Record of Decision

Sherwin-Williams/Hilliards Creek Superfund Site
United States Avenue Burn Superfund Site
Route 561 Dump Site

Operable Unit 1: Residential Properties

Borough of Gibbsboro and Township of Voorhees
Camden County, New Jersey

United States Environmental Protection Agency

Region 2

September 2015

DECLARATION STATEMENT
RECORD OF DECISION

SITE NAME AND LOCATION

Sherwin-Williams/Hilliards Creek Superfund Site (NJD980417976), United States Avenue Burn Superfund Site (NJ0001120799), and Route 561 Dump Site (NJ0000453514), Camden County, New Jersey. Operable Unit 1 – Residential Property Soil.

STATEMENT OF BASIS AND PURPOSE

This decision document presents the selected remedy to address contaminated soils on residential properties impacted by the Sherwin-Williams/Hilliards Creek Superfund Site, United States Avenue Burn Superfund Site and the Route 561 Dump Site located in Gibbsboro and Voorhees, Camden County, New Jersey. The selected remedy was chosen in accordance with the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended (CERCLA) and, to the extent practicable, the National Oil and Hazardous Substances Pollution Contingency Plan (NCP). This decision is based on the Administrative Record established for these sites.

The New Jersey Department of Environmental Protection (NJDEP) concurs with the selected remedy.

ASSESSMENT OF THE SITE

The remedy selected in the Record of Decision (ROD) is necessary to protect public health or the environment from actual or threatened releases of hazardous substances from the sites into the environment.

DESCRIPTION OF THE SELECTED REMEDY

The remedy described in this document represents the first remedial phase, designated as operable unit 1 (OU1) for residential properties impacted by each of the three sites. It addresses the contaminated soils found on residential properties in Gibbsboro and Voorhees, New Jersey. The components of the selected remedy include:

- excavation of an estimated 21,000 cubic yards of contaminated soil from approximately 34 properties, backfilling with clean fill, and property restoration as appropriate; and,

- transportation of the contaminated soil off the properties, for disposal, with treatment of the contaminated soils as necessary.

DECLARATION OF STATUTORY DETERMINATIONS

Part 1: Statutory Requirements

The selected remedy is protective of human health and the environment, complies with Federal and State requirements that are applicable or relevant and appropriate to the remedial actions, is cost effective, and utilizes permanent solutions and treatment technologies to the maximum extent practicable.

Part 2: Statutory Preference for Treatment

Based on the sampling performed to date, the contaminated soil will not require treatment to meet the requirements of off-site disposal facilities. The selected remedy does not meet the statutory preference for the use of remedies that employ treatment that reduces toxicity, mobility or volume as a principal element.

Part 3: Five-Year Review Requirements

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, five-year reviews will not be required for this remedial action.

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 sites.

- Chemicals of concern and their respective concentrations may be found in the “Site Characteristics” 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 source materials constituting principal threats 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 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.

Walter E. Mugdan, Director
Emergency & Remedial Response Division
EPA - Region 2

September 29, 2015
Date

Decision Summary

Sherwin-Williams/Hilliards Creek Superfund Site
United States Avenue Burn Superfund Site
Route 561 Dump Site

Operable Unit 1: Residential Properties

Borough of Gibbsboro and Township of Voorhees
Camden County, New Jersey

United States Environmental Protection Agency

Region 2

September 2015

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APPENDICES

SITE NAME, LOCATION AND BRIEF DESCRIPTION

Three sites collectively make up what is commonly referred to as the "Sherwin-Williams Sites," (sites) which are located in areas of Gibbsboro and Voorhees, New Jersey. The sites are comprised of the Route 561 Dump Site, Gibbsboro, New Jersey (the "Dump Site"); United States Avenue Burn Superfund Site, Gibbsboro, New Jersey (the "Burn Site"); and the Sherwin-Williams/Hilliard's Creek Superfund Site (SW/HC Site), Gibbsboro and Voorhees, New Jersey (Figure 1). The SW/HC Site includes the Former Manufacturing Plant (FMP) area, Hilliards Creek, and Kirkwood Lake. The sites represent source areas from which contaminated soils and sediments have migrated onto a number of residential properties within Gibbsboro and Voorhees, New Jersey.

The SW/HC Site (Gibbsboro and Voorhees, New Jersey) - The SW/HC Site, includes: the FMP area, Hilliards Creek, and Kirkwood Lake. The approximately 20-acre FMP area of the SW/HC Site, is comprised of commercial structures, undeveloped land and includes the southern portion of Silver Lake. The FMP area extends from the south shore of Silver Lake and straddles the headwaters of Hilliards Creek.

Hilliards Creek is formed by the outflow from Silver Lake. The outflow enters a culvert beneath a parking lot at the FMP and resurfaces on the south side of Foster Avenue, Gibbsboro, New Jersey. From this point, Hilliards Creek flows in a southerly direction through the FMP area and continues downstream through residential and undeveloped areas. At approximately one mile from its origins, Hilliards Creek empties into Kirkwood Lake.

Kirkwood Lake, located in Voorhees, New Jersey, is approximately 25 acres, with residential properties lining its northern shore.

The Dump Site (Gibbsboro, New Jersey) - The Dump Site is approximately eight acres and is 700 feet to the southeast of the FMP area, and is situated at the base of an earthen dam that forms Clement Lake. Approximately three acres of the Dump Site is fenced and encloses contaminated soil and sediment. Additionally, contaminated soil exists outside the fenced portion of the Dump Site, beneath several commercial properties.

Overflow from the Clement Lake dam forms White Sand Branch, a small creek that flows through the Dump Site. Sediments within White Sand Branch and soils within its floodplain are contaminated. White Sand Branch exits the fenced portion of the Dump Site through a culvert beneath County Road Route 561.

After resurfacing on the west side of County Road Route 561, White Sand Branch flows in a southwest direction for approximately 1,100 feet, where it then enters a fenced portion of the Burn Site.

The Burn Site (Gibbsboro, New Jersey) – The Burn Site is approximately 19 acres and is located directly south of the FMP area. A 13-acre fenced area encloses contaminated soil and sediment including the lower 400 feet of White Sand Branch. The lower 500-foot portion of a small creek, Honey Run, enters the fenced portion of the Burn Site where it joins White Sand Branch before it passes through a culvert beneath United States Avenue and enters Bridgewood Lake, located in Gibbsboro, New Jersey. The six-acre Bridgewood Lake empties through a culvert beneath Clementon Road and forms a 400-foot long tributary that joins Hilliards Creek at a point approximately 1,000 feet downstream from the FMP area.

The U.S. Environmental Protection Agency (EPA) is the lead agency, and the New Jersey Department of Environmental Protection (NJDEP) is the support agency for these sites.

SITE HISTORY AND ENFORCEMENT ACTIVITIES

The former paint and varnish manufacturing plant property in Gibbsboro, New Jersey, was originally developed in the early 1800s as a sawmill, and later a grain mill. In 1851, John Lucas & Company, Inc. (Lucas), purchased the property and converted the grain mill into a paint and varnish manufacturing facility that produced oil-based paints, varnishes and lacquers. The Sherwin-Williams Company (Sherwin-Williams) purchased Lucas in the early 1930s and expanded operations at the facility. Historic features at the former manufacturing plant, referred to as the FMP area, included wastewater lagoons, above-ground storage tanks, a railroad line and spur, drum storage areas, and numerous production and warehouse buildings. Various products were manufactured at the former facility, including dry colorants, varnishes, lacquers, resins, and oil-based and water-based (emulsion) paints.

After Sherwin-Williams ceased operations at the plant in 1977, the NJDEP issued Sherwin-Williams an Administrative Order on August 17, 1978. Among the items to be addressed in the Order, NJDEP required Sherwin-Williams to remove the residual sludge from waste water lagoons. Sherwin-Williams complied with NJDEP’s Administrative Order, the sludge was removed and disposed of off-site. The property was later sold to a private

developer in early 1981. On May 19, 1981, NJDEP directed Sherwin-Williams to characterize and address groundwater contamination.

In 1983, NJDEP received a report that a petroleum-like seep, detected at the former Sherwin-Williams facility, was discharging to a nearby creek (i.e., Hilliards Creek). On March 3, 1987, NJDEP issued Sherwin-Williams a "Telegram Order," ordering Sherwin-Williams to immediately begin containment of the petroleum seeps and to submit a plan proposing additional actions to contain the contamination. Sherwin-Williams did not comply with the Order.

On January 31, 1990, NJDEP issued a Spill Act Directive to Sherwin-Williams, Robert K. Scarborough and the Paint Works Corporate Associates I (property owners) to conduct RI/FS activities to determine the extent of contamination. NJDEP determined that the contamination present in both the groundwater and the petroleum seep was identical to the "raw materials" previously stored on-site, during operations by Sherwin-Williams.

On September 20, 1990, an Administrative Consent Order (ACO) was signed between Sherwin-Williams and the NJDEP (subsequently amended on October 30, 1990, and again on June 8, 1995). Under the oversight of NJDEP, Sherwin-Williams conducted several investigations and submitted a "Remedial Investigation Report" on February 5, 2001. NJDEP terminated its Order in 2001 and the site was transferred to EPA as the lead agency.

During the early 1990s, NJDEP discovered two additional source areas (the Dump Site and Burn Site), both attributable to historic dumping activities associated with the FMP.

In the mid-1990s, enforcement responsibilities for the Dump Site and the Burn Site were transferred to EPA. Under an EPA Administrative Order on Consent (AOC) Sherwin-Williams was directed to further characterize and delineate the extent of contamination associated with these areas and to fence them off to minimize the potential for human exposure. EPA proposed the Dump Site to the National Priorities List (NPL) in 1998. The Burn Site was added to the NPL in 1999.

In 1998, EPA sampled the upper portions of Hilliards Creek and several residential properties. Contaminants (primarily lead and arsenic) were detected in soil and sediment samples. The contaminants in these samples were similar to those detected at

the Dump Site and Burn Site. As with the portions of the Dump Site and Burn Site, a fence was installed around a portion of Hilliards Creek to prevent direct contact with contaminants.

EPA entered into two additional AOCs with Sherwin-Williams in 1999. The first AOC directed Sherwin-Williams to conduct additional sampling of Hilliards Creek and Kirkwood Lake and to characterize the extent of contamination. The sampling, which concluded in 2003, also included residential properties along Hilliards Creek and Kirkwood Lake. The second AOC directed Sherwin-Williams to conduct a remedial investigation/feasibility study (RI/FS) for the Dump Site, Burn Site and Hilliards Creek.

The RI identified a number of residential properties located adjacent to the sites or within the 100-year floodplain of Hilliards Creek that contained contaminants associated with upstream source areas. The SW/HC Site, which includes the FMP area, Hilliards Creek and Kirkwood Lake, was added to the NPL in 2008.

HIGHLIGHTS OF COMMUNITY PARTICIPATION

EPA has worked closely with local residents, public officials, and other interested members of the community since residential sampling started at the sites in the early 2000s. At the completion of the RI/FS for OU1, EPA prepared a Proposed Plan presenting remedial alternatives as well as EPA's preferred remedy for residential properties. The Proposed Plan and supporting documentation for OU1 were released to the public for comment on June 1, 2015. The Proposed Plan and index for the Administrative Record were made available to the public online, and the Administrative Record files were made available at the EPA Administrative Record File Room, 290 Broadway, 18th Floor, New York, New York; the Gibbsboro Library, 49 Kirkwood Road, Gibbsboro, New Jersey; and the M. Allan Vogelson Regional Branch Library, 203 Laurel Road, Voorhees, New Jersey.

On June 1, 2015, EPA published a Public Notice in the *Courier Post* newspaper that contained information about the public comment period, the public meeting for the Proposed Plan, and the availability of the administrative record for the site. The public comment period was scheduled to last 30 days, however, it was extended to 60 days in response to the request of a party wishing to submit comments. EPA published a press release on July 1, 2015, that announced the extension of the comment period. The comment period closed on August 3, 2015.

A public meeting was held on June 11, 2015, at the Gibbsboro Senior Center, 250 Haddonfield-Berlin Road, Gibbsboro, New Jersey. The purpose of this meeting was to inform residents, local officials and interested members of the public about the Superfund process, present details about EPA's remedial plan, receive comments on the Proposed Plan and respond to questions from area residents and other interested parties. Responses to the comments received at the public meeting, and in writing during the public comment period, are included in the Responsiveness Summary, attached as Appendix IV to this ROD.

SCOPE AND ROLE OF THIS OPERABLE UNIT

Due to the large area, the different media affected by contamination, the complexity of multiple sites and varying land uses, EPA is addressing the cleanup of the Sherwin-Williams sites in several phases, or operable units (OUs). This ROD is the first operable unit associated with the SW/HC Site, Dump Site, and Burn Site and addresses contaminated soils on residential properties only. Future OUs will address soil, groundwater, surface water and sediment contamination associated with the SW/HC Site, Dump Site, and the Burn Site.

Soil sampling was conducted on 54 residential properties during the RI. One property was sampled prior to the RI. Residential properties located within the floodplain of one of the impacted waterways, or immediately adjacent to one of the sites were selected for sampling. Eleven properties were sampled due to their close proximity to one of the sites. Thirteen properties within the floodplain of Hilliards Creek and 31 properties adjoining Kirkwood Lake were also sampled.

Based on EPA's evaluation of the soil sampling results, residential properties are categorized as follows: a) no remedial action is anticipated; b) remedial action is required; or c) additional soil sampling is required to determine the extent of, or need for, remedial action (Figures 2 – 5).

The number of properties with elevated levels of soil contaminants, referenced in this ROD, is an estimate used to calculate the approximate costs of the cleanup alternatives. The precise number of residential properties that would require soil remediation under the OU1 remedy will be determined upon completion of additional soil sampling activities to be conducted during the remedial design.

Potable Water and Soil Gas – Potable water and/or soil gas samples were also collected at a number of residential properties. Due to the presence of groundwater contamination associated with the sites, residential properties with potable wells had their tap water sampled. In addition, groundwater contaminated with VOCs has the potential to release contaminated soil gas. Therefore, EPA collected sub-slab soil gas samples from residential properties in the immediate vicinity of known VOC-contaminated groundwater.

Analysis of both potable well and soil gas samples did not indicate a health concern, therefore potable well results and sub-slab soil gas results are not discussed further in this ROD. This ROD addresses soil contamination on residential properties.

SITE CHARACTERISTICS

RI sampling at the sites began in 2005. Samples have been collected from soil, sediment, groundwater, surface water, and air (soil gas). Sampling has identified these sites as sources of contamination to residential properties.

Soil samples, collected from residential properties, were analyzed for metals, volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs) including polycyclic aromatic hydrocarbons (PAHs), pesticides, and polychlorinated biphenyls (PCBs). Lead and arsenic were found most frequently and at the greatest concentrations above the New Jersey Residential Direct Contact Soil Remediation Standards (RDCSRS) at source area sites and residential properties. PAHs above RDCSRS were also found, but less frequently, at the sites and residential properties.

A human health risk assessment was conducted on the soil sample analytical results from residential properties to determine if levels of soil contaminants exceeded EPA’s acceptable risk range (Discussed in “Summary of Site Risks”). The analytical results of residential soil samples were also compared to NJDEP’s RDCSRS.

Each of the three sites include water bodies that received contaminants by historic discharges, and continue to receive contaminants through erosion and/or surface water run-off from the sites. The impacted water bodies include White Sand Branch, Honey Run Brook, Bridgewood Lake, Silver Lake, Hilliards Creek and Kirkwood Lake.

