOVAL SITE

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CYO
120 Anderson Avenue
Staten Island, NY 10302

Date: March 16, 2011

Time: 7:00 to 9:00 pm

Comments received at the meeting, as well as written comments, will be documented as part of the decision document (called an ***Action Memorandum***) which will formalize the selection of the response.

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located at
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Staten Island, NY 10302

For additional information you can contact Wanda Ayala, Community Involvement Coordinator at (212) 637-3676 or ayala.wanda@epa.gov

You can also visit EPA's website at www.epa.gov/region02/superfund/removal/jewettwhitelead

APPENDIX 4

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impreMedia SMART EDITION
El Diario Calendar 5 Mar 2011 Table of Contents 24 Inmigracion

udio	1	$ 461	$17,589 - $22,200
nitorio	1	$ 493	$18,755 - $22,200
	2		$18,755 - $25,360
nitorios	2	$ 596	$22,320 - $25,360
	3		$22,320 - $28,520
	4		$22,320 - $31,680
nitorios	3	$ 688	$25,989 - $28,520
	4		$25,989 - $31,680
	5		$25,989 - $34,240
	6		$25,989 - $36,760

ño de idad	Tamaño de la Familia*	Alquiler Mensual**	Promedio de Ingreso Total Anual*** Mínimo - Máximo
udio	1	$ 731	$26,846 - $33,300
nitorio	1	$ 781	$28,629 - $33,300
	2		$28,629 - $38,040
nitorios	2	$ 942	$34,183 - $38,040
	3		$34,183 - $42,780
	4		$34,183 - $47,520
nitorios	3	$ 1,087	$39,669 - $42,780
	4		$39,669 - $47,520
	5		$39,669 - $51,360
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De la Ciudad de Nueva York
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La EPA les invita a asistir a una reunión pública en la cual presentara las conclusiones de su evaluación de ingeniería/análisis de costo y discutirá en detalle la propuesta y sus recomendaciones y les invita a que provean comentarios sobre dicha propuesta.

La reunión se llevará a cabo en el:

CYO
120 Anderson Avenue Staten Island, NY
Fecha: Marzo 16, 2011 • Hora: 7:00 a 9:00 PM

Los comentarios recibidos en la reunión, así como las observaciones por escrito, serán documentadas como parte del documento de decisión (llamado Memorán-dum de Acción), que hara formal la selección de la respuesta.

Para ver copias de todos los documentos administrativos, favor de contactar:

New York Public Library, Port Richmond Branch
(Biblioteca Pública)
Localizada en el
75 Bennett Street
Port Richmond Staten Island, NY 10302

Para obtener información adicional, puede comunicarse con Wanda Ayala, Coordinadora de Participación Comunitaria al (212) 637-3676 o por correo electrónico ayala.wanda@epa.gov

También puede visitar el sitio web de la EPA en www.epa.gov/region02/superfund/removal/jewettwhitelead

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APPENDIX 5

Press Release

Region 2 - New Jersey, New York, Puerto Rico and the U.S. Virgin Islands

EPA Seeks Public Input on Cleanup Options for Lead-Contaminated Site in Staten Island, N.Y.

Contact for News Media: John Senn, (212) 637-3667, senn.john@epa.gov
Contact for Members of the Public: Wanda Ayala, (212) 637-3676, ayala.wanda@epa.gov

(New York, N.Y.— March 8, 2011) – The U.S. Environmental Protection Agency (EPA) is seeking input from the public on the options EPA has developed to address lead-contaminated soil from part of the Jewett White Lead site in Staten Island, N.Y. Elevated levels of lead were found throughout the portion of the site at 2000-2012 Richmond Terrace. It is necessary to address the lead-contaminated soil to alleviate threats to human health and the environment. The options were developed in consultation with the New York State Department of Environmental Conservation.

"Lead poses serious health risks, especially to children, which makes the cleanup of lead-contaminated soil at the Jewett White Lead site a priority for EPA," said EPA Regional Administrator Judith Enck. "EPA has developed several options for cleaning up the Jewett White Lead site and we encourage members of the public to share their views on the selection of a final cleanup plan."

A public meeting will be held on March 16, 2011 at 7:00 p.m. at the CYO at 120 Anderson Avenue in Staten Island to present the options and EPA's preferred cleanup method, and to receive public comments. Comments received at the public meeting, as well as written comments, will be taken into consideration in selecting the cleanup option, and will be documented as part of the final decision document, which will formalize the selection of a cleanup approach.

Five cleanup options for addressing the contaminated soil are described in EPA's Engineering Evaluation/Cost Analysis for the site. They include:

- Excavating more than 4,200 cubic yards of contaminated soil and replacing it with clean soil;
- Excavating 2,400 cubic yards of contaminated soil and installing several layers of various synthetic and natural materials to "cap" and contain the remaining soil;

- Excavating 500 cubic yards of contaminated soil and paving over the exposed area; and
- Treating the top two feet of contaminated soil and using a concrete additive, which would immobilize the lead and prevent it from leaching into water and other soil; and
- Taking no action, which is an option that EPA is required to consider for any cleanup plan.

EPA's preferred approach is to excavate more than 4,200 cubic yards of lead-contaminated soil and replace it with clean soil.

A summary of the Engineering Evaluation/Cost Analysis is available on EPA's website at: http://www.epa.gov/region02/superfund/removal/jewettwhitelead/. Copies are also available at the New York Public Library, Port Richmond Branch at 75 Bennett Street, Port Richmond, Staten Island, N.Y. and at EPA's Edison, N.J. office at 2890 Woodbridge Avenue, Edison, N.J. EPA will accept comments that are submitted or postmarked by April 17, 2011.

Written comments on EE/CA can be sent to:
Kimberly Staiger, On-Scene Coordinator
U.S. Environmental Protection Agency
2890 Woodbridge Avenue, MS-211
Edison, NJ 08837
Fax: (732) 906-6182
E-mail: staiger.kimberly@epa.gov

For more information on the Jewett White Lead site, visit http://www.epa.gov/region02/superfund/removal/jewettwhitelead/.

Follow EPA Region 2 on Twitter at http://twitter.com/eparegion2 and visit our Facebook page, http://www.facebook.com/eparegion2.

11-014

APPENDIX 6

Jewett- White Lead Site, Staten Island, NY - remediation required
NRPA2
to:
Kimberly Staiger
03/07/2011 08:30 PM
Cc:
Nswcsibt
Show Details

Dear Ms. Staiger :

Please utilize Alternate 2, requiring excavation of the contaminated soil, under proper protocols, for attempting to remediate the site of its poisonous metals.

The Site has been a scourge on the neighborhood for too long.

Excavation , removal , and safe disposal is what is required.

Thank you for your attention to this matter.

James Scarcella , NRPA
[redacted]

March 8, 2011

To: Kimberly Staiger, OSC
U.S. EPA, Region 2
2890 Woodbridge Avenue
Edison, NJ. 08837

Dear Ms. Staiger:

As a resident of Staten Island I want Alternative 2: to be used to remediate and clean up the John J. Jewett &Sons White Lead Company/Seduttos Ice Cream Factory Site, located at 2000 Richmond Terrace, Port Richmond, Staten Island, NY. 10302.

"Alternative 2: Excavation and Off- Site Treatment/Disposal,
Under this alternative, the contaminated soils and waste materials would be excavated and transported off- Site for treatment/disposal. The excavated areas would be backfilled with clean fill and re vegetated."

Alternative 2 remediation and cleanup: will finally allow for this community to move forward and not have to continually live in fear of lead exposure from this particular location - regardless of who the owner is, or how the property will be developed in the future. This property will finally have a clean slate to work from.

Sincerely, Nonna Ferone

Name [redacted]
Address

Staten Island Alt 2

mii cruz to: Kimberly Staiger 03/09/2011 02:46 PM

Please respond to milcruz2005

Dear Ms. Staiger:

As a resident of Staten Island I want Alternative 2: to be used to remediate and clean up the John J. Jewett &Sons White Lead Company/Seduttos Ice Cream Factory Site, located at 2000 Richmond Terrace, Port Richmond, Staten Island, NY. 10302.

"Alternative 2: Excavation and Off- Site Treatment/Disposal,
Under this alternative, the contaminated soils and waste materials would be excavated and transported off- Site for treatment/disposal. The excavated areas would be backfilled with clean fill and re vegetated."

Alternative 2 remediation and cleanup: will finally allow for this community to move forward and not have to continually live in fear of lead exposure from this particular location - regardless of who the owner is, or how the property will be developed in the future. This property will finally have a clean slate to work from.

Sincerely,

Mildred Dorta

Jewett White Lead/Seduttos site
Christina Montorio
to:
Kimberly Staiger
03/09/2011 04:40 PM
Cc:
nswc
Show Details

Dear Ms. Staiger,

On behalf of the Coalition for Healthy Ports, please accept the following comments.

We recommend that the Jewett White Lead/Seduttos site to undergo the Alternative 2 treatment.

Alternative 2: Excavation and Off- Site Treatment/Disposal
Under this alternative, the contaminated soils and waste materials would be excavated and transported off- Site for treatment/disposal. The excavated areas would be backfilled with clean fill and re vegetated.

Alternative 2 will ensure that the residents of Staten Island will never have to deal with this particular lead issue ever again at this site. It is better and safer for the community and its better for Staten Islanders.

Sincerely,
The Coalition for Healthy Ports
http://www.cleanandsafeports.org/new-yorknew-jersey/

Jewett White Lead/Seduttos Site
DiBerardino, Marge
to:
Kimberly Staiger
03/09/2011 05:10 PM
Show Details

I write to urge that the Jewett White Lead/Seduttos Site on Staten Island undergo Alternative 2: Excavation and Off-Site Treatment/Disposal.

Thank you for your attention.

Marge DiBerardino

Jewett While Lead Remediation
vmgillen
to:
Kimberly Staiger
03/09/2011 09:35 PM
Show Details

Was phytoremediation considered? Please advise.

Thank you.

Comment: Jewett White Lead Hearing
victoria gillen
to:
Kimberly Staiger
03/14/2011 11:42 AM
Show Details

I am a resident, parent of three. I strongly urge implementation of Option #2: it's the only viable option. Please note: I am using the specific word "viable" very deliberately!

Thank you.

Victoria M. Gillen
[redacted]

Jewett White Lead Removal Site, EE/CA/Response Action Public Comment
C Van Guilder
to:
Kimberly Staiger
03/15/2011 02:28 PM
Show Details

March 15, 2011

Kimberly Staiger, OSC
US EPA Region 2
2890 Woodbridge Avenue
Edison, NJ 08837

Dear Ms. Staiger,

Below are my comments concerning the Engineering Evaluation/Cost Analysis for the Jewett White Lead Site, Staten Island, New York.

As a local resident, I support **Alternative 2: Excavation and Off-Site Treatment/Disposal** as the removal action to accomplish the removal action objectives.

My reasons for this choice are as follows:

1) The North Shore of Staten Island, with its many industrial uses past and present, should be a priority area for programs aimed at reducing health impacts of contamination.
2) The contamination on the site has been there for many decades and has already created too many health risks for users of the property and nearby residents.
3) The history of this site proves that it is very easy for contaminated sites to be lost in the shuffle such that agencies, owners and neighbors do not even know that the contamination exists.
4) It is unclear what future plans the property owner has for the property or even whether he/she plans to keep the property long-term.
5) Alternative 2 provides the most complete and permanent solution.
6) The community would rather not have to keep monitoring the site to ensure that any less than permanent alternatives were implemented and maintained through future owners and future uses.

