RECORD OF DECISION

Operable Unit One
Former Kil-Tone Company Superfund Site
Cumberland County, New Jersey

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

377092

DECLARATION STATEMENT
RECORD OF DECISION

SITE NAME AND LOCATION

Former Kil-Tone Company Superfund Site
Cumberland County, New Jersey.

Superfund Site Identification Number: NJN000200874
Operable Unit 1

STATEMENT OF BASIS AND PURPOSE

This Record of Decision (ROD) documents the U.S. Environmental Protection Agency's (EPA's) selection of a remedy for Operable Unit 1 (OU1) at the Former Kil-Tone Company Superfund Site (site) located in the City of Vineland, Cumberland County, New Jersey, which was chosen in accordance with the requirements of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), as amended, 42 U.S.C. §§ 9601-9675 and the National Oil and Hazardous Substances Pollution Contingency Plan (NCP), 40 C.F.R. Part 300. This decision document explains the factual and legal basis for selecting a remedy to address contamination at the site. The attached index (see Appendix III) identifies the items that comprise the administrative record upon which the selected remedy is based.

The New Jersey Department of Environmental Protection (NJDEP) was consulted on the proposed remedy in accordance with CERCLA Section 121(f), 42 U.S.C. § 9621(f), and concurs with the selected remedy (see Appendix IV).

ASSESSMENT OF THE SITE

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

DESCRIPTION OF THE SELECTED REMEDY

The selected remedy described in this document addresses a discrete portion of the site involving contaminated soil at residential properties in the vicinity of the former Kil-Tone Company property on East Chestnut Avenue in the City of Vineland, New Jersey. This is the first of at least four planned remedial phases, or operable units, for the site. EPA anticipates that a second operable unit will address contaminated soil on the former Kil-Tone Company property itself, and other commercial/industrial properties and public areas, as necessary, in the vicinity of the former Kil-Tone Company property. A third operable unit will address contaminated groundwater associated with the site, and a fourth operable unit will address contaminated sediment and surface water along the Tarkiln Branch to the confluence of the Parvin Branch, and further downstream, as necessary, based on the results of ongoing investigations. Soil and

residential properties along the affected surface water areas will either be addressed as part of the fourth operable unit or as a separate fifth operable unit.

The major components of the remedy selected for OU1 include the following:

- Excavation of an estimated 21,000 cubic yards of soil contaminated primarily with arsenic and lead from approximately 57 residential properties in the vicinity of the former Kil-Tone Company property;
- Off-site disposal of excavated contaminated soil, and backfilling of excavated areas with clean fill; and
- Restoration of the affected properties.

Excavation activities associated with remediation may require the demolition and replacement of temporary structures such as sheds and garages and the removal and replacement of asphalt and driveways. Excavation of the contaminated material may also require the temporary relocation of residents.

Additional properties nearby or adjacent to the known OU1 properties may be identified during the design and/or implementation of the selected remedy that require remediation because of contamination associated with the site; these will be incorporated into the selected remedy.

The environmental benefits of the selected remedy may be enhanced by consideration, during the remedy design or implementation, of technologies and practices that are sustainable in accordance with EPA Region 2's Clean and Green Energy Policy.

The estimated present-worth cost of the selected remedy is $8,774,000.

DECLARATION OF STATUTORY DETERMINATIONS

The selected remedy meets the requirements for remedial actions set forth in CERCLA Section 121, 42 U.S.C. § 9621, because it: 1) is protective of human health and the environment; 2) meets a level or standard of control of the hazardous substances, pollutants and contaminants which at least attains the legally applicable or relevant and appropriate requirements under federal and state laws; 3) is cost-effective; and 4) utilizes permanent solutions and alternative treatments (or resource recovery) technologies to the maximum extent practicable. In addition, Section 121 of CERCLA includes a preference for remedies that employ treatment that permanently and significantly reduce the volume, toxicity or mobility of hazardous substances as a principal element (or requires a justification for not satisfying the preference). Treatment is not a principal element of the remedy selected herein because the majority of the excavated soil will not require treatment to meet the requirements of off-site disposal. However, some of the contaminated soil may require treatment prior to land disposal at an off-site facility. Off-site treatment, if required, would reduce the toxicity of the contaminated soil prior to land disposal. A five-year review will not be required because the selected remedy will not result in hazardous substances, pollutants, or contaminants remaining on affected properties above levels that allow

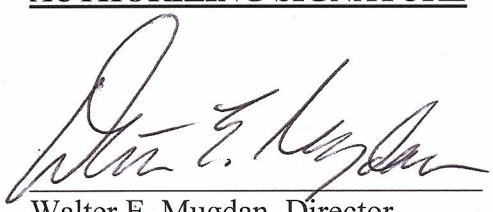
for unlimited use and unrestricted exposure, and it is anticipated that the remedy will take less than five years to implement.

ROD DATA CERTIFICATION CHECKLIST

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

- Chemicals of concern and their respective concentrations may be found in the "Summary of Remedial Investigation" section.
- Baseline risk represented by the chemicals of concern may be found in the "Summary of Site Risks" section.
- A discussion of remediation goals may be found in the "Remedial Action Objectives" section.
- A discussion of principal threat waste may be found in the "Principal Threat Waste" section.
- Current and reasonably anticipated future land use assumptions are discussed in the "Current and Potential Future Site and Resource Uses" section.
- Estimated capital, annual operation and maintenance (O&M) and total present worth costs are discussed in the "Description of Remedial Alternatives" section.
- Key factors that led to selecting the remedy (i.e., how the selected remedy provides the best balance of tradeoffs with respect to the balancing and modifying criteria, highlighting criteria key to the decision) may be found in the "Comparative Analysis of Alternatives" and "Statutory Determinations" sections.

AUTHORIZING SIGNATURE



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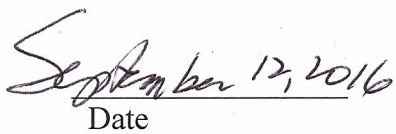

Date

DECISION SUMMARY

Operable Unit 1
Former Kil-Tone Company Site
Cumberland County, New Jersey

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

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APPENDICES

SITE NAME AND LOCATION

The Former Kil-Tone Company Site (site), U.S. Environmental Protection Agency (EPA) Superfund Site Identification Number NJN000200874, is located in the City of Vineland, Cumberland County, New Jersey. The selected remedy described herein addresses a discrete portion of the site involving contaminated soil at residential properties in the vicinity of the former Kil-Tone Company property on East Chestnut Avenue (see Appendix I, Figure 1). EPA is the lead agency and the New Jersey Department of Environmental Protection (NJDEP) is the support agency.

SITE DESCRIPTION

The former Kil-Tone Company property encompasses approximately 4.076 acres at 527 East Chestnut Avenue in a mixed residential and commercial area that has been identified as a community with environmental justice concerns. The former Kil-Tone Company property was used for pesticide manufacturing from the late 1910s until the 1930s. Contaminated soil has been identified on the property itself, at various residential and commercial properties surrounding the former Kil-Tone Company property, and in soil, sediment, surface water and groundwater downgradient of the property. This decision document focuses on the residential properties located near the former Kil-Tone Company property; other properties and media are still under investigation and will be addressed under future decision documents. The former Kil-Tone Company property is bordered to the north by East Chestnut Avenue; to the east by South Sixth Street; to the south by Paul Street; and to the west by South East Boulevard followed by railroad tracks. The railroad tracks are used for transporting freight. Residential and commercial properties are located throughout the area (see Appendix I, Figures 2 and 3).

Residential properties in the area range in lot size and date of construction. The smallest lots are less than 0.05 acre, while the largest lots are up to 0.5 acre. The oldest homes were built in 1890. The newest homes were constructed as recently as 1999. The majority of the properties contain single-family homes. In addition, there are approximately 10 homes that are duplex construction, in which two housing units share a common central wall. Most of the yards associated with the properties have a lawn, landscaping, and impervious surfaces that include driveways, sidewalks, and patios. There are several commercial properties within and among the residential properties including a fuel distribution facility, a transmission service company, a salon, a restaurant, and a market. In addition, there are a few vacant lots and uninhabited properties within and among the residential properties.

A storm sewer catch basin located in the northwestern corner of the former Kil-Tone Company property receives storm water from the entire four-acre property and discharges into the head of the Tarkiln Branch located across South East Boulevard about 400 feet west of the property. The Tarkiln Branch is a tributary of the Parvin Branch which flows into the Maurice River located approximately 3.5 miles from the site. The Maurice River eventually flows into Union Lake six miles downstream of the entrance of Parvin Branch.

SITE HISTORY AND ENFORCEMENT ACTIVITIES

The Kil-Tone Company (Kil-Tone) began operations at the property located at East Chestnut Avenue in Vineland, New Jersey on or about 1916. Kil-Tone manufactured, among other things, the pesticide lead arsenate. In the mid-1920s, Kil-Tone was acquired by John Lucas & Company forming the Lucas Kil-Tone Company. The Lucas Kil-Tone Company absorbed the former Kil-Tone Company pesticide operations and continued manufacturing arsenic-based pesticides on the property. Around 1930, John Lucas & Company was acquired by the Sherwin Williams Company. Lucas Kil-Tone operated as a subsidiary of Sherwin Williams until they ceased operations at the property in the 1930s. Sanborn maps from 1919 and 1925 were used to identify the original site buildings used by the former Kil-Tone Company to manufacture pesticides. Buildings identified on the Sanborn maps included an acid plant, tank room, engine room, and manufacturing building for grinding, mixing and pressing, and storage. A laboratory was constructed after 1919 on the southwest corner of the property.

Lead arsenate is a pentavalent form of inorganic arsenic, which exists normally as white crystals with no discernible odor, contains about 22 percent arsenic and is slightly soluble in cold water. Inorganic arsenicals are known to be acutely toxic. Lead arsenate was the most extensively used of the arsenical insecticides. Information obtained from the Vineland Chamber of Commerce and the New Jersey Experiment Stations that dates between 1917 and 1926 indicates that specific products manufactured by the former Kil-Tone Company included Green Cross Dry Powdered Arsenate of Lead, Green Cross Standard Arsenate of Lead (paste), Green Cross Sulpho-arsenate Powder, Green Cross Sulphur and Arsenate of Lead Mixture, Modified Kil-Tone, Improved Kil-Tone, Fruit Kil-Tone, Bordeaux Mixture, Dry Powdered Arsenite of Zinc, and Beetle Mort. Based on the timeframe during which the former Kil-Tone Company operated, these products were regulated under the Insecticide Act of 1910. In September 1932, the U.S. Department of Agriculture (USDA) issued a Notice of Judgment under the Insecticide Act against the Lucas Kil-Tone Company for the adulteration and misbranding of Bordo (lead arsenate) and Green Cross Nico-Tone. In this judgment, the Lucas Kil-Tone Company pleaded guilty and paid a $490 fine. This action involved shipments of Bordo Lead Arsenate and Green Cross Nico-Tone that contained ingredients (for example calcium arsenate) that were not declared on the label and greater percentages of arsenic in water soluble form than declared on the label. In 1929 and 1930, Lucas Kil-Tone also was issued a Notice of Judgment for adulteration and misbranding of Green Cross Beetle Mort. The products contained ingredients that were inconsistent with the label including, a greater amount of water-soluble arsenic expressed as metallic. Lucas Kil-Tone continued to operate at the property until about 1933. Since Lucas Kil-Tone ceased operations, the property has undergone several property transfers. The 1949 and 1968 Sanborn maps indicate that the Uddo Taormina Company Food Products occupied the property and the configurations of the buildings had changed. Since that time, several entities have operated on the property. The property is currently owned by Urban Manufacturing, LLC, which purchased the property in 2008. Urban Sign & Crane, Inc., is the current tenant, and its operation includes the fabrication and installation of commercial signage.

The LERCO Company property is located directly across East Chestnut Avenue from the former Kil-Tone Company property. A fuel distribution facility operated on the LERCO property since the 1930s but is no longer in use. In 1989, a release of petroleum hydrocarbons was reported to

NJDEP during the removal of a 20,000-gallon underground storage tank (UST) at the LERCO property. Since 1989, LERCO has performed remedial investigation activities on its property, which included removal of several USTs, aboveground storage tanks, light non-aqueous phase liquid remediation, and soil and groundwater sampling. Soil and groundwater sampling performed on the LERCO property identified high concentrations of benzene, toluene, ethylbenzene, and xylenes, as well as arsenic and lead. Arsenic was identified at concentrations up to 20,500 milligrams per kilogram (mg/kg) and lead up to 28,700 mg/kg. The soil exceedances for arsenic and lead were mainly detected in the 1.5 to 2 feet and 4.5 to 5 feet below ground surface (bgs) soil sampling intervals, along the western and southern property boundaries. Since the initial investigation, several soil sampling events have been conducted at the LERCO property by environmental consulting companies, including Aqua-tex and RT Environmental. RT Environmental indicated that the metal compounds identified were not associated with the LERCO site operations. RT Environmental also stated that historical operations on the LERCO site support that it has always been operated as a fueling station, with no evidence that they would have generated arsenic or lead wastes. The presence of arsenic in conjunction with lead indicated that it is likely that some portion of the lead contamination may not be petroleum-related.

In August 2014, NJDEP initiated a site investigation to determine if the lead and arsenic contamination could be attributed to the historic operations at the former Kil-Tone Company property. The NJDEP investigation found arsenic on the former Kil-Tone Company property at concentrations as high as 740 mg/kg in the top six inches of soil and at concentrations as high as 5,800 mg/kg at depth (3.5 to 4 feet bgs). Groundwater samples collected from temporary well points on the former Kil-Tone Company property showed arsenic concentrations from 8.1 micrograms per liter (µg/L) to 14,000 µg/L. This discovery prompted NJDEP to refer the site to EPA on November 14, 2014. The site was proposed to the National Priorities List (NPL) on September 30, 2015 and was added to the NPL on April 5, 2016.

COMMUNITY PARTICIPATION

EPA has worked closely with local residents, public officials and other interested members of the community since residential sampling started at the site in 2014. Work is occurring in a residential community and directly affects residential properties, so the level of interest is high. This section of Vineland is primarily Spanish-speaking. As such, a bilingual community involvement coordinator is involved with the site.

The Proposed Plan for OU1 of the site was released for public comment on July 13, 2016. The Proposed Plan and other site-related documents were made available to the public in the administrative record file maintained at the Vineland City Library, 1058 East Landis Avenue in Vineland, New Jersey and at the EPA Region 2 Superfund Records Center located at 290 Broadway, New York, New York (see Appendix III). The administrative record file is also available online at http://www.epa/gov/superfund/former-kil-tone.

The notice of availability of these documents was published in the *Press of Atlantic City* newspaper on July 13, 2016. Notice was also published in *Nuestra Comunidad*, a Spanish

language newspaper. Both English and Spanish versions of the Proposed Plan were made available. The public comment period lasted 30 days and closed on August 12, 2016.

A public meeting was held on August 2, 2016, at the Gloria M Sabater Elementary School, 301 Southeast Boulevard in Vineland, New Jersey to discuss the findings of the Remedial Investigation (RI) and the Focused Feasibility Study (FFS) and to present EPA's plan to the community. At this meeting, EPA representatives answered questions about the RI/FFS and the remedial alternatives. Comments that were received by EPA at the public meeting and in writing during the public comment period are addressed in the Responsiveness Summary (see Appendix V).

SCOPE AND ROLE OF THIS OPERABLE UNIT

Due to the large area, the different media affected by contamination, the complexity of multiple properties and varying land uses, EPA is addressing the cleanup of the site in several phases, or operable units (OUs). This ROD addresses the first operable unit associated with the site and addresses contaminated soils on residential properties in the vicinity of the former Kil-Tone Company property only. Future OUs will address contamination at the former Kil-Tone Company property itself, other non-residential properties with contaminated soil, contaminated groundwater, contaminated surface water and contaminated sediment. Investigations for these other OUs are either ongoing or will be initiated at a later date.

The number of properties referenced in this ROD, which require a CERCLA response action is an estimate used to calculate the approximate costs of the cleanup alternatives. The precise number of residential properties that will require soil remediation under the OU1 remedy will be determined upon completion of additional soil sampling activities to be conducted during the remedial design and possibly refined during implementation of the remedial action.

PRELIMINARY INVESTIGATIONS AND EARLY RESPONSE ACTIONS

In January and February 2015, EPA completed soil sampling on 27 residential properties located near the former Kil-Tone Company property, as well as in three background locations. Soil borings were installed at each residential property to a maximum depth of two feet below the ground surface, from the following depth intervals: 0-2 inches, 2-6 inches, 6-12 inches and 12-24 inches. Analytical results show elevated concentrations of lead and arsenic exceeding the NJDEP Residential Direct Contact Soil Remediation Standards (RDCSRS) of 400 mg/kg for lead and 19 mg/kg for arsenic.

EPA then expanded the residential soil sampling program to include additional residential properties to determine the extent of contamination. From June 8 to July 1, 2015, soil sampling was completed at an additional 35 homes. Approximately 815 soil samples were collected, and concentrations of lead and arsenic exceeding the NJDEP RDCSRS were found at 30 residential properties. During this event, a population of soil samples was collected from eight residential properties and analyzed for Target Compound List (TCL) volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), pesticides, and polychlorinated biphenyls (PCBs) to fully characterize the nature and extent of contamination and ensure that all possible

contaminants of potential concern were identified. Analytical results show elevated concentrations of pesticides (dieldrin, heptachlor epoxide) and polycyclic aromatic hydrocarbons (PAHs) (benzo(a)pyrene, benzo(a)anthracene, and benzo(b)fluoranthene) exceeding the RDCSRS.

In February 2016, EPA conducted additional residential soil sampling to refine the horizontal and vertical extent of soil contamination at the site. EPA sampled 27 residential properties located north, south, and east of the former Kil-Tone Company property. All but two of these properties were sampled during previous sampling events. These two additional properties are located near the site and access in order to conduct sampling was delayed. Soil samples were collected to help determine vertical extent of soil contamination and targeted depth intervals at the following six depth intervals at each boring location: 0-2, 2-24, 24-36, 36-48, 48-60, and 60-72 inches below ground surface. All samples were analyzed for TAL metals. In addition, a subset of the soil samples were analyzed for TCL VOCs, SVOCs, pesticides and PCBs.

Early Response Actions

In April 2016, EPA's removal program began immediate actions to prevent exposure to lead and arsenic contamination identified in surface soil at concentrations as high as 5,700 mg/kg and 1,000 mg/kg, respectively, at residential properties located near the former Kil-Tone Company property. The removal program's action level for arsenic is 67 mg/kg rather than NJDEP's standard of 19 mg/kg; NJDEP's RDCSRS for arsenic is consistent with statewide background concentrations. The removal program's action level for lead is the same as NJDEP's RDCSRS of 400 mg/kg. Out of the 57 properties that are currently known to exceed NJDEP's RDCSRS for arsenic and/or lead, 26 properties exceeded the removal action level for arsenic and/or lead. Pesticides and PAHs were not detected above removal action levels. EPA's removal action consisted of the placement of six inches of topsoil on top of these 26 properties, with instructions to property owners and/or residents to not disturb this layer until a permanent remedy could be implemented. These preventative measures were completed in June 2016 on residential properties in the vicinity of the former Kil-Tone Company property, and are on-going at additional residential properties located in the floodplain of the Tarkiln Branch. Final reports about the work that was conducted at these properties will be added to the administrative record once they are completed. In addition, a soil cover is being placed over the former Kil-Tone Company property itself to prevent further migration of contamination from the property until a permanent remedy can be implemented.

RESULTS OF THE REMEDIAL INVESTIGATION

Site Geology and Hydrogeology

The topography of the site area is generally flat. The United States Department of Agriculture, Soil Conservation Service, Soil Survey of Cumberland County, New Jersey states that the site is located on Downer and Auro loamy sands. The Downer loamy sands are formed from fluviomarine deposits, located on river basins or hills. The Auro loamy sands occur with low hills and ancient stream terraces. The permeability is moderately slow to moderate for these soil associations. Parent material is described as loamy and gravelly alluvium. Much of the area is

covered by houses, streets, driveways, buildings, parking lots, and urban construction. During sampling activities, the soil types observed at the background and the residential areas included coarse sands, coarse sandy loams, coarse loamy sands, coarse sandy clays, coarse loamy sand and sand. In addition, background and residential soil samples collected during the residential soil sampling events were analyzed for grain size. The grain size analysis indicated that the background and residential soil samples are primarily sand. The percentage of sand in the background soil samples ranged from 61.4 percent to 63.9. The percentage of sand in the residential soil samples ranged from 54.4 percent to 85 percent. The grain size analysis indicated that the background and residential soil samples also contained silt, clay, and colloids. During sampling activities, fill material was routinely encountered in some of the soil borings. The fill material included concrete, red brick, coarse sand, coarse black sand, coarse orange and orange black sand with asphalt, brick and rock shards, plastic, terra cotta, dark brown soil fill, various types of variegated dark brown soil and fill, coal fragments, coal ash, silt, small shards of coal, porcelain, slag and trash.

Site Characterization Summary and Results

The preliminary sampling that was initiated in January 2015 was used to help delineate the nature and extent of contamination. To date, thousands of environmental samples have been collected from soil, sediment, groundwater and surface water. Sampling has occurred on publicly owned and commercial and residential properties. The focus of this decision document is contaminated soil at residential properties in the vicinity of the former Kil-Tone Company property.

Soil samples collected from residential properties were analyzed for metals, VOCs, SVOCs, including PAHs, pesticides, and PCBs. The analytical results of residential soil samples were compared to NJDEP's RDCSRS. Based on the residential sampling data, lead and arsenic were detected most frequently and at the greatest concentration above New Jersey RDCSRS of 400 mg/kg and 19 mg/kg, respectively. Soil samples had concentrations of arsenic and lead up to 1,000 mg/kg for arsenic and 5,700 mg/kg for lead. All VOCs were detected at levels below both NJDEP RDCSRSs and EPA risk-based levels. All metals other than lead and arsenic, all SVOCs, with the exceptions of three PAHs, and all but two pesticides were also detected below these two benchmarks. All analytical data are available in the RI and RI Addendum reports in the administrative record.

The pesticides found at the residential properties at concentrations above their RDCSRS (and their respective standard) are dieldrin (0.04 mg/kg) and heptachlor epoxide (0.07 mg/kg). Maximum concentrations were found to be 0.49 mg/kg for dieldrin and 0.38 mg/kg for heptachlor epoxide. The PAHs found at concentrations above their RDCSRS (and their respective standards) are benzo(a)pyrene (0.2 mg/kg), benzo(a)anthracene (0.6 mg/kg), and benzo(b)fluoranthene (0.6 mg/kg); these were detected at concentrations as high as 0.81 mg/kg, 2.1 mg/kg, and 2.2 mg/kg, respectively. These pesticides and PAHs were found less frequently than arsenic and lead at the residential properties at concentrations above RDCSRS.

Contamination is primarily found in shallow soil on residential properties, though some areas of deeper contamination were identified. Shallow soil is generally defined as the 0-2 foot depth

interval, and the maximum depth of soil sampling was 6 feet. The estimated volume of soil to be addressed is approximately 21,000 cubic yards, though this volume may increase during planning and/or implementation of the remedial action if additional contamination associated with the site is found.

Contaminated soil on the residential properties is likely the result of surface water runoff and air dispersion from the former Kil-Tone Company property.

The RI report for OU1 of the site was finalized in July 2016.

CURRENT AND POTENTIAL FUTURE SITE AND RESOURCE USES

The OU1 properties are zoned for residential use. Future land use is expected to remain the same. Future operable units will address other properties and media. A discussion of their current and potential future site and resource use will be included in those decision documents, as appropriate.

SUMMARY OF SITE RISKS

As part of the RI/FFS, a baseline risk assessment was conducted to estimate the current and future effects of contaminants on human health and the environment. A baseline risk assessment is an analysis of the potential adverse human health and ecological effects of releases of hazardous substances from a site in the absence of any actions or controls to mitigate such releases, under current and future land uses. The baseline risk assessment includes a human health risk assessment (HHRA) and an ecological risk assessment. It provides the basis for taking action and identifies the contaminants and exposure pathways that need to be addressed by the remedial action. This section of the ROD summarizes the results of the baseline risk assessment for the site.