Residential Properties Adjoining Hilliards Creek and Kirkwood Lake

Contaminated sediments within Hilliards Creek and Kirkwood Lake have the potential to be deposited within the floodplains of the residential properties along these two water bodies. Contamination is generally found in shallow soils on residential properties along Hilliards Creek and Kirkwood Lake. Shallow soils are defined as the 0 to 2 foot depth interval. The extent of the shallow contaminated soils at residential properties is limited to near shore or floodplains of Hilliards Creek and Kirkwood Lake. In general, the contaminant concentrations within the floodplain properties are greater upstream, closer to the source areas, and decrease downstream.

Of the 13 residential properties sampled along Hilliards Creek, 11 require remedial action, as explained further below in this Decision Summary. Two remaining residential properties will undergo additional sampling to determine if an action is necessary. Of the thirty-one residential properties sampled along Kirkwood Lake, sixteen require remedial action. Five residential properties adjoining Kirkwood Lake will undergo additional sampling to determine if an action is necessary.

Residential Properties Adjacent to the Sites

Residential properties, outside of the floodplains of Hilliards Creek and Kirkwood Lake but in close proximity to one of the three sites, were also sampled. Of the eleven properties sampled in close proximity to the sites, seven require remedial action; one property will undergo additional sampling to determine if remedial action is necessary. These eight residential properties are all in close proximity to the FMP area. Contaminated soils at residential properties adjoining the FMP area appear to be from the placement of historic fill from the FMP and have no clear distribution pattern.

Similar to the residential properties within the floodplains of Hilliards Creek and Kirkwood Lake, the contamination detected at the properties in close proximity to the FMP area appears to be confined to shallow soils. The deepest detected interval of soil contamination was between 2.5 to 3.0 feet, and only occurred in two separate sample locations, from separate properties. Of the residential properties sampled in close proximity to the Dump Site, none of them were identified as having contaminated soil.

Additional Soil Sampling Activities at Residential Properties

Remedial design soil sampling activities will occur at the thirty-four properties that require a remedial action. Soil sampling during the remedial design will delineate the area of soil contamination that will be addressed during the remedial activities. It is estimated that up to thirty additional residential properties may be in need of sampling to determine if remedial action is needed on portions of their properties.

CURRENT AND POTENTIAL FUTURE SITE AND RESOURCE USES

Land Uses: Land uses of the impacted areas of the sites include: residential, commercial, and open spaces. The Borough of Gibbsboro owns a majority of the vacant, undeveloped portions of the sites which have become forested lots through natural succession. Early Borough tax maps depicted plans for the development of streets throughout portions of the Dump Site and Burn Site, and the Borough has informed EPA that the Agency should consider residential as one plausible future use for these areas.

The impacted land in Voorhees, along the northern shoreline of Kirkwood Lake, is almost exclusively residential. The southern shoreline of Kirkwood Lake, located in Lindenwold, New Jersey, is undeveloped and bordered with trees. Sections of the lake's southern shoreline includes protected wetlands. The Port Authority Transit Corporation rail-yard, located in Lindenwold, ranges from approximately 30 to 350 feet distant from the southern shore of Kirkwood Lake.

Groundwater and Surface Water Uses: Silver Lake and Bridgewood Lake are privately owned and boating and fishing are restricted in those water bodies. Portions of White Sand Branch Creek, Honey Run Brook, Hilliards Creek and all of Kirkwood Lake are available for recreational use. A town ordinance prohibits swimming and a New Jersey "fish advisory" has been established for all water bodies. Wetlands are associated with water bodies that flow through each of the sites.

Groundwater in the area is classified by NJDEP as Class IIA, a potable aquifer. A number of potable wells are located on residential properties in the area of the sites. These potable residential wells have been sampled and were found to be unaffected by contamination from the sites. A public community supply well is located approximately one mile from the sites. EPA is currently evaluating potential adverse impacts of the

sites on the groundwater and surface water. These media will be addressed in subsequent operable units for the sites.

SUMMARY OF SITE RISKS

As part of the RI/FS, 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 sites.

Human Health Risk Assessment

Lead was among the chemicals detected at the residential properties. Risks from lead exposure are evaluated differently than for the other chemicals and are discussed separately, later in this section. For chemicals other than lead, 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 x

10^{-6} to 1 x 10^{-4} or a Hazard Index greater than 1; contaminants at these concentrations are considered chemicals 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 chemicals of potential concern (COPCs) 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. The HHRA identified metals, including arsenic, cobalt, cyanide, iron and lead, along with PAHs, most notably benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene and dibenz(a,h)anthracene as COPCs in surficial soils. Not all of these constituents were identified as COPCs on every property. Surface soil was the only media quantitatively evaluated in the HHRA.

A comprehensive list of all COPCs identified in each residential property can be found in the final HHRA (see *Residential Properties Human Health Risk Assessment*, July 8, 2014) which is available in the Administrative Record. Only the COCs, or the chemicals requiring a response, are listed in Table 1. Lead was also 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 HHRA 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 the sites. The RME is defined as the highest exposure that is reasonably expected to occur at a site.

The HHRA evaluated potential risks to populations associated with both current and potential future land uses. The Residential Properties evaluated in the HHRA are currently zoned for residential use; it is anticipated that the future land use for these properties will remain consistent with current use (i.e., remain residential).

Surface soil was the only medium addressed in the HHRA. Exposure pathways assessed for soils included incidental ingestion, dermal contact and inhalation of particulates potentially emitted from soil by current and future residents (child and adult). The 0 to 2 foot depth interval was used for the ingestion and dermal pathways, while 0 to 6 inch was used to quantify risks from inhalation exposures. A summary of the exposure pathways included in the HHRA can be found in Table 2. Typically, exposures are evaluated using a statistical estimate of the exposure point concentration (EPC), which is usually an upperbound estimate of the average concentration for each contaminant, but in some cases may be the maximum detected concentration. For lead exposures, the arithmetic mean of all samples collected from each residential property in a given soil interval (either 0 to 6 inch or 0 to 2 foot) was used as the EPC. A summary of the exposure point concentrations for the COCs in each medium, other than lead, can be found in Table 1; the lead EPCs are summarized in Table 7. A comprehensive list of the exposure point concentrations for all COPCs can be found in Appendix B (table 3 series) of the final HHRA.

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 COPCs 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 COPCs is presented in the Residential Properties HHRA.

Risk Characterization

This step summarized and combined outputs of the exposure and toxicity assessments to provide a quantitative assessment of site risks. Exposures were evaluated based on the potential risk of developing cancer and the potential for non-cancer health hazards. Exposure from lead was evaluated using blood lead modeling and is discussed in more detail at the end of this section.

Noncarcinogenic risks 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 or equal to 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 risks 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 five residential locations. The total soil HIs at these residences ranged from 2.3 to 15. At one residence the adult HI of 1.5 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 under the conditions described in the *Exposure Assessment*, 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, exceedances of the target risk range were predicted at nine residential locations. The total estimated cancer risks for residents (child and adult) ranged from 2×10^{-4} to 9×10^{-4}. The cancer risks were primarily due to ingestion of and dermal contact with surface soil, with the major risk drivers identified as arsenic and/or PAH compounds including benzo(a)pyrene and dibenzo(a,h)anthracene.

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, an excretion of toxins in the body) of lead are well understood, lead is regulated based on blood lead concentrations. In lieu of evaluating risk using typical intake calculations and toxicity criteria, EPA developed models which are used to predict blood lead concentration and the probability of a child's blood lead level (BLL) exceeding 10 micrograms per deciliter (µg/dL) based on a given multimedia exposure scenario.

In the HHRA, the potential for exposure to lead by children was evaluated using EPA's blood lead model (the Integrated Exposure Biokinetic and Uptake Model [IEUBK]). Lead risks were evaluated for children only, as children are more sensitive to the effects of lead exposure than adults. Young children are more susceptible to lead exposure from a combination of the following factors: children have higher intake rates (per unit body weight) for environmental media than adults, since children are more likely to play in soil and put their hands and other objects in their mouths; children tend to absorb a higher fraction of ingested lead from the gastrointestinal tract than adults; children also tend to be more susceptible than adults to adverse neurological and developmental effects of lead; and nutritional deficiencies of iron or calcium, which are common in children, may facilitate lead absorption and exacerbate the toxic effects of lead. The effects of lead in children can cause impairment and damage of the brain and nervous system, behavior problems, anemia, liver and kidney damage, hearing loss, hyperactivity, developmental delays and in extreme cases, death (http://www.epa.gov/superfund/lead/health.htm#Health Concerns).

Lead risks for a child resident were assessed using EPA's IEUBK model in both the 0 to 6-inch and 0 to 2-foot soil depth intervals. Data collected from each residential yard was evaluated on a property by property basis; the model was run on all properties where the maximum concentration of lead exceeded 400 mg/kg (EPA's current screening level for lead). The IEUBK model estimates the probability that a child's blood lead level might exceed 10 µg/dL. EPA's risk reduction goal for lead-contaminated sites is to limit the probability of a typical child's (or that of a group of similarly exposed individual's) blood lead concentration exceeding 10 µg/dL to 5% or less.

As summarized in Table 7, for the 0 to 0.5-foot depth interval, the IEUBK model predicted that six residential properties exceeded EPA's risk reduction goal with estimated probabilities of a child's BLL exceeding 10µg/dL ranging from 6% to 62%. When the 0 to 2-foot depth interval was considered, the model indicated eight residential properties exceeded the risk reduction goal with probabilities ranging from 6% to 74%.

In summary, arsenic was identified as a noncancer risk driving chemical at the Residential Properties. In addition to arsenic the PAHs benzo(a)pyrene and dibenzo(a,h)anthracene were identified as cancer-driving COCs. Furthermore, based on the IEUBK model results, lead in both soil depths (0 to 6-inch and 0 to 2-foot) was identified as a COC. The noncancer hazards and cancer risks from all COPCs can be found in the final HHRA.

The response action selected in the ROD is necessary to protect the public health or welfare of the environment from actual or threatened releases of contaminants into the environment.

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.

Noteworthy uncertainties of the risk assessment deal with the fact that only the sampling data collected from within each property boundary, based on either the current Camden County tax map boundaries or on a recent property survey, were used for risk quantification. At six residential properties, samples collected outside the property boundary may be accessible to the resident if, for example, the back yard is not fenced. These six properties were evaluated qualitatively in Section 7.1 of the HHRA. Potential exposure to samples located outside property boundaries were evaluated via a screening comparison against the lower of EPA’s risk-based screening levels or New Jersey’s RDCSRS. Further, the on-property versus off-property contaminant concentrations were discussed, and the locations of the off-property samples relative to the property boundaries were depicted on a figure.

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 are being performed for the other sites that address affected media and wetlands.

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) and risk-based levels established in the risk assessment.

The following remedial action objectives for contaminated soil will address the human health risks and environmental concerns at residential properties:

- reduce or eliminate the direct contact threat associated with contaminated soils to levels protective of current land use;
- prevent transport and migration of site contaminants to nearby surface water bodies (including wetlands, lakes, and streams); and
- prevent exposure and minimize disturbance to the surrounding communities of Gibbsboro and Voorhees, during implementation of the remedial action.

REMEDIATION GOALS

To achieve the remedial action objectives, EPA has selected soil remediation goals for residential properties. The soil remediation goals for COCs are consistent with New Jersey RDCSRS. The remediation goals for COCs on residential properties are as follows:

- Lead: 400 milligrams per kilogram (mg/kg)
- Arsenic: 19 mg/kg
- Benzo(a)pyrene 0.2 mg/kg
- Benzo(a)anthracene 0.6 mg/kg
- Benzo(b)fluoranthene 0.6 mg/kg
- Benzo(k)fluoranthene 6 mg/kg
- Dibenzo(a,h)anthracene 0.2 mg/kg
- Indeno(1,2,3-cd)pyrene 0.6 mg/kg

DESCRIPTION OF REMEDIAL ALTERNATIVES

CERCLA requires that each remedial alternative 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, CERCLA includes a preference for the use of treatment as a principal element for the reduction of toxicity, mobility, or volume of the hazardous substances.

Potential technologies applicable to soil remediation were identified and screened by effectiveness, implementability, and cost criteria, with emphasis on effectiveness. In addition, institutional controls (e.g., a deed notice, an easement or a covenant) to limit the use of portions of individual properties may be required. These use restrictions are discussed below. in each alternative as appropriate. The type of restriction will need to be determined after completion of the remedial alternative selected in the ROD. Consistent with expectations set forth in the NCP, none of the remedies rely exclusively on institutional controls to achieve protectiveness.

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 and the contaminant concentrations are relatively low, utilizing treatment of the contaminated soil as a principal element was not the focus of any of the alternatives developed for OU1.

The time frames below for construction do not include the time for designing a remedy, negotiating with potentially responsible parties, 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 soils 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 – Containment and Institutional Controls

Under this alternative, soil cover would be placed over contaminated soils to minimize direct contact. In addition, institutional controls (deed restrictions) would be implemented to prevent human exposure by regulating future use of contaminated areas within the properties. The deed restrictions would require maintenance of the cover material and restrict excavation of the property. The soil cover would consist of three vertical zones. The zones, from top to bottom, would include a vegetative layer on top of a minimum one foot clean fill, which would be a barrier layer. Beneath the barrier layer would be a buffer layer consisting of a minimum of one foot layer of clean fill followed by a geotextile fabric which would act as a demarcation between clean fill and contaminated soil. The geotextile would be used to delineate the native soil horizon and limit penetration into the contaminated area, while maintaining infiltration.

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.

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	$7,494,000
Annual O&M	$68,000
Total Present Worth	$8,864,000
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:

- Survey property boundaries;
- Wetland delineation;
- Clearing vegetation from the contaminated area;
- Utility relocation (as needed);
- Perimeter air monitoring (for dust);
- Excavation of contaminated soil;
- Transportation and disposal to an approved facility;
- Backfill of the excavation with clean soil; and
- Property restoration (grading, re-vegetation).

Excavated soils would be sampled to determine if soils would be disposed of as either hazardous waste or non-hazardous waste. Treatment of soils, 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	$14,240,000
Annual O&M	0
Present Worth Cost	$13,774,000
Construction Time Frame:	2 years

COMPARATIVE ANALYSIS OF ALTERNATIVES

In selecting a remedy, EPA considered the factors set out in CERCLA §121, 42 U.S.C. §9621, by conducting a detailed analysis of the viable remedial response measures pursuant to the NCP, 40 CFR §300.430(e)(9) and OSWER Directive 9355.3-01. The detailed analysis consisted of an assessment of each of the individual response measures per remedy component against each of nine evaluation criteria and a comparative analysis focusing upon the relative performance of each response measure against the criteria.

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 addresses whether each alternative provides adequate protection of human health and the environment and describes how risks posed through each exposure pathway are eliminated, reduced, or controlled, through treatment, engineering controls, and/or institutional controls.

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, excavation and off-site disposal would remove contaminated soils, with concentrations above the remediation goal 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 and NCP §300.430(f) (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 CERCLA section 121(d)(4).

Applicable requirements are those cleanup standards, standards of control, and other substantive requirements, criteria, or limitations promulgated under Federal environmental or State environmental or facility siting laws that specifically address a hazardous substance, pollutant, contaminant, remedial action, location, or other circumstance found at a CERCLA site. Only those State standards that are identified by a state in a timely manner and that are more stringent than Federal requirements may

be applicable. Relevant and appropriate requirements are those cleanup standards, standards of control, and other substantive requirements, criteria, or limitations promulgated under Federal environmental or State environmental or facility siting laws that, while not "applicable" to a hazardous substance, pollutant, contaminant, remedial action, location, or other circumstance at a CERCLA site, address problems or situations sufficiently similar to those encountered at the CERCLA site that their use is well-suited to the particular site. Only those State standards that are identified in a timely manner, and are more stringent than Federal requirements, may be relevant and appropriate.