In conclusion, as a community member, I vote for **Alternative 2.**

Thank you,

Carol Van Guilder
[redacted]

Jewett White Lead/Sedutto's site

Caroline Cutroneo to: Kimberly Staiger 03/15/2011 11:08 PM

Dear Ms. Staiger,

I am a Staten Island resident who is concerned about lead pollution and poisoning. I worked in the Port Richmond area and I saw firsthand the limitations placed on children who could not play safely in parks and even in their own backyards for fear of lead contamination.

Even though the Jewett White site is supposedly secured, it is our responsibility to safely remove contamination from this neighborhood, which has suffered from the placement of toxic industrial businesses.

I urge the EPA to implement Alternative 2, in which contaminated soils on the site would be excavated and transported off-site for treatment and disposal, and vegetation planted in its place. This is the most responsible method for reducing the threat of contamination and bringing some much-needed greenery to this neighborhood.

Thank you for your attention to this matter.

Caroline Cutroneo

EPA Public Comment Meeting on Jewett White Lead/Seduttos Site
Buzga, Kara
to:
Kimberly Staiger
03/16/2011 12:01 PM
Show Details

Dear Kimberly Staiger,

In response to your request for public comments on remediation efforts and treatment of toxic waste sites on Staten Island -- particularly Jewett Ave. / Sedutto's Ice Cream Site, please be advised that my vote is for the Excavation and Off Site Treatment / Disposal of contaminated soils and waste materials. I believe that this proposal is the best proposal to excavate and treat contaminated soil. I also like the idea of using clean back fill to re-fill the contaminated sites as well as the idea to plant new vegetation to these contaminated sites.

Thank you for compiling resident responses.

Kara Buzga
Manager of Special Projects

MILBERG LLP

[redacted]

==========
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==========

MTA Bus Stops
nswc
to:
Wanda Ayala, Kimberly Staiger
03/16/2011 12:49 PM
Show Details

Hi Wanda and Kim,

Are we going to have a problem with the MTA temporarily moving the bus stops a few yards to the right or left of the Jewett property during the clean up so that people are not standing right there as the work is being done. It seems counter productive in not exposing residents if they are standing just a couple of feet away waiting on a bus.

Beryl

Beryl A. Thurman, Executive Director/President
NSWC

www.nswcsi.org

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Joe Martens
Commissioner

MAR 16 2011

Kimberly Staiger
On-Scene Coordinator
USEPA Region II
Removal Action Branch
2890 Woodbridge Avenue
MS-211
Edison, NJ 08837

RE: Jewett White Lead Site
Staten Island
Preferred Non-time Critical Removal Action Plan

Dear Ms. Staiger:

I have reviewed the proposed "non-time critical removal action" for the portion of the Jewett White Lead site located at 2000-2012 Richmond Terrace, in the Port Richmond section of the Borough Staten Island. The EPA's preferred alternative is to remove contaminated soils with lead concentrations greater than 800 ppm from the site. The New York State Department of Environmental Conservation (NYSDEC) is supportive of this alternative as it would remove more than 4000 cubic yards of lead-contaminated soil from the site and replace it with clean fill. Removal of the contaminated soil will prevent migration of lead from the site in the future and eliminate the need for additional monitoring and maintenance activities. Groundwater samples collected from the site indicate that lead has not impacted the groundwater making treatment unnecessary.

The NYSDEC expects that all removal activities will be conducted in a manner that prevents the migration of dust generated during the loading and transport phases of the removal process or by way of run-off caused by erosion of the site soils during precipitation events. A monitoring plan should be implemented and conducted during all ground-intrusive activities that would alert on-site personnel when an unacceptable level of dust is being generated and provides a contingency plan to take appropriate actions to prevent additional migration.

The NYSDEC appreciates the confirmation sampling protocol detailed in the proposed removal action that utilizes the existing investigation data as a starting delineation of the

excavation area but then follows up with additional sidewall and bottom confirmation samples. If remedial action objectives have not been met, then additional soil will be removed until remaining lead in remaining soil is less than 800 ppm. DEC would also be appreciative if confirmation sampling data could be shared and reviewed by agency.

Sincerely,

Ian Beilby, P.E.
Project Manager
Section A
Remedial Bureau B

ec: C. Doroski - NYSDOH
J. Crua - NYSDOH
J. O'Connel - Region 2

Jewett Meeting
Deborah Davis to: Kimberly Staiger 03/17/2011 09:49 AM

Dear Kimberly,
Thank you for meeting with us and delivering such a clear report about your proposed plan of action for the Jewett White Lead site at 2012 Richmond Terrace. Please know that I support Response 2.

I am still very concerned with the Moran property at 2015 Richmond Terrace. According to the presentation the EPA gave a year ago Moran site contained:
"• Lead levels ranged from 145 ppm to 2,730 ppm in surface samples"

On p. 3 of your March 2011 report, you state that "The average surface lead concentration was 5,082 milligram/killigram." How would this figure be translated to ppm?

Considering that the site at 2015 is a business with vehicles and employees coming and going everyday, wouldn't that site be of greater concern? I have looked at that lot and there are large areas of non-paved dirt.

Thanks for your attention.
Debby Davis
Environmental Artist

Deborah Davis, partner
Beach Packaging Design
[redacted]

http://www.beachpackagingdesign.com
http://www.hometextilepackagedesign.com/

check out Randy's packaging blog:
http://www.beachpackagingdesign.typepad.com/boxvox/

Port Richmond toxic site
Margaret
to:
Kimberly Staiger
03/18/2011 08:55 AM
Show Details

Dear Ms. Staiger,

I am a second generation Staten Islander and have seen our forests chopped, our waters polluted and our land degraded by irresponsible and/or ignorant business interests and people. We cannot continue to ignore the role that nature must play in the sustenance of our existence on this planet. There is no carpet under which to sweep the toxic soil at the White lead site in Port Richmond, Staten Island. It is the EPA's responsibility to prevent the potential poisoning of our residents. Please remove this poison and all tainted soil in its entirety by choosing Alternative B to clean up this toxic site.

Thank you.

Sincerely,

Peggy Guzzetta

MICHAEL G. GRIMM
13TH DISTRICT, NEW YORK

COMMITTEE ON FINANCIAL SERVICES

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April 4, 2011

Ms. Kimberly Staiger
On-Scene Coordinator
U.S. Environmental Protection Agency, Region 2
2890 Woodbridge Avenue, Ms 211
Edison, NJ 08837-3659

Re: Jewett White Lead Site

Dear Ms. Staiger:

I am writing to offer my comments on the Environmental Protection Agency's Engineering Evaluation/Cost Analysis (EE/CA) for the 2000-2012 Richmond Terrace property portion of the Jewett White Lead Site. On behalf of my constituents in New York's 13th Congressional District I would like to thank you for the thorough examination of this site and your continued outreach to the elected officials of this community and affected residents in the Staten Island community.

A representative of my office attended the March 16th meetings, for elected officials and a public meeting, which were held to present the summary of the EE/CA and to solicit public comment. Based on the information presented at that meeting, and the response of the community, I would like to express my support for the EPA's recommendation of a preferred response action (Alternative 2) to excavate the soil at the site and conduct off-site disposal/treatment. Clearly this response will offer a permanent solution to the existing situation and remedy any future concerns regarding public health at this specific site while not precluding any future utilizations of the site.

Again, I would like to thank your agency for your ongoing commitment to this project and I look forward to offering my support in the implementation of a program to ensure the public health of this community. If you require any additional information, please do not hesitate to contact my office's District Director, William J. Smith, at (718) 351-1602.

Sincerely,

Michael G. Grimm
Member of Congress

MG/jb

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The North Shore Waterfront Conservancy of Staten Island, Inc.
P.O. Box 140502
Staten Island, New York 10314

April 6, 2011

Kimberly Staiger, OSC
U.S. EPA, Region 2
2890 Woodbridge Avenue
Edison, New Jersey. 08837

Reference: John. J. Jewett & Sons White Lead Company/National Lead Industries (NLI)/Seduttos Ice Cream Factory Site, 2000 Richmond Terrace, EPA Public Comment.

On behalf of the members of the North Shore Waterfront Conservancy of Staten Island, Inc., we whole heartedly support Alternative 2 for the remediation and clean up of the John J. Jewett & Sons White Lead Company/National Lead Industries/Seduttos Ice Cream Factory Site located at 2000 Richmond Terrace, Port Richmond, Staten Island, NY. 10302.

Since this property's first contamination back in 1839 it has placed the nearby residential community at risk of exposure to high lead levels. Knowing what we now know about the health hazards that high lead levels present to the development of young children, we deem it is essential that this site be forever neutralized. So that regardless of who its current or future owners may be - this site will no longer present any health concerns for the Environmental Justice community of Port Richmond, Staten Island, New York.

The Alternative 2 remediation and clean up will lead the way for this community to have a second chance for a healthier and safer quality of life.

Sincerely,

Beryl A. Thurman, Executive Director/President
NSWC

Cc: NSWC board and members

C Ms. Edna J. Cirignano
[redacted]

7/11/2011

Kimberly Staiger OSC
U.S. EPA, Region 2
2890 Woodbridge Avenue
Edison NJ 08837

Dear Ms. Staiger:

Re: Jewett White Lead/Sedutos site.

Please note that I am in favor of Alternative 2: Excavation and Off-Site Treatment/Disposal with reference to the above mentioned site.

This contaminated property must be dealt with in this manner to insure that we never have to deal with this particular lead issue ever again at this site.

Thank You.

Yours truly,

Edna J Cirignano

Environmental
Resources
Management

Princeton Crossroads Corp.
Center
250 Phillips Blvd., Ste. 280
Ewing, NJ 08618
(609) 895-0050
(609) 895-0111 (fax)
http://www.erm.com

15 April 2011

Ms. Kimberly Staiger, OSC
U.S. EPA, Region 2
2890 Woodbridge Avenue
Edison, NJ 08837

Email: Staiger.kimberly@epa.gov

Re: Jewett White Lead Site
Port Richmond, Staten Island, New York
Comments to EE/CA

Dear Ms. Staiger:

Environmental Resources Management, Inc., on behalf of NL Industries, Inc. submits the attached comments to the documents entitled *Engineering Evaluation/Cost Analysis* (EE/CA), *Jewett White Lead Site, 2000-2012 Richmond Terrace, Staten Island, New York,* prepared by the United States Environmental Protection Agency (EPA) and dated January 2011 and the Superfund Proposed Response Action March 2011 document prepared by EPA notifying the public of the EE/CA and seeking public comment ("Public Notice").

If you have any questions or comments concerning the attached, please do not hesitate to contact Christopher Gibson at (856)-354-3077

Sincerely,

Thomas T. Griffin
Project Director

cc: C. Gibson, Archer & Greiner
C. Riley, NL Industries

Attachments: Comments Engineering Evaluation/Cost Analysis

Comments
Engineering Evaluation/Cost Analysis
Jewett White Lead Site
2000-2012 Richmond Terrace
Staten Island, New York
(EPA, January 2011)

1. Introduction

Environmental Resources Management, Inc. (ERM), on behalf of NL Industries, Inc. (NL), has prepared the following comments to the documents entitled *Engineering Evaluation/Cost Analysis (*EE/CA*), Jewett White Lead Site, 2000-2012 Richmond Terrace, Staten Island, New York,* prepared by the United States Environmental Protection Agency (EPA) and dated January 2011 and the Superfund Proposed Response Action March 2011 document prepared by EPA notifying the public of the EE/CA and seeking public comment ("Public Notice").