Human Health Risk Assessment

A four-step process is utilized for assessing site-related human health risks for a reasonable maximum exposure scenario: *Hazard Identification* – uses the analytical data collected to identify the contaminants of potential concern at the site for each medium, with consideration of a number of factors explained below; *Exposure Assessment* - estimates the magnitude of actual and/or potential human exposures, the frequency and duration of these exposures, and the pathways (e.g., ingesting contaminated well-water) by which humans are potentially exposed; *Toxicity Assessment* - determines the types of adverse health effects associated with chemical exposures, and the relationship between magnitude of exposure (dose) and severity of adverse effects (response); and *Risk Characterization* - summarizes and combines outputs of the exposure and toxicity assessments to provide a quantitative assessment of site-related risks. The risk characterization also identifies contamination with concentrations which exceed acceptable levels, defined by the NCP as an excess lifetime cancer risk greater than $1 \times 10^{-6} – 1 \times 10^{-4}$, an excess of lifetime cancer risk greater than 1×10^{-6} (i.e., point of departure) combined with site-specific circumstances, or a Hazard Index greater than 1.0; contaminants at these concentrations are considered contaminants of concern (COCs) and are typically those that will require

remediation at the site. Also included in this section is a discussion of the uncertainties associated with these risks.

Hazard Identification

In this step, the contaminants of concern in soil were identified based on such factors as toxicity, frequency of detection, fate and transport of the contaminants in the environment, concentration, mobility, persistence and bioaccumulation. Analytical information that was collected to determine the nature and extent of contamination revealed the presence of arsenic and lead on residential properties at concentrations of potential concern. Surface soil was the only media quantitatively evaluated in the HHRA.

This ROD focuses on the residential properties in the immediate vicinity of the Former Kil-tone Company site. The contaminated media, concentrations detected and concentrations utilized to estimate potential risks and hazards for the COCs at each property that were quantitatively assessed are presented in Table 1 (all tables are included in Appendix II). A comprehensive list of all COCs in surface soils can be found in the BHHRA, entitled "Human Health Risk Assessment – Former Kil-tone Company Site", which was completed in May 2016. Lead was identified as a COC; the relevant subset of information on lead is summarized in Table 7.

Exposure Assessment

Consistent with Superfund policy and guidance, the BHHRA is a baseline human health risk assessment and therefore assumes no remediation or institutional controls to mitigate or remove hazardous substance releases. Cancer risks and noncancer hazard indices were calculated based on an estimate of the reasonable maximum exposure (RME) expected to occur under current and future conditions at a site. The RME is defined as the highest exposure that is reasonably expected to occur at a site.

Exposure pathways were identified for each potentially exposed population and each potential exposure scenario for exposure to surface soil. Exposure pathways assessed in the BHHRA included current and future incidental ingestion of and dermal contact with contaminated soil by adult and child residents. A summary of the exposure pathways included in the baseline human health risk assessment can be found in Table 2. Typically, exposures are evaluated using a statistical estimate of the exposure point concentration, which is usually an upper-bound estimate of the average concentration for each contaminant, but in some cases may be the maximum detected concentration, or, when evaluating lead, the arithmetic mean concentration. A summary of the exposure point concentrations for the site-related COCs in surface soil can be found in Table 1, while a comprehensive list of the exposure point concentrations for all COCs can be found in the BHHRA.

Toxicity Assessment

In this step, the types of adverse health effects associated with contaminant exposures and the relationship between magnitude of exposure and severity of adverse health effects were

determined. Potential health effects are contaminant-specific and may include the risk of developing cancer over a lifetime or other noncancer health effects, such as changes in the normal functions of organs within the body (*e.g.*, changes in the effectiveness of the immune system). Some contaminants are capable of causing both cancer and noncancer health effects.

Under current EPA guidelines, the likelihood of carcinogenic risks and noncancer hazards due to exposure to site chemicals are considered separately. Consistent with current EPA policy, it was assumed that the toxic effects of the site-related chemicals would be additive. Thus, cancer and noncancer risks associated with exposures to individual COCs were summed to indicate the potential risks and hazards associated with mixtures of potential carcinogens and non-carcinogens, respectively.

Toxicity data for the HHRA were provided by the Integrated Risk Information System (IRIS) database, the Provisional Peer Reviewed Toxicity Database (PPRTV), or another source that is identified as an appropriate reference for toxicity values consistent with EPA guidance (http://www.epa.gov/oswer/riskassessment/pdf/tier3-toxicityvalue-whitepaper.pdf). This information is presented in Table 3 (Noncancer Toxicity Data Summary) and Table 4 (Cancer Toxicity Data Summary). Additional toxicity information for all COCs is presented in the BHHRA.

Risk Characterization

Noncarcinogenic health effects were assessed using a hazard index (HI) approach, based on a comparison of expected contaminant intakes and benchmark comparison levels of intake (reference doses, reference concentrations). Reference doses (RfDs) and reference concentrations (RfCs) are estimates of daily exposure levels for humans (including sensitive individuals) which are thought to be safe over a lifetime of exposure. The estimated intake of chemicals identified in environmental media (*e.g.*, the amount of a chemical ingested from contaminated soil) is compared to the RfD or the RfC to derive the hazard quotient (HQ) for the contaminant in the particular medium. The HI is obtained by adding the hazard quotients for all compounds within a particular medium that impacts a particular receptor population.

The HQ for oral and dermal exposures is calculated as below. The HQ for inhalation exposures is calculated using a similar model that incorporates the RfC, rather than the RfD.

HQ = Intake/RfD

Where: HQ = hazard quotient
Intake = estimated intake for a chemical (mg/kg-day)
RfD = reference dose (mg/kg-day)

The intake and the RfD will represent the same exposure period (i.e., chronic, subchronic, or acute).

The key concept for a noncancer HI is that a "threshold level" (measured as an HI of less than 1) exists at which noncancer health effects are not expected to occur.

As previously stated, the HI is calculated by summing the HQs for all chemicals for likely exposure scenarios for a specific population. An HI greater than 1 indicates that the potential exists for noncarcinogenic health effects to occur as a result of site-related exposures, with the potential for health effects increasing as the HI increases. When the HI calculated for all chemicals for a specific population exceeds 1, separate HI values are then calculated for those chemicals which are known to act on the same target organ. These discrete HI values are then compared to the acceptable limit of 1 to evaluate the potential for noncancer health effects on a specific target organ. The HI provides a useful reference point for gauging the potential significance of multiple contaminant exposures within a single medium or across media. A summary of the non-carcinogenic hazards associated with these chemicals for each exposure pathway is contained in Table 5.

As shown in Table 5, when separated by target organ, the HI for noncancer health effects exceeded EPA's threshold value of 1 for the child resident at two of the residential locations that were assessed. The soil HIs at these residences ranged from 2 to 16. At one residence, the adult HI of 2 just exceeded EPA's threshold value. The noncancer hazards were mainly attributable to ingestion of arsenic-contaminated surface soils.

For carcinogens, risks are generally expressed as the incremental probability of an individual developing cancer over a lifetime as a result of exposure to a carcinogen, using the cancer slope factor (SF) for oral and dermal exposures and the inhalation unit risk (IUR) for inhalation exposures. Excess lifetime cancer risk for oral and dermal exposures is calculated from the following equation, while the equation for inhalation exposures uses the IUR, rather than the SF:

Risk = LADD x SF

Where: Risk = a unitless probability (1×10^{-6}) of an individual developing cancer
LADD = lifetime average daily dose averaged over 70 years (mg/kg-day)
SF = cancer slope factor, expressed as [1/(mg/kg-day)]

These risks are probabilities that are usually expressed in scientific notation (such as 1×10^{-4}). An excess lifetime cancer risk of 1×10^{-4} indicates that one additional incidence of cancer may occur in a population of 10,000 people who are exposed under the conditions identified in the *Exposure Assessment*. Again, as stated in the NCP, the acceptable risk range for site-related exposure is 10^{-6} to 10^{-4}.

As shown in Table 6, an exceedance of the target risk range was predicted at one residential location. The estimated cancer risk at this property for residents (child and adult) was 2×10^{-4}. The cancer risk was primarily due to ingestion of and dermal contact with arsenic in surface soil. The estimated risks from COCs at the other two properties were within the acceptable risk range.

Lead

Lead was detected on residential properties at elevated concentrations. Because there are no published quantitative toxicity values for lead, it is not possible to evaluate risks from lead

exposure using the same methodology as for the other COCs. However, since the toxicokinetics (the absorption, distribution, metabolism, and excretion from the body) of lead are well understood, lead is evaluated based on blood lead concentrations. The lead concentrations in surface soil at the targeted properties in proximity to the former Kil-Tone Company property were qualitatively assessed by comparing the average lead concentrations found on each property to EPA's residential soil screening level of 400 mg/kg. This lead soil screening value corresponds to a modelled estimate of 5% of the population with a blood lead level greater than 10 ug/dl. As summarized in Table 7, the mean lead concentrations at two of the residential properties exceeded EPA's residential soil screening level of 400 mg/kg.

In summary, arsenic was identified as the COC which contributed to unacceptable noncancer hazards and cancer risks at the targeted residential properties. Qualitative screening identified lead as an additional COC. The noncancer hazards and cancer risks from all COCs can be found in the final HHRA.

Uncertainties

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

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

Uncertainty in environmental sampling arises in part from the potentially uneven distribution of chemicals in the media sampled. Consequently, there is significant uncertainty as to the actual levels present. Environmental chemistry-analysis error can stem from several sources including the errors inherent in the analytical methods and characteristics of the matrix being sampled.

Uncertainties in the exposure assessment are related to estimates of how often an individual would actually come in contact with the chemicals of concern, the period of time over which such exposure would occur, and in the models used to estimate the concentrations of the chemicals of concern at the point of exposure.

Uncertainties in toxicological data occur in extrapolating both from animals to humans and from high to low doses of exposure, as well as from the difficulties in assessing the toxicity of a mixture of chemicals. These uncertainties are addressed by making conservative assumptions concerning risk and exposure parameters throughout the assessment. As a result, the risk assessment provides upper-bound estimates of the risks to populations near the sites, and is highly unlikely to underestimate actual risks related to the site.

For the dermal exposure to soil pathway, there are also uncertainties, such as a) not all chemicals have scientifically established dermal absorption values for soil and therefore may be left out of the quantitative assessment, b) sometimes soil to skin adherence factors do not match exactly

with site conditions and c) exposed skin surface area and exposure frequency may change seasonally, which may not be adequately accounted for in the exposure parameters used to represent the RME scenario.

Additional noteworthy sources of uncertainty in this HHRA include the following:

Due to the small number of samples collected from property 010, Pro UCL-derived exposure point concentrations could not be calculated, therefore the maximum concentrations of COCs found on each property were used as EPCs (with the exception of lead). Using maximum concentrations as the EPCs for risk calculations is a conservative assumption and will likely overestimate hazards and risks at this property.

The inhalation pathway was not quantitatively evaluated in this HHRA since the targeted property size was small, the amount of exposed soil on each property was minimal, and no volatile contaminants were retained as COCs. The exclusion of this pathway could have underestimated hazards and risks from nonvolatile COCs.

More specific information concerning public health risks, including a quantitative evaluation of the degree of risk associated with various exposure pathways, is presented in the risk assessment report.

Ecological Risk Assessment

Since OU1 focuses on residential properties, no ecological risk assessment was conducted. However, ecological risk assessments will be performed for future operable units.

Basis for Taking Action

Based on the results of the quantitative human health risk assessment, EPA has determined that actual or threatened releases of hazardous substances from the site, if not addressed by the response action selected in this ROD, may present a current or potential threat to human health.

REMEDIAL ACTION OBJECTIVES

Remedial action objectives are specific goals to protect human health and the environment. These objectives are based on available information and standards such as applicable or relevant and appropriate requirements (ARARs), to-be-considered (TBC) guidance and site-specific risk-based levels and background (i.e. reference area) concentrations. The following RAOs were established for OU1 of the site:

- Prevent potential current and future unacceptable risks to human receptors resulting from direct contact with contaminated soil.
- Prevent migration of site contaminants from the OU1 properties to other areas via overland flow and air dispersion.

Remediation Goals

EPA has adopted the preliminary remediation goals identified in the Proposed Plan as the final Remediation Goals (RGs) for OU1 of the site. The soil remediation goals for COCs are consistent with New Jersey RDCSRS. The remediation goals for OU1 are as follows:

Constituent in Soil	Cleanup Goal (mg/kg)
Lead	400
Arsenic	19
Dieldrin	0.04
Heptachlor epoxide	0.07
Benzo(a)pyrene	0.2
Benzo(a)anthracene	0.6
Benzo(b)fluoranthene	0.6

Note: mg/kg = milligrams per kilogram

The impact to groundwater from the COCs in the soil was not evaluated as part of the OU1 RI, but given that the contamination is primarily located in the top two feet of soil, this is not anticipated to be an issue for this OU. Groundwater, and potential impact to groundwater, will be evaluated as part of a future OU.

DESCRIPTION OF REMEDIAL ALTERNATIVES

CERCLA Section 121(b)(1), 42 U.S.C. § 9621(b)(1), mandates that remedial actions be protective of human health and the environment, be cost-effective, and use permanent solutions, alternative treatment technologies, and resource recovery alternatives to the maximum extent practicable. Section 121(b)(1) also establishes a preference for remedial actions which employ, as a principal element, treatment to reduce the volume, toxicity, or mobility of the hazardous substances, pollutants, and contaminants at a site permanently and significantly. CERCLA Section 121(d), 42 U.S.C. § 9621(d), further specifies that a remedial action must attain a level or standard of control of the hazardous substances, pollutants and contaminants, which at least attains ARARs under federal and state laws, unless a waiver can be justified.

Remedial alternatives for OU1 of the site are summarized below. Capital costs are those expenditures that are required to construct a remedial alternative. Operation and maintenance (O&M) costs are those post-construction costs necessary to ensure or verify the continued effectiveness of a remedial alternative and are estimated on an annual basis. Present worth is the amount of money which, if invested in the current year, would be sufficient to cover all the costs over time associated with a project, calculated using a discount rate of seven percent and up to a 30-year time interval. Construction time is the time required to construct and implement the alternative and does not include the time required to design the remedy, negotiate performance of the remedy with the responsible parties, or procure contracts for design and construction. Detailed information regarding the alternatives can be found in the 2016 *Focused Feasibility Study Report* (FFS Report).

The remedial alternatives evaluated for OU1 were limited for several reasons. The affected residential properties are primarily located in well-established neighborhoods where space is limited; consequently, on-site remedies that involve treatment were not considered. In addition, since no principal threat wastes are associated with OU1, utilizing treatment of the contaminated soil as a principal element was not the focus of any of the alternatives developed for OU1.

Alternative 1 - No Action

The NCP requires that a "No Action" alternative be evaluated to establish a baseline for comparison with other remedial alternatives. Under this alternative, no action would be taken to remediate the contaminated soil at residential properties.

Total Capital Cost:	*$0*
Annual O&M:	*$0*
Present Worth Cost:	*$0*
Construction Timeframe:	*0 years*

Alternative 2 – Limited Soil Excavation, Soil Cover and Institutional Controls

Under this alternative, soil at concentrations above remediation goals would be excavated to six inches and clean soil would be placed over contaminated soil to minimize direct contact. In addition, institutional controls (deed notices) would be implemented to prevent human exposure by regulating future use of contaminated areas within the properties. The deed notices would require maintenance of the cover material and restrictions on excavation of the property. Contaminated soil at residential properties would be excavated to 6 inches below ground surface and disposed of at a permitted off-site disposal facility. Following removal of the top 6 inches of surface soil, a geotextile fabric layer would be placed to act as a visual marker and covered with 6 inches of clean fill and sodded. No pavement or structures would be removed for this alternative.

After construction, the soil cover would be graded and vegetated with grass; plants with deep root systems would not be planted on the capped area. A deed restriction would notify residents that contaminated soils remain on the property, and provide notification of future use restrictions and maintenance requirements. The capped area would require inspection on a periodic basis. Implementation of this alternative would entail the following major steps:

- Site preparation
- Tree and vegetation removal, as necessary, to excavate contaminated soil
- Limited excavation
- Particulate monitoring and dust suppression
- Waste characterization sampling
- Transportation
- Off-site disposal
- Site restoration
- Maintenance

Since this alternative results in contaminants remaining on site above acceptable levels, a review of the action at least every five years would be required.

Total Capital Cost:	*$1,920,000*
Annual O&M:	*$3,544*
Present Worth Cost:	*$1,924,000*
Construction Time Frame:	*1 year*

Alternative 3 – Excavation with Off-site Disposal

Under this alternative, contaminated soils exceeding the remediation goals would be excavated. Excavated soils would be transported and disposed off-site. Implementation of this alternative would entail the following major components:

- Site preparation
- Tree and vegetation removal, as necessary, to excavate contaminated soil
- Demolition and replacement of sheds and garages, as necessary, to excavate contaminated soil
- Removal and replacement of asphalt and concrete paved driveways, as necessary, to excavate contaminated soil
- Excavation
- Particulate monitoring and dust suppression
- Waste characterization sampling
- Transportation
- Off-site disposal
- Confirmatory sampling
- Site restoration
- Maintenance of restored vegetation

Excavated soil would be sampled to determine if soils would be disposed of as either hazardous waste or non-hazardous waste. Treatment of soil, if needed, would be conducted at and by the approved disposal facility.

If the excavation encounters the water table, management of the water and saturated soils would need to be addressed.

Total Capital Cost:	*$8,773,059*
Annual O&M:	*$927*
Present Worth Cost:	*$8,774,000*
Construction Time Frame:	*1 year*

COMPARATIVE ANALYSIS OF ALTERNATIVES

In selecting a remedy for a site, EPA considers the factors set forth in Section 121 of CERCLA 42 U.S.C. § 9621, and conducts a detailed analysis of the viable remedial alternatives

pursuant to Section 300.430(e)(9) of the NCP, 40 C.F.R § 300.430(e)(9), EPA's Guidance for Conducting Remedial Investigations and Feasibility Studies, OSWER Directive 9355.3-01, and EPA's A Guide to Preparing Superfund Proposed Plans, Records of Decision, and Other Remedy Selection Decision Documents, OSWER 9200.1-23.P. The detailed analysis consists of an assessment of the individual alternatives against each of the nine evaluation criteria at 40 C.F.R. § 300.430(e)(9)(iii) and a comparative analysis focusing upon the relative performance of each alternative against those criteria.

A comparative analysis of these alternatives based upon the nine evaluation criteria noted below follows.

Threshold Criteria *– The first two criteria are known as "threshold criteria" because they are the minimum requirements that each response measure must meet in order to be eligible for selection as a remedy.*

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1. Overall Protection of Human Health and the Environment

Overall protection of human health and the environment determines whether an alternative eliminates, reduces, or controls threats to public health and the environment through institutional controls, engineering controls, or treatment.

Alternative 1, the no action alternative, is not protective of human health and the environment because it does not eliminate, reduce, or control risk of exposure to contaminated soils through off-site disposal, engineering controls, or institutional controls.

Alternative 2 would provide protection to property owners/occupants from future exposure to contaminated soils through the placement of cover material over the contaminated soils and through institutional controls, such as land use restrictions and public education. However, contaminated soils would remain in place on the properties above the remediation goals.

Alternative 3 would remove contaminated soils, with concentrations above the remediation goals and would, therefore, be protective of both human and environmental receptors. There would be no local human health or environmental impacts associated with off-site disposal because the contaminants would be removed from the properties, to a secure, appropriate location.

2. Compliance with applicable or relevant and appropriate requirements (ARARs)

Section 121 (d) of CERCLA, 42 U.S.C. § 9621(d), and Section 300.430(f)(1)(ii)(B) of the NCP, 40 CFR §300.430(f)(1)(ii)(B), require that remedial actions at CERCLA sites at least attain legally applicable or relevant and appropriate Federal and State requirements, standards, criteria and limitations which are collectively referred to as "ARARs," unless such ARARs are waived under Section 121(d)(4) of CERCLA.

Compliance with ARARs addresses whether a remedy will meet all of the applicable or relevant and appropriate requirements of other Federal and State environmental statutes or provides a basis for invoking a waiver.

A complete list of ARARs can be found in Table 8 in Appendix II.

Alternative 1, since ARARs apply to actions taken, they are not applicable to the no action alternative.

Alternative 2 provides compliance with Chemical-specific ARARs because the soil cover and institutional controls would be effective in preventing exposure to the contaminants. Location-specific ARARs and Action-specific ARARs would both be met by proper design and implementation of the respective components such as general construction standards and waste handling requirements. The Location-specific ARARs and Action-specific ARARs for the disposal phase would be met with proper waste management on-site and selection of appropriate disposal facilities.

Alternative 3 provides compliance with Chemical-specific ARARs by removing contaminated soil above New Jersey RDCSRS. Location and Action-specific ARARs would be met during the construction phase by proper design and implementation of the action such as general construction standards and waste handling requirements. The Location-specific ARARs and Action-specific ARARs for the disposal phase would be met with proper waste management on-site and selection of appropriate disposal facilities.

Primary Balancing Criteria *– The next five criteria, criteria 3 through 7, are known as "primary balancing criteria". These criteria are factors by which tradeoffs between response measures are assessed so that the best options will be chosen, given site-specific data and conditions.*

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3. Long-Term Effectiveness and Permanence

Long-term Effectiveness and Permanence considers the ability of an alternative to maintain protection of human health and the environment over time.

Alternative 1 provides no long-term effectiveness or permanence.

Alternative 2 would not be as permanent or as effective over the long term as Alternative 3 since contaminated soil would remain at the properties with concentrations above the remediation goals, and deed restrictions would not eliminate potential future health risks to property owners/occupants associated with exposure to contaminated surface soils. Application of a deed notice requires that the property owner place a deed notice on their property. Consent to place a deed notice on residential properties may be difficult to obtain partly because, notwithstanding the presence of contamination on their properties, some residential homeowners may perceive that deed notices may affect property values. In addition, monitoring and enforcing use restrictions imposed through deed notices requires dedicated resources. Soil covers could be breached by home owners when performing activities generally associated with residential use, such as tree planting, installation of fencing and installation of subsurface drains, though the use of a geotextile layer as a marker would mitigate help mitigate that risk.

Alternative 3 would provide long-term effectiveness and permanence by removing contaminants from residential properties and providing secure disposal of excavated soil at appropriate

permitted facilities. Off-site treatment, where necessary, and disposal at a secure, permitted hazardous waste facility for contaminated soil is reliable because the design of such facilities includes safeguards and would ensure the reliability of the technology and the security of the waste material. In addition, upon completion of the remedy for Alternative 3, the affected properties would be suitable for unrestricted residential use. Long-term monitoring and maintenance of the residential properties and CERCLA five-year reviews would not be required.

4. Reduction of Toxicity, Mobility, or Volume through Treatment
Reduction in Toxicity, Mobility, or Volume of Contaminants through Treatment evaluates an alternative's use of treatment to reduce the harmful effects of principal contaminants, their ability to move in the environment and the amount of contamination present.

Alternative 1 would not reduce the toxicity, mobility or volume of contaminated soil, since the soil would remain in place.

Alternative 2 would not provide reduction of toxicity, mobility, or volume of contamination through treatment.

Alternative 3 would not provide reduction of toxicity, mobility, or volume of contamination at the properties through treatment.

5. Short-Term Effectiveness
Short-term Effectiveness considers the length of time needed to implement an alternative and the risks the alternative poses to workers, residents and the environment during implementation.

Alternative 1 poses no short-term adverse impacts to the community.

Alternative 2 would be effective in the short term since contaminated soil would not be significantly disturbed during construction activities. Under this alternative, any potential environmental impacts associated with the excavation of soil would be minimized with the proper installation and implementation of dust and erosion control measures, by performing excavation with appropriate health and safety measures, and by using a lined temporary staging area. Appropriate transportation safety measures would be required during the shipping of the contaminated soil to approved off-site disposal facilities. Construction of the required containment system and establishment of the deed notices, could be accomplished in approximately 1 year.

Alternative 3 involves excavation of contaminated soil and would present a potential for short-term exposure. As with Alternative 2, under this alternative any potential environmental impacts associated with the excavation of soil would be minimized with the proper installation and implementation of dust and erosion control measures, by performing excavation with appropriate health and safety measures, and by using a lined temporary staging area. Appropriate transportation safety measures would be required during the shipping of the contaminated soil to approved off-site disposal facilities. Completion of the required construction for most properties can be accomplished in approximately 1 year.