Compliance with ARARs address 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 I.

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

Alternative 2 would meet the remediation goals by limiting direct contact with contaminated soils through cover material and land use restrictions; however, contaminated soils exceeding the remediation goals would remain in place.

Alternative 3 would comply with action-specific ARARs. The Resource Conservation and Recovery Act (RCRA) is a federal law that mandates procedures for managing, treating, transporting, storing, and disposing of hazardous substances. All portions of RCRA that are applicable or relevant and appropriate would be met by Alternatives 3. Alternative 3 would meet chemical-specific ARARs for lead (400 mg/kg), arsenic (19 mg/kg) and polycyclic aromatic hydrocarbons in soils based on residential direct contact.

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 refers to expected residual risk and the ability of a remedy to maintain reliable protection of human health and the environment over time, once cleanup levels have been met. This criterion includes the consideration of residual risk that will remain on-site following remediation and the adequacy and reliability of controls.

Alternative 1 offers no long-term effectiveness and permanence.

Alternative 2 would not be 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 deed notices may affect property values. In addition, it would be difficult to enforce deed restrictions if violated. Soil covers could be breached easily by home owners when performing activities generally associated with residential use, such as tree planting, installation of fencing and installation of subsurface drains.

In contrast, under Alternative 3, long-term risks would be removed, since soils exceeding remediation goals would be permanently removed from the residential properties. In addition, upon completion of the remedy for Alternative 3, the affected properties would be suitable for unrestricted residential use. 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.

4. Reduction of Toxicity, Mobility, or Volume through Treatment
Reduction of toxicity, mobility, or volume through treatment refers to the anticipated performance of the treatment technologies that may be included as part of a remedy.

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

Alternative 2 would reduce the mobility of the contaminated soil through capping, but would not reduce the volume or toxicity.

Alternative 3 would reduce contaminant mobility through removal and disposal of the soils at an approved off-site disposal facility. Furthermore, off-site treatment, when required, would reduce the toxicity and volume of the contaminated soils prior to land disposal. It is anticipated that hazardous material would be not be destroyed under Alternative 3, unless the disposal facility required treatment prior to landfilling.

5. Short-Term Effectiveness
Short-term effectiveness addresses the period of time needed to implement the remedy and any adverse impacts that may be posed to workers, the community and the environment during construction and operation of the remedy until cleanup levels are achieved.

Alternative 1, the no action alternative, poses no short-term risks.

Alternative 2 would be completed in approximately 1 year. Minimal impacts would be expected for Alternative 2 since contaminated soils would not be significantly disturbed during cap construction activities.

Alternative 3 presents a higher short-term risk because of the greater potential for exposure associated with excavation and transportation of contaminated soils. Alternative 3 would also cause an increase in truck traffic, noise and potentially dust in the surrounding community, as well as potential impacts to workers during the performance of work. These potential impacts would be created through construction activities and exposure to the contaminated soil being excavated and handled during the remedial activities. However, proven protective and mitigative procedures, including engineering controls, personal protective equipment and safe work practices would be used to address potential impacts to workers and the community. For example, the work would likely be scheduled to coincide with normal working hours (e.g., 8 a.m. to 5 p.m. on week days and no work on the weekends or holidays). In addition, trucking routes with the least disruption to the surrounding community would be utilized. Appropriate transportation safety measures would be required during the shipping of the contaminated soil to the off-site disposal facility.

The risk of a release during implementation of Alternatives 2 and 3 is limited to wind-blown soil transport and soil run-off. Any potential environmental impacts associated with dust and run-off would be minimized by proper installation and implementation of dust and erosion control measures and by performing the excavation and off-site disposal with appropriate health and safety measures to limit the amount of material that may migrate to a potential receptor.

Alternative 3 is estimated to take about 2 years to implement. This schedule does not take into account additional property investigations to identify other contaminated properties, which would be required under Alternative 2 and 3. These investigations would be performed during the remedial design, and could add up to one year to the typical remedial design time frame of 15 to 18 months; however, the additional investigative activities can be performed concurrently with remediation of the known contaminated properties to streamline the schedule.

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.

Alternatives 2 and 3 can be implemented using conventional equipment and services that are readily available. The personnel required to operate the heavy equipment would require appropriate Occupational Safety and Health Administration (OSHA) certifications (e.g., hazardous waste worker), in addition to being certified in the operation of heavy equipment. Such individuals are readily available. Off-site hazardous treatment/disposal facilities for the disposal of the contaminated soils are available, so disposal would be feasible.

Alternative 2 would, however, require the imposition of engineering and institutional controls to ensure adequate protection of human health and the environment. The development of protective engineering and institutional controls that would be permanent, enforceable and acceptable to the private property owners cannot be assured. Furthermore, the mounding of cap materials would, in some places, change drainage patterns, and may cause drainage problems.

7. Cost

Includes estimated capital and O&M costs, and net present worth value of capital and O&M costs.

The cost of Alternative 1 is $0.

The estimated present worth cost of Alternative 2 is $8,864,000, which includes operational and maintenance costs over a 30-year period.

The estimated present worth cost of Alternative 3 is $13,744,000. As the remedial activities of Alternative 3 include the excavation and off-site disposal of contaminants from properties, there would be no operational and maintenance costs.

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

Indicates whether based on its review of the RI/FS reports and the Proposed Plan, the state supports, opposes, and/or has identified any reservations with the selected response measure.

The State of New Jersey concurs with all components of the selected remedy.

9. Community Acceptance

Summarizes the public's general response to the response measures described in the Proposed Plan and the RI/FS reports. This assessment includes determining which of the response measures the community supports, opposes, and/or has reservations about.

EPA solicited input from the community on the remedial response measures proposed for the site. Oral comments presented at the public meeting were recorded, and EPA received written comments during the public comment period, which was also extended. The Responsiveness Summary addresses all public comments received by EPA during the public comment period. Overall, the community members, elected officials and stakeholders were in favor of EPA's recommended alternative.

PRINCIPAL THREAT WASTE

Principal threat wastes are considered source materials, i.e., materials that include or contain hazardous substances, pollutants or contaminants that act as a reservoir for migration of contaminants to groundwater, surface water, or as a source for direct exposure. EPA's findings to date indicate the presence of "principal threat wastes" to be present within the areas of the three sites, which have been fenced-off. However, no principal threat wastes were identified at the OU1 residential properties.

SELECTED REMEDY

Based upon consideration of the results of the site investigations, the requirements of CERCLA, the detailed analysis of the response measures, and public comments, EPA has determined that Alternative 3 is the appropriate remedy for the residential properties, because it best satisfied the requirements of CRECLA Section 121 and the NCP's nine evaluation criteria for remedial alternatives, 40 CFR § 300.430(e)(9). The major components of the Selected Remedy include:

- excavation of an estimated 21,000 cubic yards of contaminated soil from approximately 34 properties, backfilling with clean fill, and property restoration as appropriate; and,

- transportation of the contaminated soil off the properties, for disposal, with treatment of the contaminated soils, if necessary.

EPA's studies have identified 34 properties where remedial activities are required, and a "study area" of approximately 30 residential properties that require expanded soil sampling to determine if additional residential properties require remediation. While the number of properties that will require remediation from this expanded sampling is currently unknown, the Selected Remedy takes into account the likelihood that some of these properties will require some degree of remedial response actions. The Selected Remedy will be the final remedy for residential properties impacted by the sites.

Summary of the Rationale for the Selected Remedy

The selection of Alternative 3 is believed to provide the best balance of trade-offs among the alternatives with respect to the

evaluation criteria. EPA and NJDEP concur that 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.

Based on the sampling performed to date, the contaminated soils will not require treatment to meet the requirements of off-site disposal. Therefore, Alternative 3 would not meet the statutory preference for the use of remedies that employ treatment that reduces toxicity, mobility or volume as a principal element.

Green Remediation

Consistent with EPA Region 2's Clean and Green policy, EPA will evaluate the use of sustainable technologies and practices with respect to implementation of all components of the selected remedy.

STATUTORY DETERMINATIONS

As was previously noted, CERCLA §121(b)(1) mandates that remedial actions must be protective of human health and the environment, cost-effective, and utilize permanent solutions and alternative treatment technologies or resource recovery technologies to the maximum extent practicable. Section 121(b)(1) also establishes a preference for remedial actions which employ treatment to permanently and significantly reduce the volume, toxicity or mobility of the hazardous substances, pollutants, or contaminants at a site. CERCLA §121(d) further specifies that a remedial action must attain a degree of cleanup that satisfies ARARs under federal and state laws, unless a waiver can be justified pursuant to §121(d)(4).

Protection of Human Health and the Environment

The Selected Remedy, Alternative 3, will adequately protect human health and the environment through 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

A comprehensive ARAR discussion is included in the final Feasibility Study and a complete listing of ARARs is included in Table 8. Highlights of ARARs:

Chemical-Specific

- New Jersey Air Pollution Control Rules (N.J.A.C 7:27).
- Remediation Standards (N.J.A.C 7:26D).

Location-Specific

- New Jersey Freshwater Wetlands Protection Act Rules (N.J.A.C 7:7A).

Action-Specific

- RCRA Criteria for Classification of Solid Waste Disposal Facilities and Practices (40 CFR 257).
- RCRA Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities (40 CFR 264).
- Department of Transportation (DOT) Rules for Hazardous Materials Transport (49 CFR 107, 171.1-172.604).
- New Jersey Air Pollution Control Rules (N.J.A.C 7:27).

Cost Effectiveness

EPA has determined that the selected remedy is cost-effective and represents a reasonable value. Overall effectiveness was evaluated by assessing three of the five balancing criteria in combination (long-term effectiveness and permanence; reduction in toxicity, mobility, and volume through treatment; and short-term effectiveness). Overall effectiveness was then compared to costs to determine cost-effectiveness. The overall effectiveness of the Selected Remedy has been determined to be proportional to the costs, and the Selected Remedy therefore represents reasonable value.

Utilization of Permanent Solutions and Alternative Treatment Technologies

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. Of those alternatives that are protective of human health and the environment and comply with ARARs to the extent practicable, 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 and State and community acceptance.

The selected remedy will provide adequate long-term control of risks to human health and the environment through eliminating and/or preventing exposure to the contaminated soil. The selected remedy is protective of short-term risks.

Preference for Treatment as a Principal Element

Based on the sampling performed to date, the contaminated soil will not require treatment to meet the requirements of off-site disposal facilities. The Selected Remedy does not meet the statutory preference for the use of remedies that employ treatment that reduces toxicity, mobility or volume as a principal element.

Five-Year Review Requirements

Because this remedy will not result in hazardous substances, pollutants, or contaminants remaining on the OU1 residential properties above levels that would allow for unlimited/unrestricted use, it will not be necessary to perform a statutory review within five years after initiation of the remedial actions to ensure that the remedies are, or will be, protective of human health and the environment.

DOCUMENTATION OF SIGNIFICANT CHANGES

The Proposed Plan for the OU1 residential properties at the Sherwin-Williams Sites was released for a public comment period on June 1, 2015. The public comment period was scheduled to run until July 1, 2015. In response to a request, the public comment period was extended to August 3, 2015 to provide the public an opportunity to submit comments to EPA.

The Proposed Plan identified Alternative 3 (Excavation and Off-site Disposal of Contaminated Soils) as the preferred response action. EPA reviewed all written and verbal comments submitted during the public comment period. Upon review of these comments, it was determined that no significant changes to the remedy, as it was originally identified in the Proposed Plan, were necessary.

APPENDIX I
Tables & Figures

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

Scenario Timeframe: Current/Future
Medium: Soil
Exposure Medium: Surface Soil (0-0.5 ft bgs)

Exposure Point (Address Code)	Chemical of Concern[1]	Concentration Detected		Concentration Units	Frequency of Detection	Exposure Point Concentration[2] (EPC)	Exposure Point Concentration Units	Statistical Measure
		Min	Max					
B-8	Benzo(a)pyrene	0.028(J)	0.22	mg/kg	10/10	0.13	mg/kg	95% Student's-t UCL
C-3	Arsenic	1.4	206(J)	mg/kg	21/21	59	mg/kg	95% Approximate Gamma UCL
	Benzo(a)pyrene	0.036(J)	6(J)	mg/kg	23/24	2.3	mg/kg	97.5% KM (Chebyshev) UCL
C-4	Arsenic	0.9	1330(J)	mg/kg	32/32	307	mg/kg	95% Chebyshev (Mean, Sd) UCL
C-5	Arsenic	1.6(J)	148	mg/kg	15/16	148	mg/kg	Max
C-6	Arsenic	1.3(J)	109	mg/kg	12/12	109	mg/kg	Max
C-7	Benzo(a)pyrene	0.004(J)	0.25(J)	mg/kg	11/12	0.16	mg/kg	95% KM (Chebyshev) UCL
	Dibenz(a,h)anthracene	0.042(J)	0.042(J)	mg/kg	1/12	0.042	mg/kg	Max
C-8	Benzo(a)pyrene	0.025(J)	4.3	mg/kg	8/8	4.0	mg/kg	95% Adjusted Gamma UCL
C-10	Arsenic	2.8	18.7(J)	mg/kg	11/11	9.8	mg/kg	95% Approximate Gamma UCL
C-13	Benzo(a)pyrene	0.068(J)	2(J)	mg/kg	11/11	1.3	mg/kg	95% Student's-t UCL

Scenario Timeframe: Current/Future
Medium: Soil
Exposure Medium: Surface Soil (0-2 ft bgs)

Exposure Point (Address Code)	Chemical of Concern[1]	Concentration Detected		Concentration Units	Frequency of Detection	Exposure Point Concentration[2] (EPC)	Exposure Point Concentration Units	Statistical Measure
		Min	Max					
B-8	Benzo(a)pyrene	0.0041	6.1	mg/kg	29/42	1.1	mg/kg	97.5% KM (Chebyshev) UCL
C-3	Arsenic	1.4	294(J)	mg/kg	37/37	137	mg/kg	95% H-UCL
	Benzo(a)pyrene	0.032(J)	6(J)	mg/kg	37/38	1.5	mg/kg	95% KM (Chebyshev) UCL
C-4	Arsenic	0.9	1330(J)	mg/kg	38/39	470	mg/kg	99% KM (Chebyshev) UCL
C-5	Arsenic	1.6(J)	148	mg/kg	16/17	148	mg/kg	Max

Scenario Timeframe: Current/Future
Medium: Soil
Exposure Medium: Surface Soil (0-2 ft bgs)

Exposure Point (Address Code)	Chemical of Concern[1]	Concentration Detected		Concentration Units	Frequency of Detection	Exposure Point Concentration[2] (EPC)	Exposure Point Concentration Units	Statistical Measure
		Min	Max					
C-6	Arsenic	1.3(J)	109	mg/kg	19/20	109	mg/kg	Max
C-7	Benzo(a)pyrene	0.004(J)	11	mg/kg	12/22	5.6	mg/kg	99% KM (Chebyshev) UCL
	Dibenz(a,h)anthracene	0.042(J)	3.4	mg/kg	2/22	2.3	mg/kg	99% KM (Chebyshev) UCL
C-8	Benzo(a)pyrene	0.007(J)	4.3	mg/kg	13/17	2.9	mg/kg	99% KM (Chebyshev) UCL
C-10	Arsenic	1.4(J)	181(J)	mg/kg	22/23	66	mg/kg	97.5% KM (Chebyshev) UCL
C-13	Benzo(a)pyrene	0.017(J)	2(J)	mg/kg	20/21	1.3	mg/kg	95% KM (Chebyshev) UCL

Footnotes:

(1) Lead is also a site-related COC; the medium-specific exposure point concentrations for lead can be found in Table 7.