NL submits these comments in support of its continued efforts to discuss implementation of an effective remedy that is protective of human health and the environment and that can put the Site back into productive use as quickly as possible. Although the EPA has stated that NL refused to participate in discussions regarding the proper response actions at the site, that is not the case. NL has participated in a number of discussions with the EPA and the current property owner regarding the appropriate next steps to be performed at the Site. These discussions specifically have sought to address steps that would result in a timely, effective remedy. NL continues to be willing to discuss the next steps to be taken at the Site with the goal to be an effective remedy that is protective of human health and the environment and that quickly puts the Site back into productive use.

In preparing its comments, ERM considered the information provided in the Public Notice and the EE/CA, including the attachments to the EE/CA. Additionally, ERM referred to the following documents:

- *Presumptive Remedy for Metals-in-Soil Sites* (EPA, Office of Solid Waste and Emergency Response, EPA 540-F-98-054, OSWER-9355.0-72FS, PB99-963301, September 1999;
- *Superfund Lead-Contaminated Residential Sites Handbook* (EPA, Office of Emergency and Remedial Response, OSWER 9285.7-50, August 2003.
- *DER-10 Technical Guidance for Site Investigation and Remediation (*NYSDEC, May 2010).
- *Sustainable Reuse of Brownfields* (EPA, Office of Solid Waste and Emergency Response, EPA 560-F-06-247, October 2006)
- *EPA Brownfields Program Benefits* (EPA, www.epa.gov/brownfields, updated as of March 2011)
- *Superfund Green Remediation Strategy* (EPA, Office of Solid Waste and Emergency Response, September *2010)*
- *Draft Brownfield Cleanup Program Guide* (NYSDEC, May 2004)

Additionally, these comments recognize that the property that is the subject of this EE/CA has only been used for industrial/commercial purposes, is currently zoned as M-3 for manufacturing, industrial and commercial use, and will, according to the owner's stated plans, be redeveloped for such industrial/commercial use. In fact, the EE/CA recognizes that the current zoning of the Site is commercial/industrial and further, that the zoning is not expected to change in the future. Moreover, the owner has stated its willingness to apply institutional controls at the property to support that redevelopment plan consistent with the need to protect public health and the environment while making the most efficient use of the property and other resources.

2. Summary of EE/CA Findings

2.1 Investigation Results

In developing the comments that follow this section, the EE/CA reported site characterization results were considered. As discussed in the EE/CA, the Site is the historic location of the former Jewett White Lead Company facility, which ceased operations in the early to mid-1900s and includes a 1.07-acre parcel of land at 2000-2012 Richmond Terrace.

The investigation results are summarized as follows:

- Elevated levels of lead are present throughout Site soil at 2000 to 2012 Richmond Terrace. Elevated lead levels were generally observed at depths of 4 to 5-feet below ground surface.
- EPA collected off-site soil samples in the surrounding community, including in residential backyards. Elevated lead levels were observed in the surface soils. However, based on attribution analysis, the EPA concluded that the Jewett White Lead Site is not a significant contribution source to the lead found in the community. The lead in the community appears to be consistent with urban lead contamination typically seen in the industrialized Northeast United States (EPA, pg 1-6).
- Elevated lead levels were not observed in ground water. Lead was not detected in any of the groundwater samples collected, with a detection limit of 8 micrograms/liter (ug/l), which is lower than both its EPA Maximum Contaminant Limit (MCL) (15 ug/l) and NYSDEC groundwater quality standard (50 ug/l). The absence of detectable lead in groundwater confirms that the conditions beneath the Site are not conducive to the leaching of lead to groundwater beneath the Site. Additionally, there are no identified drinking water supplies located in the vicinity of the Site. (Weston, pg 3-6).
- Sediment/surface water samples were collected from storm sewers and their outfalls adjacent to the Site, as well as the Kill Van Kull downstream of the Site. Samples were analyzed for target analyte metals (TAL) including lead. The sediment results for lead did not exceed the site-specific screening level. Based on the analytical results it was concluded that the stormwater drainage systems are sources of potential impacts to sediment of the Kill Van Kull. It was also concluded that the source of sediment contaminants is not related to a release from the Site. The study found that urban runoff from non-point sources is the likely source of sediment impacts and that this finding is

consistent with the Conceptual Site Model (CSM) developed for the Site (Weston, pg 3-7).

- Lead was not detected in surface water samples collected from Bodine Creek and Kill Van Kull. Based upon the investigation, EPA concludes that there are no impacts to surface water due to releases from the Site which is again consistent with the CSM developed for the Site (Weston, pg 3-7).

2.2 Identified Removal Action Alternatives

In developing the comments that follow this section, the identification and evaluation of alternatives contained in the EE/CA were considered. The EE/CA identifies five (5) removal action alternatives as potential actions to achieve the primary stated objectives of: (a) eliminating unacceptable risks to human and ecological receptors; (b) preventing or minimize the migration of hazardous constituents to area soils, sediment, surface water and groundwater, and (c) restoring the property to its current use. The five alternatives identified by EPA include:

1. No Action
2. Excavation of up to 4 feet and Off-Site Treatment/Disposal
3. Excavation of up to 2 feet and Capping
4. Paving (excavation of 6 inches plus pavement)
5. Immobilization

Alternatives 2-5 were found by EPA to be effective, and implementable. Additionally, EPA assessed the costs of the alternatives. Of those four effective and implementable alternatives, Alternative 2 is the most expensive, followed by Alternatives 3, 4 and then 5 being the least expensive. The EPA proposes Alternative 2-Excavation and Off-Site Treatment/Disposal, as the removal action alternative for the 2000-2012 Richmond terrace portion of the Jewett White Lead Site.

3. Comments

Comment 1: An institutional control is available for this Site and a containment option coupled with an institutional control, like Alternative 4, is an appropriate remedy for this Site.

It appears that one of the main reasons EPA selected and proposed Alternative 2 (excavation remedy) as opposed to the other remedies it found would be protective of human health and the environment, including Alternative 4 (capping/institutional control remedy), was EPA's assumption that the current property owner would not agree to an institutional control for the Site. However, the property owner previously indicated to NL and to EPA, that it is willing to agree to a reasonable institutional control, as long as it does not impact the owner's planned use of the property as a mixed industrial/commercial use site. NL recently has confirmed that the property owner still would accept institutional controls under the same conditions. It is NL's understanding that the current owner of the Site owns a construction company and plans to develop the Site for use as an office building and to store trucks and other heavy equipment. In other words, the property owner plans to use the Site consistent with its current mixed industrial/commercial

zoning. A containment and institutional control option, like Alternative 4, is entirely consistent with this development plan, which is likely to consist of the construction of buildings, building concrete pads and parking lots. In fact, the property owner's development plans would help expedite implementation of Alternative 4, and thus result in the Alternative 4 remedy being implemented much more quickly than Alternative 2. These structures coupled with a removal action like Alternative 4 and an institutional control will contain impacted soils left in-place while preventing potential exposures to persons and the environment. Since an institutional control is available, Alternative 4 is an appropriate and effective remedy for the Site, and concerns over the institutional control are no longer a basis for rejection of this Alternative or selection of a more stringent remedy.

Comment 2: Alternative 4 is consistent with EPA and NYSDEC Brownfields policies and guidelines, which are intended to put impaired properties back to productive use.

As described in EPA's support of the Brownfields Revitalization Act in its *Sustainable Reuse of Brownfields* and *Brownfields Program Benefits* documents *and* the *Draft Brownfield Cleanup Program Guide* (NYSDEC, May 2004), EPA and New York State have established Brownfield Cleanup Programs (BCP) to address the environmental, legal, and financial barriers that often hinder the redevelopment and reuse of contaminated properties. The intent of these programs is to "encourage persons to voluntarily remediate brownfield sites for reuse and redevelopment." The goal of the BCP is to "remediate the site to a level that is protective of public health and the environment; taking into account the current, intended, and reasonably anticipated future uses of the site."

The Site is a prime candidate for Brownfields redevelopment, especially because the current owner wishes to develop the Site as an office and heavy equipment storage facility. Current zoning M-3 (industrial/commercial) is consistent with this purpose. A containment option, like Alternative 4, is entirely consistent with this development plan, which is likely to consist of the construction of buildings, building concrete pads and parking lots that will contain impacted soils while cutting off potential exposures to persons and the environment. Under its Brownfields programs and policies EPA has promoted such efforts to combine environmental cleanup and property development at hundreds of sites across the country. However, EPA did not consider or discuss its Brownfields policies in selecting a remedy for this Site. In fact, because of its cost, the remedy proposed by EPA (Alternative 2) likely would hinder redevelopment, contrary to the intent of the Brownfields policy. NL suggests that because an institutional control is available for this Site and the property owner has current development plans consistent with industrial/commercial use, EPA should reconsider application of the Brownfields policy to the Site in the selection of a remedy like Alternative 4.

Comment 3: Alternative 4 meets the threshold criteria, including compliance with ARARs.

The EE/CA provides contradictory language when evaluating Alternatives 3, 4 and 5 in relation to compliance with ARARs. For example, in Section 4.3 *Evaluation of Alternatives* the same statement is made for Alternatives 2, 3, 4 and 5: *All applicable ARARs will be addressed.* In Table 5-1 it again is indicated that all applicable ARARs will be addressed for Alternatives 2, 3, 4 and 5, and in Attachment 3, Section 4.7 *Comparative Analysis of Alternatives,* it is stated that Alternatives 2, 3, 4 and 5 comply with ARARs. However, Section 5.2 *Comparative Analysis of Alternatives,* the EE/CA concludes, without any asserted basis, that Alternative 2 complies with ARARs; whereas Alternatives 3, 4 and 5 do not, although it is noted that the threat of exposure will be greatly reduced. The first two statements are correct, and the statement in Section 5.2 appears to be an error.

Alternatives 3 and 4 are capping/cover remedies that have been determined by EPA to be protective of human health and the environment (see EE/CA sections 4.3, 5.2 and Table 5-1). Capping/cover remedies, especially when there is no impact to groundwater, are consistent with federal and New York State guidance including *Superfund Lead-Contaminated Residential Sites Handbook (*OSWER 9285.7-50, August 2003), *Presumptive Remedy for Metals-in-Soil Sites* (EPA 540-F-98-054, September 1999), and *DER-10 Technical Guidance for Site Investigation and Remediation (*NYSDEC, May 2010). Since the EE/CA has determined that the capping/cover remedies are protective of human health and the environment, and such remedies are consistent with federal and state guidance, the capping/cover remedies comply with ARARs. This conclusion is consistent with the EE/CA statements at Section 4.3, Table 5.1 and Attachment 3, Section 4.7.

Comment 4: ***EPA's proposed remedy, Alternative 2, greatly exceeds the work required by EPA's own guidance to protect humans and the environment at a residential property, even though the Site is an industrial/commercial site, and thus the basis for selecting Alternative 2 is not supported by the site specific conditions or the comparative analysis of alternatives provided in the EE/CA.***

a. Alternative 2 is not supported by site-specific conditions or current and foreseeable site use and is therefore not more effective.