Both Alternatives 2 and 3 would result in some short-term impacts to the community, in the form of vehicular (truck) traffic and noise and dust from construction/excavation activities, although Alternative 2 (limited removal of soil and bringing soil in to construct a soil cover) would generate less truck traffic than Alternative 3 (removing contaminated soil from properties and bringing soil in to fill excavated areas). Traffic, noise, and dust impacts could be mitigated to some extent by limiting the construction schedule to daytime hours on weekdays or other timing as specified by local ordinance. Perimeter air monitoring and dust control measures would be required to address concerns over exposure to dust during activities.

6. Implementability

Implementability addresses the technical and administrative feasibility of a remedy from design through construction and operation. Factors such as availability of services and materials, administrative feasibility, and coordination with other governmental entities are also considered.

Alternative 1 requires no implementation.

Alternative 2 can be implemented; however, the development of protective institutional controls that would be both enforceable and acceptable to the residential property owners is highly uncertain. Administrative implementation of Alternative 2 may be significantly impacted by the need to impose deed notices on residential properties to prevent human exposure by restricting future use of contaminated areas within the properties. Consent to place a deed notice on residential properties may be difficult to obtain because these notices would restrict the owners' use of the property and would not likely be viewed favorably by the owners. Implementation of Alternative 2 is also complicated to some extent by the need to perform soil cover construction on residential properties.

Alternative 3 is complicated to some extent by the need to perform excavation and backfilling on residential properties. Since Alternative 3 results in the removal of contaminated soil, a deed notice placing restrictions on use of the property would be unnecessary.

7. Cost

Cost includes estimated capital and annual operation and maintenance costs, as well as present worth cost. Present worth cost is the total cost of an alternative over time in terms of today's dollar value. Cost estimates are expected to be accurate within a range of +50 to -30 percent (This is a standard assumption in accordance with EPA guidance).

The estimated capital cost, operation and maintenance (O&M), and present worth costs are discussed in detail in EPA's FFS. The cost estimates are based on the best available information. Alternative 1 has no cost because no activities are implemented. Alternative 3 would include no operational and maintenance costs beyond the first year of vegetation upkeep. The estimated capital, O&M present-worth cost over a thirty year period, and total present-worth costs for each of the alternatives are as follows:

Alternative	Capital Cost	O&M	Present Worth Cost
1	$0	$0	$0
2	$1,920,776	$3,544	$1,924,000
3	$8,773,059	$927	$8,774,000

Modifying Criteria *– The final two evaluation criteria, criteria 8 and 9, are called "modifying criteria" because new information or comments from the state or the community on the Proposed Plan may modify the preferred response measure or cause another response measure to be considered.*

8. State Acceptance

State Agency acceptance considers whether the State and/or Support Agency agrees with EPA's analyses and recommendations.

NJDEP concurs with the selected remedy. A letter of concurrence is attached in Appendix IV.

9. Community Acceptance

Community Acceptance considers whether the local community agrees with EPA's analyses and preferred alternative. Comments received on the Proposed Plan are an important indicator of community acceptance.

On August 2, 2016, EPA held a formal public meeting on the proposed plan for this OU. All written and oral comments are addressed in detail in Appendix V, which is the Responsiveness Summary for this ROD. No comments received during the comment period for the proposed plan expressed disagreement with EPA's preferred alternative for this OU at the site.

PRINCIPAL THREAT WASTE

The NCP establishes an expectation that EPA will use treatment to address the principal threats posed by a site wherever practicable (40 CFR §300.430(a)(1)(iii)(A)). Identifying principal threat wastes combines concepts of both hazard and risk. In general, principal threat wastes are those source materials considered to be highly toxic or highly mobile which generally cannot be contained in a reliable manner or would present a significant risk to human health or the environment should exposure occur. Non-principal threat wastes are those source materials that generally can be reliably contained and that would present only a low risk in the event of exposure.

No principal threat wastes have been identified for this discrete portion of the site, identified as OU1.

SELECTED REMEDY

Based upon the requirements of CERCLA, the results of the site investigations, the detailed analysis of the alternatives, and public comments, EPA's selected remedy to address contaminated soil at the residential properties is Alternative 3. This alternative includes the following components:

- Excavation of an estimated 21,000 cubic yards of soil contaminated primarily with arsenic and lead from approximately 57 residential properties in the vicinity of the former Kil-Tone Company property, off-site disposal of contaminated soil and backfilling with clean fill; and,

- Restoration of the affected properties.

Excavation activities associated with remediation may require the demolition and replacement of structures such as sheds and garages and the removal and replacement of asphalt and driveways. Excavation of the contaminated material may also require the temporary relocation of residents.

Additional properties nearby or adjacent to the known OU1 properties may be identified during the design and/or implementation of the selected remedy that require remediation; these will be incorporated into the selected remedy.

The total estimated present-worth cost for the selected remedy is $8,774,000. A more detailed, itemized list of costs for the selected remedy may be found in Table 3b of the FFS. The cost estimates, which are based on available information, are order-of magnitude engineering cost estimates that are expected to be within +50 to -30 percent of the actual cost of the project.

Expected Outcomes of the Selected Remedy

Implementation of Alternative 3 will eliminate potential pathways of human exposure to contaminated soils present at the residential properties and will prevent migration of site contaminants from the OU1 properties to other areas.

Summary of the Rationale for the Selected Remedy

The selection of Alternative 3 provides the best balance of trade-offs among the alternatives with respect to the evaluation criteria. The selected alternative will be protective of human health and the environment, complies with Federal and State requirements that are legally applicable or relevant and appropriate to the remedial action, is cost-effective, and will utilize permanent solutions and treatment technologies to the maximum extent practicable. NJDEP concurs with the selected remedy.

Although Alternative 2 would provide some protection from the migration of and exposure to contaminated soils through the placement of cover material, contaminated soil would remain in place requiring the implementation of institutional controls on the residential properties and long-term monitoring and maintenance of the soil covers. Alternative 3 will permanently remove

the contaminated soil. The implementation of this selected remedy will employ engineering controls and safe work practices to mitigate exposure to dust and to protect workers and the local community.

Although treatment is not a principal element of the remedy, based on sampling performed to date, some of the contaminated soil may require treatment prior to land disposal at an off-site facility. Therefore, Alternative 3 may meet the statutory preference for the use of remedies that employ treatment that reduces toxicity, mobility or volume as a principal element.

The environmental benefits of the selected remedy may be enhanced by consideration, during the design, of technologies and practices that are sustainable in accordance with EPA Region 2's Clean and Green Energy Policy. This will include consideration of green remediation technologies and practices.

STATUTORY DETERMINATIONS

EPA has determined that the selected remedy complies with the CERCLA and NCP provisions for remedy selection, meets the threshold criteria, and provides the best balance of tradeoffs among the alternatives with respect to the balancing and modifying criteria. These provisions require the selection of remedies that are protective of human health and the environment, comply with ARARs (or justify a waiver from such requirements), are cost-effective, and utilize permanent solutions and alternative treatment technologies or resource recovery technologies to the maximum extent practicable. In addition, CERCLA includes a preference for remedies that employ treatment that permanently and significantly reduce the volume, toxicity, or mobility of hazardous substances as a principal element (or justify not satisfying the preference). For the Former Kil-Tone Company Site, EPA does not believe that on- site treatment of the soils at the residential properties is practicable or cost-effective. The selected remedy will be more protective and cost-effective in the long-term than capping since soil excavation is a permanent solution which will allow the residential properties to be returned to their beneficial re-use and does not require periodic maintenance. The following sections discuss how the selected remedy meets these statutory requirements.

Protection of Human Health and the Environment

The Selected Remedy, Alternative 3, will protect human health and the environment through removal, off-site treatment, if necessary, and disposal. The Selected Remedy will eliminate all significant direct-contact risks to human health and the environment associated with contaminated soil on the OU1 residential properties. This action will result in the reduction of exposure levels to acceptable risk levels within EPA's generally acceptable risk range of 10^{-4} to 10^{-6} for carcinogens and below a HI of 1.0 for noncarcinogens. Implementation of the Selected Remedy will not pose unacceptable short-term risks.

Compliance with ARARs

The selected remedy complies with Chemical-specific, Location-specific and Action-specific ARARs. A complete list of the ARARs, TBCs and other guidance that concern the selected remedy is presented in Appendix II, Table 8.

Cost-Effectiveness

EPA has determined that the selected remedy is cost-effective and represents reasonable value for the money to be spent. A cost-effective remedy is one whose costs are proportional to its overall effectiveness (NCP § 300.4309f)(1)(ii)(D)). EPA evaluated the "overall effectiveness" of those alternatives that satisfied the threshold criteria (i.e. were both protective of human health and ARAR-compliant). Overall effectiveness is based on the evaluations of long-term effectiveness and permanence; reduction in toxicity, mobility, and volume through treatment; and short-term effectiveness. Overall effectiveness was then compared to costs to determine cost-effectiveness.

Each of the alternatives was subjected to a detailed cost analysis. In that analysis, capital and annual O&M costs were estimated and used to develop present-worth costs. The estimated present worth cost of the selected remedy for OU1 is $8,774,000. Although Alternative 2 is less expensive than the selected remedy, EPA concluded that the long-term effectiveness of excavation is superior to capping when considering permanent solutions that allow the residential properties to be returned to full and unrestricted use. EPA believes that the selected remedy's additional cost for excavation provides protection of human health and is cost-effective. The selected remedy is cost-effective as it has been determined to provide the greatest overall protectiveness for its present-worth cost.

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

EPA has determined that the selected remedy represents the maximum extent to which permanent solutions and treatment technologies can be utilized in a practicable manner for this OU. Of those alternatives that are protective of human health and the environment and comply with ARARs (or provide a basis for invoking an ARAR waiver), EPA has determined that the selected remedy provides the best balance of trade-offs in terms of the five balancing criteria, while also considering the statutory preference for treatment as a principal element, the bias against off-site disposal without treatment, and State/support agency and community acceptance. Implementation of the selected remedy will eliminate current residents' exposure to contaminants at the residential properties and will remove contaminated soil from the residential properties thereby eliminating the risk to human receptors in the future.

Preference for Treatment as a Principal Element

The selected soil remedy results in the removal of approximately 21,000 cubic yards of contaminated soil from the residential properties at the site. The soil excavation will provide for an immediate reduction in the mobility of contaminated soil from the residential properties.

Although treatment is not a principal element of the remedy, based on sampling performed to date, some of the contaminated soil may require treatment prior to land disposal at an off-site facility. However, the majority of the excavated soils will not require treatment to meet the requirements of off-site disposal facilities. Off-site treatment, if required, would reduce the toxicity of the contaminated soil prior to land disposal. Based on the concentration of contaminants in the soil, treatment of the material prior to off-site disposal would not be cost-effective. This remedy only addresses a portion of the site. Subsequent actions that are planned to identify and address fully the remaining threats posed by the site may include treatment.

Five-Year Review Requirements

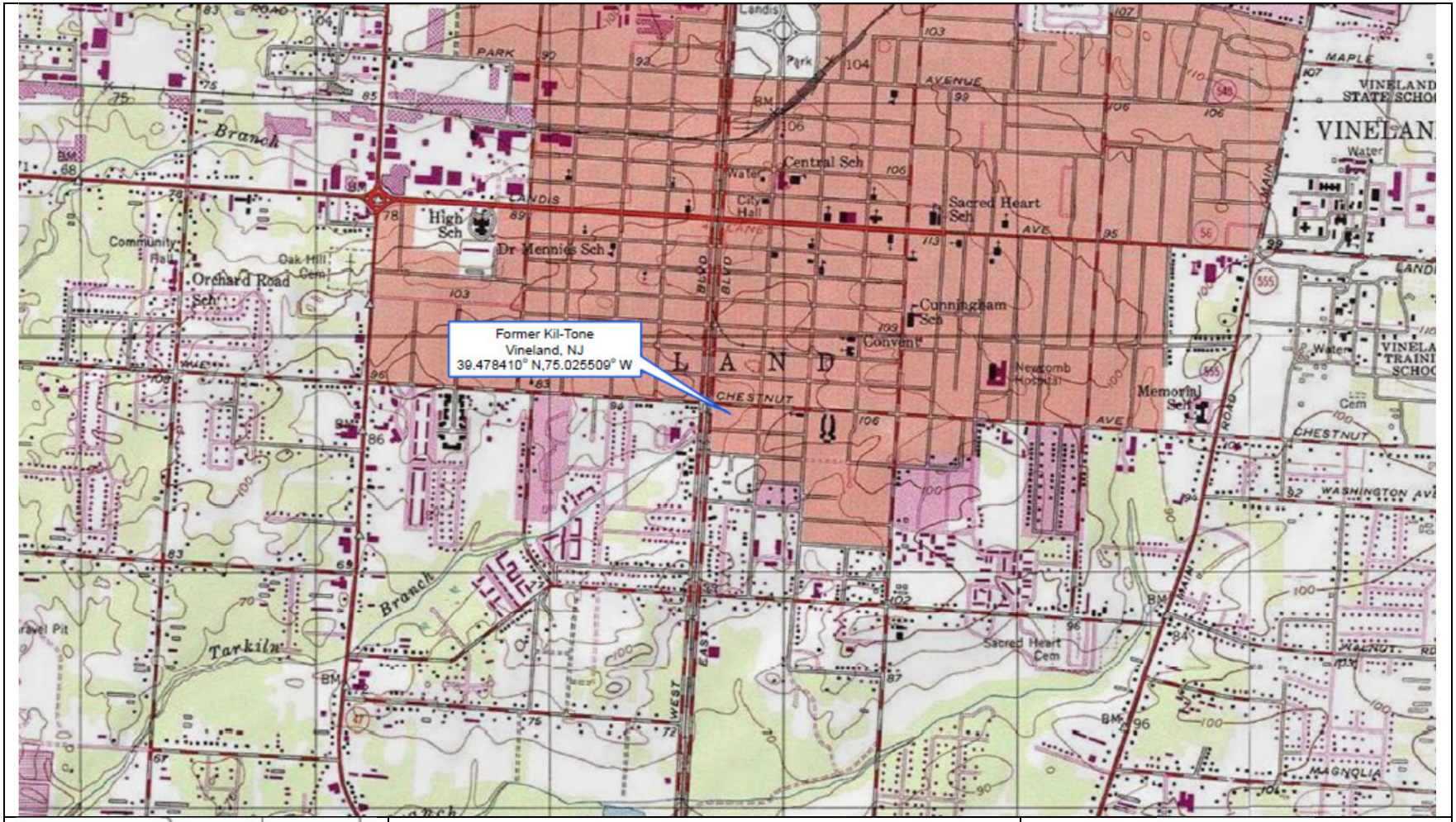
Because this remedy will not result in hazardous substances, pollutants, or contaminants remaining at this OU above health-based levels, the statutory requirement for a five-year review is not triggered by the implementation of this action.

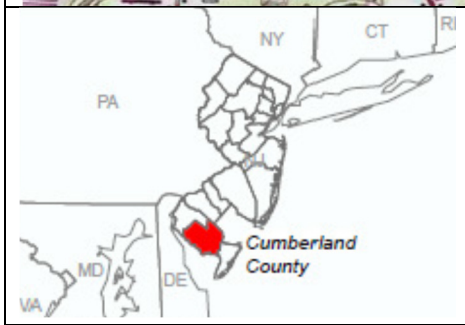
DOCUMENTATION OF SIGNIFICANT CHANGES

The Proposed Plan for OU1 of the Former Kil-Tone Company site was released for a public comment period on July 13, 2016. The public comment period ran until August 12, 2016. The Proposed Plan identified Alternative 3 (Excavation and Off-site Disposal) as the preferred alternative for OU1 of the site. EPA reviewed all written (including electronic formats such as e-mail) and verbal comments submitted during the public comment period and has determined that no significant changes to the remedy, as it was originally identified in the Proposed Plan, are necessary or appropriate.

APPENDIX I

Figures





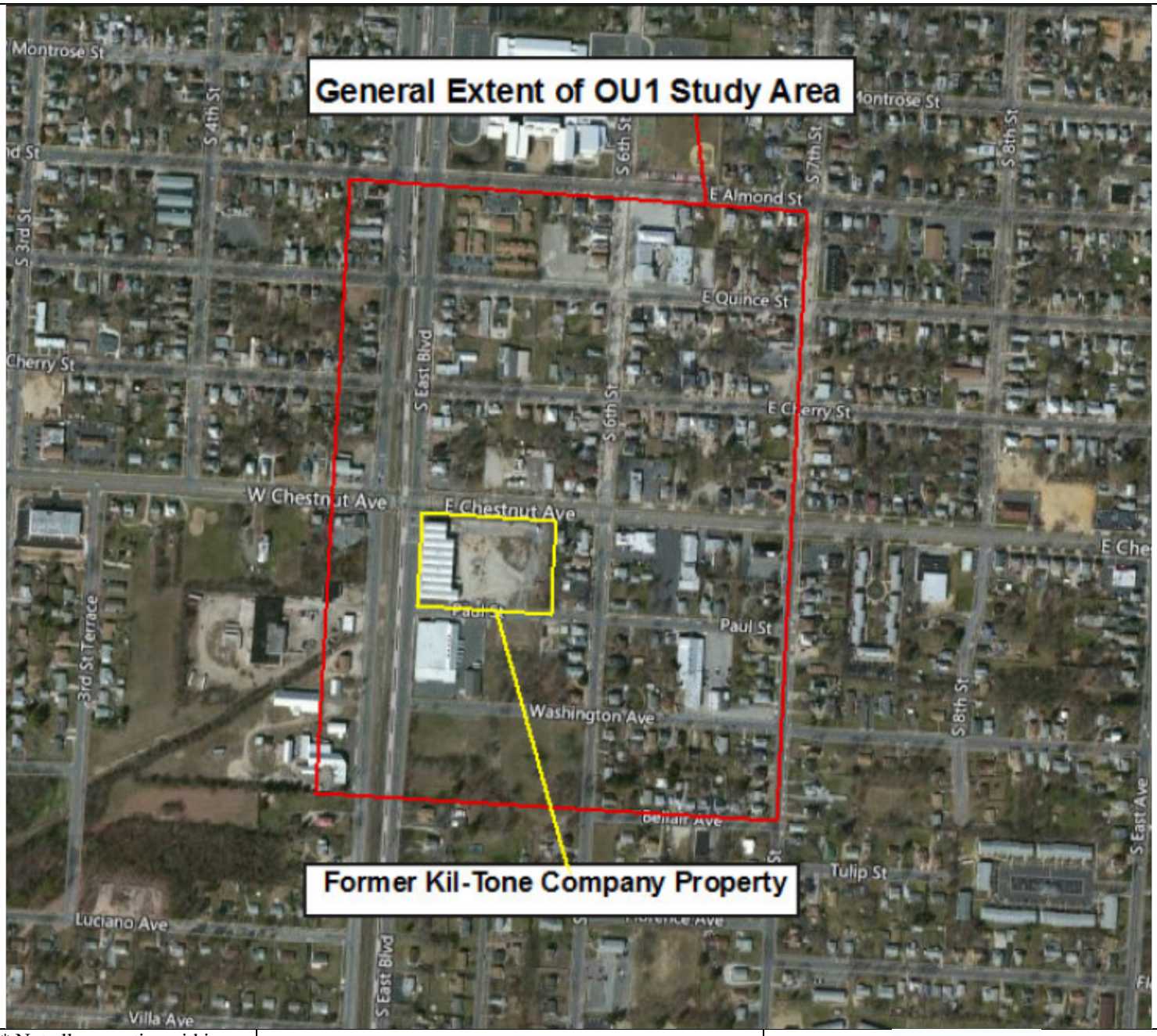
Former Kil-Tone Company
Superfund Site

N

Figure 1: Site Location

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

	Former Kil-Tone Company Superfund Site	N
	Figure 2: Site Overview	UNITED STATES ENVIRONMENTAL PROTECTION AGENCY



* Not all properties within the General Study Area outlined above require remediation; only those properties with elevated concentrations of COCs will be addressed.
** The extent of the General Study Area may expand or contract based on results of sampling during design and/or implementation of the remedy.

Former Kil-Tone Company
Superfund Site

N

Figure 3: Operable Unit 1

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

APPENDIX II

Tables

TABLE 1
Summary of Chemicals of Concern and Medium-Specific Exposure Point Concentrations

Scenario Timeframe: Current/Future
Medium: Soil
Exposure Medium: Surface Soil

Exposure Point	Chemical of Concern	Concentration Detected		Concentration Units	Frequency of Detection	Exposure Point Concentration (EPC)	EPC Units	Statistical Measure
		Min	Max					
FKTC Property 007	Arsenic	14	1,100	mg/kg	20/20	533	mg/kg	95% Student's-t UCL
	Lead	140	2,000	mg/kg	20/20	826	mg/kg	Arithmetic mean
FKTC Property 010	Arsenic	14	44	mg/kg	4/4	44	mg/kg	Maximum
	Lead	670	2,500	mg/kg	4/4	1,743	mg/kg	Arithmetic mean
FKTC Property 021	Arsenic	21	100	mg/kg	11/11	70	mg/kg	95% Student's-t UCL
	Lead	51	440	mg/kg	11/11	192	mg/kg	Arithmetic mean

95% Student's-t-UCL – 95% upper confidence limit, Student's-t statistic (mean, STD)

Summary of Chemicals of Concern and Medium-Specific Exposure Point Concentrations

This table presents the chemicals of concern (COCs) and exposure point concentrations (EPCs) for the COCs in soil. The table includes the range of concentrations detected for each COC, as well as the frequency of detection (i.e., the number of times the chemical was detected in the samples collected at the site), the EPC and how it was derived.

TABLE 2
Selection of Exposure Scenarios

Scenario Timeframe	Medium	Exposure Medium	Exposure Point	Receptor Population	Receptor Age	Exposure Route	Type of Analysis
Current/Future	Soil	Surface soil	FKTC Property 007	Resident	Adult and Child (birth to <6 years)	Ing/Der	Quantitative
			FKTC Property 010				
			FKTC Property 021				

Ing – Ingestion

Der – Dermal

Summary of Selection of Exposure Pathways

This table describes the exposure pathways that were evaluated for the risk assessment. Exposure media, exposure points, and characteristics of receptor populations are included.

TABLE 3
Non-Cancer Toxicity Data Summary

Pathway: Oral/Dermal

Chemical of Concern	Chronic/ Subchronic	Oral RfD Value	Oral RfD Units	Absorp. Efficiency (Dermal)	Adjusted RfD (Dermal)	Adj. Dermal RfD Units	Primary Target Organ	Combined Uncertainty /Modifying Factors	Sources of RfD: Target Organ	Dates of RfD:
Arsenic	Chronic	3.0E-04	mg/kg-day	95%	3.0E-04	mg/kg-day	Skin	3	IRIS	9/1/1991
Lead	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Key

IRIS: Integrated Risk Information System

Summary of Toxicity Assessment

This table provides non-carcinogenic risk information which is relevant to the contaminants of concern. When available, the chronic toxicity data have been used to develop oral reference doses (RfDs).

TABLE 4
Cancer Toxicity Data Summary

Pathway: Oral/Dermal

Chemical of Concern	Oral Cancer Slope Factor	Units	Adjusted Cancer Slope Factor (for Dermal)	Slope Factor Units	Weight of Evidence/ Cancer Guideline Description	Source	Date
Arsenic	1.5E+00	mg/kg-day	1.5E+00	mg/kg-day	A	IRIS	06/01/95
Lead	NA	NA	NA	NA	NA	NA	NA

Key:

A: Known Human Carcinogen
IRIS: Integrated Risk Information System

Summary of Toxicity Assessment

This table provides carcinogenic risk information which is relevant to the contaminants of concern. Toxicity data are provided for both the oral and dermal routes of exposure.

TABLE 5

Risk Characterization Summary - Noncarcinogens

Scenario Timeframe: Current/Future
Receptor Population: Site Resident
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Chemical of Concern	Primary Target Organ	Non-Carcinogenic Risk		
					Ingestion	Dermal	Exposure Routes Total
Soil	Surface Soil	FKTC Property 007	Arsenic	Skin	1.3+00	2.7E-01	**1.6+00**
		FKTC Property 010			1.1-01	2.2-02	1.3-01
		FKTC Property 021			1.7-01	3.5-02	2.1-01

Scenario Timeframe: Current/Future
Receptor Population: Site Resident
Receptor Age: Child

Medium	Exposure Medium	Exposure Point	Chemical of Concern	Primary Target Organ	Non-Carcinogenic Risk		
					Ingestion	Dermal	Exposure Routes Total
Soil	Surface Soil	FKTC Property 007	Arsenic	Skin	1.4+01	1.6+00	**1.6+01**
		FKTC Property 010			1.1+00	1.1-01	1.2+00
		FKTC Property 021			1.8+00	2.1-01	**2.0+00**

Summary of Risk Characterization - Non-Carcinogens

The table presents hazard quotients (HQs) for each route of exposure and the hazard index (sum of hazard quotients) for exposure to groundwater containing site-related chemicals. The Risk Assessment Guidance for Superfund states that, generally, a hazard index (HI) greater than 1 indicates the potential for adverse non-cancer effects.