(2) The UCLs were calculated using EPA's ProUCL software (Version 5); when available, UCLs were used as EPCs.

Definitions:

B-8 = Represents an address code; street addresses are not provided to protect confidentiality
J = Estimated value (qualifier)
EPC = Exposure point concentration
ft bgs = Feet below ground surface
Max = Maximum detected concentration used as the UCL
mg/kg = Milligrams per kilogram
UCL = Upper confidence limit of mean

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 each of the COCs detected in soil (*i.e.*, the concentration that will be used to estimate the exposure and risk from each COC 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 each residence), the EPC and how it was derived.

Table 2
Selection of Exposure Pathways

Scenario Timeframe	Medium	Exposure Medium	Exposure Point	Receptor Population	Receptor Age	Exposure Route	Type of Analysis	Rationale for Selection or Exclusion of Exposure Pathway
Current/Future	Soil	Surface Soil (0-2 ft bgs)	All properties	Resident	Child/Adult	Ingestion Dermal	Quant Quant	Complete Exposure Pathway Complete Exposure Pathway
		Surface Soil (0-0.5 ft bgs)				Inhalation	Quant	Complete Exposure Pathway

Definitions:

Quant = Quantitative risk analysis performed

ft bgs = Feet below ground surface

Summary of Selection of Exposure Pathways

The table describes the exposure pathways associated with surface soil that were evaluated in the risk assessment, and the rationale for the inclusion of each pathway. Exposure media, exposure points, and characteristics of receptor populations are included.

Table 3
Non-Cancer Toxicity Data Summary

Pathway: Ingestion/Dermal

Chemicals of Concern	Chronic/ Subchronic	Oral RfD Value	Oral RfD Units	Absorp. Efficiency (Dermal)	Adjusted RfD for Dermal[1]	Adj. Dermal RfD Units	Primary Target Organ	Combined Uncertainty /Modifying Factors	Sources of RfD Target Organ	Dates of RfD
Arsenic[2]	Chronic	3.0E-04	mg/kg-d	1	3.0E-04	mg/kg-d	Skin	3	IRIS	2/1/1993
Benzo(a)pyrene	Chronic	NA	NA	1	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene	Chronic	NA	NA	1	NA	NA	NA	NA	NA	NA
Lead[3]	Chronic	NA	NA	1	NA	NA	NA	NA	NA	NA

Pathway: Inhalation

Chemicals of Concern	Chronic/ Subchronic	Inhalation RfC	Inhalation RfC Units	Inhalation RfD (If available)	Inhalation RfD Units (If available)	Primary Target Organ	Combined Uncertainty /Modifying Factors	Sources of RfD Target Organ	Dates of RfC
Arsenic[2]	Chronic	1.5E-05	mg/m^3	NA	NA	Reproductive/ development; Cardiovascular system; Nervous system; Lung; Skin	30	Cal EPA	12/1/2008
Benzo(a)pyrene	Chronic	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene	Chronic	NA	NA	NA	NA	NA	NA	NA	NA
Lead[3]	Chronic	NA	NA	NA	NA	NA	NA	NA	NA

Footnotes:

(1) Adjusted RfD for Dermal = Oral RfD x Oral Absorption Efficiency for Dermal (RAGS E, 2004)

(2) An oral relative bioavailability factor of 60% was used when quantifying risks from soil ingestion.

(3) Risks and hazards from lead exposure are not evaluated in the same manner as the other contaminants; See Table 7 for the summary of risks resulting from lead exposure. Lead can affect almost every organ and system in the human body. In children, the main target for lead toxicity is the nervous system; for adult females, it is the development of fetuses. Protection of young children is considered achieved if the odds of a typical or hypothetical child with blood lead levels (BLLs) greater than 10 micrograms per deciliter (µg/dL) is no more than 5 percent.

Definitions:

Cal EPA = California Environmental Protection Agency

IRIS = Integrated Risk Information System, U.S. EPA

NA = Not available

mg/m^3 = Milligrams per cubic meter

mg/kg-day = Milligrams per kilogram per day

Table 4
Cancer Toxicity Data Summary

Pathway: Ingestion/ Dermal

Chemical of Concern	Oral Cancer Slope Factor	Units	Adjusted Cancer Slope Factor (for Dermal)	Slope Factor Units	Weight of Evidence/ Cancer Guideline	Source	Date
Arsenic[1]	1.5E+00	$(mg/kg)^{-1}$	1.5E+00	$(mg/kg)^{-1}$	A	IRIS	4/10/1998
Benzo(a)pyrene	7.3E+00	$(mg/kg)^{-1}$	7.3E+00	$(mg/kg)^{-1}$	B2	IRIS	11/1/1994
Dibenz(a,h)anthracene	7.3E+00	$(mg/kg)^{-1}$	7.3E+00	$(mg/kg)^{-1}$	B2	IRIS (benzo(a)pyrene); US EPA, 1993b	11/1/1994
Lead[2]	NA	NA	NA	NA	B2	IRIS	7/8/2004

Pathway: Inhalation

Chemical of Concern	Unit Risk	Units	Inhalation Cancer Slope Factor	Slope Factor Units	Weight of Evidence/ Cancer Guideline	Source	Date
Arsenic	4.3E-03	$(\mu g/m^3)^{-1}$	NA	NA	A	IRIS	4/10/1998
Benzo(a)pyrene	1.1E-03	$(\mu g/m^3)^{-1}$	NA	NA	B2	Cal EPA	7/1/1993
Dibenz(a,h)anthracene	1.2E-03	$(\mu g/m^3)^{-1}$	NA	NA	B2	Cal EPA	7/1/1993
Lead[2]	NA	NA	NA	NA	NA	IRIS	7/8/2004

Footnotes:

(1) An oral relative bioavailability factor of 60% was used when quantifying risks from soil ingestion.

(2) Risks and hazards from lead exposure are not evaluated in the same manner as the other contaminants; See Table 7 for the summary of risks resulting from lead exposure.

Definitions:

Cal EPA = California Environmental Protection Agency

IRIS = Integrated Risk Information System, U.S. EPA

NA = Not available

$(\mu g/m^3)^{-1}$ = Per micrograms per cubic meter

$(mg/kg\text{-}day)^{-1}$ = Per milligrams per kilogram per day

EPA Weight of Evidence:

A = Human carcinogen

B2 = Probable Human Carcinogen - based on sufficient evidence of carcinogenicity in animals and inadequate or no evidence in humans

Summary of Toxicity Assessment

This table provides carcinogenic risk information which is relevant to the contaminants of concern in soil. Toxicity data are provided for the ingestion, dermal and inhalation routes of exposure.

Table 5
Risk Characterization Summary - Non-Carcinogens

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

Medium	Exposure Medium	Exposure Point (Address Code)	Chemical Of Concern	Primary target Organ	Non-Carcinogenic Hazard Quotient			
					Ingestion	Dermal	Inhalation	Exposure Routes Total
Soil	Surface Soil	C-3	Arsenic	Skin	3.5	0.49	0.00023	4.0
							Soils Hazard Index Total[1] =	**5.1**
							Total Skin HI=	**4.0**
Soil	Surface Soil	C-4	Arsenic	Skin	12	1.7	0.0012	14
							Soils Hazard Index Total[1] =	**15**
							Total Skin HI=	**14**
Soil	Surface Soil	C-5	Arsenic	Skin	3.8	0.53	0.0006	4.3
							Soils Hazard Index Total[1] =	5.4
							Total Skin HI=	**4.3**
Soil	Surface Soil	C-6	Arsenic	Skin	2.8	0.39	0.00043	3.2
							Soils Hazard Index Total[1] =	**6.6**
							Total Skin HI[2]=	**5.4**
Soil	Surface Soil	C-10	Arsenic	Skin	1.7	0.23	0.000039	1.9
							Soils Hazard Index Total[1] =	**2.3**
							Total Skin HI=	**1.9**

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

Medium	Exposure Medium	Exposure Point (Address Code)	Chemical Of Concern	Primary target Organ	Non-Carcinogenic Hazard Quotient			
					Ingestion	Dermal	Inhalation	Exposure Routes Total
Soil	Surface Soil	C-4	Arsenic	Skin	1.3	0.26	0.0012	1.5
							Soils Hazard Index Total[1] =	**1.5**
							Total Skin HI=	**1.5**

Footnotes:
(1) The HI represents the summed HQs for all chemicals of potential concern at the site, not just those chemicals requiring remedial action (i.e., the COCs) which are shown in this table.
(2) The total skin HI of 5.4 for location C-6 includes contributions from arsenic in addition to thallium (HQ= 2.2 based on ingestion using the PPRTV-X RfD value of 1.0E-05 mg/kg-day).

Definitions:
NA = Not available
C-3 = Represents an address code; street addresses are not provided to protect confidentiality

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 all routes of exposure. 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: Resident
Receptor Age: Child/Adult

Medium	Exposure Medium	Exposure Point (Address Code)	Chemical Of Concern	Carcinogenic Risk			
				Ingestion	Dermal	Inhalation	Exposure Routes Total
Soil	Surface Soil	B-8	Benzo(a)pyrene	7.4E-05	2.7E-05	9.2E-12	1.0E-04
						Total Risk[1]=	**2E-04**
Soil	Surface Soil	C-3	Arsenic	1.9E-04	3.0E-05	6.4E-09	2.2E-04
			Benzo(a)pyrene	9.4E-05	3.5E-05	1.6E-10	1.3E-04
						Total Risk[1]=	**4E-04**
Soil	Surface Soil	C-4	Arsenic	6.6E-04	1.0E-04	3.4E-08	7.7E-04
						Total Risk[1]=	**9E-04**
Soil	Surface Soil	C-5	Arsenic	2.1E-04	3.3E-05	1.6E-08	2.4E-04
						Total Risk[1]=	**3E-04**
Soil	Surface Soil	C-6	Arsenic	1.5E-04	2.4E-05	1.2E-08	1.8E-04
						Total Risk[1]=	**3E-04**
Soil	Surface Soil	C-7	Benzo(a)pyrene	3.6E-04	1.3E-04	1.1E-11	5.0E-04
			Dibenz(a,h)anthracene	1.5E-04	5.5E-05	3.2E-12	2.0E-04
						Total Risk[1]=	**9E-04**
Soil	Surface Soil	C-8	Benzo(a)pyrene	1.9E-04	6.9E-05	2.8E-10	2.6E-04
						Total Risk[1]=	**4E-04**
Soil	Surface Soil	C-10	Arsenic	9.2E-05	1.5E-05	1.1E-09	1.1E-04
						Total Risk[1]=	**2E-04**
Soil	Surface Soil	C-13	Benzo(a)pyrene	8.4E-05	3.1E-05	9.4E-11	1.1E-04
						Total Risk[1]=	**2E-04**

Footnotes:
(1) The Total Risk values represent the cumulative risks for all chemicals of potential concern (COPCs) at the given residential property, not just those chemicals requiring remedial action (i.e., the COCs) which are shown in this table.

Definitions:
B-8 = Represents an address code; street addresses are not provided to protect confidentiality

Summary of Risk Characterization - Carcinogens

The table presents cancer risks for each route of exposure and for all routes of exposure combined. As stated in the National Contingency Plan, the acceptable risk range for site-related exposure is 10^{-6} to 10^{-4} (E-06 to E-04).

Table 7
Risk Characterization Summary - Lead
Medium-Specific Exposure Point Concentration and Resultant Risks

Scenario Timeframe: Current/Future
Receptor Population: Resident
Receptor Age: Child
Exposure Medium: Surface Soil (0 - 0.5 ft bgs)

Medium	Exposure Medium	Exposure Point (Address Code)	Chemical Of Concern	Concentration Detected		Concentration Units	Frequency of Detection	Exposure Point Concentration[1] (EPC)	EPC Units	Lead Risk[2] (0-0.5 ft bgs)
				Min	Max					
Soil	Surface Soil	C-3	Lead	31.6	2,930(J)	mg/kg	27/27	705	mg/kg	21%
		C-4		8.1	33,100(J)	mg/kg	42/42	1,411	mg/kg	62%
		D-11		167(D)	1,580(D)	mg/kg	12/12	549	mg/kg	11%
		D-19		137(JD)	804(JD)	mg/kg	7/7	450	mg/kg	6%
		D-20		326(D)	1,190(D)	mg/kg	7/7	596	mg/kg	14%
		D-25		56.6(JD)	3,750(JD)	mg/kg	7/7	748	mg/kg	24%

Scenario Timeframe: Current/Future
Receptor Population: Resident
Receptor Age: Child
Exposure Medium: Surface Soil (0 - 2 ft bgs)

Medium	Exposure Medium	Exposure Point (Address Code)	Chemical Of Concern	Concentration Detected		Concentration Units	Frequency of Detection	Exposure Point Concentration[1] (EPC)	EPC Units	Lead Risk[2] (0-2 ft bgs)
				Min	Max					
Soil	Surface Soil	C-3	Lead	10.15	24,300	mg/kg	52/53	1,769	mg/kg	74%
		C-4		1.6	33,100(J)	mg/kg	59/60	1,373	mg/kg	60%
		C-6		3.4	1,640	mg/kg	20/20	447	mg/kg	6%
		C-9		3	7,670(J)	mg/kg	39/39	708	mg/kg	21%
		C-10		3.7	11,100	mg/kg	34/34	816	mg/kg	29%
		C-11		4.4	10,800	mg/kg	37/37	628	mg/kg	16%
		D-11		5.1	2,800(J)	mg/kg	24/24	431	mg/kg	6%
		D-20		8	1,730(D)	mg/kg	14/14	447	mg/kg	6%

Table 7
Risk Characterization Summary - Lead
Medium-Specific Exposure Point Concentration and Resultant Risks

Footnotes:

(1) The lead EPC was the arithmetic mean of all samples collected from a given soil depth interval.

(2) Lead risks are expressed as the probability of having a blood lead level greater than 10 micrograms per deciliter (µg/dL); EPA's risk reduction goal is to limit the probability of a child's blood lead concentration exceeding 10µg/dL to 5% or less.

Definitions:

C-3 = Represents an address code; street addresses are not provided to protect confidentiality
D = Diluted (qualifier)
ft bgs = Feet below ground surface
J = Estimated (qualifier)
NA = not available

Summary of Risk Characterization - Lead Risks

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. In lieu of evaluating risk using typical intake calculations and toxicity criteria, EPA developed models to predict blood lead concentration and the probability of a child's blood lead concentration exceeding 10 micrograms per deciliter (µg/dL) based on a given multimedia exposure scenario. For the Residential Properties Human Health Risk Assessment, blood lead concentrations and the resultant probabilities of a child's blood lead concentrations exceeding 10µg/dL were estimated using the Integrated Exposure Uptake Biokinetic model (IEUBK).

Chemical-Specific

Federal

- Resource Conservation and Recovery Act (RCRA)-Maximum Concentration of Constituents for Groundwater Protection (40 CFR 264.94). Identifies the maximum allowable concentration limits in groundwater for hazardous constituents in RCRA solid waste management units.

- National Ambient Air Quality Standards (NAAQSs) (40 CFR 50). Establishes air quality standards for specific criteria pollutants, including lead.

New Jersey State

- New Jersey Air Pollution Control Rules (N.J.A.C 7:27). Governs actions that may result in emissions of contaminants into the ambient atmosphere.

- Remediation Standards (N.J.A.C 7:26D). Establishes the minimum residential and non-residential direct contact soil remediation standards.

Location-Specific

Federal

- Endangered Species Act (16 USC 1531 et seq.). Requires that action be performed to conserve endangered species or threatened species.