The EE/CA concludes that alternatives 2-5 all are effective and will provide overall protection of human health and the environment. Further, each of these alternatives is implementable with conventional technologies and addresses the applicable or relevant and appropriate requirements (ARARs). The only basis EPA provides for selecting Alternative 2 is that Alternative 2 is a "permanent" solution and provides a "proportionately higher level of protection for human health and the environment." However, EPA provides no supporting documentation, data or evidence to support this asserted basis. In fact, as discussed in these comments, the EPA-proposed remedy requires work that far exceeds what EPA considers protective in a residential setting, even though this Site is an industrial/commercial site. These extra measures

required in Alternative 2 offer no proportional benefit when compared to Alternative 4.

Alternative 4 is a removal action that couples existing conditions with institutional and engineering controls, consistent with the industrial/commercial zoning at and planned use of the Site. It offers similar benefits in long-term effectiveness and permanence, and reduction in toxicity, mobility or volume through treatment. And in the case of short-term impacts and effectiveness, a removal action based on institutional and engineering controls under current conditions actually would have fewer short-term impacts and hence, be more effective. Moreover, Alternative 4 will minimize negative life-cycle impacts associated with the proposed remedy (e.g., greater amount of green house gas emissions associated with the excavation and importation of fill, off-site and on-site transportation and placement on-site), particularly when such actions would not improve the overall effectiveness of the remedy and is, in fact, much more consistent with EPA's *Superfund Green Remediation Strategy.*

Alternative 4 represents the remedy whose overall effectiveness is proportional to its cost given the environmental conditions and current and future Site use. In other words, Alternative 2 goes far beyond what is protective at a residential site and is far more expensive than Alternative 4, while providing little, if any additional protections to the public health and the environment. Hence, with respect to these criteria, the overall effectiveness of the proposed action, Alternative 2, **should not** be chosen over Alternative 4.

b. *Alternative 2 is inconsistent with the EPA Lead Handbook.*

Alternative 2 is inconsistent with the EPA's guidance document entitled "Superfund Lead-Contaminated Residential Sites Handbook" (August 2003)("Lead Handbook") because it is a remedy that goes far beyond what EPA has deemed protective at a residential property even though the Site is an industrial/commercial site with much less opportunity for exposure.

The Lead Handbook promotes a consistent process to assess and manage risks associated with lead-contaminated sites by providing a step-by-step procedure to characterize and remediate such sites. This document primarily was prepared for Superfund managers working on characterization and cleanup of lead-contaminated residential sites; however, as stated in the Introduction to the Lead Handbook the concepts presented in the Lead Handbook can be useful for commercial and industrial use properties.

Based on EPA's analysis of risk, the Lead Handbook indicates that 12 inches of clean soil is adequate to establish a barrier from lead-contaminated soil in a ***residential*** yard for the protection of human health. The cover can be placed as backfill upon excavation or on top of the lead-contaminated soil. The minimum cover thickness is established since the top 12 inches of soil in a yard is considered to be available for direct human contact. This cover of 12 inches is expected to prevent direct human contact and exposure to contaminated soil left in place at depth in the residential setting where families

with young children live and are physically present at the property on an every-day basis.

However, the Site is zoned for industrial/commercial use, and its foreseeable use is industrial/commercial, not residential. Thus, the more sensitive residential exposure scenarios do not exist. Implementation of Alternative 2 could possibly result in excavation and offsite disposal of up to 48 inches of soils across the Site, which greatly exceeds what is considered protective in the Lead Handbook, even for a residential site. In other words, Alternative 2 requires work for an industrial/commercial site that the EPA has determined is not necessary to protect human health at residential sites. On the other hand, implementation of Alternative 4 at the Site, which includes excavation of 6 inches of soil topped by asphalt, is consistent with the objectives of the Lead Handbook by providing effective barriers to exposure. In short, the Lead Handbook provides further evidence that the overall effectiveness of the proposed action - Alternative 2 - **is not** proportional to the effectiveness that can be achieved given the option of Alternative 4.

c. ***EPA has found that neither groundwater nor surface water are being impacted by the Site and thus impact to water is not a basis to support a more stringent remedy.***

EPA data shows that elevated lead levels were not observed in groundwater. Lead was not detected in any of the groundwater samples collected, with a detection limit of 8 micrograms/liter (ug/l), which is lower than both its EPA Maximum Contaminant Limit (MCL) (15 ug/l) and NYSDEC groundwater quality standard (50 ug/l). The absence of detectable lead in groundwater confirms that the conditions beneath the Site are not conducive to the leaching of lead to groundwater beneath the Site, especially given EPA's presumption that Jewett White operations, which ceased decades ago, is a potential source of on-site lead. Additionally, there are no identified drinking water supplies located in the vicinity of the Site. (Weston, pg 3-6).

In addition, EPA collected sediment/surface water samples from storm sewers and the outfalls adjacent to the Site, as well as the Kill Van Kull downstream of the Site. Samples were analyzed for target analyte metals (TAL) including lead. The sediment results for lead did not exceed the site-specific screening level. Based on the analytical results EPA concluded that the stormwater drainage systems are sources of potential impacts to sediment of the Kill Van Kull. It was also concluded that the source of sediment contaminants is not related to a release from the Site. The study found that urban runoff from non-point sources is the likely source of sediment impacts and that this finding is consistent with the Conceptual Site Model (CSM) developed for the Site (Weston, pg 3-7).

This data and the conclusions show that groundwater, surface water and sediments **are not** drivers for a remedy at this site. Therefore they do not provide a basis for deviating from the presumed and standard remedy for this kind of site. Alternative 4 will provide effective protections and is just as effective as Alternative 2 in protecting water in, under and around the site.

d. The potential cost of Alternative 2 is significantly underestimated. The cost of this option does not provide a proportionate benefit to health and the environment and is a waste of valuable (and scarce) financial resources.

When evaluating the relative benefits of various removal actions that meet the threshold criteria, the balancing criteria are relied upon to make a selection. When balancing the trade-offs among removal actions, the National Contingency Plan (NCP) compares the costs and overall effectiveness.[1] Overall effectiveness includes long-term effectiveness and permanence, reduction in toxicity, mobility or volume through treatment, and short-term effectiveness. The relationship between overall effectiveness and cost is examined across all alternatives to identify those that provide effectiveness that are proportional to their cost.[2] In other words, an alternative that provides negligible additional protections, but costs significantly more than another alternative should not be selected.

EPA's comparative alternatives analysis fails to recognize or even consider the significant uncertainty associated with Alternative 2 that will almost certainly increase costs and timeframes for implementation. Thus, the EE/CA does not properly compare Alternatives 2 and 4, as it underestimates the costs, schedule, and implementability of the proposed Alternative 2.

The cost associated with the proposed Alternative 2 is based on the minimum extent of contamination. The actual volumes requiring excavation under Alternative 2 likely will be greater, meaning the cost is likely to be significantly higher than assumed in the EE/CA. The EE/CA recognizes that the extent of lead impacts is generally not bounded horizontally and in certain locations not bounded vertically. The minimum volume estimated in the EE/CA for removal to meet the preliminary remediation goal of 800 mg/kg is 4,242 cubic yards. Furthermore the EE/CA states in *Attachment III* at page 3-5, "Thus, it may be concluded that the available data will form the basis for a minimum extent of contamination, and that the actual volume of soil requiring remediation will likely be greater." In other words, the EE/CA admits that it is understating the likely cost of Alternative 2.

For example, if the average excavation depth reaches 4 feet and the contamination extends across the Site, excavation volumes could increase to approximately 7,000 cy. This will have a significant impact on cost, schedule and implementability. Costs are estimated to increase from $0.9MM to $1.6 MM, a very plausible scenario given the lack of horizontal and vertical delineation. EPA's analysis of Alternative 2 also does not address the likelihood that shoring of excavations and dewatering of excavations will be

[1] 40 CFR Section 300.430 (f), Response to Comments, page 8725 (March 8, 1990)

[2] Ibid, page 8728

required, which could also result in significant cost and time schedule increases.

If soil excavation volumes associated with Alternative 2 increase as expected in the EE/CA, this also will increase the short-term impacts and implementation risks associated with the proposed action. For example, the number of truck trips required for removing the excavated soil will increase from a low end estimate based on the low end volume provided in the EE/CA of approximately 300 truck trips to an estimated 500 truck trips. Applying the same production rate assumed in the EE/CA, 500 truck trips converts to, at least, 20 truck trips per day for 25 days for excavation and another 20 trucks per day for the following 25 days for backfilling.

Alternative 4 does not have the significant uncertainties associated with implementation as with Alternative 2. Factoring in the uncertainty of Alternative 2 provides further evidence that the overall effectiveness of the proposed action **is not** proportional to the environmental benefit that can be achieved given the option of Alternative 4, and that alternative 4 is the appropriate choice under the required analysis.

Comment 5: ***The selection of Alternative 2 is not consistent with EPA's "Presumptive Remedy for Metals-in-Soil Sites" (September 1999)***

Excavation, treatment and off-site disposal (Alternative 2) is not one of the three presumptive remedies identified in the *Presumptive Remedy for Metals-in-Soil Sites.* The three presumptive remedies include: Reclamation/Recovery (when feasible), Immobilization, and Containment. Reclamation/Recovery was not identified in the EE/CA as a potential action to be considered likely due to the fact the EPA determined it to be infeasible; whereas immobilization and containment were identified as potential actions to be considered.

The *Presumptive Remedy for Metals-in-Soils Sites* characterizes the Containment remedy as follows:

Containment of metals-in-soil waste includes vertical or horizontal barriers. These remedial technologies can provide sustained isolation of contaminants and prevent mobilization of soluble compounds over long periods of time. They also reduce surface water infiltration, control odor and gas emissions, provide a stable surface over wastes, limit direct contact, and improve aesthetics. Institutional controls generally are used in conjunction with containment to further limit the potential for unintended access to the waste materials.

EPA's proposed removal action – Alternative 2 *Excavation and Off-Site Treatment/Disposal* for the commercial/industrial Jewett White Lead Site is not consistent with the *Presumptive Remedies for Metals-in-Soils Sites.* The EE/CA has determined that the Site contaminated soils are not a significant contribution source to the lead found in the off-site soils and sediments. Additionally, groundwater has not been impacted by Site soils. These site specific conditions confirm that the lead in the site soil is not very mobile.

Furthermore, the EE/CA has determined that the contaminated soil can be reliably contained by Alternative 4. Therefore, implementation of Alternative 4 at the Site is consistent with EPA's guidance providing further support that the overall effectiveness of the proposed action - Alternative 2 - **is not** proportional to the effectiveness that can be achieved given the option of Alternative 4.

Comment 6: Alternative 4 is more appropriate than Alternatives 3 or 5.

Similar to the analysis provided above concerning Alternative 2, Alternative 3 likewise exceeds the removal action objectives, is not consistent with the Lead Handbook or the EPA presumptive remedy for lead, and will generate costs such that the overall effectiveness is not proportional to the effectiveness that can be achieved given the option of Alternative 4. Alternative 3 requires excavation of 24 inches of soil (twice as much as required for a residential property under the Lead Handbook) and a multilayer cap. Such a multilayer cap is not appropriate because there is no current impact to groundwater. The paving cap in Alternative 4 provides an effective barrier to possible infiltration of lead to water.