TABLE 6

Risk Characterization Summary - Carcinogens

Scenario Timeframe: Current/Future
Receptor Population: Site Resident
Receptor Age: Lifetime (Adult/child)

Medium	Exposure Medium	Exposure Point	Chemical of Concern	Carcinogenic Risk		
				Ingestion	Dermal	Exposure Routes Total
Soil	Surface Soil	FKTC Property 007	Arsenic	1.6E-04	3.5E-05	**2.0E-04**
		FKTC Property 010		1.4E-05	2.9E-06	1.7E-05
		FKTC Property 021		2.1E-05	4.5E-06	2.6E-05

Summary of Risk Characterization – Carcinogens

The table presents site-related cancer risks for groundwater exposure. As stated in the National Contingency Plan, the point of departure is 10^{-6} and the acceptable risk range for site-related exposure is 10^{-6} to 10^{-4}. The cancer risk from arsenic in surface soil exceeds the acceptable risk range, indicating an unacceptable risk from residential exposure to soil.

TABLE 7

Risk Characterization Summary – Lead
Medium-Specific Exposure Point Concentration

Scenario Timeframe: Current/Future
Receptor Population: Site Resident
Receptor Age: Child

Medium	Exposure Medium	Exposure Point	Chemical of Concern	Exposure Point Concentration1	Units
Soil	Surface Soil	FKTC Property 007	Lead	**826**	mg/kg
		FKTC Property 010		**1,743**	mg/kg
		FKTC Property 021		192	mg/kg

[1] – The lead EPC was the arithmetic mean of all samples collected from the surface soil interval (0-2ft)

Summary of Risk Characterization – Carcinogens

Because there are no published quantitative toxicity values for lead, it is not possible to evaluate risks from lead exposure using the same methodology as for the other COCs. However, since the toxicokinetics (the absorption, distribution, metabolism, an excretion of toxins in the body) of lead are well understood, lead is regulated based on blood lead concentrations. The lead concentrations on the targeted properties were qualitatively assessed by comparing the lead EPC at each property to EPA's residential soil screening level, 400 mg/kg. This lead soil screening value corresponds to a modelled estimate of 5% of the population with a blood lead level greater than 10 ug/dl.

TABLE 8 Applicable or Relevant and Appropriate Requirements (ARARs) & To-Be-Considered (TBC) Guidance			
Chemical-Specific ARARs			
Action/Media	**Requirement**	**Prerequisite**	**Citation**
Removal of contaminated soil for residential use	Residential Direct Contact Soil Remediation Standards. N.J.A.C. 7:26D Appendix 1 Table 1A lists the cleanup levels. • Arsenic – 19 mg/kg • Lead – 400 mg/kg	Remediation of residential contaminated soil	N.J.A.C. 7:26D, Appendix 1, Table 1A Residential Direct Contact Soil Remediation Standards
Air quality standards for lead	National Ambient Air Quality Standards (NAAQS). National primary and secondary ambient are quality standards for lead: 0.15 µg/m^3, arithmetic mean concentration over a 3-month period	Remediation area contains lead	40 CFR § 50.16
	NJ Air Pollution Control Rules. During any three consecutive months, the arithmetic mean of 24-hour averages of lead concentrations in ambient air shall not exceed 1.5 µg/m^3	Remediation area contains lead	N.J.A.C. 7:27-13.7

Action-Specific ARARs			
Action/Media	**Requirement**	**Prerequisite**	**Citation**
General Construction Standards — All Land-disturbing Activities (i.e., excavation, clearing, grading, etc.)			
Erosion control during soil disturbing activities	Must comply with "The Standards for Soil Erosion and Sediment Control in New Jersey," 7th Edition, January 2014, issued by the New Jersey Department of Agriculture and effective February 20, 2014.	Soil disturbance project as defined by N.J.S.A. 4:24-41	N.J.A.C. 2:90-1.1 et seq. N.J.S.A. 4:24-39 et seq. Soil Erosion and Sediment Control Act
Control of storm water runoff from soil disturbing activities	Design and performance standards for stormwater management measures.	Major development as defined in N.J.A.C. 7:8-1.2	N.J.A.C. 7:8 Stormwater Management Rule
	NJ Water Pollution Control Act Regulations prohibits the discharge of any pollutant into the waters of the State without a valid permit.		N.J.A.C. 7:14
	NJ Pollutant Discharge Elimination System Rules establishes the framework under which NJDEP regulates the discharge of pollutants to the surface and groundwaters of the State		N.J.A.C. 7:14A
Discharge of hazardous substance	Discharges of Petroleum and Other Hazardous Substances sets forth guidelines and procedures to be followed in the event of a discharge of hazardous substance, and defines hazardous substance in New Jersey.		N.J.A.C. 7:1E
Right-to-know regulations	NJ Worker and Community Right-to-Know Regulations establishes procedures by which employers provide chemical inventory reporting to inform employees and communities of the potential hazards in the work place.		N.J.A.C. 7:1G

Action-Specific ARARs			
Action/Media	**Requirement**	**Prerequisite**	**Citation**
Confirmation sampling	Regulations Governing the Certification of Laboratories and Environmental Measurements establishes procedures for laboratories to obtain and maintain certifications and perform sample analysis to ensure analytical and data environmental measurements are of known and defensible quality.		N.J.A.C. 7:18
Site Remediation	NJ Technical Requirements for Site Remediation establishes the minimum technical requirements for the remediation of contaminated sites.		N.J.A.C. 7:26E
	NJ Brownfield and Contaminated Site Remediation Act enables legislation for development of remediation standards necessary to protect public health and safety and the environment from discharged hazardous substances and for mandating cleanup of contaminated sites.		P.L. 1997, C. 278
Air pollution control	NJ Air Pollution Control Rules identify activities which require obtaining an air permit for construction/operation.		N.J.A.C. 7:27
Noise Control	NJ Noise Control Rules prohibits the generation of certain types of noise at specific times and establishes methods to determine compliance.		N.J.A.C. 7:29
Waste Characterization – Primary Waste (e.g., excavated soils and debris) and Secondary Wastes (e.g., contaminated equipment)			
Characterization of ***solid waste*** (all primary and secondary wastes)	Must determine if solid waste is a hazardous waste using the following method: • Should first determine if waste is excluded from regulation under 40 CFR 261.4; and • Must then determine if waste is listed as hazardous waste under Subpart D 40 CFR Part 261.	Generation of solid waste as defined in 40 CFR 261.2	40 CFR § 262.11(a) and (b) N.J.A.C. 7:26G

Action-Specific ARARs			
Action/Media	**Requirement**	**Prerequisite**	**Citation**
	Must determine whether the waste is (characteristic waste) identified in Subpart C of 40 CFR part 261 by either: (1) Testing the waste according to the methods set forth in Subpart C of 40 CFR part 261, or according to an equivalent method approved by the Administrator under 40 CFR 260.21; or (2) Applying knowledge of the hazard characteristic of the waste in light of the materials or the processes used.	Generation of solid waste that is not excluded under 40 CFR 261.4(a)	40 CFR § 262.11(c) N.J.A.C. 7:26G
	Must refer to Parts 261, 262, 264, 265, 266, 268, and 273 of Chapter 40 for possible exclusions or restrictions pertaining to management of the specific waste.	Generation of solid waste that is determined to be hazardous waste	40 CFR § 262.11(d) N.J.A.C. 7:26G
Characterization of ***hazardous waste*** (all primary and secondary wastes)	Must obtain a detailed chemical and physical analysis on a representative sample of the waste(s), which at a minimum contains all the information that must be known to treat, store, or dispose of the waste in accordance with pertinent sections of 40 CFR 264 and 268.	Generation of RCRA hazardous waste for storage, treatment or disposal	40 CFR § 264.13(a)(1) N.J.A.C. 7:26G
Determinations for management of hazardous waste	Must determine each EPA Hazardous Waste Number (waste code) applicable to the waste in order to determine the applicable treatment standards under 40 CFR 268 et seq. Note: This determination may be made concurrently with the hazardous waste determination required in Sec. 262.11 of this chapter.	Generation of hazardous waste for storage, treatment or disposal	40 CFR § 268.9(a) N.J.A.C. 7:26G

Action-Specific ARARs			
Action/Media	**Requirement**	**Prerequisite**	**Citation**
	Must determine the underlying hazardous constituents [as defined in 40 CFR 268.2(i)] in the characteristic waste.	Generation of RCRA characteristic hazardous waste (and is not D001 non – wastewaters treated by CMBST, RORGS, or POLYM of Section 268.42 Table 1) for storage, treatment or disposal	40 CFR § 268.9(a) N.J.A.C. 7:26G
	Must determine if the hazardous waste meets the treatment standards in 40 CFR 268.40, 268.45, or 268.49 by testing in accordance with prescribed methods or use of generator knowledge of waste. Note: This determination can be made concurrently with the hazardous waste determination required in 40 CFR 262.11.	Generation of hazardous waste for storage, treatment or disposal	40 CFR § 268.7(a) N.J.A.C. 7:26G
	Must comply with the special requirements of 40 CFR 268.9 in addition to any applicable requirements in CFR 268.7.	Generation of waste or soil that displays a hazardous characteristic of ignitability, corrosivity, reactivity, or toxicity for storage, treatment or disposal	40 CFR § 268.7(a) N.J.A.C. 7:26G

Action-Specific ARARs			
Action/Media	**Requirement**	**Prerequisite**	**Citation**
Waste Storage – Primary Waste (e.g., excavated soils/sediments, sludge, debris) and Secondary Wastes (e.g., contaminated equipment)			
Temporary on–site storage of hazardous waste in containers	A generator may accumulate hazardous waste at the facility provided that: • Waste is placed in containers that comply with 40 CFR 265.171 –173; and • The date upon which accumulation begins is clearly marked and visible for inspection on each container; and • Container is marked with the words "hazardous waste"; or	Accumulation of RCRA hazardous waste on site as defined in 40 CFR 260.10	40 CFR § 262.34(a); 40 CFR § 262.34(a)(1)(i); 40 CFR § 262.34(a)(2) and (3) N.J.A.C. 7:26G
	• Container may be marked with other words that identify the contents.	Accumulation of 55 gal. or less of RCRA hazardous waste or one quart of acutely hazardous waste listed in 261.33(e) at or near any point of generation	40 CFR § 262.34(c)(1) N.J.A.C. 7:26G
Use and management of hazardous waste in containers	If container is not in good condition (e.g. severe rusting, structural defects) or if it begins to leak, must transfer waste from this container to a container that is in good condition.	Storage of RCRA hazardous waste in containers	40 CFR § 265.171 N.J.A.C. 7:26G
	Must use container made or lined with materials compatible with waste to be stored so that the ability of the container to contain is not impaired.	Storage of RCRA hazardous waste in containers	40 CFR § 265.172 N.J.A.C. 7:26G
	Containers must be closed during storage, except when necessary to add/remove waste. Container must not be opened, handled, or stored in a manner that may rupture the container or cause it to leak.	Storage of RCRA hazardous waste in containers	40 CFR § 265.173(a) and (b) N.J.A.C. 7:26G

Action-Specific ARARs			
Action/Media	**Requirement**	**Prerequisite**	**Citation**
Storage of hazardous waste in containment area	Area must have a containment system designed and operated in accordance with 40 CFR 264.175(b)	Storage of RCRA hazardous waste in containers with free liquids	40 CFR § 264.175(a) N.J.A.C. 7:26G
	Area must be sloped or otherwise designed and operated to drain liquid resulting from precipitation, or Containers must be elevated or otherwise protected from contact with accumulated liquid.	Storage of RCRA–hazardous waste in containers that do not contain free liquids (other than F020, F021, F022, F023, F026 and F027)	40 CFR 264.175(c)(1) and (2) N.J.A.C. 7:26G
Closure performance standard for RCRA container storage unit	Must close the facility (e.g., container storage unit) in a manner that: • Minimizes the need for further maintenance; • Controls minimizes or eliminates, to the extent necessary, to protect human health and the environment, post-closure escape of hazardous waste, hazardous constituents, leachate, contaminated run-off, or hazardous waste decomposition products to the ground or surface waters or the atmosphere; and • Complies with the closure requirements of Subpart, but not limited to, the requirements of 40 CFR § 264.178 for containers.	Storage of RCRA hazardous waste in containers	40 CFR § 264.111 N.J.A.C. 7:26G
Closure of RCRA container storage unit	At closure, all hazardous waste and hazardous waste residues must be removed from the containment system. Remaining containers, liners, bases, and soils containing or contaminated with hazardous waste and hazardous waste residues must be decontaminated or removed. [Comment: At closure, and throughout the operating period, unless the owner or operator can demonstrate in accordance with 40 CFR 261.3(d) of this chapter that the solid waste removed from the containment system is not a hazardous waste, the owner or operator becomes a generator of hazardous waste and must manage it in accordance with all applicable requirements of Parts 262 through 266 of this chapter].	Storage of RCRA hazardous waste in containers in a unit with a containment system	40 CFR § 264.178 N.J.A.C. 7:26G

Action-Specific ARARs			
Action/Media	**Requirement**	**Prerequisite**	**Citation**
Temporary on –site storage of remediation waste in staging pile (e.g., excavated soils)	Must be located within the contiguous property under the control of the owner/operator where the wastes are to be managed in the staging pile originated. For purposes of this section, storage includes mixing, sizing, blending or other similar physical operations so long as intended to prepare the wastes for subsequent management or treatment.	Accumulation of ***solid non–flowing hazardous remediation waste*** (or remediation waste otherwise subject to land disposal restrictions) as defined in 40 CFR 260.10	40 CFR § 264.554(a)(1)
Performance criteria for staging pile	Staging pile must: • Facilitate a reliable, effective and protective remedy; be designed to prevent or minimize releases of hazardous wastes and constituents into the environment, • And minimize or adequately control cross–media transfer as necessary to protect human health and the environment (e.g. use of liners, covers, run–off/run–on controls).	Storage of remediation waste in a staging pile	40 CFR § 264.554(d)(1)(i) and (ii)
Operation of a staging pile	Must not operate for more than 2 years, except when an operating term extension under 40 CFR 264.554(i) is granted. *Note:* Must measure the 2-year limit (or other operating term specified) from first time remediation waste placed in staging pile	Storage of remediation waste in a staging pile	40 CFR § 264.554(d)(1)(iii)

Action-Specific ARARs			
Action/Media	**Requirement**	**Prerequisite**	**Citation**
Design criteria for staging pile	In setting standards and design criteria consider the following factors: • Length of time pile will be in operation; • Volumes of waste intended to store in the pile; • Physical and chemical characteristics of the wastes to be stored in the pile; • Potential for releases from the pile; • Hydrogeological and other relevant environmental conditions at the facility that may influence the migration of any potential releases; and • Potential for human and environmental exposure to potential releases from the pile.	Storage of remediation waste in a staging pile	40 CFR § 264.554(d)(2)(i) –(vi)
Closure of staging pile of remediation waste	Must be closed within 180 days after the operating term by removing or decontaminating all remediation waste, contaminated containment system components, and structures and equipment contaminated with waste and leachate. Must decontaminate contaminated soils in a manner that EPA determines will protect human and the environment.	Storage of remediation waste in staging pile in ***previously contaminated area***	40 CFR § 264.554(j)(1) and (2)
	Must be closed within 180 days after the operating term according to 40 CFR 264.258(a) and 264.111 or 265.258(a) and 265.111.	Storage of remediation waste in staging pile ***in uncontaminated area***	40 CFR § 264.554(k)
Waste Treatment and Disposal – Primary Waste (e.g., excavated soils/sediments, sludge, debris) and Secondary Wastes (e.g., contaminated equipment)			
Disposal of RCRA hazardous waste in a land-based unit	May be land disposed if it meets the requirements in the table "Treatment Standards for Hazardous Waste" at 40 CFR 268.40 before land disposal.	Land disposal, as defined in 40 CFR 268.2, of restricted RCRA waste	40 CFR § 268.40(a) N.J.A.C. 7:26G

Action-Specific ARARs			
Action/Media	**Requirement**	**Prerequisite**	**Citation**
	All underlying hazardous constituents [as defined in 40 CFR 268.2(i)] must meet the UTS, found in 40 CFR 268.48 Table UTS prior to land disposal.	Land disposal of restricted RCRA characteristic wastes (D001 –D043) that are not managed in a wastewater treatment system that is regulated under the CWA, that is CWA equivalent, or that is injected into a Class I nonhazardous injection well	40 CFR § 268.40(e) N.J.A.C. 7:26G
Disposal of RCRA –*hazardous waste soil* in a land–based unit	Must be treated according to the alternative treatment standards of 40 CFR 268.49(c) or according to the UTSs specified in 40 CFR 268.48 applicable to the listed or characteristic waste contaminating the soil prior to land disposal.	Land disposal, as defined in 40 CFR 268.2, of restricted hazardous soils	40 CFR § 268.49(b) N.J.A.C. 7:26G
Disposal of RCRA hazardous waste in a land-based unit	To determine whether a hazardous waste identified in this section exceeds the applicable treatment standards of 40 CFR 268.40, the initial generator must test a sample of the waste extract or the entire waste, depending on whether the treatment standards are expressed as concentration in the waste extract or waste, or the generator may use knowledge of the waste. If the waste contains constituents (including UHCs in the characteristic wastes) in excess of the applicable UTS levels in 40 CFR 268.48, the waste is prohibited from land disposal, and all requirements of Part 268 are applicable, except as otherwise specified.	Land disposal of RCRA toxicity characteristic wastes (D004 –D011) that are newly identified (i.e., wastes, soil, or debris identified by the TCLP but not the Extraction Procedure)	40 CFR § 268.34(f) N.J.A.C. 7:26G
Disposal of RCRA hazardous waste debris in a land–based unit (i.e., landfill)	Must be treated prior to land disposal as provided in 40 CFR 268.45(a)(1)–(5) unless EPA determines under 40 CFR 261.3(f)(2) that the debris no longer contaminated with hazardous waste or the debris is treated to the waste –specific treatment standard provided in 40 CFR 268.40 for the waste contaminating the debris.	Land disposal, as defined in 40 CFR 268.2, of restricted RCRA–hazardous debris	40 CFR § 268.45(a) N.J.A.C. 7:26G

Action-Specific ARARs			
Action/Media	**Requirement**	**Prerequisite**	**Citation**
Waste Transportation – Primary and Secondary Wastes			
Transportation of hazardous waste *on–site*	The generator manifesting requirements of 40 CFR 262.20–262.32(b) do not apply. Generator or transporter must comply with the requirements set forth in 40 CFR 263.30 and 263.31 in the event of a discharge of hazardous waste on a private or public right–of–way.	Transportation of hazardous wastes on a public or private right–of–way within or along the border of contiguous property under the control of the same person, even if such contiguous property is divided by a public or private right–of–way	40 CFR § 262.20(f) N.J.A.C. 7:26G
Transportation of hazardous waste *off–site*	Must comply with the generator standards of Part 262 including 40 CFR 262.20–23 for manifesting, Sect. 262.30 for packaging, Sect. 262.31 for labeling, Sect. 262.32 for marking, and Sect. 262.33 for placarding.	Preparation and initiation of shipment of hazardous waste off–site	40 CFR § 262.10(h); N.J.A.C. 7:26G
Transportation of *hazardous materials*	Shall be subject to and must comply with all applicable provisions of the HMTA and HMR at 49 CFR 171–180 related to marking, labeling, placarding, packaging, emergency response, etc.	Any person who, under contract with a department or agency of the federal government, transports "in commerce," or causes to be transported or shipped, a hazardous material	49 CFR § 171.1(c)
Transportation of samples (i.e. contaminated soils)	Are not subject to any requirements of 40 CFR Parts 261 through 268 or 270 when: • The sample is being transported to a laboratory for the purpose of testing; or • The sample is being transported back to the sample collector after testing • The sample is being stored by sample collector before transport to a lab for testing	Samples of solid waste or a sample of water, soil for purpose of conducting testing to determine its characteristics or composition	40 CFR § 261.4(d)(1)(i)–(iii)

Location-Specific ARARs			
Action/Media	**Requirement**	**Prerequisite**	**Citation**
Historic landmarks, property, or projects owned or controlled by federal agencies	Preserve historic property; minimize harm to National Historic Landmarks.	National Historic Preservation Act. Establishes a program for the preservation of historic properties in the United States.	36 CFR § 800
To Be Considered (TBC)			
Action/Media	**Requirement**	**Prerequisite**	**Citation**
Administrative Requirements	Administrative Requirements for the Remediation of Contaminated Sites		N.J.A.C. 7:26C
Sediment and soil erosion control	NJ Department of Transportation (NJDOT) standards are typically used to develop the appropriate plans for sediment and soil erosion control required under the NJ Soil Conservation Act		NJDOT Standard Specifications – Soil Erosion and Sediment Control Measures (1996)

Notes:

ARAR Applicable *or* relevant and appropriate requirement
CFR Code of Federal Regulations
mg/kg Milligrams per kilogram
N.J.A.C. New Jersey Administrative Code, Chapters as specified
CMBST High temperature organic destruction technologies, such as combustion in incinerators, boilers, or industrial furnaces
CWA Clean Water Act
EPA U.S. Environmental Protection Agency
HMTA Hazardous Materials Transportation Act
HMR Hazardous Materials Regulations
N.J.A.C. New Jersey Administrative Code, Chapters as specified
N.J.S.A. New Jersey Statutes
POLYM Formation of complex high-molecular weight solids through polymerization of monomers
RCRA Resource Conservation and Recovery Act
RORGS Recovery of organics utilizing distillation, thin film evaporation, steam stripping, carbon adsorption, critical fluid extraction, liquid-liquid extraction, precipitation/crystallization, or chemical phase separation techniques
TCLP Toxicity characteristic leaching procedure
UHCs Underlying hazardous constituents
UTS Universal Treatment Standards

Also note: While not an ARAR, all relevant sections of the Occupational Safety and Health Standards and Safety and Health Regulations for Construction (29 CFR 1910 and 1926) will be complied with.

APPENDIX III

Administrative Record Index

ADMINISTRATIVE RECORD INDEX OF DOCUMENTS

FINAL

08/25/2016 **REGION ID: 02**

Site Name: FORMER KIL-TONE COMPANY
CERCLIS ID: NJN000200874
OUID: 01
SSID: A24N
Action:

DocID:	Doc Date:	Title:	Image Count:	Doc Type:	Addressee Name/Organization:	Author Name/Organization:
395942	8/25/2016	ADMINISTRATIVE RECORD INDEX FOR OU1 FOR THE FORMER KIL-TONE COMPANY SITE	1	ARI / Administrative Record Index		R02: (US ENVIRONMENTAL PROTECTION AGENCY)
351628	6/30/2016	FOCUSED FEASIBILITY STUDY FOR OU1 FOR THE FORMER KIL-TONE COMPANY SITE	96	RPT / Report	R02: Staiger, Kimberly (US ENVIRONMENTAL PROTECTION AGENCY)	R02: Gawarzewski, Joseph, F (TETRA TECH INCORPORATED)
395930	6/30/2016	REMEDIAL INVESTIGATION REPORT FOR OU1 FOR THE FORMER KIL-TONE COMPANY SITE	1778	RPT / Report	R02: Staiger, Kimberly (US ENVIRONMENTAL PROTECTION AGENCY)	R02: Gawarzewski, Joseph, F (TETRA TECH INCORPORATED)
395940	7/11/2016	PROPOSED PLAN FOR OU1 FOR THE FORMER KIL-TONE COMPANY SITE	13	WP / Work Plan		R02: (US ENVIRONMENTAL PROTECTION AGENCY)
395941	7/11/2016	PROPOSED PLAN FOR OU1 (SPANISH VERSION) FOR THE FORMER KIL-TONE COMPANY SITE	14	WP / Work Plan		R02: (US ENVIRONMENTAL PROTECTION AGENCY)
436189	7/11/2016	REMEDIAL INVESTIGATION REPORT ADDENDUM - PHASE III RESIDENTIAL SOIL SAMPLING EVENT FOR THE FORMER KIL-TONE COMPANY SITE	2760	RPT / Report	R02: (US ENVIRONMENTAL PROTECTION AGENCY)	R02: Gawarzewski, Joseph, F (TETRA TECH INCORPORATED)

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APPENDIX IV

State Letter

State of New Jersey
DEPARTMENT OF ENVIRONMENTAL PROTECTION
SITE REMEDIATION PROGRAM
Mail Code 401-06
P. O. Box 420
Trenton, New Jersey 08625-0420
Tel. #: 609-292-1250
Fax. #: 609-777-1914

CHRIS CHRISTIE
Governor

KIM GUADAGNO
Lt. Governor

BOB MARTIN
Commissioner

September 9, 2016

Mr. Walter Mugdan, Director
Emergency and Remedial Response Division
U.S. Environmental Protection Agency
Region II
290 Broadway
New York, NY 10007-1866

Re: Former Kil-Tone Company Superfund Site
Record of Decision Operable Unit 1
EPA ID# NJN000200874
DEP PI# 648249

Dear Mr. Mugdan:

The New Jersey Department of Environmental Protection (DEP) completed its review of the "Record of Decision, Former Kil-Tone Company Superfund Site, Operable Unit 1, Cumberland County, New Jersey" prepared by the U.S. Environmental Protection Agency (EPA) Region II in August 2016 and concurs with the selected remedy to remove arsenic and lead contaminated soil on residential properties.