- Fish and Wildlife Coordination Act (16 USC 661 et seq.). Requires actions to protect fish or wildlife when diverting, channeling, or modifying a stream.

- Federal Water Pollution Control Act (FWPCA) (33 USC 1521 et seq.). Requires a permit from the Corps of Engineers and consideration by both the EPA and the Fish and Wildlife Service before an application to dredge and fill may be enacted.

- National Historic Preservation Act. Establishes a program for the preservation of historic properties in the United States.

New Jersey State

- New Jersey Endangered Plant Species Program (N.J.A.C 7:5C). Identifies the official list of endangered plant species and establishes the program for maintaining and updating the list.

- New Jersey Freshwater Wetlands Protection Act Rules (N.J.A.C 7:7A). Constitutes the rules governing the implementation of the Freshwater Wetlands Protection Act and the New Jersey Water Pollution Control Act as it relates to freshwater wetlands.

- New Jersey Flood Hazard Area Control (N.J.A.C 7:13). Sets forth the requirements governing activities in the flood hazard area or riparian zone of a regulated water.

- New Jersey Division of Fish, Game, and Wildlife Rules (N.J.A.C 7:25). Supplements the statutes governing fish and game laws in the State of New Jersey.

Action-Specific

Federal

- RCRA Criteria for Classification of Solid Waste Disposal Facilities and Practices (40 CFR 257). Identify the criteria used to determine whether solid waste disposal facilities or practices pose a reasonable probability of adverse effects on human health or the environment.

- RCRA Standards Applicable to Generators of Hazardous Waste (40 CFR 262). Establish the standards which are applicable to hazardous waste generators, based on the amount and type of wastes generated.

- RCRA Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities (40 CFR 264). Identifies the minimum national standards for the acceptable management of hazardous waste.

- RCRA Interim Status Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities (40 CFR 265). Establishes minimum national standards that define the acceptable management of hazardous waste facilities during the period of interim status and until certification of final closure/post-closure.

- RCRA Land Disposal Restrictions (40 CFR 268). Identifies hazardous wastes that are restricted from land disposal and identifies those circumstances under which otherwise prohibited waste may continue to be land disposed.

- Department of Transportation (DOT) Rules for Hazardous Materials Transport (49 CFR 107, 171.1-172.604). Defines requirements for the safe and effective transportation of hazardous materials in commerce.

New Jersey State

- Discharges of Petroleum and Other Hazardous Substances (N.J.A.C 7:1E). Sets forth guidelines and procedures to be followed in the event of a discharge of hazardous substance, and defines hazardous substance in New Jersey.

- New Jersey Storm Water Management Rules (N.J.A.C 7:8). Establishes stormwater management requirements to prevent contamination of waterways via stormwater discharge.

- New Jersey Water Pollution Control Act Regulations (N.J.A.C 7:14). Prohibits the discharge of any pollutant into the waters of the State without a valid permit.

- New Jersey Pollutant Discharge Elimination System Rules (N.J.A.C 7:14A). Establishes the framework under which NJDEP regulates the discharge of pollutants to the surface and groundwaters of the State.

- Regulations Governing the Certification of Laboratories and Environmental Measurements (N.J.A.C 7:18). 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.

- New Jersey Solid Waste Rules (N.J.A.C 7:26). Governs the registration, operation, maintenance, and closure of sanitary landfills, other solid waste facilities, and solid waste transportation operations in the State of New Jersey.

- New Jersey Recycling Rules (N.J.A.C 7:26A). Describes the requirements for operating recycling centers and the conduct of recyclable materials generators and transporters.

- New Jersey Technical Requirements for Site Remediation (N.J.A.C 7:26E-5). Establishes the minimum technical requirements for remedial action.

- New Jersey Hazardous Waste Rules (N.J.A.C 7:26G). Identifies the minimum national standards for the acceptable management of hazardous waste in New Jersey.

- New Jersey Air Pollution Control Rules (N.J.A.C 7:27). Identifies activities which require obtaining an air permit for construction/operation.

- New Jersey Noise Control Rules (N.J.A.C 7:29). Prohibits the generation of certain types of noise at specific times and establishes methods to determine compliance.

"To Be Considered"

Federal

- EPA's 1985 "Policy on Floodplains and Wetlands Assessments for CERCLA Actions". Requires that CERCLA actions meet the substantive requirements of Floodplain Management Executive Order (EO 11988) and Protection of Wetlands Executive Order (EO 1990).

- Fish and Wildlife Coordination Act Advisories. Advisories on the effects of pollutants and other activities on wildlife, including migratory birds and fish, and wildlife habitat authorized under the Fish and Wildlife Coordination Act.

- Section 404 - Clean Water Act, as it pertains to wetlands. Prohibits discharge of dredged or fill material into wetlands adjacent to navigable waters without a permit.

- Executive Order 11988 Floodplain Management. Requires federal agencies to avoid to the extent possible long and short-term adverse impacts associated with the occupancy and modification of flood plains, and avoid support of floodplain development wherever there is a practicable alternative.

- Executive Order 11990 Protection of Wetlands. Requires federal agencies to provide leadership and take action to minimize the destruction, loss, or degradation of wetlands,

and to preserve and enhance the natural and beneficial values of wetlands.

- Occupation Safety and Health Standards and Safety and Health Regulations for Construction (29 CFR 1910 and 1926). Establishes occupational safety and health standards.

New Jersey State

- Administrative Requirements for the Remediation of Contaminated Sites (N.J.A.C 7:26C).

- Site-Specific Impact to Ground Water Soil Remediation Standards Guidance Documents. While the Remediation Standards at N.J.A.C 7:26D do not establish numeric impact-to-groundwater remediation standards, N.J.A.C 7:26D-1.1(b) requires that impact-to-groundwater soil remediation standards be developed on a site-by-site basis using NJDEP's Soil Remediation Standards Guidance for Impact to Ground Water available on the NJDEP's web site.

- New Jersey Department of Transportation (NJDOT) Standard Specifications – Soil Erosion and Sediment Control Measures (1996). NJDOT standards are typically used to develop the appropriate plans for sediment and soil erosion control required under New Jersey Soil Conservation Act.

- New Jersey Department of Environmental Protection Site Remediation Program, Technical Guidance for the Attainment of Remediation Standards and Site-Specific Criteria September 24, 2012, Version 1.0. Guidance on methods to achieve compliance with applicable remediation standards.

EPA DESIGNATED SITES

N
W E
S

FORMER MANUFACTURING PLANT

SHERWIN-WILLIAMS HILLIARDS CREEK SITE

ROUTE 561 DUMP SITE

UNITED STATES AVENUE BURN SITE

ROUTE 561 - LAKEVIEW DRIVE

WHITE HORSE ROAD

KIRKWOOD-GIBBSBORO ROAD

KIRKWOOD LAKE

HILLIARDS CREEK

HILLIARDS ROAD

CLEMENTON-GIBBSBORO ROAD

SILVER LAKE

FOSTER AVENUE

KRESSON ROAD

CLEMENT LAKE

BRIDGEWOOD LAKE

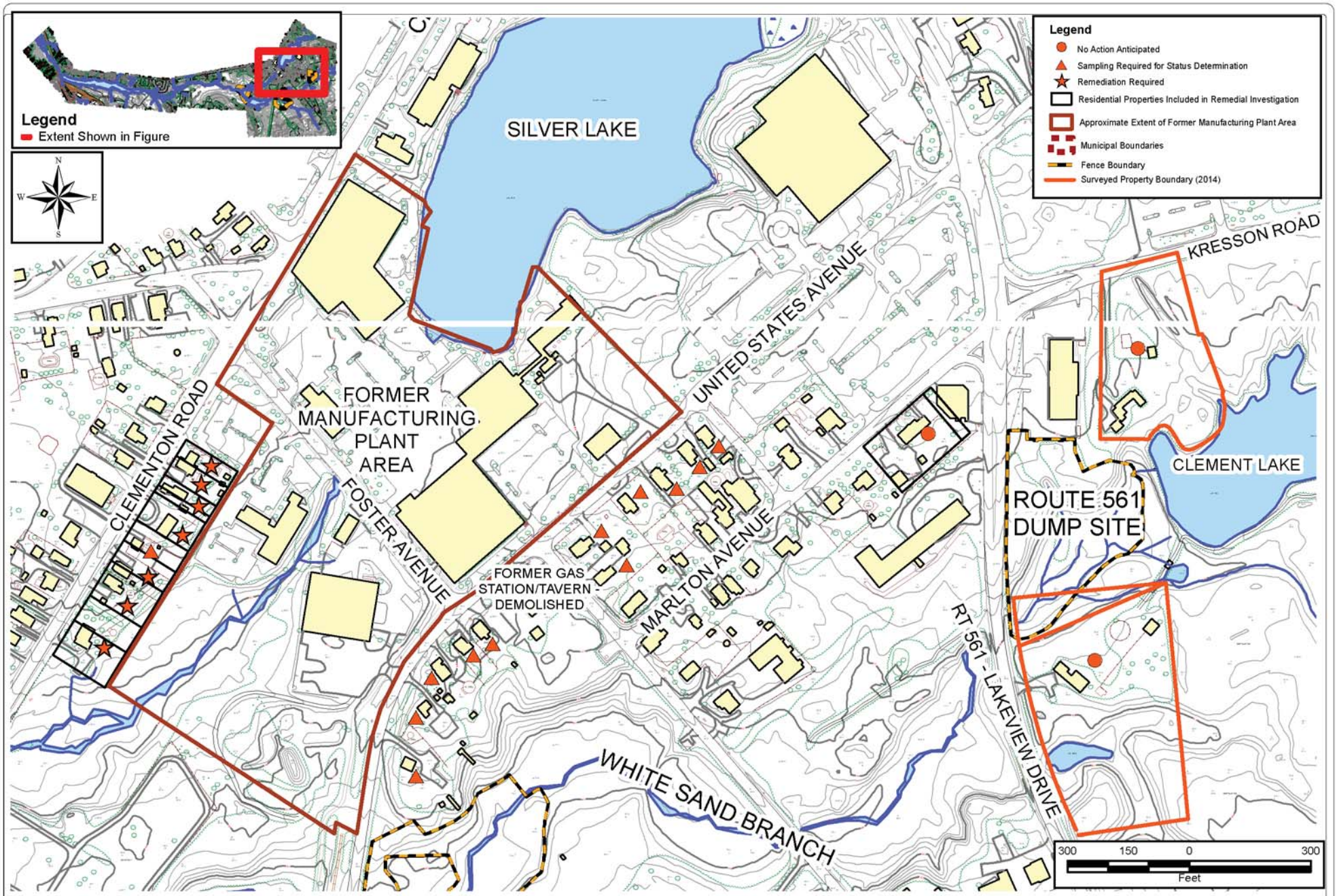
BERLIN ROAD

ROUTE 561 - LAKEVIEW DRIVE

UNITED STATES AVENUE

Figure 1
Sherwin-Williams Sites
Record of Decision OU1

0.25 0.125 0 0.25 Miles



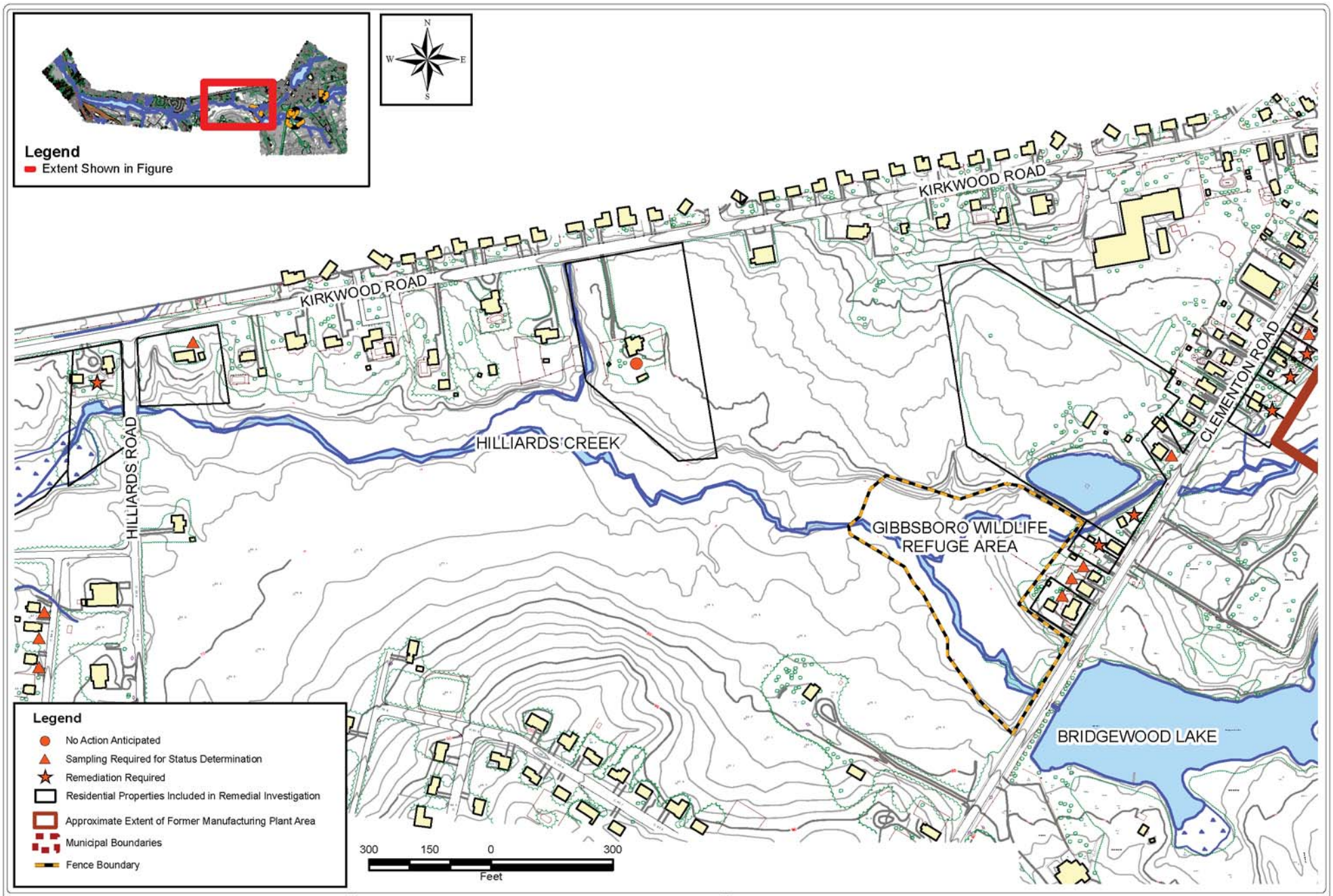
Residential Properties
Record of Decision OU1
Sherwin-Williams Sites

TITLE:

RESIDENTIAL PROPERTIES
REMEDIAL INVESTIGATION STATUS FINDINGS

FIGURE:

2



Residential Properties
Record of Decision OU1
Sherwin-Williams Sites

TITLE:

RESIDENTIAL PROPERTIES
REMEDIAL INVESTIGATION STATUS FINDINGS

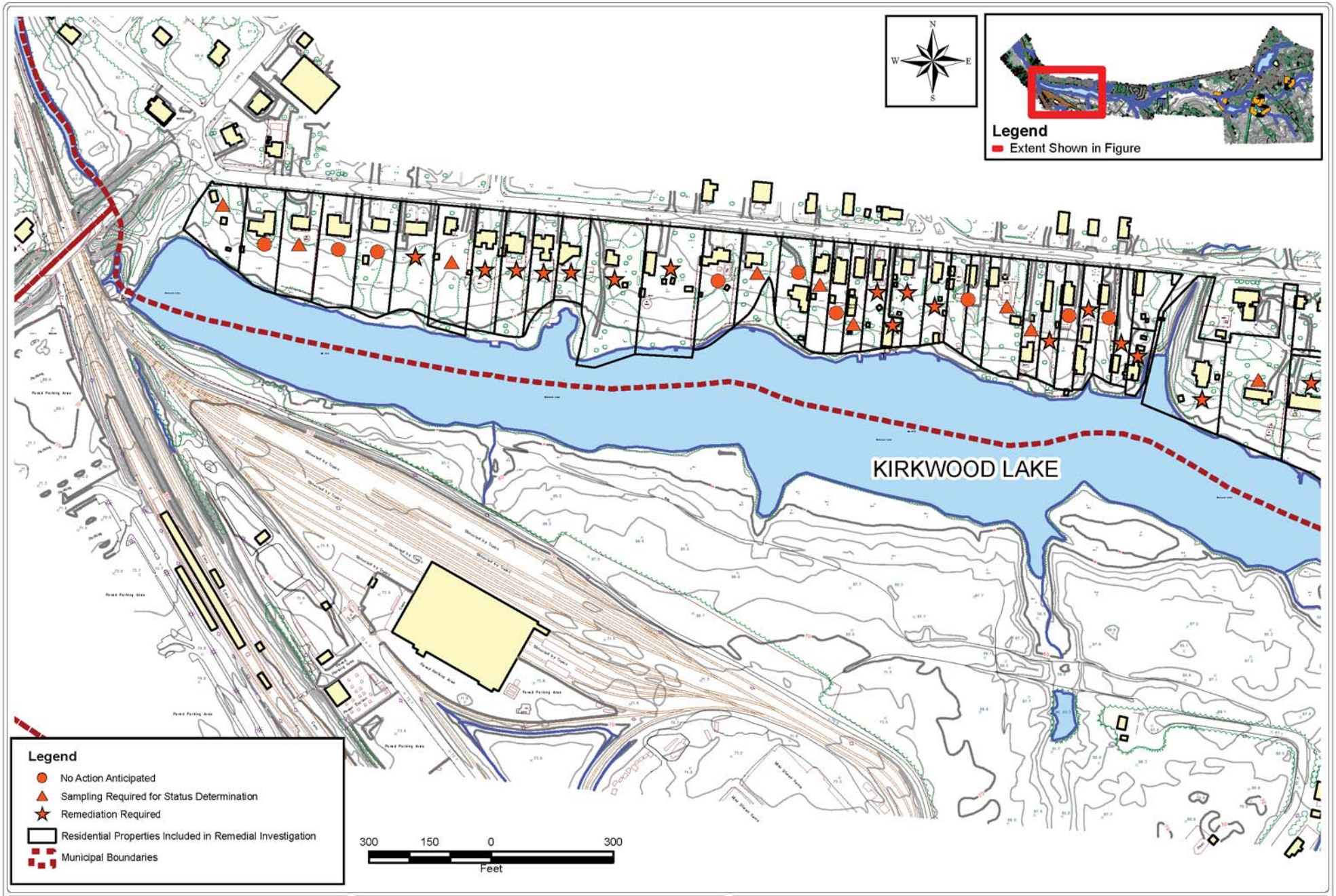
FIGURE:
3

Residential Properties
Record of Decision OU1
Sherwin-Williams Sites

FIGURE: **4**

TITLE:

RESIDENTIAL PROPERTIES
REMEDIAL INVESTIGATION STATUS FINDINGS



Residential Properties
Record of Decision OU1
Sherwin-Williams Sites

TITLE:

RESIDENTIAL PROPERTIES
REMEDIAL INVESTIGATION STATUS FINDINGS

FIGURE:
5

APPENDIX II
Administrative Record Index

ADMINISTRATIVE RECORD INDEX OF DOCUMENTS

06/01/2015 **REGION ID: 02**

Site Name: SHERWIN-WILLIAMS/HILLIARDS CREEK
CERCLIS ID: NJD980417976
OUID: 01
SSID: 02QN
Action:

DocID:	Doc Date:	Title:	Image Count:	Doc Type:	Beginning Bates:	Ending Bates:	Addressee Name:	Addressee Organization:	Author Name:	Author Organization:
318391	06/01/2015	ADMINISTRATIVE RECORD INDEX FOR OU1 FOR THE SHERWIN-WILLIAMS/HILLIARDS CREEK SITE	1	[AR INDEX]			[]	[]	[,]	[US ENVIRONMENTAL PROTECTION AGENCY]
202824	07/31/2003	FATE AND TRANSPORT MODELING MEMORANDRUM	9	[REPORT]			[]	[]	[,]	[WESTON SOLUTIONS]
178419	11/01/2003	REVISED REMEDIAL INVESTIGATION/FEASIBILITY STUDY WORK PLAN VOLUME V QUALITY ASSURANCE PROJECT PLAN FOR THE SHERWIN-WILLIAMS/HILLARDS CREEK SITE	594	[REPORT]			[,]	[THE SHERWIN-WILLIAMS COMPANY]	[,]	[WESTON SOLUTIONS]
178417	11/01/2003	REVISED REMEDIAL INVESTIGATION/FEASIBILITY STUDY WORK PLAN VOLUMES I - III FOR FOR THE SHERWIN-WILLIAMS/HILLARDS CREEK SITE	659	[REPORT]			[,]	[THE SHERWIN-WILLIAMS COMPANY]	[,]	[WESTON SOLUTIONS]
178418	11/01/2003	REVISED REMEDIAL INVESTIGATION/FEASIBILITY WORK PLAN VOLUME IV SAMPLING AND ANALYSIS PLAN FOR THE SHERWIN-WILLIAMS/HILLARDS CREEK SITE	158	[REPORT]			[,]	[THE SHERWIN-WILLIAMS COMPANY]	[,]	[WESTON SOLUTIONS]
202823	07/21/2004	REMEDIAL INVESTIGATION / FEASIBILITY WORK PLAN ADDENDUM NO. 1 FOR THE SHERWIN WILLIAMS/HILLARDS CREEK SITE	41	[PLAN]			[PETERSEN, CAROLE]	[US ENVIRONMENTAL PROTECTION AGENCY]	[CAPICHIONI, MARY LOU]	[THE SHERWIN-WILLIAMS COMPANY]
318382	07/08/2014	RESIDENTIAL PROPERTIES HUMAN HEALTH RISK ASSESSMENT FOR THE ROUTE 561 DUMP SITE, UNITED STATES AVENUE BURN SITE AND THE SHERWIN-WILLIAMS/HILLIARDS CREEK SITE	2739	[REPORT]			[,]	[SHERWIN WILLIAMS COMPANY]	[,]	[GRADIENT CORPORATION]
318383	01/01/2015	RESIDENTIAL PROPERTIES REMEDIAL INVESTIGATION REPORT FOR THE ROUTE 561 DUMP SITE, UNITED STATES AVENUE BURN SITE AND THE SHERWIN-WILLIAMS/HILLIARDS CREEK SITE	914	[REPORT]			[,]	[SHERWIN WILLIAMS COMPANY]	[,]	[WESTON SOLUTIONS, INC.]
318381	02/01/2015	RESIDENTIAL PROPERTIES FOCUSED FEASIBILITY STUDY FOR THE ROUTE 561 DUMP SITE, UNITED STATES AVENUE BURN SITE AND THE SHERWIN-WILLIAMS/HILLIARDS CREEK SITE	104	[REPORT]			[,]	[SHERWIN WILLIAMS COMPANY]	[,]	[WESTON SOLUTIONS]
345239	06/01/2015	PROPOSED PLAN FOR THE SHERWIN-WILLIAMS/HILLIARDS CREEK SITE	15	[PLAN]			[]	[]	[,]	[US ENVIRONMENTAL PROTECTION AGENCY]

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APPENDIX III
State Letter

State of New Jersey
DEPARTMENT OF ENVIRONMENTAL PROTECTION
Site Remediation and Waste Management Program
401 East State Street
P.O. Box 420; Mail Code 401-406
Trenton, New Jersey 08625-0420

CHRIS CHRISTIE
Governor

KIM GUADAGNO
Lt. Governor

BOB MARTIN
Commissioner

September 9, 2015

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

RE: Sherwin Williams/Hilliard's Creek Superfund Site
Gibbsboro Boro, Camden County

Dear Mr. Mugdan:

The New Jersey Department of Environmental Protection (Department) has completed its review of the Record of Decision (ROD) which addresses contaminated soil, designated as Operable Unit 1 (OU1) for residential properties impacted by the Sherwin-Williams/Hilliards Creek Superfund Site, United States Avenue Burn Superfund Site and the Route 561 Dump Superfund Site, prepared by the U.S. Environmental Protection Agency (EPA) Region II. The Department concurs with the selected remedy of Alternative 3 - Excavation with Off-site Disposal of contaminated soil.

The selected remedy was chosen in accordance with the Comprehensive Environmental Response, Compensation, and Liability Act, as amended, and, to the extent practicable, the National Oil and Hazardous Substances Pollution Contingency Plan. This decision is based on the Administrative Record file for this site. The remedy selected in this ROD is necessary to protect the public health or welfare or the environment from actual or threatened releases of hazardous substances into the environment.

The remedy selected includes excavation of an estimated 21,000 cubic yards of contaminated soil from approximately 34 residential properties, backfilling with clean fill, and property restoration and off-site disposal/treatment. Confirmatory samples will be taken to ensure the Department's Residential Direct Contact Soil Remediation Standards (RDCSRS) have been met.

The selected remedy is protective of human health and the environment, complies with Federal and State requirements that are applicable or relevant and appropriate to the remedial action, is cost effective, and uses permanent solutions and treatment technologies to the maximum extent practicable.

DEP appreciates the opportunity to participate in the decision making process to select an appropriate remedy. If you have any questions, please call me at 609-292-1250.

Sincerely,

Mark J. Pedersen
Assistant Commissioner

CC: Raymond Souweha, BCM

APPENDIX IV
Responsiveness Summary

APPENDIX IV

RESPONSIVENESS SUMMARY

SHERWIN WILLIAMS/HILLIARDS CREEK SUPERFUND SITE

U.S. AVENUE BURN SUPERFUND SITE

ROUTE 561 DUMP SITE

Operable Unit 1 – Residential Properties

INTRODUCTION

This Responsiveness Summary provides a summary of the public's comments and concerns regarding the Proposed Plan for Operable Unit 1 (OU1) of the Sherwin-Williams/Hilliards Creek Site, the U.S. Avenue Burn Site and the Route 561 Dump Site (the Sherwin-Williams Sites), and EPA's responses to those comments. At the time of the public comment period, EPA proposed a preferred alternative for remediating residential soil contamination associated with the three Sherwin-Williams Sites (sites) which has been designated as OU1. All comments summarized in this document have been considered in EPA's final decision for selection of a remedial alternative for OU1.

This Responsiveness Summary is divided into the following sections:

I. BACKGROND ON COMMUNITY INVOLVEMENT AND CONCERNS: This section provides the history of community involvement and interests regarding the sites.

II. **COMPREHENSIVE SUMMARY OF MAJOR QUESTIONS, COMMENTS, CONCERNS AND RESPONSES:** This section contains summaries of oral comments received by EPA at the public meeting, EPA's responses to these comments, as well as responses to written comments received during the public comment period.

The last section of this Responsiveness Summary includes attachments, which document public participation in the remedy selection process for this Operable Unit. They are as follows:

Attachment A: the June 1, 2015, Proposed Plan that was distributed to the public for review and comment;

Attachment B: the June 1, 2015, public notice that appeared in the Courier Post

Attachment C: the transcript of the June 11, 2015, public meeting; and

Attachment D: the written comments received by EPA during the public comment period.

I. BACKGROUND ON COMMUNITY INVOLVEMENT AND CONCERNS

There are a large number of stakeholders associated with the sites, due to the long history of uncontrolled releases and the complex nature of the numerous areas that are impacted. EPA has engaged these stakeholders over the years, either at their request, or as initiated by EPA. The historic actions associated with the sites have impacted residential and commercial properties. EPA has continually offered to meet with individual residential property owners to explain the Superfund process, discuss the data collected from their properties. EPA continues to meet with the individual commercial property owners to address their concerns.

EPA has engaged Gibbsboro and Voorhees public officials, as well as Camden County officials. EPA periodically briefs the public officials on the status of the sites and how that status relates to the Superfund process. Additionally, EPA makes itself available should public officials have questions or concerns related to the sites or the EPA Superfund process.

EPA has attended and provided briefings at Kirkwood Lake Environmental Committee (KLEC) meetings to address concerns about Kirkwood Lake and the surrounding community. EPA will continue to make itself available to the KLEC members to address their questions and concerns.

EPA, with the participation of Sherwin-Williams representatives, held an “informal” public availability session on January 20, 2015. The purpose of the meeting was to educate the public on the Superfund process, provide a status of the sites in relation to the Superfund process and answer questions and concerns presented by the general public and local officials. EPA provided the community with a general schedule of upcoming Superfund activities at the sites, including informing the community that the OU1 (residential property) Proposed Plan was expected later in 2015.

EPA’s Proposed Plan for the OU1, contaminated soil on residential properties, was released to the public on June 1, 2015. EPA initiated a public comment period to solicit community input and ensure that the public remains informed of site activities. A copy of the Proposed Plan, Remedial Investigation and Feasibility Study and other supporting documents were placed in the administrative record, which was made available in the information repositories maintained at the EPA Region II office located at 290 Broadway, New York, New York and at Gibbsboro and Voorhees libraries. A public notice was published in the Courier Post, a Southern New Jersey Newspaper, on June 1, 2015, notifying the public of the availability of the EPA Proposed Plan. This notice also announced the opening of a 30-day public comment period, from June 1, 2015, to July 2, 2015, and invited the interested parties to attend an upcoming public meeting. A public meeting was held on June 11, 2015, at the Gibbsboro Senior Center, 250 Haddonfield-Berlin Road, Gibbsboro, New Jersey 08026. During the EPA public comment period, a request to extend the public comment period was granted by EPA. As a result the public comment period was extended from July 2, 2015, to close on August 3, 2015.

II. COMPREHENSIVE SUMMARY OF MAJOR QUESTIONS, COMMENTS, CONCERNS, AND RESPONSES

This section summarizes comments received from the public during the public comment period, and EPA’s responses.

A. SUMMARY OF QUESTIONS AND EPA’S RESPONSES FROM THE PUBLIC MEETING CONCERNING THE OU1 RESIDENTIAL PROPERTIES FOR THE SHERWIN-WILLIAMS/HILLIARDS CREEK, ROUTE 561 DUMP AND U.S. AVENUE BURN SITES – JUNE 11, 2015.

A public meeting was held June 11, 2015, at 7:00 pm at the Gibbsboro Senior Center, 250 Haddonfield-Berlin Road, Gibbsboro, New Jersey. Following a brief presentation of the investigation findings, EPA presented the Proposed Plan and preferred alternative for OU1 of the sites, received comments from interested citizens, and responded to questions regarding the remedial alternatives under consideration.

Comments and questions raised by the public following EPA's presentation are categorized by relevant topics and presented as follows:

a. Remediation Schedule
b. Scope of Remediation
c. Cost

a. Remediation Schedule

Comment #1: Several commenters inquired about the estimated time frames for remedy selection and remediation: how long EPA's Superfund process will take to address Kirkwood Lake, when the Record of Decision (ROD) for the lake would be issued, and if the lake ROD were to be issued in 2018 when would the lake be remediated.