Even though Alternative 5 is the least expensive option, this Alternative may have less long-term effectiveness compared to Alternative 4. It is uncertain if the integrity of the soil cement mixture can be maintained during freeze - thaw cycles and the day-to-day activities associated with the existing and planned future use of the site. For this reason NL suggests Alternative 4 has greater effectiveness.

Comment 7: Semi-annual ground water monitoring for a period of 30 years to verify the success of the removal action is not warranted based on site specific information and should not be required as an element of any removal action option.

Alternatives 3-5 include semi-annual ground water monitoring for a period of 30 years to verify the success of the removal action. Neither Weston's Conceptual Site Model (CSM) nor the data collected at the site to confirm the CSM support the need to include such extensive monitoring, especially when there is no current impact to groundwater. Alternatives 3-5 all include removal of lead and/or exposure barriers that would not only contain the lead but will prevent rainfall to cause infiltration of lead to groundwater. In addition, the institutional control for the property would prohibit potable (i.e., drinking water) uses of the groundwater.

Comment 8: EPA misstates NL's participation in the EPA process.

The EPA has stated that NL has refused to cooperate with the EPA in developing a remedy for the site. That is not the case. NL has had several discussions with the EPA and the property owner regarding potential remedies for the Site. Further, NL consistently has informed the EPA that NL is willing to discuss performing an appropriate remedy at the site that could be accomplished on a short time table.

APPENDIX 7

UNITED STATES ENVIRONMENTAL
PROTECTION AGENCY PUBLIC MEETING
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IN RE: JEWETT WHITE LEAD REMOVAL SITE
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Meeting held in the above-entitled matter at CATHOLIC YOUTH ORGANIZATION, 120 Anderson Avenue, Staten Island, New York, on March 16, 2011, at 7:10 p.m., before Christine Cutrone, a Notary Public for and within the State of New York.

A P P E A R A N C E S :

WANDA AYALA, EPA

ERIC WILSON, EPA

KIM STAIGER, EPA

JOHN SENN, EPA Public Affairs

MICHAEL SOFRONAS, Interpreter

JULIE MCPHERSON, Risk Assessor

MARK MADDALOVI, Toxicologist

TERRY WESLEY, Env. Justice Coordinator

HENRY GUZMAN, Attorney EPA

TASHA FRAZIER, Env. Justice Office EPA

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MS. AYALA: Good evening. Thank you for being here with us tonight. My name is Wanda Ayala. I'm the community involvement coordinator from EPA assigned to the Jewett White Lead Removal Site. We're here this evening to present to you our Superfund performance response action for the Jewett White Lead Removal Site.

I'm not going to give a presentation. My colleagues are. But I just want to ask if you have cell phones, if could you put them on vibrate please. We have an interpreter here tonight for anyone that needs help with the materials to be explained to them from English to Spanish. We also have a stenographer. Because as this meeting is for you to provide comments to us to go on the record, we're required to have a stenographer. Her name is

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Christine.

After the presentation, we ask that you keep your questions and comments until after the presentation just to make it easier for Christine. And every time you speak you need to tell her your name and spell your last name, if possible.

With that I'm going to hand the program over to Eric Wilson.

MR. WILSON: Thanks Wanda.

My name is Eric Wilson. I'm a manager in the Superfund program. I'm going to just give you a quick overview and talk to you why we are here.

We're here tonight to hear from you. Since we were last here in the community, we have done some additional investigations at the Jewett White Lead Site. We used that data to develop and evaluate several alternatives for the cleanup

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of the site. And this is the process of which Wanda mentioned the engineering, evaluation and cost analysis.

We've come up with what we think is the best way to handle that. That's what we are calling our preferred alternative. But, again, we want to hear from the community, from you, before we make our selection on how to cleanup this site.

So, now, I'm going to turn it over -- before I turn it over to Kim Staiger, I'm going to do some introductions. Kim Staiger is our on team coordinator for the site. She is the equivalent of our project manager. She'll be handling the cleanup of the site. We have Julie McPherson. Julie is our risk assessor for the site. Mark Maddalovi who is a toxicologist with EPA. You already met Wanda Ayala.

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We have Ian Beilby from the State of New York Department of Environmental Conservation. Terry Wesley our environmental Justice Coordinator. Tasha Frazier also with Environmental Justice office. Henry Guzman our attorney for the site. John Senn. John is with our Public Affairs Division. He is our press contact. And that is everyone from EPA.

So, now I'm going to turn it over to Kim. She has a presentation for you. And then after she completes her presentation, we'll take public comments. And thank you again for coming.

MS. STAIGER: So before I go into the engineering evaluation of cost analysis that was developed for the Jewett White Lead Site, I'm going to give a very brief site history for those who are unfamiliar with the site or haven't attended

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the public meetings that we had in the past on the site.

So in 1839 John Jewett and sons began operating a white led manufacturing plant at 2015 Richmond Terrace. What they would do is they would corrode these led buckles over clay pots and jars of vinegar which they would then apply heat source to and it would form this corroded led that was then scraped off the led buckles and use that as a pigment in white led base paint.

In 1891 National Led then acquired the John Jewett and Son's company and they extended those operations to also include the 2000 Richmond Terrace property which is right across the street on Richmond Terrace. And the led manufacturing operations at both of these properties ceased sometime in early to mid 1940s. This is an old Sanborn Fire Insurance map from 1898

overlaid on a current aerial view of the properties. This right here is 2015 Richmond Terrace sits adjacent to the Kill Van Kull. And directly across the street here is the 2000 Richmond Terrace property. Where you could see there's a corroding house right here at 2000 Richmond Terrace. And a few corroding houses over here at 2015.

So how did the EPA become involved in the Jewett White Lead Site in Port Richmond? On June 3rd, 2008, EPA received a request from New York City Councilman Michael McMahon to come out to review a property at 2000, 2012 Richmond Terrace to determine whether or not a surplus removal action was required for the site. And in December of the same year, EPA, our contractors came out to the site to do some soil sampling to determine whether or not there were

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contaminates at the property. What we found in the surface soils were very high led levels. Approximately 5,000 parts per million and concentrations increased with that.

In April 2009, the current property owner of the 2000 Richmond Terrace property Fafeta Realty Company (phonetic) had come out to the property and they took what we call an inner removal action. This is when they installed a wind screen or a protective screen around the fence. They also put in a silk fence to prevent any led containment soil from moving off the property. And they also seeded the property to maintain led contaminated soils on the property to make sure nothing is blown off the site into the neighboring community.

In June 2009, EPA then came back out to Port Richmond and we had done some offsite soil sampling in

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the communities to determine whether or not the led contaminated soil had actually spread into the neighboring properties. And we also conducted surface soil samples at the 2015 Richmond Terrace property.

In October 2010, this past year, EPA then came back out to do additional sampling at both properties, 2000 and 2015 Richmond Terrace to complete our investigation. To determine the extent of the led impacts to do an engineering evaluation for EECA.

That brings us to today. So today the 2000 Richmond Terrace property which sits here on Kill Van Kull is currently homed to the Moran Towing Corporation which is an active tugboat facility. And you could see from here, it's mostly paved with a small unpaved area back here (indicating). So when we did our surface soil sampling, it was an

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area where it looked liked there was deteriorating pigment or where soil tends to collect from the unpaved area in the back portion of the property.

2000 to 2012 Richmond Terrace here (indicating), is currently owned by the Fafeta Realty Company and it is a vacant undeveloped parcel of land that is not being used by the property owner today, but when EPA first became involved it was being used to store construction equipment and materials.

So what is this EECA that you keep seeing in the presentation and why do we need it for this property? EPA has characterized our removal actions or our cleanup program. We have three ways that we do removal actions separate from the remedial program. We have emergency removal action. This is when we have a

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release or a threat of a release that needs to be addressed or stopped immediately. When we have to come out to the site right away to stop that release. We have time critical removal actions. This is when we have a release or a threat of a release and we have a little bit of time before we could take an onsite action, but we need to get out there pretty quickly. And then we have what is called an on time critical removal action. When EPA conducts an on time critical removal action, this is when we have six months or longer before an onsite action has to be started. And this also provides us the time to do a public process like we're doing today, where we invite public comments and we invite the public to review and evaluate the cleanup options that we are looking for at a site. This is done in the

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engineering evaluation. Which must be completed for all our on time critical removal actions. So the EECA, the engineering evaluation cost analysis, this is a written document that we have a document for site history. The investigations done at both properties are removal alternatives and preferred alternatives.

So, what is the process that we went through? Initially when we determined that an on time critical removal action is required, we develop what is called an engineering evaluation cost analysis approval memorandum. This is the very first step in the process where we document that a site is eligible for a removal action, that a cleanup is needed. And we would then begin to -- once we have the approval memorandum in place, we also establish a public record. We have

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a repository setup. I'll go into that in future slides. And then we draft the engineering evaluation cost analysis. Once that engineering evaluation is complete, we then have a public comment period where we open up a public comment period and invite the public to come and review the document and then provide us with their comments or questions. And that's where we are at right now. Once the public comment period closes on April 17th, we would then draft an action memorandum. And in this action memorandum would be what we call a responsiveness summary. This is where we take all the comments and the questions that we received. We would then summarize them as responsiveness summary and attach it to the action memorandum along with EPAs' answers. Once that action memorandum is in place, we would

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then take steps to start a cleanup of the property.

In the engineering evaluation, we have three different parts. We have an area the executive summary where we summarize our removal action objectives. These are our cleanup objectives that we put in place when we issue a cleanup at the site. We then develop our removal action alternative or cleanup options and we would do a comparative analysis for those cleanup options and evaluate those cleanup options. Then after we do our comparative analysis and evaluation, we would then have what is a preferred removal action alternative. So EPA would recommend what our preferred removal action is for this property.

So the EECA that was completed for the Jewett White Lead Site was completed for a portion of the

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Jewett White Lead Site. So it was only done for the 2000, 2012 Richmond Terrace property, the vacant parcel of land that sits on the corner of Park Avenue and Richmond Terrace.

Additional investigations are needed at the 2015 Richmond Terrace property. When we had gone out to do our soil sampling, we did collect some samples beneath the pavement. We did find high led levels beneath the pavement at that property. But we were unable to determine or unable to fully characterize all of the led impacts at that site. So we still need to complete that before we move forward with the next steps. And a separate engineering evaluation may be developed for that property. And our future sampling events will take place this year at 2015 Richmond Terrace property.

So during our investigation,

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we would map out both properties that makeup the site, the Jewett White Lead Site during the month of October, and we collected soil samples from the surface all the way down to either the water table or until we reached the extent of the led contamination which is when we found led below 800 parts per million. And I know in the past in other meetings that we had we discussed a couple of different numbers for led. 400 parts per million would be the one that we discussed when we were doing the offsite sampling in the community. That is a soil screening level that we use for residential properties. Since this is an industrial commercial property, our cleanup goal for this site would be 800 parts per million. When we did our investigation, we also installed monitoring on both properties to

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determine whether or not we had any ground water that was impacted by the very high concentrations of lead that we had at both properties. So the average led concentration that we have across the 2000, 2012 Richmond Terrace property is up here (indicating). The one listed at the five-foot depth. These numbers are a little bit misleading and I'll show you in the next slide why. The led contamination that we found was confined mostly to the upper three and a half feet of soil on the 2000, 2012 Richmond Terrace property. The exception of a small area, very well defined area of the southwest corner of the property. What we found is the led concentration dropped off significantly below 100 parts per million beneath the four-foot depth. We did not see any ground water impact on this property in the monitoring levels that we took.