The selected remedy included in this Record of Decision covers a discrete portion of the site involving contaminated soil at residential properties in the vicinity of the former Kil-Tone Company property on East Chestnut Avenue in the City of Vineland. The estimated present-worth cost of the selected remedy is $8,774,000.

The components of the selected Operable Unit 1 remedy include:

- Excavation of an estimated 21,000 cubic yards of soil contaminated primarily with arsenic and lead from approximately 57 residential properties in the vicinity of the former Kil-Tone Company facility, off-site disposal of contaminated soil and backfilling with clean fill; and,
- Restoration of the affected properties.

Excavation activities associated with remediation may require the demolition and replacement of temporary structures such as sheds and garages and the removal and replacement of asphalt and driveways. Excavation of the contaminated material may also require the temporary relocation of residents.

DEP supports EPA's plans to establish four operable units for the site that includes the first operable unit for residential properties. EPA anticipates that a second operable unit will address contaminated soil on the former facility property itself, and other commercial/industrial properties and public areas, as necessary, in the vicinity of the former facility property. A third operable unit will address contaminated groundwater associated with the site, and a fourth operable unit will address contaminated sediment and surface water along the Tarkiln Branch to the confluence of the Parvin Branch, and further downstream as necessary based on the results of the ongoing investigations.

DEP appreciates the opportunity to participate in the decision making process to select an appropriate remedy for this site. Further, DEP is looking forward to future cooperation with EPA in remedial actions for additional operable units to ensure a full cleanup at all areas impacted by this site.

If you have any questions, please call me at 609-292-1250.

Sincerely,

Mark J. Pedersen
Assistant Commissioner
Site Remediation & Waste Management Program

C: Kenneth J. Kloo, Director, Division of Remediation Management, DEP
Edward W. Putnam, Assistant Director, Publicly Funded Response Element, DEP
Carole Petersen, Chief, New Jersey Remediation Branch, EPA Region II

APPENDIX V

Responsiveness Summary

RESPONSIVENESS SUMMARY

FOR THE

RECORD OF DECISION

FORMER KIL-TONE COMPANY SITE

CUMBERLAND COUNTY, NEW JERSEY

INTRODUCTION

This Responsiveness Summary provides a summary of comments and concerns provided during the public comment period related to the Proposed Plan for Operable Unit 1 (OU1) of the Former Kil-Tone Company Superfund site (Attachment A) and provides the U.S. Environmental Protection Agency's (EPA's) responses to those comments. All comments summarized in this document have been considered in EPA's final decision in the selection of a remedy to address the contamination at the site.

SUMMARY OF COMMUNITY RELATIONS ACTIVITIES

All documentation which the EPA used to develop the Proposed Plan and select the remedy in this Record of Decision (ROD), including the EPA's Focused Feasibility Study dated June 2016, are in the Administrative Record for OU1 which was made available to the public beginning July 13, 2016 in the information repositories maintained in the EPA Docket Room at the EPA Region 2 offices at 290 Broadway, New York, New York, at the Vineland Public Library, 1058 East Landis Avenue, Vineland, New Jersey and on EPA's website for the site, www.epa.gov/superfund/former-kil-tone.

On July 13, 2016, EPA published a notice in the *Press of Atlantic City* newspaper informing the public of the commencement of the public comment period for the Proposed Plan, the upcoming public meeting on August 2, 2016, the preferred remedy for OU1, contact information for EPA personnel, and the availability of site-related documents in the Administrative Record. Notice was also published in *Nuestra Comunidad*, a Spanish language newspaper, on July 15, 2016. Copies of these notices can be found in Attachment B of this appendix. Both English and Spanish versions of the Proposed Plan were made available at each of the repositories listed above, including online. The public comment period ran from July 13, 2016 to August 12, 2016. EPA held a public meeting on August 2, 2016 at 7:00 P.M. at the Gloria M Sabater Elementary School at 301 Southeast Boulevard, Vineland, New Jersey, to present the findings of the Proposed Plan, and to answer questions from the public about the Proposed Plan, the remedial alternatives evaluated, and EPA's preferred alternative. Local residents and government officials attended the meeting.

SUMMARY OF COMMENTS AND RESPONSES

A summary of the comments provided at the public meeting and all written comments submitted during the public comment period, as well as the EPA's responses to them, is provided below. The transcript from the public meeting and the comments submitted during the public comment period can be found in Attachments C and D, respectively, of this appendix.

Comment 1: The City of Vineland Health Department endorses EPA's preferred alternative.
EPA Response to Comment 1: EPA acknowledges the comment in support of its preferred alternative.

Comment 2: Who is the current owner and operator at the site and do they have any responsibility to pay for the clean-up?
EPA Response to Comment 2: The property is currently owned by Urban Manufacturing, LLC, which purchased the property in 2008. Urban Sign & Crane, Inc., is the current tenant, and its operation includes the fabrication and installation of commercial signage. The current owner and operator activities are unrelated to the contaminants of concern associated with the Superfund site. EPA has not identified a potentially responsible party for the site clean-up, though we continue to search for potentially responsible parties for the site.

Comment 3: What measures have been imposed by EPA to advise residents of the Fish Consumption Advisory which has been imposed on Union Lake and Maurice River?
EPA Response to Comment 3: Fish advisories in New Jersey are issued and communicated by the New Jersey Department of Environmental Protection, Division of Fish and Wildlife not EPA. If community members have concerns about the fish consumption advisory, information can be found at: http://www.state.nj.us/dep/dsr/njmainfish.htm.

Comment 4: Will the contamination have any adverse effect on livestock that consumes water from the stream?
EPA Response to Comment 4: Since OU1 focuses on residential properties, no ecological risk assessment was conducted. However, ecological risk assessments will be performed for future operable units and will evaluate whether the site poses an unacceptable risk to ecological receptors consuming water from the Tarkiln Creek. Based on this comment, livestock will be included in this evaluation

Comment 5: How is this cleanup going to affect property values?
EPA Response to Comment 5: The effect of the site on property values is unknown. There may be short-term impacts, however, in the long-term, all known site-related contamination will be removed from the affected properties and they will be fully restored. EPA will work with property owners on a case-by-case basis if a concern arises at any point during the site cleanup process.

Comment 6: How long will construction take place on each property?
EPA Response to Comment 6: Construction times will vary by property due to different yard sizes and variation in the extent of contamination. Some properties may be grouped together so that a large excavation could take place addressing several properties at once.

Comment 7: Is there additional sampling that needs to take place?
EPA Response to Comment 7: Additional sampling may take place to refine the extent of contamination on each property. EPA will continue to sample as long as concentrations of COCs are elevated, so this sampling may extend onto additional properties, which would then be added to the cleanup plan.

Comment 8: Is drinking water affected?
EPA Response to Comment 8: The soil contamination at the OU1 properties is not expected to affect drinking water. It is EPA's understanding that all of the residents are hooked up to municipal drinking water. All municipal wells are monitored and no elevated concentrations of site related contaminants have been identified.

Comment 9: Are there any vegetable gardens located at the residential properties and have they been tested for contaminants?
EPA Response to Comment 9: Several vegetable gardens are located at the residential properties; they have not been analyzed for contamination. In general, studies have found that risk from consuming vegetables grown in heavy-metal contaminated soil is less than the risk from incidental ingestion of the contaminated soil itself.

ATTACHED TO THIS RESPONSIVENESS SUMMARY ARE THE FOLLOWING:

Attachment A - Proposed Plan (English and Spanish versions)
Attachment B - Public Notices - *Press of Atlantic City* and *Nuestra Comunidad*
Attachment C - August 2, 2016 Public Meeting Transcript
Attachment D - Comments Submitted During Public Comment Period

Attachment A

Proposed Plan

Former Kil-Tone Company Superfund Site
Residential Soil
Vineland, New Jersey

Superfund Proposed Plan

July 2016

EPA ANNOUNCES PROPOSED PLAN

This Proposed Plan identifies the Preferred Alternative to remediate residential contaminated soil associated with the former Kil-Tone Company pesticide manufacturing plant located in Vineland, New Jersey. The Preferred Alternative calls for the excavation and off-site disposal of contaminated soil on residential properties nearby the former Kil-Tone Company property, and would be the final remedy for those properties.

EPA has performed soil sampling at more than 60 properties located nearby the former Kil-Tone Company property. Limited additional remedial investigation (RI) sampling of other areas, including soil at the former Kil-Tone Company property itself and at other commercial properties as well as groundwater, surface water and sediment sampling. The results of the residential soil sampling program identified residential properties where a remedial action is required. Additional sampling may be needed to further refine the extent of contamination at the residential properties.

This Proposed Plan includes summaries of cleanup alternatives evaluated for use at the affected residential properties. This Proposed Plan was developed by EPA, the lead agency for the Former Kil-Tone Company Superfund site, in consultation with the New Jersey Department of Environmental Protection (NJDEP), the support agency. EPA, in consultation with NJDEP, will select a final remedy for contaminated soil at affected residential properties after reviewing and considering all information submitted during the 30-day public comment period. EPA, in consultation with NJDEP, may modify the Preferred Alternative or select another response action presented in this Plan based on new information or public comments. Therefore, the public is encouraged to review and comment on the alternatives presented in this Proposed Plan.

EPA is issuing this Proposed Plan as part of its community relations program under Section 117(a) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) 42 U.S.C. 9617(a), and Section 300.435(c) (2) (ii) of the National Oil and Hazardous Substances Pollution Contingency Plan (NCP). This Proposed Plan summarizes information that can be found in greater detail in the Residential Remedial Investigation (RI) and Residential Focused Feasibility Study (FFS) reports and other related documents, which can be found in the Administrative Record for this action. The location of the Administrative Record is provided below. EPA and

MARK YOUR CALENDARS

Public Comment Period:
July 13 – August 12, 2016
EPA will accept written comments on the Proposed Plan during the public comment period. Written comments should be addressed to:

Hunter Young, Remedial Project Manager
U.S. Environmental Protection Agency
290 Broadway, 18th Floor
New York, NY 10007
Email: young.hunter@epa.gov

Written comments must be postmarked no later than August 12, 2016.

Public Meeting
August 2, 2016 at 7:00 P.M.
EPA will hold a public meeting to explain the Proposed Plan and all of the alternatives presented in the Feasibility Study. Oral and written comments will also be accepted at the meeting. The meeting will be held at:

Gloria M Sabater Elementary School.
301 Southeast Blvd, Vineland, NJ 08360

In addition, select documents from the administrative record are available on-line at:
www.epa.gov/superfund/former-kil-tone

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NJDEP encourage the public to review these documents to gain a more comprehensive understanding of activities for the site.

COMMUNITY ROLE IN SELECTION PROCESS

This Proposed Plan is being issued to inform the public of EPA's proposed alternative for residential properties and to solicit public comments pertaining to all of the remedial alternatives evaluated, including the preferred alternative. Changes to the proposed alternative, or a change to another alternative, may be made if public comments or additional data indicate that such a change would result in a more appropriate remedial action. The final decision regarding the selected remedy will be made after EPA has taken into consideration all public comments. EPA is soliciting public comments on all of the alternatives considered in the Proposed Plan, because EPA may select a remedy other than the proposed alternative. This Proposed Plan has been made available to the public for a public comment period that concludes on August 12, 2016.

A public meeting will be held during the public comment period to present the conclusions of the RI/FFS, to elaborate further on the reasons for proposing the preferred alternative, and to receive public comments. The public meeting will include a presentation by EPA of the preferred alternative and other cleanup options.

Information concerning the public meeting and on submitting written comments can be found in the "Mark Your Calendars" text box on Page 1. Comments received at the public meeting, as well as written comments received during the public comment period, will be documented in the Responsiveness Summary section of the Record of Decision (ROD). The ROD is the document that explains which alternative has been selected and the basis for the selection of the remedy.

SCOPE AND ROLE OF THE ACTION

Due to the large area, the different media affected by contamination, and varying land uses, EPA is addressing the cleanup of the Former Kil-Tone Company site in several phases, or operable units (OUs). This Proposed Plan is the first operable unit associated with the site and addresses contaminated soil at residential properties in the vicinity of the former Kil-Tone Company property. Future OUs will address contamination at the former Kil-Tone Company property itself and groundwater, surface water and sediment contamination associated with the site.

The number of affected properties referenced in this Proposed Plan with elevated concentrations of soil contaminants is an estimate used to calculate the approximate costs of the cleanup alternatives. EPA believes that the estimate is not likely to change significantly. The precise number of residential properties to be remediated will be determined upon completion of additional soil sampling during the remedial design and possibly refined during implementation of the remedial action.

SITE BACKGROUND

Site Description

The former Kil-Tone Company property is located at 527 East Chestnut Avenue in the City of Vineland, Cumberland County, New Jersey. The site is located in a mixed use area that has been identified as a community with environmental justice concerns. The property was used by the Kil-Tone Company to manufacture pesticides. EPA believes that pesticides were manufactured at the location of the former Kil-Tone Company property from 1917 to on or about 1933. Contaminated soil has been identified at various residential and commercial properties surrounding the former Kil-Tone Company property. The property is bordered to the north by East Chestnut Avenue; to the east by South Sixth Street; to the south by Paul Street; and to the west by South East Boulevard. Residential and commercial properties are located throughout the area. The focus of this Proposed Plan is the residential properties closest to the former Kil-Tone Company property.

Residential properties in the vicinity of the site range in lot size and date of construction. The smallest lots are less than 0.05 acre in size, while the largest lots are up to 0.5 acre in size. The oldest homes were built in 1890. The newest homes were constructed as recently as 1999. The majority of the properties contain single-family homes. In addition, there are approximately 10 homes that are duplex construction, in which two housing units share a common central wall. Most of the yards associated with the properties have a lawn, landscaping, and impervious surfaces that include driveways, sidewalks, and patios. There are several commercial properties within and among the residential properties including a fuel distribution facility, a

transmission service company, a salon, a restaurant, and a market. In addition, there are a few vacant lots and uninhabited properties within and among the residential properties.

A storm sewer catch basin located in the northwestern corner of the former Kil-Tone Company property receives storm water from the entire property and discharges into the head of the Tarkiln Branch located across South East Boulevard. The Tarkiln Branch is a tributary to the Parvin Branch which flows into the Maurice River located approximately 3.5 miles from the Site.

Site History

The former Kil-Tone Company began operations at the property on or about 1917. The company manufactured arsenic-based pesticides. Specific compounds manufactured by the company included lead arsenate, London purple, and Paris green.

In the mid-1920s, the Kil-Tone Company was acquired by John Lucas & Company. A subsidiary of John Lucas & Company, Lucas Kil-Tone continued to operate at the facility until about 1933. In 1930 John Lucas & Company was acquired by the Sherwin Williams Company. The property is currently owned by Urban Manufacturing, LLC, which purchased the property in 2008. Urban Sign & Crane, Inc., is the current tenant, and its operation includes the fabrication and installation of commercial signage.

There have been several investigations at the site, including a site investigation by NJDEP which was initiated in August 2014. Site assessments have been conducted by EPA's removal program. The NJDEP investigation found arsenic on the former Kil-Tone Company property at concentrations as high as 740 milligrams per kilogram (mg/kg) in the top 6 inches of soil and at concentrations as high as 5,800 mg/kg at depth (3.5 to 4 feet below ground surface). Groundwater samples collected from temporary well points on the former Kil-Tone Company property showed arsenic concentrations from 8.1 micrograms per liter (µg/L) to 14,000 µg/L. This discovery prompted NJDEP to refer the site to EPA on November 14, 2014.

The site was proposed to the National Priorities List (NPL) on September 30, 2015 and was added to the NPL on April 5, 2016.

In addition to the residential properties that are the subject of this Proposed Plan and the former Kil-Tone Company property itself, elevated concentrations of arsenic and lead have been found at nearby commercial properties. Contaminants associated with operations at the former Kil-Tone Company property have also been found in sediments along the entire stretch of the Tarkiln Branch to the confluence of the Parvin Branch and eventually to the Maurice River. Contaminants have also been identified in groundwater at or near the site. Investigations of all these additional areas are ongoing and will be the subject of future decision documents.

Site Geology and Hydrogeology

The topography of the site area is generally flat. The United States Department of Agriculture, Soil Conservation Service, Soil Survey of Cumberland County, New Jersey states that the site is located on Downer and Auro loamy sands. The Downer loamy sands are formed from fluviomarine deposits, located on river basins or hills. The Auro loamy sands occur with low hills and ancient stream terraces. The permeability is moderately slow to moderate for these soil associations. Parent material is described as loamy and gravelly alluvium. Much of the area is covered by houses, streets, driveways, buildings, parking lots, and urban construction.

During sampling activities, the soil types observed at the background and the residential areas included coarse sands, coarse sandy loams, coarse loamy sands, coarse sandy clays, coarse loamy sand and sand. In addition, background and residential soil samples collected during the Phase I residential soil sampling event were analyzed for grain size. The grain size analysis indicated that the background and residential soil samples are primarily sand. The percentage of sand in the background soil samples ranged from 61.4 percent to 63.9. The percentage of sand in the residential soil samples ranged from 54.4 percent to 85 percent. The grain size analysis indicated that the background and residential soil samples also contained silt, clay, and colloids. During sampling activities, fill material was routinely encountered in some of the soil borings; the fill material included concrete, red brick, coarse sand, coarse black sand, coarse orange and orange black sand with asphalt, brick and rock shards, plastic, terra cotta, dark brown soil fill, various types of variegated dark brown soil and fill, coal fragments, coal ash, silt, small shards of coal, porcelain, slag and trash.

REMEDIAL INVESTIGATION AND EARLY RESPONSE ACTIONS

In January and February 2015, EPA completed soil sampling on 27 residential properties located near the former Kil-Tone Company property, as well as in three background locations. Soil borings were installed at each residential property to a maximum depth of 2 feet below the ground surface, from the following depth intervals: 0-2 inches, 2-6 inches, 6-12 inches and 12-24 inches. Analytical results show elevated concentrations of lead and arsenic exceeding the NJDEP Residential Direct Contact Soil Remediation Standards (RDCSRS) of 400 mg/kg for lead and 19 mg/kg for arsenic.

EPA then expanded the residential soil sampling program to include additional residential properties to determine the extent of contamination. From June 8 to July 1, 2015, soil sampling was completed at an additional 35 homes. Approximately 815 soil samples were collected, and concentrations of lead and arsenic exceeding the NJDEP RDCSRS standards were found at an additional 30 residential properties.

During this event, a population of soil samples was collected from 8 residential properties and analyzed for Target Compound List (TCL) volatile organic compounds (VOC), semi-volatile organic compounds (SVOC), pesticides, and polycholorinated biphenyls (PCB) to fully characterize the nature and extent of contamination and ensure that all possible contaminants of potential concern were identified. Analytical results show elevated concentrations of pesticides (dieldrin, heptachlor epoxide) and polycyclic aromatic hydrocarbons (PAHs) (benzo(a)pyrene, benzo(a)anthracene, and benzo(b)fluoranthene) exceeding the RDCSRS.

In February 2016, EPA conducted additional residential soil sampling to refine the horizontal and vertical extent of soil contamination at the site. EPA sampled 27 residential properties located north, south, and east of the former Kil-Tone Company property. All but two of these properties were sampled during previous sampling events. These two additional properties are located near the site and access in order to conduct sampling was delayed. Soil samples were collected to help determine vertical extent of soil contamination and targeted depth intervals at the following six depth intervals at each boring location: 0-2, 2-24, 24-36, 36-48, 48-60, and 60-72 inches below ground surface. All samples were analyzed for TAL metals. In addition, a subset of the soil samples were analyzed for TCL VOCs, SVOCs, pesticides and PCBs

Early Response Actions

In April 2016, EPA's removal branch began immediate actions to prevent exposure to lead and arsenic contamination identified in surface soil at residential properties located near the former Kil-Tone Company property. The removal program's action level for arsenic is 67 mg/kg rather than NJDEP's standard of 19 mg/kg. The NJDEP standard is consistent with statewide background concentrations. Out of the 57 properties that are currently known to exceed NJDEP's standards for arsenic and/or lead, 26 properties exceeded the removal action level for arsenic and/or lead. Pesticides and PAHs were not detected above removal action levels. EPA's removal action consisted of the placement of 6 inches of topsoil on top of these 26 properties, with instructions to property owners and/or residents to not disturb this layer until a permanent remedy could be implemented. Completion of these preventative measures was completed in June 2016 on residential properties in the vicinity of the former Kil-Tone Company property, and is on-going at additional residential properties located in the flood plain of the Tarkiln Branch. In addition, a soil cover is being placed over the former Kil-Tone Company property itself to prevent further migration of contamination from the property until a permanent remedy can be implemented.

Remedial Investigation

Comprehensive RI sampling at the site began in January 2015. To date, thousands of environmental samples have been collected from soil, sediment, groundwater and surface water. Sampling has occurred on publicly owned property and commercial and residential properties.

Soil samples from residential properties, which are the focus of this action, were analyzed for metals, VOCs, SVOCs including PAHs, pesticides, and PCBs. Analyses of soil samples indicated the site was a source of soil contamination found on residential properties. A human health risk assessment was conducted on the soil analytical results from residential properties to determine if levels of soil contaminants exceeded EPA's acceptable risk range. The analytical results of residential soil samples were also compared to NJDEP RDCSRSs.

Based on the residential sampling efforts and comparison of the data to the contaminants detected at the properties; lead, arsenic, pesticides and PAHs were identified as contaminants of potential concern (COPCs) for this Proposed Plan. Lead and arsenic are found most frequently and at the greatest concentrations above the RDCSRS at residential properties. Soil samples had concentrations of arsenic and lead up to 1,000 mg/kg for arsenic and 5,700 mg/kg for lead. The pesticides found at concentrations above the RDCSRS at the residential properties were dieldrin and heptachlor epoxide. Maximum concentrations were found to be 0.49 mg/kg for dieldrin and 0.38 mg/kg for heptachlor epoxide. The PAHs found at concentrations above the RDCSRS at the residential properties were benzo(a)pyrene, benzo(a)anthracene, and benzo(b)fluoranthene and were found up to 0.81 mg/kg, 2.1 mg/kg, and 2.2 mg/kg, respectively. These pesticides and PAHs were found less frequently than arsenic and lead at the residential properties at concentrations above RDCSRS.

Contamination is primarily found in shallow soil on residential properties, though some areas of deeper contamination were identified. Shallow soil is generally defined as the 0 to 2 foot depth interval. Contaminated soil on the residential properties is likely the result of surface water runoff and air dispersion from the former Kil-Tone Company property. The investigations of other areas and media are ongoing.

The RI report for this portion of the site was finalized in July 2016, and the FFS was also completed in July 2016. Together, the RI/FFS form the basis for this Proposed Plan.

PRINCIPAL THREATS

Although lead and arsenic in soil at the OU1 properties may act as sources to surface water, sediment and groundwater contamination, these sources are not highly mobile and are not considered principal threat wastes for this OU of the site.