EPA Response: EPA anticipates a ROD will be signed for Kirkwood Lake as early as 2018. EPA cannot estimate the duration of a remedy for Kirkwood Lake that has yet to be selected. With the exception of the selected remedy for residential properties, EPA anticipates that remedial activities at the sites will begin upstream and move sequentially downstream through the impacted waterways.

Comment #2: A commenter asked when she will see shovels in the ground.

EPA Response: It is anticipated that excavation activities on residential properties will begin 16 to 18 months from the date the ROD is signed. This estimate includes time for EPA and Sherwin-Williams to negotiate an Administrative Order and/or a Consent Decree, for design and planning remedial action activities.

Comment #3: A commenter questioned the effectiveness of sequentially selecting residential cleanups before the cleanup of water bodies. The commenter also stated that the residential properties receive floodwaters from contaminated water bodies and may be recontaminated.

EPA Response: The potential for flooding events to deposit contaminated sediments, from either the adjacent water bodies, or upstream sources, onto residential properties is being evaluated. This preliminary evaluation has indicated that there is a very low potential for contaminated sediments to be deposited on residential properties. As a result, EPA anticipates that remediation of residential properties will be conducted prior to addressing the upstream sources, or the adjacent water bodies.

Comment #4: A commenter asked about the sequencing of the investigations and remedial actions, specifically if the process can be sped up to conduct work in concert instead of sequentially. The commenter pointed out that the Dump Site and the Burn Site will have likely very similar remedial alternatives (capping vs. excavation) and asked if the remedial actions on those sites could be combined to speed up the process.

EPA Response: EPA and Sherwin-Williams have added resources to accelerate the response actions at each of the sites. Remedial investigations are on-going at each of the sites. Due to the differing complexity of each site, the time required to complete investigations varies between the sites. It is anticipated that future remedial activities at the sites may, at some time, occur simultaneously.

b. Scope of Remediation

Comment #5: A commenter asked if Sherwin-Williams has plans to remediate beneath and across United States Avenue in the Former Manufacturing Plant (FMP) area.

EPA Response: EPA cannot speak for Sherwin-Williams' intent concerning future plans that may involve remediation of the FMP area. Sherwin-Williams has been sampling the FMP area to characterize the nature and extent of contamination under an EPA Administrative Order on Consent (AOC). After the extent of contamination at the FMP area is adequately characterized by Sherwin-Williams, a ROD will formalize EPA's decision on the selected remedy for the soil, sediment and groundwater

contamination at the FMP area. After the ROD is signed, EPA will offer Sherwin-Williams an opportunity to conduct the selected remedy for the FMP area. At that time, it will be determined if Sherwin-Williams, or EPA will conduct remedial activities associated with the FMP area.

Comment #6: A resident asked if all of the residential properties would not be cleaned up at this time and if only some properties were to be cleaned up, which properties are being selected for cleanup and how many properties are being cleaned up out of the 55 properties investigated. The resident also asked if the cleanup of the Burn Site and Dump Site would be remediated prior to residential properties downstream.

EPA Response: Remedial investigation of residential properties identified 34 properties throughout portions of Gibbsboro and Voorhees, New Jersey, which require excavation and disposal of contaminated soils. Several of the properties are located in the FMP area and are not within the floodplain of any of the contaminated waterways. These properties are likely to be remediated first. However, as in EPA's response to Comment #5, an evaluation for potential recontamination of residential properties (prior to addressing any contamination within Hilliards Creek or Kirkwood Lake) is being conducted by Sherwin-Williams with EPA oversight. The preliminary conclusion of this evaluation indicates a very low potential for recontamination of residential properties. Therefore, it is anticipated that the contamination on residential properties will be addressed prior to remediation within Hilliards Creek and Kirkwood Lake. There are several residential properties where Hilliards Creek bisects the property. These properties will need additional evaluation during remedial design activities to determine the extent to which remedial activities may be feasible prior to remediation of Hilliards Creek.

Comment #7: A commenter asked why a residential property (165 Kirkwood Road) underwent a cleanup and no other residential property was cleaned up.

EPA Response: The removal action, implemented by Sherwin-Williams was not the final soil cleanup at 165 Kirkwood Road. Subsurface soil contamination remains beneath the property. Only the top six inches of contaminated soil was removed and clean fill was placed throughout portions of the residential property. This property has been identified by EPA as a property in need of remediation.

Comment #8: One commenter asked why certain portions of the sites are fenced off while other portions are not.

EPA Response: Portions of the Sherwin-Williams/Hilliards Creek Site, the Burn Site and the Dump Site are fenced-in due to high levels of contaminants present in soil and sediment in these areas. The action taken to fence these areas was requested by EPA and implemented by Sherwin-Williams to restrict the public's access and exposure to high concentrations of contaminants.

c. Cost

Comment #9: A commenter asked if cost effectiveness was evaluated in the selection of the remedial alternatives.

EPA Response: EPA's remedy selection process considered cost-effectiveness. To determine cost-effectiveness, the overall effectiveness of the alternatives was first determined by evaluating: long-term effectiveness; reduction of mobility toxicity and volume; and short-term effectiveness. The overall effectiveness was then compared to cost to ensure cost-effectiveness. The overall effectiveness of the selected remedy has been determined to be proportional to the costs, and the selected remedy therefore represents a reasonable value.

B. WRITTEN COMMENTS RECEIVED DURING THE PUBLIC COMMENT PERIOD FROM THE COMMUNITY - The public comment period is the time during which EPA accepts comments from the public on proposed actions and decisions. The public comment period initially ran from June 1, 2015 to July 2, 2015, however, a 30-day extension was requested and subsequently granted. Therefore EPA's public comment period for OU1 ran from June 1, 2015 to August 3, 2015. EPA accepted comments during the extended comment period. EPA's responses to the comments are provided below and are categorized by relevant topics as follows:

a. Soil Sampling
b. Litigation Concerns
c. Remedial Design Documents
d. Remedial Action Activities
e. Residential Relocation
f. Potential Impacts of the sites on Human Health
g. Property Restoration

a. Soil Sampling

Comment #9: A commenter inquired if the soil has been tested downstream of Kirkwood Lake.

EPA Response: During remedial investigation activities associated with the sampling of Kirkwood Lake, Sherwin-Williams, under the AOC, collected sediment samples from the Cooper River downstream of the Kirkwood Lake dam outfall. Sediment samples were collected from the center of the Cooper River at locations beginning at the outfall of Kirkwood Lake to the Cooper River and at three additional locations of 50 feet, 100 feet, and 150 feet downstream of the White Horse Pike overpass. Eight soil sample locations were also added along the banks of the Cooper River, downstream of the Kirkwood Lake Dam, northwest of White Horse Pike. The results of the sampling indicated lead and arsenic in soil and sediment samples were below the New Jersey Department of Environmental Protection (NJDEP) Residential Direct Contact Soil Remediation Standards (RDCSRS). There were exceedances of EPA's ecological screening levels. EPA may request additional sampling downstream in the future.

Comment #10: Several commenters asked if the Gibbsboro Elementary School grounds (located at 37 Kirkwood Road) had been sampled by the EPA or Sherwin-Williams. In addition, the Mayor of Gibbsboro, New Jersey, has requested EPA to direct Sherwin-Williams to conduct sampling of the soils at the Gibbsboro Elementary School.

EPA Response: As commenters noted, the school is located outside the floodplains, but is in relative proximity to the FMP area, located in Gibbsboro, New Jersey. EPA has not sampled the school grounds, and EPA has not requested Sherwin-Williams to sample the school grounds. Based on the request made by the Mayor of Gibbsboro, as well as review of available (historic) information, EPA will request that Sherwin-Williams conduct soil sampling at the Gibbsboro Elementary school grounds.

b. Litigation Concerns

Comment #11: A commenter inquired if EPA was aware of any lawsuits against Sherwin-Williams by residents of Gibbsboro.

EPA Response: EPA is not aware of any lawsuits, by a resident, against Sherwin-Williams.

c. Remedial Design Documents

Comment #12: A commenter asked if the draft remedial design documents (30%, 60%, and 90%), to be submitted to EPA by Sherwin-Williams[1], will be available for public review.

EPA Response: It is not EPA's policy to release draft documents to the public. Owners of residential properties in need of remediation will be directly informed of the progress of the remedial design process for their property throughout the remedial design process. It is recognized that the remedial action for residential properties will contain components that affect the community as well. During the remedial design, EPA and Sherwin-Williams will conduct public outreach to keep the community informed and obtain community input.

Comment #13: Several comments were submitted to EPA regarding the soil excavation process. Questions ranged from: notification to the resident of planned activities; complying with local ordinances; and appropriate notification to local governing bodies.

EPA Response: The remedial action contractor will create and implement an EPA approved "remedial action work plan" which will cover these and many other issues/concerns relating to implementing the planned soil excavation activities. Community input will be taken into consideration during the preparation of the plan.

d. Remedial Action Activities

Comment #14: Several comments were submitted concerning the need for air-monitoring and dust suppression activities. One commenter remarked that the firm hired for air-monitoring should

[1]While Sherwin-Williams, a potentially responsible party for the sites, has not formally agreed to undertake the implementation of the OU1 remedy, it has publically indicated its willingness to do so. This Responsiveness Summary refers to future work to be performed by Sherwin-Williams to properly reflect the transcript of the public meeting.

be a separate contractor from the firm hired to conduct the remedial activities.

EPA Response: The design of the remedial action will specify methods to be used to suppress and control dust. Sherwin-Williams will be required to submit a perimeter air monitoring plan to EPA for review. Duties assigned to individuals responsible for the remedial construction work will be segregated from those individuals responsible for the health and safety of workers and the community. EPA will conduct oversight of the air monitoring work and will review air monitoring data to ensure protectiveness.

Comment #15: A commenter stressed the need for the decontamination of the vehicles that will be utilized during remedial activities, prior to their transit on public streets.

EPA Response: Measures will be taken to prevent tracking contaminated soil onto uncontaminated areas. Specific activities to control contaminant migration and to decontaminate equipment will be specified in the remedial action work plan.

Comment #16: A commenter indicated that during the school year (September through June), the school, located at 37 Kirkwood Road, Gibbsboro, is in session from 8:15 a.m. – 3:15 p.m. There are no school buses for the school district and the School Board, in conjunction with the Wellness Committee, has been encouraging students to walk to school rather than be dropped off in order to eliminate traffic and to encourage physical fitness. As such, there are children on the streets between 7:50 – 8:10 a.m. and from 3:10 – 4:10 p.m. (after school activities). The commenter asked if there could effort to eliminate truck traffic along Kirkwood Road at these times.

EPA Response: Prior to the start of remedial activities, EPA will require Sherwin-Williams to submit a traffic control plan. The traffic control plan will address the community concerns to the extent practicable such as reducing or rerouting traffic associated with the remediation of residential properties to ensure public safety.

Comment #17: A commenter expressed concern that her property does not have high enough levels of contamination for remediation, but adjacent properties do. The commenter asked what mechanism will be used to ensure that no contamination comes onto her property through erosion by rain, wind, etc. The

commenter asked what kind of protection will there be for her property against contaminants that may be washed into the lake during the remediation from heavy rains, which in turn floods the creek bank on her property.

EPA Response: Remediation contractors will employ methods to control dust which may include wetting excavated areas and covering excavated soils. In addition, soil erosion control measures, where necessary, will be taken to control potential run-off from contaminated areas. Equipment decontamination will also be conducted to prevent tracking contaminated soil from properties under remediation. Prior to the start of remedial action, additional control measures may be identified for the remedial action contractors in work plans and other documents that establish quality control practices for the remediation. For further information regarding transport of contamination by floodwaters, see response to Comment #3.

Comment #18: A number of comments focused on the management of excavated soil and its temporary storage before being removed to a storage facility. A commenter stated that the temporary stockpiles must be secured, areas to be used for stockpiling soils must be disclosed to the public and approved by the municipality, off-site storage of contaminated soils be stored in drums, no material should be stored on site for more than seven days and off-site stockpile areas must be screened from public view.

EPA Response: Each of these concerns raised in the comment will be addressed in a remedial action work plan prior to the start of the remedial action. EPA, Sherwin-Williams and its remedial action contractor will coordinate with the local municipality and community members during the remedial design and development of the remedial action work plan to ensure the cleanup is conducted in a safe and expeditious manner.

Comment #19: Several commenters inquired about archeological artifacts and asked what would happen to them if they were discovered during remediation activities.

EPA Response: EPA required Sherwin-Williams to investigate the presence of cultural resources in the areas encompassed by the three sites. Sherwin-Williams hired a private firm (John Milner Associates, Inc.) to perform a cultural resource evaluation for these areas. The evaluation did identify areas of cultural significance within the study area; however, the residential

properties to be addressed in OU1 do not appear to lie within any of the areas identified. However, during soil excavation operations, if culturally significant items are encountered, appropriate measures will be taken for their preservation and handling.

Comment #20: A commenter stated his opposition to the use of NJDEP's Compliance Averaging: "I oppose the use of compliance averaging. Under compliance averaging small pockets of contamination may be left unmitigated and the guidelines permit that no deed restriction must be imposed on that property. The absence of a deed restriction eliminates any notice to future property owners that there is a small hazard on their property. Given that a PRP is identified and funding the cleanup, I believe that every sample point that exceeds acceptable limits must be investigated and removed: It is unacceptable to leave undocumented contamination, no matter how small. Property owners deserve "clean" properties."

EPA Response: The NJDEP Technical Guidance for attainment of Remediation Standards and Site-Specific Criteria presents recommended procedures that may be used to demonstrate that a remediation satisfies regulatory requirements. The technical guidance provides several options to achieve compliance with the remediation standards including 'point by point' compliance at individual sampling points, relatively simple statistical tests and more robust numerical and spatial statistical methods. The statistical testing and numerical and spatial statistical methods are commonly referred to as "compliance averaging" methods where the statistical average of an area must not exceed the remediation standard. EPA will employ the use of the more conservative (protective) of the compliance averaging methods to determine potential areas of concern: Compliance Averaging at the 95 percent Upper Confidence Limit of the Mean.

The commenter is opposed to the use of compliance averaging stating that 'point by point' compliance is the preferred method to use to avoid leaving undocumented contamination that presents a small hazard to uninformed future property owners.

Compliance averaging employs rigorous statistical methods to ensure and document compliance with remediation standards. Use of the compliance averaging method previously mentioned in this response will result in soil cleanup levels that are within EPA's acceptable risk range and, therefore, will be protective of human health. Compliance averaging has been used by EPA at

numerous other residential sites. Other commenters expressed concern over the potential scope of the remedial activities on their properties that may necessitate the removal of mature trees from their properties (See Comment 21, below). In some cases, compliance averaging may be of use in managing the scope of the remediation on residences where property owners express concern over the preservation of mature trees.

Comment #21: Several residents expressed concern over the loss of mature trees and other vegetation on their properties and stated they do not want them cut down in the process of "chasing" contamination.

EPA Response: Trees and shrubs located within an area to be remediated will be removed to achieve soil remediation goals. Trees and shrubs may also require removal to access an area to be remediated. EPA, Sherwin-Williams and residents will discuss potential methods available to limit the removal of trees and shrubs to the extent practicable and achieve soil remediation goals that are within EPA's acceptable risk range. Restoration of properties will include replacement of trees, shrubs, lawn areas and other features in consultation with the property owner.

e. Residential Relocation

Comment #22: A commenter inquired whether the EPA and the State of New Jersey were going to have Sherwin-Williams purchase the properties that may have been adversely effected by pollution for fair market value.