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So, this here is a sampling map at a four-foot depth of 2000 Richmond Terrace property. The green dots represent soil sampling, locations and led concentrations that are below 800 parts per million. The red dots actually represent led impacts greater than 800 parts per million. This is the southwest corner I was talking about (indicating). And the concentrations of led go as high as 74,000. I know it's a bit hard to see. But 74,000 parts per million to about 42,000 parts per million which divides up that average across the entire site when you average them all in together.

At the five-foot depth this is the area that is impacted. Beneath this is a six-foot depth. We then would have green across the entire site. We would have led concentrations beneath that

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800 parts per million.

So during the development of EECA, our removal action objectives were developed. And this is to prevent or minimize the migration as to how the substances are released at the site. Basically what that means is that we would either minimize or reduce or stop the movement of the led contaminated soils off the property either into the ground water and the surrounding community, the sediment or the surface water around the Kull Van Kull.

Our next removal action objective is to abate, minimize, stabilize, mitigate or remove the containments such that any unacceptable risks are eliminated. Basically what that means is the high concentration if it poses an unacceptable risk to human or ecological populations that use that

site that those risks would be removed or reduced. And then our third removal action objective is to restore the property to its current use.

During the engineering evaluation we also developed a streamlined human health risk evaluation and ecological risk evaluation. And what this basically says is that both for humans or the current receptor, which would be the industrial or commercial worker, that led levels present in the surface and the subsurface soils poses an unacceptable risk. And the same with the ecological evaluation it posses an unacceptable risk to any kind of ecological populations that may be using this site.

So, the removal action alternatives, the cleanup options that we evaluated -- we have five of them. We then evaluated with the

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comparative analysis against these criteria. Effectiveness: Can all our removal options meet the objectives? Is it protective of human health in the environment? Is it protective in the long term or is it protective in the short term? Implementability, is it feasible? Can we do it? Is it proven technology? Is the equipment that we are going to use readily available. And then cost. This is the estimated construction and operation maintenance cost for each removal action for up to 30 years if long term monitoring or maintenance is required. So the alternatives that we looked at, the cleanup options, alternative one, this is a no action alternative. This is a baseline for comparison for the other four alternatives. And basically this is where we would take no action. So no active

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measures would be put in place to cleanup the property. The property would be left as is. The only thing we would do is to implement a public awareness program to make the public and the community aware that there are unacceptable or high led concentrations in the soil that may pose a risk to the public. And the cost for this removal action alternative is $10,050.

Alternative two: This is the excavation and offsite treatment and disposal of the led contaminated soils. Under this alternative we would excavate the soil with the higher led concentrations above the 800 parts per million. This would be approximately 4,200 cubic yards of soil. This would not require any long term monitoring or maintenance and no administrative control. What that means is we wouldn't have to put any controls in place such as

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soil management plan or restrictions or any other kind of controls to make sure that this alternative is effective in the long term or is being maintained. This cleanup option will eliminate the potential for the movement of those led contaminated soils into the community, and it would eliminate the risk of contact with those high concentrations of led. The cost is $924,153. And these costs are based on estimates. So, I know there are exact figures, but it's an estimated cost.

Alternative three: The soil cap or what we call an earthing cap. This is where we would excavate the top two feet of the contaminated soils and we would place clean fill or clean soil over top of the higher led concentrations at depth. This would be excavating approximately 2,400 cubic yards of soil and then

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backfilling with clean soil. We would have to do some long term monitoring and operation maintenance. We would have to monitor the ground water to make sure that the higher concentrations of led are not impacting the ground water. We would have to have some sort of controls in place to make sure that this earthing cap is being maintained by the current property owner. The risk of contact with the led contamination at depth is greatly reduced by covering it with clean soil. The cost is $644,076.

The fourth alternative we looked at is paving. This would be where we would remove the top six inches of soil to maintain the existing grade. We would then bring in asphalt and put down an asphalt cover over the led contaminated soils. So it's basically like paving a parking lot. And in the

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long term we would be required to do some long term monitoring and some maintenance. So we would have to monitor the ground water to make sure that the led concentrations that remain at depth are not impacted in the ground water and we would have to have some controls in place to make sure this asphalt cap is being maintained. The risk of contact is reduced by capping that contaminated soil. The cost is $354,711.

And the final alternative that we looked at is alternative five. Immobilization. This is where we would take a concrete additive and mix it in with the top two feet of soil to basically harden and bind the led so it would not be readily available or available by contact. It would not leach into the ground water and it would prevent deeper soils from being impacted by the

soils at the top that are mixed with this concrete additive. Since we are leaving high led levels in place at depth, we would have to do some long term monitoring and we would have some sort of controls in place to make sure that this cap is being maintained in the long term. So it's protective of the human health and the environment. And the risk of contact with that soil is greatly reduced by using this alternative. And the cost would be $279,315.

So EPA then has chosen a preferred removal action alternative. Our preferred cleanup option for this property is alternative two. The excavation and offsite treatment of the led contaminated soils that exceed or greater than 800 parts per million of led.

When we did our comparative analysis and looked at it, we found

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that under effectiveness, the potential for the future movement of those led contaminated soils from the site we eliminated and we would remove the potential that people would come in contact with the elevated levels of led present in the deeper soils. If you remember some of the soils at depth, I think it was a two-foot depth go as high as 100,000 parts per million.

Implementability. This is an easy alternative to implement and that it uses a proven earth moving equipment and techniques and backhoes or excavators will be readily available and no controls would have to be put in place once the removal action is initiated. And as for cost, while this alternative has a higher cost than the other alternatives, it is a permanent action. It requires no long term oversight monitoring

maintenance to make sure that it's effective or protective. And EPA feels that this added cost is worth it for the extra benefit that we receive for the protectiveness of human health in the environment.

So now that this engineering evaluation is complete, what are our next steps? Our public comment period. Where we are at right now. That's why we are here today. Our public comment period opened on March 4th and it will extend to April 17, 2011. This engineering evaluation is open for the public to review it, to evaluate it and to submit their comments or questions to the EPA. We rely upon your input to make sure that we are hearing the concerns of communities when we select the effective removal option or the cleanup option for this property. When we receive these public comments, we are required to

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provide a written response to significant comments which would be included in the action memorandums as an attachment.

These comments could be submitted to myself by e-mail, through postal letter or today at the public meeting. We have proposed response action documents on each of the tables. If you don't want to write this down now, my information, and where you can submit your comments if you don't want to speak to me tonight, are right there on the back of the document.

So EPA has provided a preferred response action which is alternative two, the excavation and disposal of the led contaminated soils above 800 parts per million. While this is our preferred response action, this does not always mean this will be the final cleanup

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action at this site. Since the document is open for the public to review and to comment, and we will be taking into consideration those comments when we select our action, it may change what the removal action will be at the property.

So where is this EECA and how could I review it? We have put the engineering evaluation on the internet at our EPA website. So you could review the document in its entirety. It's about 456 pages and most of that is charts, logs and samplings maps.

You can also review a paper copy at the Port Richmond Branch of the New York Public Library. We have set up a repository there, it's part of the administrative record and the document is there for you to review. And we also have in the Superfund record center in our Edison Office of the EPA.

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So how will the community know which removal action we actually select for this property? We will write an action memorandum which is a written document of our decision for what the cleanup action is going to be at this property. And again this will include responses to significant comments that we receive during this public comment period. And this will be a part of the public record which will be included in the public library at the Port Richmond Branch, and it will also be available on the internet, the action memo with the response summary attached. And again I'm going to leave this up here for anybody that doesn't want to speak up tonight. Here is where you could submit your comments either by e-mail or by postal mail. We encourage you to submit your comments. That's why we're here

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today. Thank you.

MR. WILSON: Thank you, Kim. Before we go to public comments, we want to give Ian Beilby from the New York State Department of Environmental Conversation an opportunity to comment on our EECA and our actions.

MR. BEILBY: Thank you, sir. As Eric has said a little bit earlier I'm from the New York State Department of Environmental Conservation. I'm an environmental engineer. And the DEC has been involved with the site since June 2008 as well. With the understanding that EPA has served as the lead agency on the site, we basically been functioning in an advisory capacity regarding state standards and guidance and kind of treating it as if the state were doing the cleanup and looking out for some of those regulations that

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we have.

To give you a little more detail, we've provided input on the plans to do the various investigations that EPA has conducted at the site and around the site. We reviewed the environmental data that has been generated from those investigations. And we have participated in the development of various alternatives that Kim went through in her presentation. And through our involvement and all that participation, the State also believes that the alternative number two, the alternative that would remove approximately 4,000 cubic yards of contaminated soil from the property is the best alternative and the New York City DEC supports that approach. And it's not out of line with what we would do if the state were conducting this project.

Thanks for giving me the

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opportunity. I will be sticking around if anyone wants to come and talk to me later. Thanks.

MS. AYALA: Thank you.

We're going to open up the floor. Like I said earlier, when speaking just say your name so that the stenographer could have it on record, please.

MR. KITTS: Charles Kitts. Head of the Port Richmond Improvement Association. There are bus stops there. And in this community, I think a lot more people rely on public transportation than other communities. You have people there. You have children waiting there. Children waiting to board, they are playing with the dirt. What could be done right now to do something about that? Move the bus stops? Is that possible? And then the other question I have is, people usually ask me when will this be

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taken care of? Is there a timeline? I saw a little timeline there. When could we expect hopefully alternative two to happen? When will that actually take place?

MR. WILSON: Again, Eric Wilson, with EPA. Thank you for the questions.

Regarding the bus stops and the current status of the site, when we first became aware that contaminates from the 2000 Richmond Terrace property could migrate off site, we oversaw an action taken by the property owner to stabilize that site.

So you see that the site is fenced. The soil is vegetated. There are wind screens up. There are warning signs. So, the site currently is stable. Our plan is now to cleanup that site.

So for your second question, we are going to take our public

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comments. We'll select the response action. And then we would expect to start the cleanup later this year. Thank you.

MR. DMYTRYSZYN: Nick Dmytryszyn environmental engineering to the borough president.

First of all, on my boss' behalf we are glad alternative two is being looked at as a serious option. I think that for the community in general to remove a source completely and to be able to bring it to a level of non-led contaminated industrial site is in the best interest of everybody.

We welcome that. When you do finally do that memorandum that anything related to the work plan, what the community may see in terms of truck traffic, et cetera, that there be lines of communication open. So that there aren't any surprises or the fact that perhaps

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the agencies we have to deal with may not be as familiar with some of the problems that the community does mention quite frequently to the City DOT, City DEP, State DOT on the traffic, et cetera. But, I think that for all tense and purposes to have that amount of led there at that site, turn it into either a paved parking lot, to leave any material there, people need to understand in essence if you leave the material there, you could never build on it. You would always have to be concerned that there will be depredation. It just will delay having to deal with the issue truly as a method of how to get it out of here. So that at least I'm pleased, I'm grateful that that is the option that hopefully will become finalized.