SUMMARY OF SITE RISKS

As part of the RI/FS, a human health risk assessment (HHRA) was conducted to estimate current and potential future effects of contaminants on human health. A HHRA is an analysis of the potential adverse human health effects caused by hazardous-substance exposure in the absence of any actions to control or mitigate these exposures under current and future site uses.

The cancer risk and noncancer health hazard estimates in the HHRA are based on current and potential future reasonable maximum exposure scenarios and were developed by taking into account various health protective estimates about the concentrations, frequency and duration of an individual's exposure to chemicals selected as COPCs, as well as the toxicity of these contaminants.

Since this operable unit focuses on residential properties, an ecological risk assessment was not conducted. However, an ecological risk assessment will be performed as part of a future OU for the site.

WHAT IS A "PRINCIPAL THREAT"?

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

Human Health Risk Assessment

A four-step human health risk assessment process was used for assessing site-related cancer risks and noncancer health hazards. The four-step process is comprised of: Hazard Identification, Exposure Assessment, Toxicity Assessment, and Risk Characterization (see adjoining box “What is Risk and How is it Calculated” for more details on the risk assessment process).

Based on current and anticipated future land use, the

receptors evaluated in the HHRA included a child and adult resident. Potential soil exposure routes included ingestion of and dermal contact with shallow soil (0 to 2 foot depth interval).

For COPCs other than lead, two types of toxic health effects were evaluated in the risk assessment: cancer risk and noncancer hazard. Calculated cancer risk estimates for each receptor were compared to EPA's target risk of $1x10^{-6}$ (one-in-one million) to 1×10^{-4} (one-in-ten thousand). The calculated noncancer hazard index (HI) estimates were compared to EPA's target threshold value of 1.

Three properties were selected to represent all of the residences that are in proximity to the former Kil-Tone Company property for evaluation in the HHRA. The result of the risk assessment indicated that, out of the three properties evaluated, one property had a cancer risk of $8x10^{-4}$ exceeding EPA's target cancer risk range while the other two properties were at the upper bound of the cancer risk range at $1x10^{-4}$. The cancer risks were primarily driven by adult and child residential exposure to arsenic in the surface soil.

The total noncancer HI for children at all three properties exceeded EPA's target threshold with values ranging from 3 to 20. The total noncancer HI for adults was exceeded at one property with an HI of 2. The HI exceedances at these properties were driven by exposure to arsenic in soil.

It is not possible to evaluate risks from lead exposure using the same methodology as for the other COPCs because there are no published quantitative toxicity values for lead. The lead concentrations in surface soil at the targeted properties in proximity to the former Kil-Tone Company property were qualitatively assessed by comparing the average lead concentrations found on each property to EPA's residential soil screening level, 400 mg/kg. Mean, or average, lead concentrations on two of the three properties exceeded EPA's residential soil screening level. The mean concentrations found on these properties ranged from 192 to 1,743 mg/kg.

Contamination levels found at the three properties are generally similar to those found at other residential properties in the vicinity of the former Kil-Tone Company property and are above background concentrations. The evaluated properties do not necessarily represent the worst-case scenario; other nearby properties have both higher and lower

WHAT IS RISK AND HOW IS IT CALCULATED?

A Superfund baseline 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. A four-step process is utilized for assessing site-related human health risks for reasonable maximum exposure scenarios.

Hazard Identification: In this step, the contaminants of concern (COPCs) at the site in various media (*i.e.*, soil, groundwater, surface water, and air) are identified based on such factors as toxicity, frequency of occurrence, and fate and transport of the contaminants in the environment, concentrations of the contaminants in specific media, mobility, persistence, and bioaccumulation.

Exposure Assessment: In this step, the different exposure pathways through which people might be exposed to the contaminants identified in the previous step are evaluated. Examples of exposure pathways include incidental ingestion of and dermal contact with contaminated soil and ingestion of and dermal contact with contaminated groundwater. Factors relating to the exposure assessment include, but are not limited to, the concentrations in specific media that people might be exposed to and the frequency and duration of that exposure. Using these factors, a "reasonable maximum exposure" scenario, which portrays the highest level of human exposure that could reasonably be expected to occur, is calculated.

Toxicity Assessment: In this step, the types of adverse health effects associated with chemical exposures, and the relationship between magnitude of exposure and severity of adverse effects are determined. Potential health effects are chemical-specific and may include the risk of developing cancer over a lifetime or other non-cancer health hazards, such as changes in the normal functions of organs within the body (*e.g.,* changes in the effectiveness of the immune system). Some chemicals are capable of causing both cancer and non-cancer health hazards.

Risk Characterization: This step summarizes and combines outputs of the exposure and toxicity assessments to provide a quantitative assessment of site risks for all COPCs. Exposures are evaluated based on the potential risk of developing cancer and the potential for non-cancer health hazards. The likelihood of an individual developing cancer is expressed as a probability. For example, a 10^{-4} cancer risk means a "one in ten thousand excess cancer risk;" or one additional cancer may be seen in a population of 10,000 people as a result of exposure to site contaminants under the conditions identified in the Exposure Assessment. Current Superfund regulations for exposures identify the range for determining whether remedial action is necessary as an individual excess lifetime cancer risk of 10^{-4} to 10^{-6}, corresponding to a one in ten thousand to a one in a million excess cancer risk.

For non-cancer health effects, a "hazard index" (HI) is calculated. The key concept for a non-cancer HI is that a "threshold" (measured as an HI of less than or equal to 1) exists below which non-cancer health hazards are not expected to occur. The goal of protection is 10^{-6} for cancer risk and an HI of 1 for a non-cancer health hazard. Chemicals that exceed a 10^{-4} cancer risk or an HI of 1 are typically those that will require remedial action at the site.

concentrations of site-related contaminants than those evaluated. The results of the risk assessment are considered to be representative of all affected residential properties in the vicinity of the former Kil-Tone Company property, and thus can be used to evaluate OU1 as a whole.

Summary

It is EPA's judgment that the Preferred Alternative summarized in this Proposed Plan is necessary to protect public health or welfare or the environment from actual or threatened releases of hazardous substances into the environment.

REMEDIAL ACTION OBJECTIVES

Soil contamination on residential properties is present in surface and/or subsurface soil. The following remedial action objectives (RAOs) for contaminated soil attain a degree of cleanup that ensures the protection of human health and the environment:

- Prevent potential current and future unacceptable risks to human receptors resulting from direct contact with contaminated soil.
- Prevent migration of site contaminants from the OU1 properties to other areas via overland flow and air dispersion.

To achieve RAOs, EPA has selected soil cleanup goals for residential properties. Impact to groundwater was not evaluated as part of the OU1 RI, but given that the contamination is primarily located in the top two feet of soil, we do not anticipate this is an issue for this OU. Groundwater, and impact to groundwater, will be evaluated as part of a future OU. The soil cleanup goals for COPCs are based on the New Jersey RDCSRS. The cleanup goals for COPCs on residential properties are as follows:

- Lead: 400 mg/kg
- Arsenic: 19 mg/kg
- Dieldrin: 0.04 mg/kg
- Heptachlor epoxide: 0.07 mg/kg
- Benzo(a)pyrene: 0.2 mg/kg
- Benzo(a)anthracene: 0.6 mg/kg
- Benzo(b)fluoranthene: 0.6 mg/kg

SUMMARY OF REMEDIAL ALTERNATIVES

CERCLA requires that each selected remedy be protective of human health and the environment, be cost effective, comply with other statutory laws, and utilize permanent solutions and alternative treatment technologies and resource recovery alternatives to the maximum extent practical. In addition, the statute includes a preference for the use of treatment as a principal element for the reduction of toxicity, mobility, or volume of the hazardous substances.

Potential technologies applicable to soil remediation were identified and screened by effectiveness, implementability, and cost criteria, with emphasis on effectiveness. Those technologies that passed the initial screening were then assembled into remedial alternatives.

Of the 62 residential properties identified during the course of the RI, it is estimated that 57 residential properties will warrant remediation. The remedial alternatives will warrant additional sampling at residential properties during remedial design to determine the extent of remedial activities and additional properties may be identified.

The time frames below for construction do not include the time for designing a remedy, reaching agreement with responsible parties if they are identified, or the time to procure necessary contracts.

Alternative 1 - No Action

The NCP requires that a "No Action" alternative be evaluated to establish a baseline for comparison with other remedial alternatives. Under this alternative, no action would be taken to remediate the contaminated soil at residential properties. Because this alternative would result in hazardous substances, pollutants, or contaminants remaining at the properties above levels that would allow for unlimited use and unrestricted exposure, EPA would review conditions at residential properties every five years.

Total Capital Cost:	*$0*
Annual O&M:	*$0*
Total Present Net Worth:	*$0*
Timeframe:	*0 years*

Alternative 2 –Limited Soil Excavation, Soil Cover and Institutional Controls

Under this alternative, soil would be excavated to six inches, clean soil would be placed over contaminated soil to minimize direct contact. In addition, institutional controls (deed notices) would be implemented to prevent human exposure by regulating future use of contaminated areas within the properties. The deed notices would require maintenance of the cover material and restrictions on excavation of the property. Contaminated soil at residential properties would be excavated to 6 inches below ground surface and disposed of at a permitted off-site disposal facility. Following removal of the top 6 inches of surface soil, a geotextile fabric layer would be placed to act as a visual marker and covered with 6 inches of clean fill and sodded. No pavement or structures would be removed for this alternative.

After construction, the soil cover would be graded and vegetated with grass; plants with deep root systems would not be planted on the covered area. A deed notice would notify residents that contaminated soil remains on the property, and provide notification of future use restrictions and maintenance requirements. The covered area would require inspection on a periodic basis.

- Site preparation
- Tree and vegetation removal, as necessary, to excavate contaminated soil
- Limited excavation
- Particulate monitoring and dust suppression
- Waste characterization sampling
- Transportation
- Off-site disposal
- Site restoration
- Maintenance

Since this alternative results in contaminants remaining on site above acceptable levels, a review of the action at least every five years would be required.

Total Capital Cost:	*$1,920,776*
Annual O&M:	*$3,544*
Total Present Worth:	*$1,924,000*
Construction Time Frame:	*1 year*

Alternative 3 – Excavation with Off-site Disposal

Under this alternative, contaminated soil exceeding the cleanup goals would be excavated. Excavated soil would be transported and disposed off-site. Implementation of this alternative would entail the following major steps:

- Site preparation
- Tree and vegetation removal, as necessary, to excavate contaminated soil
- Demolition and replacement of sheds and garages, as necessary, to excavate contaminated soil
- Removal and replacement of asphalt and concrete paved driveways, as necessary, to excavate contaminated soil
- Excavation
- Particulate monitoring and dust suppression
- Waste characterization sampling
- Transportation
- Off-site disposal
- Confirmatory sampling
- Site restoration
- Maintenance

Excavated soil would be sampled to determine if the soil would be disposed of as either hazardous waste or non-hazardous waste. Treatment of soil, if needed, would be conducted at and by the approved disposal facility.

If the excavation encounters the water table, management of the water and soil in contact with the water table would need to be addressed.

Total Capital Cost:	*$8,773,059*
Annual O&M:	*$927*
Present Worth Cost:	*$8,774,000*
Construction Time Frame:	*1 year*

EVALUATION OF ALTERNATIVES

EPA uses nine criteria to evaluate the remedial alternatives individually and against each other to select a remedy. This section of the Proposed Plan profiles the relative performance of each alternative against the nine criteria, noting how it compares to the other options under consideration. The nine evaluation criteria are discussed below. A detailed analysis of each of the alternatives is in the FFS.

Overall Protection of Human Health and the Environment

Since Alternative 1 would not address the risks posed by soil contaminants, it would not be protective of human health and the environment.

Alternatives 2 and 3 would provide adequate protection of human health and the environment by eliminating, reducing, or controlling risk through containment, soil cover, or removal. Engineering controls (i.e., soil cover) and a deed notice would prevent exposure to risk-based levels of contaminants through Alternative 2.

Alternative 3 would provide protection by removing the contaminants, thereby preventing exposure.

Because the "no action" alternative, Alternative 1, is not protective of human health and the environment, it was eliminated from further consideration under the remaining eight criteria.

Compliance with ARARs

Alternative 2 provides compliance with chemical-specific ARARs, because the soil cover and institutional controls would be effective in preventing exposure to the contaminants. Location-specific ARARs and Action-specific ARARs would both be met by proper design and implementation of the respective components such as general construction standards and waste handling requirements. The Location-specific ARARs and Action-specific ARARs for the disposal phase would be met with proper selection of the disposal facility.

Alternative 3 provides compliance with chemical-specific ARARs by removing contaminated soil above New Jersey RDCSRS. Location and Action-specific ARARs would be met during the construction phase by proper design and implementation of the action such as general construction standards and waste handling requirements. The Location-specific ARARs and Action-specific ARARs for the disposal phase would be met with proper selection of the disposal facility.

Long-Term Effectiveness and Permanence

Alternative 2 provides long-term effectiveness and permanence through maintenance of the soil covers and the institutional controls. Periodic inspection and maintenance, as required by the institutional controls, would ensure the remedy remains effective in preventing exposure to contaminants.

The continued effectiveness of the Alternative 2 containment system would depend on how well the soil cover is maintained. Soil cover maintenance would include periodic maintenance (primarily mowing) of the vegetative cover (where used), periodic inspection of the soil cover, repair of any defect or deficiency in the soil cover, and repair (e.g., reseeding and/or replanting) of the vegetative layer (where applicable).

THE NINE SUPERFUND EVALUATION CRITERIA

1. Overall Protectiveness of Human Health and the Environment evaluates whether and how an alternative eliminates, reduces, or controls threats to public health and the environment through institutional controls, engineering controls, or treatment.

2. Compliance with Applicable or Relevant and Appropriate Requirements (ARARs) evaluates whether the alternative meets federal and state environmental statutes, regulations, and other requirements that pertain to the site, or whether a waiver is justified.

3. Long-term Effectiveness and Permanence considers the ability of an alternative to maintain protection of human health and the environment over time.

4. Reduction of Toxicity, Mobility, or Volume (TMV) of Contaminants through Treatment evaluates an alternative's use of treatment to reduce the harmful effects of principal contaminants, their ability to move in the environment, and the amount of contamination present.

5. Short-term Effectiveness considers the length of time needed to implement an alternative and the risks the alternative poses to workers, the community, and the environment during implementation.

6. Implementability considers the technical and administrative feasibility of implementing the alternative, including factors such as the relative availability of goods and services.

7. Cost includes estimated capital and annual operations and maintenance costs, as well as present worth cost. Present worth cost is the total cost of an alternative over time in terms of today's dollar value. Cost estimates are expected to be accurate within a range of +50 to -30 percent.

8. State/Support Agency Acceptance considers whether the State agrees with the EPA's analyses and recommendations, as described in the RI/FS and Proposed Plan.

***9*. Community Acceptance** considers whether the local community agrees with EPA's analyses and preferred alternative. Comments received on the Proposed Plan are an important indicator of community acceptance.

These maintenance activities would be complicated by the lack of direct control of soil covered areas on the residential properties. An access agreement with the owners and appropriate coordination for property access would be needed when maintenance is required.

Alternative 3 would provide long-term effectiveness and permanence by removing contaminants from residential properties and providing secure disposal of excavated soil at appropriate permitted facilities. Long-term monitoring and maintenance of the residential properties and CERCLA five-year reviews would not be required since the properties would be remediated to unrestricted use.

Reduction of Toxicity, Mobility, or Volume through Treatment

Alternative 2 does not provide reduction of toxicity, mobility, or volume of contamination through treatment.

Alternative 3 would not provide reduction of toxicity, mobility, or volume of contamination at the properties through treatment.

Short-Term Effectiveness

Alternative 2 would be effective in the short term since contaminated soil would not be significantly disturbed during construction activities. Construction of the required containment system and establishment of the deed notices, could be accomplished in approximately 1 year.

Alternative 3 involves excavation of contaminated soil and would present a potential for short-term exposure. Under this alternative, any potential environmental impacts associated with the excavation of soil would be minimized with the proper installation and implementation of dust and erosion control measures, by performing excavation with appropriate health and safety measures, and by using a lined temporary staging area. Appropriate transportation safety measures would be required during the shipping of the contaminated soil to approved off-site disposal facilities. Completion of the required construction for most properties can be accomplished in approximately 1 year.

Implementability

Alternative 2 can be implemented; however, the development of protective engineering and institutional controls that would be both enforceable and acceptable to the residential property owners is highly uncertain. Implementation of Alternatives 2 and 3 is complicated to some extent by the need to perform either soil cover construction (Alternative 2) or excavation and backfilling (Alternative 3) on residential properties.

Both alternatives would result in some short-term impacts to the community, in the form of vehicular (truck) traffic and noise and dust from construction/excavation activities, although Alternative 2 (bringing soil in to construct a soil cover) would generate less truck traffic than Alternative 3 (removing contaminated soil from properties and bringing soil in to fill excavated areas). Traffic, noise, and dust impacts could be mitigated to some extent by limiting the construction schedule to daytime hours on weekdays or other timing as specified by local ordinance. Perimeter air monitoring and dust control measures would be required to address concerns over exposure to dust during activities.

Administrative implementation of Alternative 2 may be significantly impacted by the need to impose deed notices on residential properties to prevent human exposure by regulating future use of contaminated areas within the properties. These notices would restrict the owner's use of the property and would not likely be favorable to the owner. Since Alternative 3 results in the removal of contaminated soil, a deed notice placing restrictions on use of the property would be unnecessary.

Cost

The total estimated cost for Alternative 2 is $1,924,000. Capital costs include the cost for construction of the containment system and administrative cost for establishment of the deed notices. Annual O&M costs include maintenance of the containment systems.

The total estimated cost for Alternative 3 is $8,774,000. Capital costs include the cost for the excavation and disposal of soil and site restoration. There is no annual maintenance required and therefore no annual O&M costs are associated with this alternative.

State Acceptance

The State of New Jersey concurs with the preferred

alternative as presented in this Proposed Plan.

Community Acceptance

Community acceptance of the preferred alternative will be evaluated after the public comment period ends and will be described in the ROD. Based on public comment, the preferred alternative could be modified from the version presented in this proposed plan. The Record of Decision is the document that formalizes the selection of the remedy for a site.

PREFERRED ALTERNATIVE

The Preferred Alternative for achieving remedial action objectives for the residential properties with soil impacted by site-related contamination is Alternative 3, excavation and off-site disposal of contaminated soil.

Based on the information available at this time, EPA and NJDEP believe the preferred alternative meets the threshold criteria and provides the best balance of tradeoffs among the other alternatives with respect to the balancing criteria.

The preferred alternative satisfies the two threshold criteria and achieves the best combination of the five balancing criteria of the comparative analysis. This alternative is preferred because it will achieve the RAOs and cleanup goals in the shortest amount of time, and is a permanent remedy that will not require the implementation of ICs. The EPA and NJDEP expect the preferred alternative to satisfy the following statutory requirements of CERCLA Section 121(b): 1) be protective of human health and the environment; 2) comply with ARARs; 3) be cost effective; 4) utilize permanent solutions and alternative treatment technologies or resource recovery technologies to the maximum extent practicable; and 5) satisfy the preference for treatment as a principal element. EPA will assess the modifying criteria of community acceptance in the ROD following the close of the public comment period.

FOR FURTHER INFORMATION

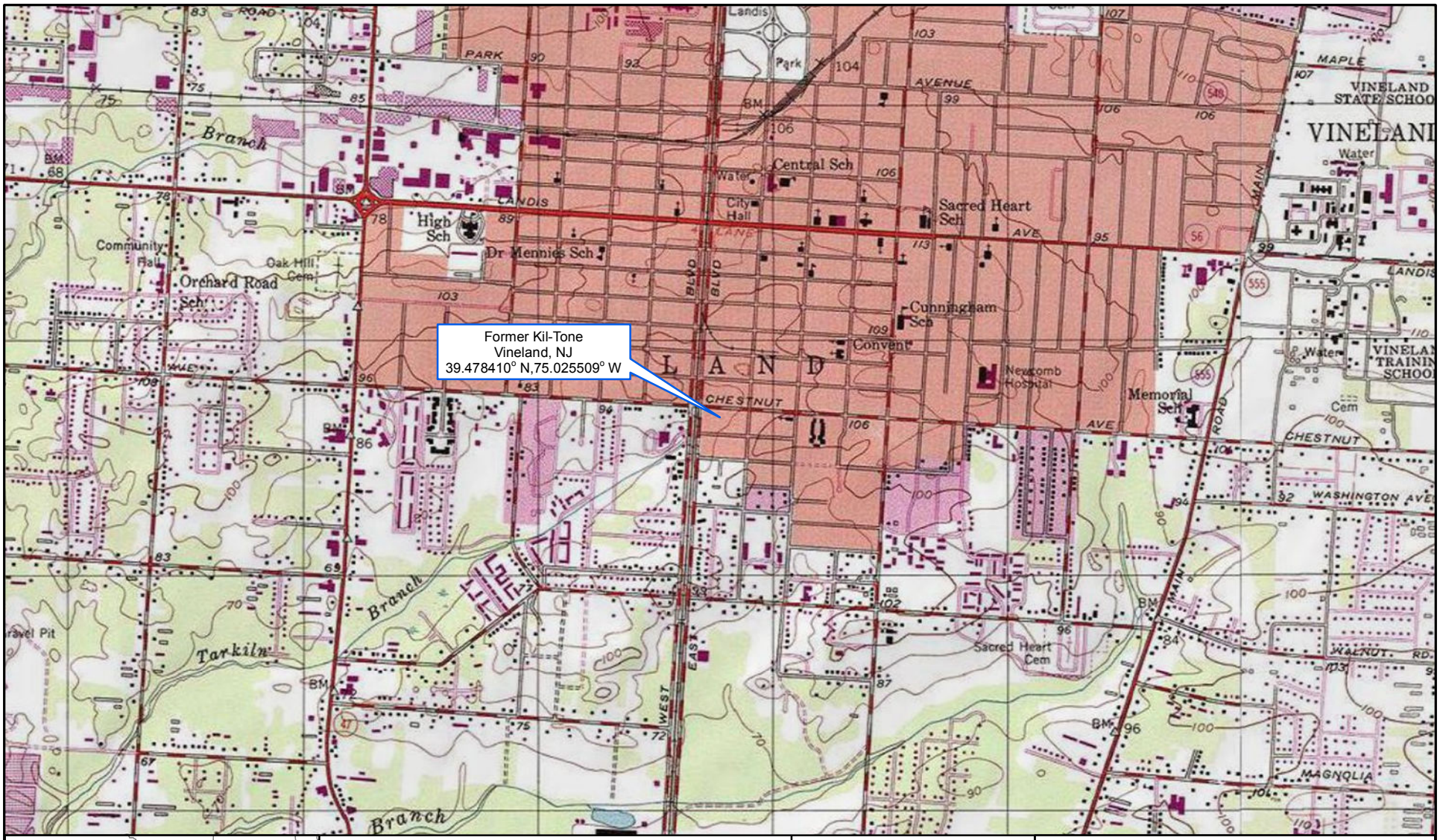
The administrative record file, which contains copies of the Proposed Plan and supporting documentation is available at the following locations:

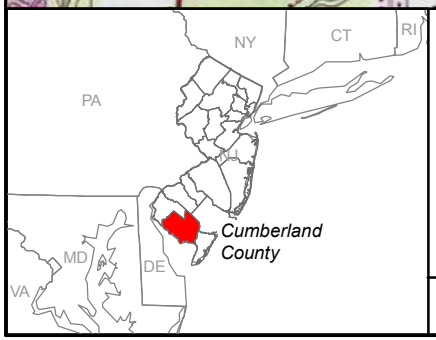
EPA Region 2 Superfund Records Center
290 Broadway, 18th Floor
New York, New York 10007-1866
(212) 637-4308
Hours: Monday-Friday – 9 A.M. to 5 P.M.