Leading up to it and what you're going to do starting with it,

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we would encourage a level of communications and activity from us to you so that we could get this done as quickly as possible and as smoothly as possible. And that any impacts to any constituents and residents would be minimized to the greatest. So for that we thank you and we hope that things go as smoothly as your presentation.

MS. AYALA: Thank you, Nick.

Anyone else?

MS. SHERRY: Virginia Sherry from Staten Island Advance.

One quick question I will turn to: What precautions are taken to ensure that when the excavation is being done that led or led particles aren't reached into the surrounding area?

MS. STAIGER: If alternative two is the cleanup option that is selected as the final cleanup option for this property, we would wet the

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soils to make sure the soils are damped so that there will not be any led dust generated. We would also take the same measures that we had taken in our past investigation when we were doing our test pit soil sampling where we had air monitoring equipment setup on the site. It would blink. Like if we generated dust, it would blink to let us know that there was some dust being generated. We were also sampling on the perimeter, the perimeter air monitoring sampling going on to make sure that none of that led contamination was actually moving into the community. The personnel that were working on the site or will be working on the site will also be wearing personal air monitoring pumps to make sure that they are not being exposed to any led contamination either.

MS. AYALA: Anybody else?

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MR. DMYTRYSZYN: If I could just add to what Kim was saying, if anyone wants to see levels of construction activities related to contamination, just go down to the Brookfield Landfill Remediation in which they are not excavating, but they have to remove soil around. There are air monitoring stations around. There are truck washing stations, there are dampening, there are misters. Trucks could walk up and go around into the areas so that in essence what is on the site stays on the site. Does not come through. There are enough constituents and residents on the island that complain about the dust being generated by the truck traffic. There is always a concern what is on site should stay on site and not go offsite.

So what Kim just explained is happening right now on the south

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shore. And I'll say quiet frankly I think there has been one complaint in 14 months about dust being generated from that site. So we're pleased that something as basic as just wetting down the material, taking care of it. Obviously if there are heavy rains, et cetera they have their own action plans. But it's not a high level of sophistication for trying to minimize soil excavation and removal even if its contaminated.

MS. BIELSA: Kathleen Bielsa from North Field LDC. I just have a question. The water side, the lot that is on the water side is paved right now. You said there would be additional testing.

Is that part of this preferred treatment plan any way or they're going to be handled separately? You don't have a preferred treatment plan for that?

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MS. STAIGER: No. This engineering evaluation was only done for a portion of Jewett White Lead Site. So it was only done for that triangular piece of property. That one acre site, that 2000 Richmond Terrace. We did find elevated led concentrations in the soil at the 2015 Richmond Terrace property. What we don't know is that does it extend to the neighboring properties? Does it go into the Kill Van Kull? Is it present in the sediments.

So we need to determine or fully delineate or characterize the led impact before we could develop any kind of cleanup options.

MS. BIELSA: That was my next question.

Whether it was in the water or not? There are no ongoing documentation needed or controls needed into the future once you do

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something. I'm happy that you are taking the most aggressive treatment it seems like as the preferred treatment plan. But because it's an industrial site, the standard can be a little higher, the 800 parts per million versus 400 parts per million residential. What if a generation or two from now they decided to change the zoning. Would there be any kind of a flag on that property if the zoning does change?

MR. WILSON: There will always be the records that EPA took an action at the site and cleaned up the 800. If a change in property use is proposed, then it would be incumbent on the property owner who is making that change to do whatever additional measures is necessary.

MS. STAIGER: Just to add on that, when we do our excavation, if alternative two is the selected clean up action for this property,

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when we do that excavation and backfilling, before we backfill our excavation, we would be taking confirmatory samples from the bottom, from the base of those pits to determine what led concentrations are that we are leaving in place. So we would know whether or not we had anything above 800 or anything above 400 which is the residential screening level that we look at, but below our 800 number for this site.

MR. WILSON: That's another good point. After we dig out 4,000 cubic yards or so, if that option is selected, we would also be backfilling the clean fill. So not only have we dug it out, there is clean fill, four-foot of clean fill in there that people are building on top of it. The 800 parts of million led is at depth. It's not on the surface where anybody would come into contact with. So there is very

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little likelihood that even with a change in use, there is exposure to that.

MS. THURMAN: Beryl Thurman. I'm with the North Shore Waterfront Conservancy of Staten Island, and we are in favor of alternative two. Because we strongly believe that we cannot leave it to other people in the future to remember what has taken place here. And to be as cautious in the safety of the community. Things are easily forgotten.

So we believe very strongly that alternative two is the best route to go. So that we don't have to worry about anyone be it government or the community doing future supervising or monitoring of this property. I mean it's too easily forgotten what happens in places. And 30 years can pass very quickly, and all of us that are

sitting in this room will either be gone or someplace else. So from this point on, anyone else who is talking alternative two is what we want. Alternative two is what we need and nothing else is acceptable. Thank you.

MS. JOHNSON: Christine Johnson. Representing council woman Debbie Rose and also I'm here with our two staff members.

Ms. Rose can't be here tonight. But she clearly wants the staff to be here to listen to the community and fully understand and appreciate the feelings of the community in a matter as sensitive as this. And council woman Rose wants everyone to know that she is supporting alternative two. And the cost effectiveness is clearly without question, seems to be the only solution that takes care of this particular site at the present

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time and all future times without any continued risk from the site of the community ongoing in the future periods of time. So very supportive of alternative two. Very welcome to listen to the comments from the community. And will be actively listening and watching as they move forward on this project.

MS. AYALA: Thank you. Anyone else?

MERCADO: Donvalo Mercado. I thank you for the presentation. Thank you for offering that alternative two which I am also in favor of.

My question as I made it earlier is in terms of the cleaning process and in all of the other people that should be involved while that is going on. Like for example, public transportation, rerouting bus lines and also the bus stops are right next to the areas. To

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official representatives today, I think it would be really important that you guys could help us to make sure that all of these other people that are going to be working with you when this cleanup process happens are also at the table so we could get help to the people who are walking around either are transported. Also not going to be transported to other places where people are walking in the area waiting for the bus right next to the cleaning site. Those are the basic concerns. I want to make sure our address in that process is in place.

MS. AYALA: Thank you.

MS. STAIGER: Once we have a final cleanup action selected, we will be opening up communications with the Department of Transportation for truck traffic or whatever is required. We will also

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be opening up communications with the MTA if needed, if we have to address the bus stops that are present along Richmond Terrace or along Park Avenue for the cleanup option that is selected.

MR. DOLSON: Ashly Dolson. I wonder where the soil would be taken and how it would be treated if you do select option two?

MR. WILSON: We haven't selected the location yet. It would go to a regulated landfill where it would be treated in accordance with regulation. If there's led that could leach out of it, it would be treated first and then landfills which is, you know, in a secured location. But we have not yet selected a location for that as we have not selected what action we will take.

MR. DOLSON: Presumably that will be included in the final

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memorandum?

MR. WILSON: That wouldn't be included when we select a cleanup action. We would do that after we select the cleanup action when we develop work plans for how the work would be accomplished.

MS. KIM: Aileen Kim, representing Reverend Terry Troia from Project Hospitality. I would just like to echo everyone else's support for alternative two. It seems as if it is the most comprehensive. And as an organization that serves many of the disenfranchise population on Staten Island, I think it is very important to take this aggressive remedial approach as well.

MS. AYALA: You guys could ask questions too. You're free.

MR. HERNANDEZ: David Hernandez from City Council for Debbie Rose office.

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Could you elaborate on how the site is stable now and that process and the levels that are being kept constant. Exactly what is the stabilization?

MS. STAIGER: Okay. What had happened in April 2009, we had gone to the current property owner, the Feder (phonetic) Realty company, we shared with him our sampling results showing that there were elevated concentrations of led surface soils and depth. What we had was surface soils 5,042 million which is much higher than its 800 parts per million that we're using as our example right not. So when we had gone forward to him, we asked him to implement this. In our removal action, it was planting grass seed on site. If you plant grass on the site it will hold the soils in place. On site when the wind blows through it wouldn't pickup any dust

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that could then blow into neighboring properties. If you are familiar with the property, there's a train trestle there. Right behind the property on the other side of that elevated train line are property owners. There is a neighborhood directly behind that site. So we were very much concerned about those led contaminated soils blowing onto their property. So that soil, that grass seed actually holds that soil in place. And I've tried to come by once or twice a month or if someone calls me and makes sure the grass is growing to make sure that the silk fence is in place around the site. If you go to the property from the sidewalk and you'll see beneath the wind screen -- the wind screen is the green screen around the entire fence. The silk screen is actually a black silk screen that is probably

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about maybe half high. And what that prevents is any soils that are on site that aren't being held down by grass. It prevents them from coming off the site into the storm water run off. So it wouldn't be on the sidewalks. And during our previous sampling that's when we were actually doing improving or digging or sampling, we had these air monitoring stations setup and we didn't detect any led concentrations above -- it's called NAAQS National Ambient Air Quality Standards. So we didn't see any led contamination coming from the site or any wind blown dust containing led concentrations that we were concerned that would be above that NAAQ Standard.

MR. HERNANDEZ: How often do you monitor?

MS. STAIGER: Well, if we received complaints from the

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community saying, you know, we're standing here on Richmond Terrace and that wind screen is just flapping in the wind, we would then come out and take a look and confirm that it's blowing in the breeze. It's not being maintained. And contact the property owner to maintain the property.

My visits have maybe been several times. I have to go back to like my site log to look, but maybe as frequent as once a month. Sometimes once every two or three months to come out to make sure that the site is being stabilized.

MR. HERNANDEZ: Is it the property owner's responsibility to maintain the stabilization?

MS. STAIGER: Yes.

MS. THURMAN: Beryl Thurman. In terms of the residents that are near that property, Park Avenue and whose properties abut up against it

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or on the Heberton side of it, will those property owners be able to garden safely with their current soil conditions or no?

MR. MADDALOVI: Mark Maddalovi. I have been out with this community. We actually talked about gardening.

Now the offsite sampling, nowhere in the north shore is it pristine. And generally led levels run from 200 to 300 in Veterans Park up to 500 to 600 everywhere else.

Now, I think and I certainly communicated at previous meetings that gardening first is a good thing. That we don't want to discourage it without sound reason. Right now you are growing the food. There's esthetic benefits of gardening. You're saving some money. So we are pro-gardening. We want people to do it safely. And as the led levels rise, I think you

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have to start to take some precautions. So, I don't know what the specific levels are in those properties. We could go back. And if they have them, then it would be a little bit more informed, but generally in the 500 to 1,000 range, which is quite common for many of the properties in this area, I would begin to start taking some precautions. Adding amending agents like phosphate. A lot of fertilizer. You also want to be thoughtful about the types of vegetables you're growing. We know that fruity vegetables take up very little led. So grow your tomatoes, grow your peppers, grow your eggplants. Stay away from root vegetables like potatoes and carrots and leafy green vegetables, because they take up a lot of led, and just frankly it's hard to get the dirt off of them very effectively.