Vineland City Library
1058 East Landis Ave.
Vineland, New Jersey 08360
For Library Hours:
http://www.vinelandlibrary.org/

In addition, select documents from the administrative record are available on-line at:

www.epa.gov/superfund/former-kil-tone





Sources:
USGS 7.5 Minute Topographic Quadrangle Maps:
Millville, NJ 1997 & Five Points, NJ 1994

EPA Contract No.: EP-S5-13-01
TDD No.: S05-0010-1501-400

N

1,000 0 1,000

Feet

Former Kil-Tone Site Removal Assessment

Figure 1

Site Location

TETRA TECH

Prepared For: joesph.gawarzewski | Prepared By: joel.peters

File Path: S:\CADD\ll902600001S05150140O\mxd\FIG_1_Vineland_Site_Location_011915.mxd

Date Saved: 1/19/2015

Coordinate System: NAD 1983 UTM Zone 18NTransverse Mercator

N

W Quince St
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024
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074
Washington Ave
Washington Ave
Washington Ave
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Feet

Landis Park Background Sampling Locations

N East Blvd
Cambridge St
Francis Park
Park Dr
N 6th St
N West Blvd
018
018
E Park Ave
150 0 150
Feet

Vineland Cemetery Background Sampling Locations

W Elmer St
S Delsea Dr
47
036
100 0 100
Feet

South Vineland Park Background Sampling Locations

W Elmer Rd
038
300 0 300
Feet

Landis Park
Vineland Cemetery
Main Map
South Vineland Park

Legend

- Parcel
- Sampled Parcel
- Sampled Parcel to be Remediated
- Subject Property

Source: Cumberland County Department of Planning and Development
NJ Office of Information Technology (NJOIT), Office of Geographic
Information Systems (OGIS), 2011, and Bing Maps Aerial Imagery, 2010-2011.

Former Kil-Tone Site Removal Assessment
Vineland, New Jersey

Phase I and II Residential Properties for Remediation Map

TETRA TECH

Prepared For: Carter Owens | Prepared By: Clayton.Hayes

File Path: X:\R2_Projects\Former_Kil_Tone\Projects\mxd\RemediatedFigure1.mxd

Date Saved: 6/29/2016 | EPA Contract No.: EP-S5-13-01 | TDD No.: S05-0010-1501-400

Coordinate System: NAD 1983 StatePlane New Jersey FIPS 2900 Feet Projection: Transverse Mercator Datum:North American 1983 Units: Foot US

Attachment B

Public Notice

David Anthony, dueño de Vila Boxing, entrena con una puchimbal dentro del gimnasio ubicado en 754 North Delsea Drive de Vineland. Sean M. Fitzgerald/Nuestra Comunidad

1er asalt del sueñ

El emprendedor lucha por seguir el deseo que tenía con sus fallecidos hermanos de abrir un gimnasio de boxeo y convocar a la comunidad.

POR MATT SILVA | Reportero

VINELAND — Abrir un gimnasio de bo ya no es el sueño de David Anthony, es realidad. Vila Boxing fue inaugurado de julio en un local ubicado en 754 No Delsea Drive en Vineland y Anthony es ra compartir su gran sueño con la cor nidad.

"Mis hermanos y yo siempre hemos estado en el boxeo", contó Anthony, de 45 años de edad. "Nosotros crecimos en gimnasios y campamentos de boxeo de New York City y siempre hablamos de abrir un gimnasio... Es un deseo que siempre ha estado en mi corazón y lo voy a cumplir en nombre de mis hermanos".

> "Les brinc un lugar el rato, er andar po brindará un lugar del estrés

Los hermanos Anthony —Plácid Raymond— fueron una gran influencia su vida. Plácido se convirtió en activ comunitario y director de campamer juveniles de verano en el Spanish Harl mientras que "Ray" llegó a ser boxea profesional y luego en el entrenador llevó a Antonio Fuertes a conseguir el t lo del Concejo Mundial de Boxeo en 2(

Desafortunadamente, ellos ya no es con David.

Plácido murió a los 33 años de ec mientras que a Raymond le diagnostica cáncer de páncreas en 2004 y, un año pués, falleció a los 38 años.

"Le hablo a mis hermanos a diario", Anthony.

LA EPA invita al público a comentar sobre una propuesta para la limpieza de la tierra contaminada en viviendas afectadas por el Sitio Superfund Former Kil-Tone Company en Vineland, NJ

La Agencia de Protección Ambiental de Estados Unidos emitió un Plan de propuesta para la limpieza de la tierra contaminada de aproximadamente 57 viviendas en Vineland, Nueva Jersey. El período para que el público haga comentarios es de 30 días, y comienza el 13 de julio y finaliza el 12 de agosto de 2016 e identifica el plan de limpieza preferido por la EPA y otras opciones de limpieza consideradas por la EPA.

El plan de limpieza preferido por la EPA consta de: 1) la eliminación de la tierra contaminada en viviendas afectadas por las instalaciones de la antigua Kil-Tone Company; 2) el desecho de la tierra en instalaciones con licencia para manipular los desechos; 3) el relleno de las áreas excavadas con tierra limpia; 4) la replantación de vegetación, si corresponde, y la restauración de las propiedades; y 5) la supervisión durante la limpieza de la tierra para garantizar la eficacia de la limpieza y la protección de las viviendas.

Durante el período de comentarios del público, la EPA celebrará una reunión pública en Vineland, NJ, para recibir los comentarios acerca del plan de limpieza preferido y otras opciones consideradas. La reunión se celebrará el 2 de agosto de 2016 a las 7:00 p. m. en la escuela Gloria M Sabater Elementary School, 301 SE Boulevard, Vineland, Nueva Jersey.

Para obtener el plan propuesto, consulte el sitio www.epa.gov/superfund/former-kil-tone o llame a Wanda Ayala, coordinadora de Participación de la Comunidad de la EPA, al (212) 637-3676 y solicite una copia por correo.

Puede enviar por correo postal los comentarios escritos sobre el plan propuesto antes del 12 de agosto de 2016; escribiendo a Hunter Young, EPA Project Manager, U.S. EPA, 290 Broadway, 18th floor, New York, NY 10007-1866 o enviar un mensaje de correo electrónico a young.hunter@epa.gov antes del 12 de agosto de 2016.

El archivo de Registro administrativo que contiene los documentos que se utilizan o se emplean como base para el desarrollo de las alternativas y el plan de limpieza preferido está disponible para revisión pública en los siguientes centros de información:

Biblioteca de Vineland City ubicada en 1058 East Landis Ave., Vineland, Nueva Jersey

Centro de registros de Superfund de la región 2 de la EPA, ubicado en 290 Broadway, Piso 18, Nueva York, Nueva York.

DJ-1000812566

Former Miss Ala. likens Dallas killer to 'martyr'

JOHN DEROSIER
Staff Writer

A former Miss Alabama stirred controversy online after posting a video to Facebook on Sunday calling the Dallas police shooter a martyr.

In a short video, Kalyn Chapman James said she does not feel bad for the five police officers who were shot and killed by Micah Johnson on Thursday during protests.

"I think, more than anything, I'm dealing with a bit of guilt because I don't feel sad for the officers that lost their lives and I know that that's really not my heart," she said while tearing up. "I value human life and I want to be sad for them, but I can't help but feeling like the shooter was a martyr."

James won the Miss Alabama Pageant in 1993 and became the first black woman to hold the title in the state's history. She is a graduate of the University of Alabama and is now a television host in Miami.

In an interview Monday with NBC Local 15 in Mobile, Alabama, James said her words were taken out of context.

"What Micah did was wrong. Period," she said in the interview. "Maybe martyr wasn't the right word, but that's just what came to mind."

James said she received mixed reactions about the video and that a wife of one of the Dallas victims reached out to her and said she forgave her. She said she has received several threats.

"People telling me to watch my back, people telling me to be careful, people telling me the police should never protect me," she said.

Both the Miss Alabama Organization and the television station she works for, WPBT2 in Miami, quickly distanced themselves from the former pageant winner.

"Kalyn Chapman James was Miss Alabama 23 years ago in 1993," the Miss Alabama Organization said in a written statement. "The opinions she expressed are her own, and do not represent the viewpoint of the current Miss Alabama or the Miss Alabama Organization. We have nothing but the utmost respect and appreciation for the men and women of law enforcement, and would never condone violence of any kind."

The television station released a statement on its Twitter account saying James had been suspended.

Contact: 609-272-7260
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CRIME

Continued from A3

siege" and called for 24-hour police patrols in Back Maryland.

Officers will begin foot patrols immediately in the Marina District, which includes Back Maryland, Chief Henry White Jr., said during the meeting at the Atlantic Villas Community Center.

Mazur said the patrols will include four officers at a time, every day, from daylight to nighttime. Police will be able to establish community contacts and introduce themselves to residents, Mazur said.

"These officers will be able to be a visible presence and deterrent here," Mazur said.

White said he will also participate and accompany officers on the patrols.

"This is a way for the people to get to know the police officers. This is not necessarily for crime suppression. We are coming to break down the barriers," White said after the meeting.

The department also will acquire 60 more body cameras to add to its 130 devices in use by officers, Mazur said. He said officers on foot patrols will wear the cameras, which will contribute to increased accountability for officers.

Meanwhile, bids are being accepted for construction of a surveillance center inside the Public Safety Building, Capt. James Sarkos said.

Sarkos said the center will monitor cameras from around the city, including the new devices to be installed in areas of the Marina District by Interstate Realty Management. The surveillance center will be manned by at least two officers, 24 hours each day.

Guardian said the city will install LED lighting in the Marina District, as residents have complained about the dark conditions.

Guardian said the city has $2 million grant and $4 million loan to go toward funding LED lighting in the area.

DONNA WEAVER / STAFF WRITER
Mayor Don Guardian speaks Tuesday with Kathleen Burnside, of the city's Back Maryland section, about her concerns with crime and violence in the community.

News of these initiatives has been something residents such as Pauline Norwood have wanted to hear for a long time.

Norwood has lived in Back Maryland for decades and has watched it change from good to bad. She said she's seen it all and she's seen enough.

"About three years ago, a young man came to my front door holding his chest and said he was stabbed. He was bleeding and it was pouring out. He picked up his phone and called his wife and told her he wasn't going to make it," Norwood said.

That man died on her front steps, she said.

Norwood said she was appreciative of the police and officials meeting with residents.

"They've been working with us, and they need to get credit for that," she said.

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PARADE

Continued from A3

been participating for last 33 years.

Caserta, 66, said he began riding in the boat parade as a young man aboard a friend's vessel.

"For the last 18 years, we've been using my 1969 wooden Lyman," Caserta said.

This year, the classic boat had some issues, he said, so they will instead be entering his 20-foot 1989 Barefoot Nautique.

Joe Caserta, a 94-year-old World War II veteran and French Legion of Honor recipient, is the one who got his son started in the parade.

"It's a family tradition," Mike Caserta said. The Casertas currently have four generations riding on their boat, from patriarch Joe all the way down to Mike's granddaughter, Rielle.

"It's a big family affair," he said.

Night in Venice now includes a bayfront home-decorating contest, and each year more homes take part. Soifer estimated that between 200 and 300 homes will enter this year. In addition, organizers added a fireworks show.

However, the number of participating boats dropped last year. At its height, 100 boats took part in the parade.

"It hit its heyday really when the casinos came (into Atlantic City). They put (in) some huge boats. One was a giant Ferris wheel on a boat," Soifer recalled.

No one can say exactly what led to decrease in boats, but Joe Caserta think it's due to the amount of time and effort needed to enter.

"You've got to get people interested to spend the time and money. It takes a lot of work and planning ahead of time. They want to participate and watch, but you can't get enough boaters to participate anymore," he said.

Colette Gabriel has also noticed the decline in the size of the parade.

"I don't know, a lot of people have a lot of opinions," Gabriel said, adding that it's possible some boats are dissuaded due to the depth of the back bay.

Fifteen years ago, Gabriel and her husband, Sam, used to enter a boat in the parade each year, but after purchasing a second home on the bay, they decided to host a house party instead. She said that part of the reason was because they had young children.

Now, the Gabriels host over 100 guests each Night in Venice at their Lagoon Road home.

"It's the most exciting night in Ocean City," she said.

The Gabriels set up a large buffet for their guests. Each year they create plywood cutouts suited to their theme — this year it's "All Aboard," a 1940s nautical theme.

Many guests hop from party to party to keep up with the parade. An ice truck from Sea Isle Ice Co. makes its rounds to the house parties delivering ice as needed.

"We party hop as well, that's what the whole thing is all about," Gabriel said.

Michael Hartman, city special events coordinator, is taking over for Soifer, who is set to retire at the year's end. He is best known around town for his Ocean City Theatre Company.

On Friday, Hartman enthusiastically went over the details of this year's parade.

"I'm really encouraging people to celebrate landmarks across our country," he said, speaking of the optional theme "Destination America." "I've worked really hard to up the musical acts."

Hartman said he is trying to learn from Soifer, who has been putting together unique and wacky events for the city for the last 45 years.

"He worked hard to develop a brand for Ocean City," Hartman said.

Soifer said he believes the number of boats will also grow with the new organizers.

"We never gave up. We kept it going, and now I can see with these new people I think it's going to be bigger than last year and it will continue to be something to see," he said.

Contact: 609-272-7251
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EPA Invites Public Comment on a Proposal to Clean Up Contaminated Soil at Residences Impacted by the Former Kil-Tone Company Superfund Site in Vineland, NJ

The U.S. Environmental Protection Agency has issued a Proposed Plan for cleaning up contaminated soil at approximately 57 residences in Vineland, New Jersey. A 30-day public comment period on the Proposed Plan, which identifies the EPA's preferred cleanup plan and other cleanup options that were considered by the EPA, begins on July 13 and ends on August 12, 2016.

The EPA's preferred cleanup plan consists of: 1) removing contaminated soil located at residences that are impacted by the former Kil-Tone Company facility; 2) disposing of soil at facilities licensed to handle the waste; 3) backfilling the excavated areas with clean soil; 4) replanting with vegetation, if appropriate, and restoration of properties; and 5) monitoring during soil cleanup to ensure the effectiveness of the cleanup and protection of residences.

During the public comment period, the EPA will hold a public meeting in Vineland, NJ to receive comments on the preferred cleanup plan and other options that were considered. The meeting will be held on August 2, 2016 at 7:00 PM at the Gloria M Sabater Elementary School, 301 SE Boulevard, Vineland, New Jersey.

The Proposed Plan is available at www.epa.gov/superfund/former-kil-tone or by calling Wanda Ayala, EPA's Community Involvement Coordinator, at (212) 637-3676 and requesting a copy by mail.

Written comments on the Proposed Plan, postmarked no later than August 12, 2016, may be mailed to Hunter Young, EPA Project Manager, U.S. EPA, 290 Broadway, 18th floor, New York, NY 10007-1866 or emailed no later than August 12, 2016 to young.hunter@epa.gov.

The Administrative Record file containing the documents used or relied on in developing the alternatives and preferred cleanup plan is available for public review at the following information repositories:

Vineland City Library located at 1058 East Landis Ave., Vineland, New Jersey

EPA Region 2 Superfund Records Center located at 290 Broadway, 18th Floor, New York, New York.

Federal grant targets oral health services

NICOLE LEONARD
Staff Writer

BRIDGETON — Oral health sometimes takes a back seat to general health, but local and federal organizations and health centers are making strides to fix that.

CompleteCare Health Network, based in Bridgeton, is one of six health centers in the state awarded grant money from the U.S. Department of Health and Human Services to increase access to oral health care in the region.

"Dental is not popular with a lot of health centers," said Curtis Edwards, CompleteCare CEO and president. "They sometimes run in the red (debt) with dental. We know how big the demand is here. It seems to be increasing in our area, and we need to make sure everyone in our counties gets care."

The network got $525,000 from the award, one of the highest amounts in the state. Five other dental health centers in Newark, Trenton, Lakewood, Ocean County, and Dover, Morris County, were awarded $350,000 or more.

CompleteCare Heath Network operates 20 health centers in Cumberland, Gloucester and Cape May counties. Its dentist centers are located in Bridgeton, Millville, Vineland, Wildwood and Glassboro and serve Medicaid, underinsured and uninsured patients.

Edwards said the grant money will be used to buy more dentist chairs with equipment and hire two new dentists for its Glassboro location, which is scheduled to transform from a medical and dental facility into a dental-only center.

Of the nearly 20,000 dental patients the network serves annually, Edwards said 90 percent use Medicaid or qualify for a sliding scale reduced-fee program.

"We're the safety net for uninsured, underserved and migrant worker populations," he said. "In all of our counties, poverty is the biggest thing. These people have to weigh dental against other things like buying groceries, paying rent, getting general health care."

Jim Schulz, director of governmental and public affairs at New Jersey Dental Association, said people might not put dental health on the same level as general health because there is a lack of education about relationship between oral health and overall health.

"Oral health problems are more like erosion over time," he said. "You might not be in a lot of pain at first, but if you let it continue, it will manifest. People don't understand or value the importance of oral health. If you're not being proactive, there's the opportunity of dental disease that becomes part of body."

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Attachment C

Public Meeting Transcripts

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, REGION II

* * * * * * * *

IN RE: FORMER KIL-TONE COMPANY SUPERFUND SITE

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BEFORE: Wanda Ayala, Community Involvement Coordinator
Hunter Young, EPA Project Manager

HEARING: Tuesday, August 2, 2016
7:00 p.m.

LOCATION: Gloria M. Sabater Elementary School
301 Southeast Boulevard
Vineland, NJ 08360

Reporter: Stacey Jacovinich

I N D E X

E X H I B I T S

Number	Description	Page Offered
	NONE OFFERED	

P R O C E E D I N G S

MS. AYALA:

My name is Wanda Ayala, and I'm the Community Involvement Coordinator for the Kil-Tone Superfund site. I know many of you because I've been around for almost two years as part of the removal program. And now for the remainder of the program, I'm staying on as the Community Involvement Coordinator. I just want to talk about why we're here tonight. We're here to discuss the proposed plan and other payment options for the former Kil-Tone Company Super Fund site. The public comment period started July 13 and goes through August 12th. All public comments will be considered and included formally in the record. We have a stenographer here tonight, Stacey. We're required by law to have a transcript of this meeting, so Stacey will be recording it. And I ask that out of consideration for her, at the end, when we open up the floor for comment, that you state your name clearly for her. We have interpreters that are here to offer translation for anybody that needs it, so please see them to get the equipment.

With me tonight we have Hunter Young, who

is the EPA Project Manager; Stephanie Vaughn, who is the Acting Section Chief of the Mega Project Section; Michael Sivak, who is the Special Projects Branch Chief; and Abbey States, who is our Risk Assessor. We also have Terry Kish. Many of you know him because he's the off-scene coordinator that's handling the removal portion of Kil-Tone. And we have Emma Lopez and Bill Jones from the Vineland Health Department. And I want to thank them so much for helping us out for the setup here for the meeting.

I want to acknowledge any elected officials, if there are any present tonight. Okay. I'll ask if you can put your phones on vibrate. And the facilities are here to the left if anybody needs to go. And without further ado, I'll hand it then over to Hunter.

MR. SIVAK::

She actually handed it over to Michael ---

MS. AYALA:

Michael.

MR. SIVAK::

--- just to keep everyone not confused. So I'm going to start out of this evening, first of all, by thanking everyone for coming out night. And

before we actually get into the investigation and then what we found from the investigation of the Kil-Tone property, I want to take you through the Superfund process a little bit.

As you should all know or as many of you may know, the former Kil-Tone Company site is a federal --- NPL Federal Superfund site. Now, what does that mean? Well, what that means is that the site was referred to the EPA because someone found some contamination somewhere and they wanted it looked into.

So it was referred to the EPA, and we've had some of our removal folks, represented by Terry. EPA has two main programs. There's the removal program, which deals with early investigations of sites and emergency responses at sites. And then there's the remedial program. And the remedial program, which is what Hunter and Stephanie and I represent, we ---. I will keep using this and hopefully you guys can fill in the blanks when it goes out, but the remedial process, which is what we all deal with, investigates the long-term clean-ups of sites that are very complicated.

Now, this process starts with a referral to EPA for a site that people want to have investigated a little bit more in depth. That happens up here. The

site, once we have enough information on it, it gets nominated to the National Priorities List, which is a federal rulemaking effort that identifies the most complex hazardous waste sites in the country. Once a site is on the National Priorities List, that site is then eligible for federal monies for investigation and clean-up. So it doesn't necessarily go back to the State for money expenditures. It comes to the Federal Government. We look for responsible parties that may be able to help pay for that clean-up. If those responsible parties are not identified or if they are no longer in existence, they've gone out of business, they've gone bankrupt, then the Federal Government funds that investigation and clean-up. And that's actually what's happening right now.

So the former Kil-Tone Company site was nominated to the National Priorities List last fall. It went final, so it is, in fact, a Federal Superfund site as of this spring. We initiated a remedial investigation at the site, which means we looked for the nature and the extent of contamination. We wanted to find out what type of contaminants are out there and where are those contaminants. Hunter is going to talk about what we found at the site and walk you through

exactly what the results were and what we found. We also conducted a human health risk assessment at the site. The human health risk assessment identifies, if people are exposed to the contamination that we have found, what are the health effects that we would find from exposure to that kind of contamination now and what would be the health effects in the future if we don't do anything, if we don't clean up the site, if we just walk away from it.

The results of those investigations help us to determine whether or not we need to clean up the site. If we think that we need to clean up the site, we then look at the surface feasibility study, which looks at different technologies that exist that allow us to address that contamination and clean it up and remediate that contamination. So all of these steps have been accomplished already for what we're talking about tonight.

We are here at the proposed plant stage. The proposed plan, which many of you have received in the mail and we have copies in the back in both Spanish and English, looks at all of the different technologies that we believe are appropriate to consider for cleaning up the site and then identifies what EPA

believes is the best clean-up option for this site. And again, Hunter is going to walk you through what we've done and what we've decided what our recommendation is.

We want to hear from you tonight. We want to hear from you during this public comment period. And that will help inform our record of decision, which finalizes EPA's clean-up for this component of the site. Once that record of decision is signed, we then move into designing that remedy. We're going to need some more data. We're going to need to figure out exactly how we're going to implement this remedy, and we're going to take that action. We're going to implement that action. We're going to figure out how we need to install --- or how we need to implement that remedy so that we can get rid of this contamination, things from like traffic control to fazing in, where we're going to start, where we're going to end. All those kinds of things go into these two steps.

Once that's done and we are completed with the construction, and if there is a component of a remedy that requires long-term maintenance, then we --- that phase would kick in at that time. All throughout this process we have community involvement. And that's

where you guys can --- we're going to meet here, communicating to you throughout this process what we're doing, what we found. And we want to hear from you how are we doing. Have you found anything that you need us to know about? So it's a two-way street on the community involvement. That's important throughout this whole process, and we welcome you here tonight for that. So with this overview of the process, I'm now going to turn it over to Hunter to actually talk you through what we found ---.

MR. YOUNG:

Hello. So that brings us here, finally, and more specifically here to the Kil-Tone facility. This is Chestnut right here. I'm sure most of you are familiar with the location. I'm just going to talk loud.

Kil-Tone, an agricultural pesticide factory. This is an old newspaper clipping from way back. So this factory used to be in that location. They began operation in 1917 and operated until about 1933. Specifically, they were manufacturing lead. So they were making different pesticides. Lead arsenate, London purple, Paris green are some of the examples. Currently, right now, a manufacturing company is on the

site and it's currently operating.

And so a while back, in about 2014, across the street from Kil-Tone there's an old fuel distribution facility that's being cleaned up. And while they were cleaning that up they found some chemicals that weren't really attributed to that field distribution site, so they called NJ DEP and said, hey, we're finding some interesting chemicals. Maybe you guys should look into it. So NJ DEP, which is New Jersey Department of Environmental Protection, they came and did an investigation and found some chemicals and decided it was pointing towards Kil-Tone. So that was in August of 2014. Then they decided this was a big issue, so they referred the site to the EPA in November of 2014.

In January of 2015 we went out and did our Phase One soil sampling. So we went out and we took soil samples from a selection of residential properties around the site. Then, looking at the results from that, we decided we wanted to step out and do some more sampling. So we looked at Tarkiln Branch, which is the stream that all the water drains into from that property. And we went and did sampling of the Tarkiln Branch and the floodplain there.

Then we expanded our residential sampling and we expanded our ring of properties out and we sampled more residential property. Then in February of 2016 we decided we wanted to know more about that sampling, so we went back to some of the properties we had already sampled and sampled deeper to make sure we knew wherever --- how deep these chemicals went. And we also went back and sampled for more chemicals. So we wanted to make sure we captured all the different chemicals that we could find.

And then in March our removal program came in and started doing --- installing soil covers on certain residential properties that had the highest levels of contaminants. And in April the site was officially added to the National Priorities List, which meant he could begin the Superfund process. And July, that brings us to basically now, where we put the proposed plan out and the public comment period began. So here we have Vineland. Up here is what we're going to talk about today. Operable Unit One is what we're going to call it. This dark red square is the former Kil-Tone Company property site itself. The surrounding area is what we're going to talk about today, these residential properties that we're going to take action

an action on. But also just to mention, here's the Tarkiln Branch down here in the floodplain that we found contamination in. Maurice River right down here we found contamination in and Union Lake. Now, we're going to get to all of these parts later on in the future, but right now we want to clean up the source right now. We want to take care of this because if we take care of, you know, some issues down here, they could become re-contaminated. So right now we're focusing on this.

Operable Unit One. What's an operable unit? In the Superfund program we break things down into making things more manageable. We break down sites by media. So we can do groundwater, surface water, soil. Sometimes we do it by sections, like, you know, an operable unit, like a north and south and east and west. We sectioned off this area we're focusing on today, which is Operable Unit One, which is the residential properties in the vicinity of the former Kil-Tone facility.

So earlier I mentioned our Phase One sampling. Here we have the site itself. We went out and sampled this kind of first ring of properties here. And you'll notice residential properties, not

commercial and industrial properties. That will come later. So we went and did sampling there. We collected 237 samples across 27 properties. We tested all of them for metals, lead and arsenic. And we sampled down to four feet.

So then I talked about Phase Two sampling, which is where we expanded the ring outward. We're making sure we're capturing all of the contamination. So we sampled 35 more properties, 815 samples down to four feet and we tested again for metals. So we decided we wanted to know more, so we went back and did Phase Three sampling. We went back to those original properties that were nearest to the facility and we sampled deeper. We sampled down to six feet this time. And we also --- we sampled for a whole list of contaminants to make sure there wasn't anything that we missed or that we didn't think of. So we sampled for volatile organic compounds, pesticides, PAHs, the whole gamut.

We took all this information and we compiled them into --- a lot of it into two documents. First we did the remedial investigation. I'll call it the RI sometimes. The RI, as Michael touched on earlier, it characterizes the conditions and determines

the nature and extent. So basically we are figuring out what's going on. We're figuring out how widespread is the contamination, what is the contamination, and what type of risk does that pose to human health. Then we look at the focus feasibility study. We move on to that, which is where we take the RI and we find out what we can do to address the contamination. We look at all these different remedial actions that addresses the contamination. We screen those different actions against each other to figure out which action or alternative is the best option.

We conduct risk assessments. Like I mentioned earlier, we do a human health risk assessment, where we try and figure out what kind of risks are posed to humans on the site. And normally we do an ecological risk assessment. This site, we're focusing on these residential yards. We're just --- we just did the human health risk assessment and we're going to come back and do an ecological risk assessment where we're going to look at the whole Tarkiln Branch and everything put together.

So when we're working through the Superfund process we develop remedial action objectives. These are specific clean-up goals for us. And they are meant

to sort of serve the mission of EPA, which is protecting human health and the environment.

We determined our first objective to be preventing risk to human health. And we determined our second objective would be preventing migration of a site examination. We don't want any of this contamination to leave.

Then we developed these clean-up goals, how clean do we want these properties to be. The different contaminants we found, the main ones were lead and arsenic. These are the ones that are driving this action. These are the pesticides that were manufactured at the plant. We also found some PAHs, or polycyclic aromatic hydrocarbons, and we also found some pesticides. Both of these things are pretty common in residential yards. Pesticides --- you know --- an insecticide, a lot of these PAHs are from combustion and ---.

So in the end, our investigation found arsenic and lead. Those are our contaminants of concern. Those are what we're focusing on. That's what we're finding in the yards at very high levels. We found 57 properties with contamination that we plan on addressing. We have found that most of the

contamination is within zero to three feet in most yards. We found a few properties where it's deeper than that, down to six feet, but that's just on about two properties. And more properties could be identified as we continue doing the action. We want to keep in mind that, you know, this could --- we could add more property. We want to get all of the contamination out.

So we made a proposed plan where we looked at three different alternatives for cleaning up this contamination we found. The first alternative was doing nothing. We have to include that because we have to do it at the baseline so we can compare it to all of the actions that we propose.

The second alternative was a limited soil excavation. We just take off the top of the soil and we install a soil cover and we add additional controls. The third alternative would be total excavation and dispose of everything offsite.

So alternative one I'm not going to talk about. No further action, we're not going to do that. Alternative two, the idea was we dig six feet down --- excuse me, six inches, and we add a soil --- like a solid cap, and we'd have institutional control, which

is like deed notices, restrictions on the property. The next alternative that we looked at is alternative three, total excavation to whatever depth the contamination goes, removing some temporary structures, if we find contamination on a driveway, we can get rid of the driveways, and restoration of --- full restoration. We take those alternatives and we screen them against nine different criteria. The two most important ones are overall protection of human health and the environment.

The next one is compliance with applicable or relevant and appropriate requirements, which basically is rules and regulations, federal and state laws.

Then we move onto the balancing criteria. These are three through seven. Long-term effectiveness of permits. You know, what are the effects down the road? You look at reduction in toxicity through treatment. If we treat this contamination, does that reduce overall harmful effects? We look at short-term effectiveness. Are there any issues with these alternatives in the short term? We look at implement ability, how hard are there alternatives to do. And we also look at costs.

The last two, we look at state acceptance, does the state agree with our remedy? And we look at community acceptance. Do you want to have involvement with the community and make sure the community is happy with our alternative, our remedy?

So when we did that screening, we have proposed alternative three as our clean-up, which we determined because it satisfies the two threshold criteria in the beginning, the two most important criteria. It achieves the best --- a combination of the five balancing criteria that I mentioned. And it also completes our remedial action objective and the clean-up goals that we set up for this site. And it's also a permanent remedy. There's no institutional control, so no restrictions on your property. We would come in, clean up, and you don't have to worry about it anymore.

So just to talk about again what we would do, we'd come in and we are going to dig it out as deep as we need to go, remove all the contamination. We're going to transport the soil, dispose of it offsite. It will get tested to see where it needs to go, what type of landfill it needs to go, see if it requires any treatment. We will get rid of any temporary

structures, sheds, driveways, as necessary, if we find contamination underneath it. We will knock it down and we will get you a new shed, whatever it needs. I will bring in clean soil and restore the backyards.

So what does that mean now? Where are we now? So we have proposed this plan. We've opened the public comment period. We want to hear from the community. We're going to hear from the state. We're going to get comments. And if all goes well, if everyone's --- if we get support for this remedy, then we'll forward and sign the Record of Decision, which is basically, you know, our document that officially states that this is the remedy we're choosing.

We will develop a remedial action to basically come up with a plan how we're going to do all this. And we'll submit the remedy and then we'll start moving on. We're going to have to look at contamination in the creek. We're going to have to look at residential properties on the creek. We're going to look at the site itself. We're going to have to go to the Kil-Tone property and do an excavation or some other alternative. We're going to look at commercial and industrial properties soon and we're going to look at groundwater soon.

So the public comment period is open right now through the 12th. Here is my contact information. It's also on the proposed plan. The proposed plan and my information is also on the website here. We'll accept comments in this public meeting. The stenographer records the comments, so they will get put into the official record for the site. Yeah, so that's all I have now. And I'm also just going to plug that next week we are also having another public meeting just like this for the Vineland chemical site, which is another pesticide manufacturing plant that is a Superfund site north of Kil-Tone, north of here. That going to be held at City Hall. And that's on the 8th at City Hall, 6:30. So yeah?

MS. AYALA:

We're going to open it up for comment and questions now.

MR. YOUNG:

Any questions? Any of you guys want to come up personally after the meeting to us, come on up.

MS. STRACHEJKO:

My name is Kathryn Strachejko. I don't live here specifically, but I live on the river. And my first question is this facility, how big is it and

in whose hands is it now? Is it still with the owner? Is it operating? Because that's what we're going to clean first. Do they have any input in this or, for that matter, you designated $50 million I think it was for the whole clean-up for the EPA or the Federal Government. Are these people that contaminated such a vast piece of land in Vineland, which is going further into the lake, have any responsibility?

MR. YOUNG:

So currently right now on the site it is a company?

MR. SIVAK:

Can you repeat what she said?

MR. YOUNG:

Yeah. Just so everyone can hear, she's asking who is at the site right now, how big is the site right now, the Kil-Tone site, and how --- and if we're pursuing for any type of clean-up payment. Right?

So right now it's from them right. So right now it's a sign manufacturing company. It has nothing to do with pesticides anymore. So that --- then they are operating currently. They have no relationship to site contamination.

We are going in and we're tapping the property itself right now. It's probably going to happen within the next year. We're going to put down a tap so that no surface water or anything can get into the site. And that's going to be a temporary action. We're going to go in and clean up the site completely.

So as far as who are we holding responsible for this, we have --- we do have a responsible party search. And as of right now, we have not identified, actually, a responsible party. So right now we are operating it as a fund clean site, which is where the Federal Government pays for the clean-up.

MS. STRACHEJKO:

May I add another question to it, which is probably not related, but it is important for our health. And if there is anybody here who is like a journalist for any paper, we would appreciate it very, very much that Union Lake, Maurice River, you're not allowed --- you're allowed to go fishing, but you're not allowed to eat that fish. Well, what's the big deal to go fishing if you can't eat it? But it never, never has been in print that I've seen within my 60 years of being a citizen or living in Cumberland County. I would very much appreciate it if people

would be aware of it.

MR. YOUNG:

Yeah. Just so everybody hears her question, in the Maurice River and Union Lake, there is a fish ban --- or consuming fish, a fish-consumption ban that has to be public. So that's going to be ---.

MR. SIVAK:

There is currently a fish advisory. Fish advisories are issued by the State of New Jersey. They're not issued by the Federal Government. The State of New Jersey does have a fishing band. There's a statewide fishing advisory. Excuse me. It's not a ban. So it limits the amount of certain types of fish to certain populations. I believe there's a statewide advisory for mercury, again, not necessarily associated with this particular site tonight. Mercury is a global problem.

There's also, I believe, an advisory for bacterial arsenic examination we need to make, amounts associated with primarily geese runoff. You know, there's a lot of Canada geese around Union Lake. There's a lot of Canada geese --- there's a lot of --- there's sort of runoff into Union Lake from wildlife that tends to do what wildlife does. This is all going

in the public record, isn't it? So I'm trying to be very sensitive to how I say this because this will be memorialized. So the runoff from those actions from those wildlife have impacted the quality of the lake and have resulted in that advisory as well.

Union Lake is being investigated as part of the Superfund site we're talking about next week.

MS. AYALA:

Vineland chemical site.

MR. SIVAK:

The Vineland chemical site. I don't want to get too much into that, but we did select a remedy for that. We did select a tentative remedy for that lake several years ago. But again, we need to address the contamination at the source before we clean up where it ultimately ends up. And we're not quite there yet for Union Lake.

Hunter had that figure earlier when he showed we will be investigating the Tarkiln and the Parvin Branch that meet up with the Maurice River right above you, the confluence with Union Lake or right above where it dumps into Union Lake. We will be investigating that as parrot of the Kil-Tone property and we will track the contamination from the site as

far as we need to. If that contamination from Kil-Tone --- so we will be investigating this. We have some sampling from along here. We will continue to chase the contamination as far as we need to. If we have to go down the Tarkiln to the Parvin, if we have to go from the Parvin into the Maurice River, if we have to go from the Maurice River into Union Lake to trap the contamination from Kil-Tone we will do that. That, however, is not our immediate priority. Our immediate priority is the homes around the Kil-Tone facility and then the homes along the floodplain, along here. We want to clean up the homes because we think that that's the first priority for our agency.

MS. STRACHEJKO:

So in your presentations are you going to have somebody making --- apart from the State of New Jersey that can answer those questions that I have just asked or the inhabitants of this place ---?

MR. SIVAK:

We cannot require the State of New Jersey to attend that meeting next week. We can let them know that there were questions raised tonight about that. We can try to get some information on what the consumption advisories for Union Lake are and have that

available --- so we can get that information available to you. I mean, it's all on their website, but we can see what we can do to try to make that information more available to you.

MS. STRACHEJKO:

And can you ---

MR. SIVAK:

Yes.

MS. STRACHEJKO:

Thank you.

MS. AYALA:

Any other questions or comments?

MS. LOPEZ:

We're in the Road area.

MR. YOUNG:

Yeah.

MS. LOPEZ:

Is that where --- well, we give fresh water, but there is other water going through that.

MR. YOUNG:

So you're down here?

MS. LOPEZ:

We're down here.

MR. YOUNG:

So we think ---.

MS. LOPEZ:

They already done the soil check and everything ---.

MR. YOUNG:

Yeah.

MS. LOPEZ:

And I did talk to ---.

MR. YOUNG:

Kim?

MS. LOPEZ:

Kim, that's her name, and she was saying I think the water's up here.

MR. YOUNG:

Yeah. So I mean, we're up here right next to the site, you know, I think. So up here is where we're going to have the highest levels of contamination. We're going to move down here, and so we think that there is some --- can be some contamination in some yards, flooding of the Tarkiln Branch. You know, over years, you know, the creek's going to flood and leave some of that sediment. Some of that soil from the bottom of the creek is going to get flushed up into the yards. So we think ---.

MS. LOPEZ:

And then stays there.

MS. AYALA:

I'm sorry, ma'am, can you state your name for the record?

MS. LOPEZ:

Mildred Lopez.

MR. YOUNG:

So we're going to come and we're going to do a whole big sampling event and we're going to --- and we've already got some sampling information.

MS. LOPEZ:

If they do drink it, is that going to ---?

MR. YOUNG:

If they drink the --- from the Tarkiln Branch?

MR. SIVAK:

What's the question?

MS. AYALA:

If the animals drink the water.

MR. SIVAK:

We will look at that when we do our ecological risk assessment. Typically --- we will get some information to you when we look at that data when

we get to that part of the evaluation, yeah.

MS. AYALA:

Are you talking about a farm?

MS. LOPEZ:

The farm.

MR. YOUNG:

Yeah.

MS. LOPEZ:

I mean, we usually come up and ---

MR. YOUNG:

Right.

MS. LOPEZ:

--- going down that way.

MR. YOUNG:

Yeah, it's going to be hard to keep them.

MR. SIVAK:

Sheep and goats we have found don't really pay attention to advisories to not drink the water, yeah, so we ---.

MR. YOUNG:

Yeah. I mean, and there is contamination in Tarkiln Branch, so --- we don't know the exact effects as of right now.

MR. SIVAK:

But it's also important to know that this was the source. This former pesticide manufacturing facility was the source. It's no longer operational. It's been out of business for quite some time. And we're currently in the process of capping all of this so that any contamination that remains in the surface soils is no longer available to be flushed into the system.

So the contamination that we see along here, a lot of this is historical because we don't have these active releases of arsenical and lead-based pesticides into the environment anymore because that facility went out of business. So we anticipate --- you know, as Hunter said, the highest levels are going to be up here, but we also anticipate that these levels may not necessarily be as high as

They might have been, you know, 20 years ago, when this was continuing to dump waste --- you know, dump their product into the --- onto the ground, and it ultimately ended up in that stream channel. Does that make sense? You know, you cut off the source and the concentration drops.

MR. YOUNG:

So we'll get more information on the

surface water, what they're actually drinking and how much contamination is there. That's ongoing.

MS. AYALA:

Any other questions or comments? Please state your name.

MR. CORTES:

Migael Cortes.

MS. AYALA:

Okay.

MR. CORTES:

I'd just like to know, like my mom was asking, who takes the cost of like the piece of land especially if you're on the source. I mean, how does that --- the value of the home is going to go down. You know, how's that going to affect home value?

MS. VAUGHN:

Sure. There are a couple of things I can say in response. You know, we can't --- we can't guarantee it won't affect the home value in the short term, and in the long term properties will be --- contamination will be addressed and that property values should go back up and perhaps even improve because if a property were --- does need to be cleaned up, it will be restored and it will look good when it's

done.

In addition, we've had people and other scenarios like this where residential clean-ups are required that have wanted to perhaps sell their homes while the work is still ongoing or refinance their loan. And EPA can write a letter to the bank and let them know the status, and we --- generally, people have not had trouble, you know, selling their homes or buying homes while this work is going on. Because once the recommended decision is signed, there is assurance that we will be doing the work and the contamination will be removed. It might take a while, but it will be addressed. So you know, if it comes up, let's say we deal with that issue on a day-to-day basis, and work to help the homeowner have the best possible outcome.

MR. YOUNG:

And I don't think I asked you this earlier, but if this remedy is --- you know, if we sign this as our Record of Decision, if we move forward with this, if everyone accepts this remedy, we hope to be out there, you know, implementing this remedy quickly. You know, we hope to be --- have this excavation done in the next couple of years. You know, we want to get out there and start working the next construction

season. We want to be out there in March. We're going to spend the winter, we're going to, you know, kind of plan everything out and we hope to get out there in the spring and start ---. So if you have contamination, we want to get out there and clean it up as soon as possible.

MS. LOPEZ:

When you get to the property site, how long are they going to have to be ---?

MS. VAUGHN:

It'll vary by property site, but also if there are a number of properties that are located near each other. We would try to do those all at once.

MS. LOPEZ:

So you won't be taking out fencings ---?

MS. VAUGHN:

If necessary, yes.

MR. YOUNG:

If we remove a fence, we'll replace a fence.

MR. JONES:

Is there anywhere the testing taking place?

MR. YOUNG:

Yeah. So we're going to do more testing in the --- to repeat the question, he's asking if any more testing will take place. So we're going to --- as we do the clean-up, we're going to be doing testing during it. We're going to do more testing this fall and we're going to make sure that we have the contamination fully delineated. You know, we're going to make sure we've captured it all before we finish anything.

MS. LOPEZ:

So not everything is going to have the same at the point ---?

MR. YOUNG:

Right. And that's so that we make sure --- you know, one property might have it much deeper than the other. We want to make sure that we can capture all the contamination.

MR. SIVAK:

And one property may need the entire property, the entire yard, cleaned. Other properties may only have certain areas or very localized areas where they have a problem. So every property ---.

MS. LOPEZ:

You're going to test to see ---?

MS. VAUGHN:

Yes.

MR. SIVAK:

We already established a lot of information about the three phases of sampling that we already conducted, but we do need to kind of refine that a little bit. You know, we want to collect some more samples. We want to make sure, you know, how far down the testing goes and we just want to rip off a little bit more.

MS. LOPEZ:

Would that testing be outside that area, too, also, because ---?

MR. YOUNG:

Yeah. You know, you're going to see a lot of the areas this right now are commercial and industrial properties, and so we're going to go and do the commercial and industrial property. And if we find contamination for those parts of the property, we would sample the residential properties on the other side. So you know, we're not going to have ---.

MS. LOPEZ:

If the properties all are contaminated.

MR. YOUNG:

For example ---.

MR. SIVAK:

Yeah, we're going to look at what information we have. If there is a reason for us to keep going, like looking below parking surfaces, like parking lots or sidewalks, we will do that. We have to look and see that they tell us. Like he said, we're going to be --- keep where it is until we figure out where it is. But we'll --- we're going to locate it systematically. We're not just going to go out and close it up. We're going to be very compliant when we do it.

MS. LOPEZ:

In walking with Wanda we were across another street from their home. What about us?

MR. SIVAK:

So we're going to --- again, we're going to look at the information given to us, hoping maybe somebody's part, put a tree in their yard, put a tree in or a garden. We want to give people the opportunity to do that and not have to worry about having to put additional controls on them, saying if you're going to build on here, you need to. So roadways are a little different. We'll deal with that a little further down

the line.

MR. YOUNG:

And a lot of that is because these are residential properties. We want to act as fast as we can. There's no harm, but we want to act as quickly as we can and correct the problem.

MS. LOPEZ:

Does everybody's --- so what happens to the properties adjacent to that home if that home doesn't ---?

MS. VAUGHN:

So we will try to a get a typical response to that and ---

MS. LOPEZ:

And I don't mean ---

MS. AYALA:

No.

MS. VAUGHN:

So essentially --- so we don't want to talk about that.

MS. LOPEZ:

I know. I'm just thinking if these properties get cleaned ---.

MS. VAUGHN:

If we find that that property is contaminated, they know it.

MS. AYALA:

It wasn't a question of access because he had access. She just decided like she didn't want us to take an action on the property.

MR. SIVAK:

So if we come across properties, and there may be one or two properties that we don't have access to. Our office --- our New York office that deals with New York and New Jersey, we have a lot of experience with cleaning up neighborhoods, so we know how to do it. We know what to look for. We know how to talk to folks about, you know, what to expect if we're coming onto your property, you yard. So we, you know, unfortunately, have a lot of experience cleaning up neighborhoods. But fortunately, we have a lot of experience in cleaning up neighborhoods. So we'll talk with folks. Hopefully, nothing that we do will be unexpected. So please be aware that if you are one of the properties that we have targeted for a clean-up, you know, we will let you know exactly what's going to happen.

MR. KISCH:

Just to follow that up a little bit, for each step in the process we usually ask for separate??? We usually write a different document describing the action that we plan to take next. So a lot of properties we receive access to sample and then we go back and get a consent. Next year, each of those consent documents were described specifically. So we may come back to each of the homes several times, as I spoke.

MS. LOPEZ:

Does this affect the city water?

MR. YOUNG:

No.

MS. VAUGHN:

The drinking water is supplied by municipal and the drinking water ---.

MS. AYALA:

Question?

MS. STRACHEJKO:

This is strictly for the --- Did you find any gardens that had vegetables in it in the vicinity to test whether it has any arsenic or lead that was planted on.

MR. YOUNG:

So the question was were there gardens in yards with contamination. Yeah.

MS. STRACHEJKO:

Did you have them tested, the fruit or vegetables from those gardens?

MR. YOUNG:

No, we didn't test the vegetables. I don't want to speak above my pay grade here, but from what I understand the way that arsenic and other metals --- it doesn't easily go from soil into the fruit and into your body. That is usually not the risk that we're looking at. It's more of a risk that you get like from any type of ingestion of the soil.

MS. AYALA:

And part of our removal action, the interim action that we took was we made up a barrier of soil so people wouldn't come in direct contact with the contaminated soil. And we provided people with raised garden beds for their plants or their vegetable gardens. So this happened during the spring, so whatever ---.

MS. STRACHEJKO:

And another question is you're talking about the city water. Was there anybody in the city

that has well water?

MR. YOUNG:

No.

MS. VAUGHN:

And that's something that we always keep an eye out. I don't believe that but, yes, we're going to be sampling groundwater.

MR. YOUNG:

Any other questions? Thanks for coming, everyone.

MS. STRACHEJKO:

I want to thank you for being here.

MS. AYALA:

And the public commentary is open still, so if you didn't have the opportunity to comment here you can send it to Hunter via e-mail, via fax and air mail. And I'll be seeing everybody around. I'm still your point of contact, so please feel free to call me at any time.

* * * * * * *

PUBLIC MEETING CONCLUDED AT 8:03 P.M.

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CERTIFICATE

I hereby certify, as the stenographic reporter, that the foregoing proceedings were taken stenographically by me, and thereafter reduced to typewriting by me or under my direction; and that this transcript is a true and accurate record to the best of my ability.

Attachment D

Written Comments

Young, Hunter

From: Jones Dale <djones@vinelandcity.org>
Sent: Tuesday, August 09, 2016 10:38 AM
To: Young, Hunter
Cc: Mayors Office; Fanucci Anthony R; Tonetta Richard; Dickinson(Health) Robert; Dickenson Bob; Lopez Emma
Subject: Former Kil-Tone Company Super Fund Site

Hunter,

Please accept this email as comment to the EPA's Proposed Plan to remediate the residential soil associated with the former Kil-Tone Company pesticide manufacturing plant located here in Vineland, New Jersey. I was in attendance at your August 2, 2016 public meeting which was held at the Gloria M Sabater Elementary School regarding this matter. During this meeting you discussed the remedial action objectives and three remedial alternatives in addressing the contaminated soil in the residential neighborhood adjacent to the Site. I support the EPA's decision to use Alternate #3 which states that all contaminated soil exceeding the cleanup goals will be excavated from the residential properties and then the soil will be transported and disposed of off-site. At that point all the properties would be restored to their present condition. This alternative will achieve the remedial action objectives and cleanup goals in the shortest amount of time and is a permanent remedy. It will also assure that the citizens of the City of Vineland long term health will be protected as well as the environment as a whole. I also realize this in only one step (OU's) in cleaning up the site and there will be more to come. Our Department looks forward to working with the EPA in achieving those goals.

Respectfully submitted.

Dale Jones
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