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So you could do that. The next step, and I know it's expensive, to have raised gardens. We have been talking with the Cornell Healthy Homes Extension possibly about trying to work with this community to provide, you know, clean soils for garden purposes. I make no promises, but that's just one of the avenues we're pursuing. That would be the ultimate thing. Certainly if you have real high levels like consistently over 1,000, I would strongly recommend raised beds. But in the 500 or so range, I think you just need to be careful when you are gardening so you're not tracking stuff in. That's a standard good housekeeping practice. That should be practiced under any event when you're gardening. And again I would just add that you add fertilizer to your soil. And I would shy away from root vegetables

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or leafy green vegetables and go with more fruity vegetables. I think gardening can occur in this community. I don't want to discourage something that is clearly beneficial to public health.

MS. DELVARON: Lena Delvaron North Shore Waterfront Conservancy. Will there be educational brochures or handouts to communities expressing exactly what's going on with the project? What type of cleanup is going on at this site as well as the tips that you just mentioned about gardening?

MS. AYALA: I could answer that.

At previous meetings we gave handouts of gardening, because it was an issue, because we came like early last Summer or late Spring almost Summer and we provided some handouts. And, Kim and I have tried, as much as possible, to be in

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the community and to give you the information as soon as it becomes public. We're around at any given day. So it's not like something comes out and we wait and then it comes to the community. We're right here. So any time anything that is happening, we come out. We go door to door. We stop at businesses. We visit with Beryl. We visit the reverend. And we also have a contact information. At any time you have any concerns or any questions, feel free to call me. Call Kim. We're available.

MS. DELVARON: I guess what I'm looking for is with the season changing, it would probably be nice to have something go out again, and discussing where we are at until the thing is resolved.

MS. JOHNSON: Is there literature that you have setup with the library like a little area where

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people could just take it out and take it home?

MS. AYALA: We tried, but they're not receptive to it all the time. It depends on who is working. Some people are glad to have the information. Other people, you know, because --

MR. DMYTRYSZYN: The public library is unfortunately an independent system. They have their own nuisances. Their own personalities. What I would probably suggest is -- I don't know whether or not if any of the stores on Port Richmond Avenue -- maybe something with the LPC, something in the Advance perhaps could be put through, but in terms of like you can't force the library to accept the brochure. We had that issue just at the St. George library that many times has become controversial. It's always been an issue. We

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always try to think for those that don't normally buy the newspaper or have the computer or an internet, how do you get information across? Do they go to their churches? Do they go to their religious organizations? Do they go to a CYO?

MS. AYALA: We're willing to work with any organization that will give us a little space or has a table and provide whatever information the community is interested at the time.

MR. DMYTRYSZYN: May I suggest that if the community knows of any events, block parties or if the religious institutions don't have a problem with putting it in their vestibule to have a table, take advantage of Wanda or Kim to say hey, we need 40 brochures on gardening and 40 of these actions going on there. Those institutions don't have them. But let me tell

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you for all the years I have been on the island, one of the hardest things is how do you get information out to the community. The cost of mailing has now become prohibited. What do you do? How do you reach out? It's always a problem. But we are always open to any suggestion. Unfortunately the library -- you can'6 even give it out at the school. I will tell you right now it depends on the principal. We try to do something in Brookfield and I'll tell you that I was horrified that one principal absolutely refused to give anything to the students at the PTA. And that's strictly coming out from the Department of Education kind of directive.

So every area is different. You may have great teachers. I always tell the EPA do it through the kids. The kids are always the

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best thing, Mommy, Daddy look here at this or whoever it is at home saying this is what I got. This could be a good way, but we kind of run out of ideas. We truly have.

MS. STAIGER: Just to add to that. We also have the fact sheets that we generated in the past. They should be available on that EPA website which is up here. And if they're not, I'll make sure that they are put up on that website so that they are available to anybody who has internet access. When we put that action memorandum with the responses of the summary attached to it into the administrative record, I will make sure that we also include any past and current fact sheets that we pass out within the community in the public record. And that administrative record is in the New York Public Library. It's in a binder. They had it in the back

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where they have other public records on other actions that are taking place on the island. And it's right on the corner of Heberton and Bennett.

MR. MADDALOVI: My colleague Julie mentioned another helpful gardening tip. So as long as we have an audience here I think we will communicate it. And that is you shouldn't be gardening along the drip line of your home. That's where the gutters run along the perimeter or the footprint of a house. And that's for two reasons, because when it rains, whatever led is in the air gets picked up and deposited on the roofs and then it runs down. And we have always found whatever levels we find on a property, among the highest are always around the drip line against it, it's from what drips from the rain and also especially in this

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community there's a lot of older homes which have exterior led base paint and that would also contribute to higher levels around the foundation of the house. So if you're planting your garden, try to move it away from the foundation of the home. That's a really good tip.

MR. MAHLER: Christopher Mahler. I'm not only an owner of the property here in Port Richmond area, I'm also a real estate agent for Safari Realty. I'm doing a canvassing campaign. So if you have information that you want, we're actually going door to door knocking on doors to give out business information such things as from North Field LDC and now their upcoming home buying memorandums and meetings, things like that. So if you need something delivered in a four block or eight block radius around the site, please give copies

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to me. I'm going to be doing that starting March 21st next week Monday. If anybody else has anything that they want to go into the bag on information about your organizations, whatever, please see me after the meeting.

MS. AYALA: Thank you.

Anything else? Comments?

MS. THURMAN: Is anyone opposed to this in any way? Don't be shy.

MR. MAHLER: One quick question about the cost for the different methods that you are doing, where is the money coming from to pay for it?

MR. MADDALOVI: Comes from you and me.

MR. WILSON: The work that we have done, the investigations, the engineering evaluations cost analysis, federal government has paid that money.

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When it comes to selecting, after we select a response action, the cleanup action to be taken, we will invite responsible parties. Those parties responsible for the contamination to conduct that work. If they are unwilling, unable to do that work, then EPA will take on that work with federal funds and we will see to recover those costs from the responsible parties.

MS. DELVARON: Lena Delvaron from North Shore Waterfront Conservancy.

Is there grant money available to help the state. So the owner of the property that is contaminated, will there be grant money made available to help them do the work?

MR. WILSON: You're talking about the property owner at 2000 Richmond Terrace or are you talking about --

MS. DELVARON: In general. As

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part of this process.

MR. WILSON: No. There is no grant money available to other folks to do this work or to do cleanup.

MS. AYALA: Yes.

MS. DAVIS: Debra Davis. Concerned citizen. I came to a meeting that you gave that was at the school. I think it was --

MS. AYALA: Port Richmond High or P.S. 20?

MS. DAVIS: P.S. 20. And you passed out some -- I think it was a Power Point Presentation which you recorded the different led levels in two different sites. And from what I could understand, Moran Towing site had vastly higher led levels than the Seduto's site. And I'm just wondering what is the procedure for -- it sounds like that's been put on the back burner.

MS. STAIGER: Well, when we had come out to P.S. 20 and we did

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our presentation on the offsite sampling, we also included the sampling that we had done on the Moran Towing property 2015 Richmond Terrace. The led levels we had at the surface soils which was like -- we collected it from areas of the asphalt paving that were deteriorated where you see significant potholes or whether it was sample soil and from that one unpaved area of the property. And we also collected it -- if you look at the property, there's a strip between the sidewalk and property itself where there's some vegetation growing. Where it looked like there was some soil that we could collect. The average across the surface of just that is zero to three inches across that site is actually a thousand parts per million. What we had seen at 2000 Richmond Terrace the former Seduto's property, was

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5,000 parts. So it was actually five times higher at the 2000 Richmond Terrace. At the 2015 Richmond Terrace when we went back out in October of this year, we found elevated levels of led comparable at depth to what we had found at the 2000 Richmond Terrace property. So we are not leaving it on the back burner. We will be coming back out to sample. We will be sampling this year to determine whether or not what kind of cleanup would be needed for that property.

MS. THURMAN: And you'll keep us informed?

MS. STAIGER: Yes. We will be doing an action memo. When we do the action memo, we will do something similar to what we've done in the past with the fax sheets where we go out to the community and provide facts sheets of what cleanup is selected. We will provide facts

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sheets on what actions or what led levels people may be exposed to from other properties, yes.

MS. SLEDGE: Michelle Sledge North Field Community LDC.

Just a question. As you publish your materials and your documents and your fax sheets, are they published bilingually like in Spanish as well as English.

MS. AYALA: Yes. Absolutely.

MS. SLEDGE: Everything?

MS. AYALA: Yes.

MR. GRILLO: Steve Grillo from the Staten Island Economic Development Corporation.

The question is for funding issues and then the involvement. Especially with the state DC's involvement.

Where does the City's OER agency come into plans? Have you discussed anything with the office of environmental mediation regarding

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their ground fill cleanup programs? There is funding available through that agency. I know they're trying to foster their relationship at the state level of the DEC. And they do have active projects in remediation or discuss remediation on Richmond Terrace. Have you engaged them at all? And if not, I'll be more than happy to facilitate a meeting between the two agencies if necessary?

MR. WILSON: I'm sorry. Is that question directed to EPA or --

MR. GRILLO: Both parties. Obviously I don't know if you're familiar with the New York City OER, Office of Environmental Remediation. So they run a large ground field remediation program with the City. They also have facilitated relationships with the state when it comes to cleanups and letters of approval, etc.

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Have they been brought in at all to discuss the property? And if not, have there been any discussions about grants through that agency? If you say no, that's fine. Just curious if you had any relation with that agency.

MR. WILSON: We have been coordinating activities with the City of New York. And, you know this is a federal lead site and the City recognizes that. So we're taking the lead with the actions here and we're keeping New York City informed of what we are doing.

MS. SLEDGE: Michele Sledge. North Field Community LDC.

As most parties are aware, Port Richmond is a ground field opportunity area, and so this is an active funding process, an active engaged process through which ground field opportunity where opportunity is available. So it has multiple

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sites of study. We would look to actively engage this site as well within the existing site. Port Richmond is a ground opportunity. I'm saying this is one site. This is one site among many in the area that is actively already being studied for purposes of ground field opportunity. So therefore, I'm saying that there is an opportunity to further develop and further explore this within the context of either state funding or City office of environmental remediation. There's already a project on that within Port Richmond and Manors Harbor.

Is that confusing?

MS. THURMAN: They're going to clean it up. This is a super fund cleaning.

MS. SLEDGE: The city sees that. I'm saying for everything further along for other sites

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hopefully become clean. Then there may be opportunities to do other things.

MS. THURMAN: You mean other opportunities to develop.

MS. SLEDGE: To develop.

MS. THURMAN: Okay. I just want to get passed the two-year part.

MS. SLEDGE: Exactly. I understand. At the federal level with this being designated, there's a lot of work to be done there. We didn't even get to discuss the site as potential ground field.

MR. WILSON: And the site is a privately owned site.

MS. THURMAN: Absolutely.

MR. WILSON: Use of the site is up to the property owner.

MS. AYALA: Anymore questions? We want to thank you for being here tonight. Please feel free. We have some business cards. If you want to

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talk to us about the site, we're going to stick around for a little while. Thank you so much for coming.

(Time noted: 8:21 p.m.)

STATE OF NEW YORK)
) ss.:
COUNTY OF NEW YORK)

C E R T I F I C A T E

I, CHRISTINE CUTRONE, Shorthand Reporter and Notary Public within and for the State of New York, do hereby state:

That the foregoing record of proceedings is a full and correct transcript of the stenographic notes taken by me therein.

IN WITNESS WHEREOF, I have hereunto set my hand this 21st day of March, 2011.

CHRISTINE CUTRONE