EPA Response: The purchase of residential properties is outside the scope of the necessary response action. EPA considers the purchase of a residential property and permanent relocation of residents under specific conditions. Such conditions could include the following: when it is determined that structures must be destroyed because they physically block or otherwise interfere with a cleanup; or it has been determined that structures cannot be decontaminated; or when response options would require the imposition of unreasonable use restrictions to maintain protectiveness. These conditions are not present at the residential properties affected by the sites.

Comment #23: A commenter inquired whether residents will be required to vacate their properties during remediation activities and if not, how residents will be protected during remediation activities.

EPA Response: EPA's preference is to address risks posed by contamination by using cleanup methods that allow people to safely remain in their homes. Consistent with this policy, and taking into consideration the low level of soil contaminants and its shallow distribution (contaminated soils do not appear to be beneath residential structures), it is not anticipated that any resident will require temporary relocation. Prior to remedial action activities, residents will be notified and informed of the planned activities. Dust suppression measures will be implemented and air-monitoring will be conducted to protect residents and site workers.

f. Potential Impacts of the sites on Human Health

Comment #24: A commenter inquired if future generations would be concerned for their family's health in years to come?

EPA Response: The selected remedy will be protective for future generations by eliminating potential long-term exposures to soil contaminants. By eliminating all significant direct-contact risks to human health associated with contaminated soil on residential properties, the remedial action will result in risk levels within EPA's generally acceptable risk range of 10^{-4} to 10^{-6} for carcinogens and below a hazard index (HI) of 1.0 for non-carcinogens.

g. Property Restoration

Comment #25: Several commenters asked about "temporary" features and how they will be managed during remediation. As an example, one commenter asked if a fence has to be removed, will it be reused, or be disposed. The commenter further stated that it should not be the homeowner's responsibility for disposal.

EPA Response: It is not the responsibility of the property owner to dispose of materials that will be removed during residential property remediation. Discussions with property owners concerning features, such as fences, docks, decks, electrical lines, etc. will occur prior to remedial activities.

Salvageable items will be moved and restored to their original locations. Items that are not salvageable, and must be moved to accommodate remediation, will be replaced. If it is determined that an item must be replaced, the remedial action contractor will be responsible for its disposal.

Comment #26: A commenter asked how restoration work will be bonded for the replacement items such as: grass, shrubs, trees, etc.,? Another commenter asked how long Sherwin-Williams will be responsible to replace and/or fix a defective item.

EPA Response: Sherwin-Williams and its remedial action contractor will be responsible for all restoration work and ensuring the survivability of replacement plant material for a specified time. The duration of plant material warranties will be dependent on the type of plant material replaced. Further information on replacement plant material warranties will be specified in the remedial action work plan, and information on warranties will be provided to each property owner.

C. WRITTEN COMMENTS RECEIVED FROM THE POTENTIALLY RESPONSIBLE PARTY

EPA received comments from Sherwin-Williams, the potentially responsible party (PRP). The written comments received from Sherwin-Williams, appear in this section of the Responsiveness Summary, verbatim, in italicized print. These written comments are categorized by relevant topics and are presented as follows:

a. Remedial Action Processes
b. Remedial Design Negotiations
c. NJDEP Guidance
d. Site-related Contaminants
e. Historic NJDEP Orders

a. Remedial Action Processes

Comment #27: *Sherwin-Williams is fully committed to working with EPA, NJDEP, and the community to address the issues that are the result of historic operations at our former paint manufacturing facility. To that end, Sherwin-Williams is prepared to perform EPA's preferred remedy (Alternative 3 – Excavation and Off-site Disposal) for soils at the residential properties described in the Proposed Plan.*

EPA Response: Comment acknowledged.

b. Remedial Design Negotiations

Comment #28: *Sherwin-Williams supports expediting the Superfund remedial work at the residential properties. We believe the quickest way to make progress would be for us to perform the Remedial Design work under a CERCLA Administrative Order on Consent (AOC) between EPA and Sherwin-Williams. We have reviewed the terms of EPA's Model AOC for Remedial Design (available online at http://www2.epa.gov/sites/production/files/2013-10/documents/rd-aoc-05-mem.pdf), and we are ready, willing, and able to begin negotiating the terms of such an AOC here. We look forward to working closely with EPA to expedite this process, so that the Remedial Design work can begin promptly upon EPA's issuance of the final Record of Decision later this year.*

EPA Response: Comment acknowledged.

c. NJDEP Guidance

Comment #29: *Although the technical details will necessarily await the Remedial Design deliverables, Sherwin-Williams notes that using the NJDEP Technical Guidance for the Attainment of Remediation Standards and Site-Specific Criteria (2012) will help assure that the remedial work at the residential properties will occur quickly and cost-effectively.*

EPA Response: See EPA response to Comment# 20.

d. Site-related Contaminants

Comment #30: *Several statements in the Proposed Plan suggest, or at least assume, that the polycyclic aromatic hydrocarbons (PAHs) detected at residential properties originated from historic Sherwin-Williams operations. This suggestion or assumption is not correct. Although lead and arsenic are linked to historic Sherwin-Williams operations, the same cannot be said of PAHs. PAHs are ubiquitous urban contaminants that are found in many settings, and result from a range of urban sources.*

The actual source(s) of PAHs do not affect the performance of Alternative 3, or the timing of that remedial work. However, EPA's administrative record should still reflect the best available science regarding the origin of PAHs in urban background sources. At a minimum, we urge EPA to avoid any suggestion that it has already determined the origin of PAHs detected at residential properties, when EPA clearly has made no such determination, and when there is substantial technical evidence that undermines any such determination.

EPA Response: EPA acknowledges that multiple sources of PAHs found at the sites and on the residential properties may be present. However, based on a comprehensive review of all site-related Remedial Investigation data, it is EPA's and NJDEP's position that the FMP Area (as well as the upper portion of Hilliards Creek), represents the overall source of the PAHs, which are responsible for PAH contamination on affected residential properties.

e. Historic NJDEP Orders

Comment #31: *Finally, we note an apparent factual error regarding the early history of NJDEP enforcement actions relating to the Sherwin-Williams Sites. The Proposed Plan states (at page 3) that "[d]uring the 1980s," NJDEP entered into several administrative orders with Sherwin-Williams. We have found no record of any NJDEP orders dating from the 1980s, although we are aware of one order dating back to 1978 and another one dating back to 1990.*

EPA Response: The EPA OU1 Proposed Plan incorrectly indicated that there were several Orders between NJDEP and Sherwin-Williams during the 1980s. This language has been corrected in the OU1 ROD to indicate that in 1983, NJDEP received a report that a petroleum-like seep, detected at the former Sherwin-Williams facility, was discharging to a nearby creek (i.e., Hilliards Creek). On March 3, 1987, NJDEP issued Sherwin-Williams a "Telegram Order", ordering Sherwin-Williams to immediately begin containment of the petroleum seeps and to submit a plan proposing additional actions to contain the contamination. Sherwin-Williams did not comply with that Order.

Attachment A
Proposed Plan

Superfund Proposed Plan

U.S. Environmental Protection Agency, Region II

Residential Properties:
Sherwin-Williams/Hilliard's Creek Site
United States Avenue Burn Site
Route 561 Dump Site
Gibbsboro and Voorhees, New Jersey

June 2015

EPA ANNOUNCES PROPOSED PLAN

This Proposed Plan identifies the Preferred Alternative to remediate residential contaminated soils associated with the former Sherwin-Williams paint and varnish manufacturing plant located in Gibbsboro, New Jersey. The Preferred Alternative calls for the excavation and off-site disposal of soils contaminated with metals (lead and arsenic) and polycyclic aromatic hydrocarbons (PAHs) on residential properties, and would be the final remedy for those properties.

Sherwin-Williams performed comprehensive remedial investigation (RI) sampling activities at several source areas in Gibbsboro, New Jersey, as well as residential soil sampling pursuant to an Administrative Order on Consent (AOC) with the U.S. Environmental Protection Agency (EPA). The results of the residential soil sampling program identified residential properties where: a) no remedial action is anticipated; b) remedial action is required; and c) sampling is needed to determine if remediation is required and the extent of remediation.

This 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 sites, 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 soils 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. Preferred remedies for the separate Sherwin-Williams sites described throughout this Proposed Plan will be presented in future Proposed Plans.

MARK YOUR CALENDARS

Public Comment Period
June 1 –July 2, 2015
EPA will accept written comments on the Proposed Plan during the public comment period.

Public Meeting
June 11, 2015 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 the Gibbsboro Senior Center, 250 Haddonfield-Berlin Road, Gibbsboro, New Jersey 08026

For more information, see the Administrative Record at the following locations:

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

Gibbsboro Borough Hall/Library
49 Kirkwood Road
Gibbsboro, New Jersey 08026
For Library Hours:
http://www.gibbsborotownhall.com/index.php/library

M. Allan Vogelson Regional Branch Library – Voorhees
203 Laurel Road
Voorhees, New Jersey 08043
For Library Hours:
http://www.camdencountylibrary.org/voorhees-branch

EPA is issuing this Proposed Plan as part of its

345239

community relations program under Section 117(a) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA, or Superfund) 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 Feasibility Study (FS) reports and other related documents contained in the Administrative Record. The location of the Administrative Record is provided on the previous page. EPA and NJDEP encourage the public to review these documents to gain a more comprehensive understanding of the site-related Superfund activities performed by Sherwin-Williams, under EPA and NJDEP oversight.

SITE DESCRIPTION

Three sites collectively make up what is commonly referred to as the "Sherwin-Williams Sites," which are located in areas of Gibbsboro and Voorhees, New Jersey. The sites are comprised of the Route 561 Dump Site, Gibbsboro, New Jersey (the "Dump Site"); United States Avenue Burn Superfund Site, Gibbsboro, New Jersey (the "Burn Site"); and the Sherwin-Williams/Hilliard's Creek Superfund Site (SW/HC Site), Gibbsboro and Voorhees, New Jersey (Figure 1). The SW/HC Site includes the Former Manufacturing Plant (FMP) area, Hilliards Creek and Kirkwood Lake. The sites represent source areas from which contaminated soils and sediments have migrated, predominately through natural processes, onto a number of residential properties within Gibbsboro and Voorhees, New Jersey.

The SW/HC Site The FMP area of the SW/HC Site, approximately 20 acres in size, is comprised of commercial structures, undeveloped land and the southern portion of Silver Lake. The FMP area extends from the south shore of Silver Lake in Gibbsboro, New Jersey, and straddles the headwaters of Hilliards Creek. Hilliards Creek is formed by the outflow from Silver Lake. The outflow enters a culvert beneath a parking lot at the FMP and resurfaces on the south side of Foster Avenue, Gibbsboro. From this point, Hilliards Creek flows in a southerly direction through the FMP area and continues downstream through residential and undeveloped areas. At approximately one mile from its origins Hilliards Creek empties into Kirkwood Lake. Kirkwood Lake is approximately 25 acres, located in Voorhees, New Jersey with residential properties lining its northern shore.

The Dump Site The Dump Site is approximately 700 feet to the southeast of the FMP area and is situated at the base of an earthen dam that forms Clement Lake, Gibbsboro, New Jersey. White Sand Branch, a small creek, is created by the dam overflow from Clement Lake. The fenced portion of the Dump Site and its associated contamination is approximately three acres in size, while off-site contamination exists under commercial properties and within the floodplain of White Sand Branch. White Sand Branch flows in a southwest direction for approximately 1,100 feet, where it then enters a fenced off portion of the Burn Site.

The Burn Site The fenced portion of the Burn Site and its associated contamination is approximately thirteen acres in size and encloses the remaining 400 feet of White Sand Branch. A 500-foot portion of a small creek, Honey Run, enters the Burn Site where it joins White Sand Branch before it passes beneath United States Avenue and enters Bridgewood Lake in Gibbsboro. The six-acre Bridgewood Lake, empties through a culvert beneath Clementon Road and forms a 400-foot long tributary that joins Hilliards Creek at a point approximately 1,000 feet downstream from the FMP area.

SITE HISTORY

The former paint and varnish manufacturing plant property in Gibbsboro, New Jersey, was originally developed in the early 1800s as a sawmill, and later a grain mill. In 1851, John Lucas & Co., Inc. (Lucas), purchased the property and converted the grain mill into a paint and varnish manufacturing facility that produced oil-based paints, varnishes and lacquers. Sherwin-Williams purchased Lucas in the early 1930s and expanded operations at the facility. Historic features at the former manufacturing plant, referred to as the FMP area, included wastewater lagoons, above-ground storage tanks, a railroad line and spur, drum storage areas, and numerous production and warehouse buildings. Various products were manufactured at the former facility, including dry colorants, varnishes, lacquers, resins, and oil-based and water-based (emulsion) paints. The facility was closed in 1977 and was later sold to a developer in 1981.

In 1978, after plant operations closed, NJDEP directed Sherwin-Williams to excavate and properly dispose the material that remained in the former lagoons. During

the 1980s NJDEP entered into several administrative orders with Sherwin-Williams to oversee the characterization of contaminated groundwater and a petroleum-like seep in the FMP area. During the 1990s, NJDEP discovered two additional source areas (the Dump Site and Burn Site), both attributable to historic dumping activities associated with the FMP.

In the mid-1990s, enforcement responsibilities for the Dump site and the Burn Site were transferred to EPA. Under an EPA AOC Sherwin-Williams was directed to further characterize and delineate the extent of contamination associated with these areas and to fence them off to minimize the potential for human exposure. EPA proposed the Dump Site to National Priorities List (NPL) in 1998[1]. The Burn Site was added to the NPL in 1999.

In 1998, EPA sampled the upper portions of Hilliards Creek and several residential properties. Contaminants (mainly lead and arsenic) were detected in these soil and sediment samples. The contaminants were similar to those detected at the Dump Site and Burn Site. As with the portions of the Dump Site and Burn Site, a portion of Hilliards Creek was fenced off as well. EPA then entered into two additional AOCs with Sherwin-Williams in 1999. The first administrative order was to oversee Sherwin-Williams' additional sampling of Hilliards Creek and Kirkwood Lake to characterize the extent of contamination. The sampling, which concluded in 2003, also included residential properties along Hilliards Creek and Kirkwood Lake. The second administrative order directed the Sherwin-Williams to conduct a Remedial Investigation/Feasibility Study (RI/FS) for the Dump Site, Burn Site and Hilliards Creek.

The RI identified a number of residential properties located adjacent to the sites or within the 100-year flood plain of Hilliards Creek that contained contaminants associated with upstream source areas. The Sherwin-Williams/Hilliards Creek site, which includes the FMP area, as well as Hilliards Creek and Kirkwood Lake, was added to the NPL in 2008.

Sampling on residential properties adjacent to the former plant occurred shortly thereafter.

SITE CHARACTERISTICS

Comprehensive RI sampling at the sites began in 2005.

WHAT ARE THE "CONTAMINANTS OF CONCERN" (COCs)?

EPA has identified metals as the primary compounds and to a lesser extent PAHs, in shallow soils (0 to 2 feet) at the residential properties that pose the greatest potential risk to human health.

Lead: Lead was historically used as a pigment in paint. As a pigment, lead II chromate "chrome yellow" and lead II carbonate "white lead" being the most common. Lead is hazardous. At high levels of exposure lead can cause nervous system damage, stunted growth, kidney damage, and delayed development. Lead is considered a possible carcinogen.

Arsenic: Arsenic compounds began to be used in agriculture as ingredients in insecticides, rodenticides, herbicides, wood preservers and pigments in paints. Long-term exposure to high levels of inorganic arsenic (e.g. through drinking-water and food) are usually observed in the skin, and include pigmentation changes and skin lesions. Often, prolong exposure can lead to skin cancer. In addition to skin cancer, long-term exposure may lead to cancers of the bladder and lungs.

Polycyclic aromatic hydrocarbons (PAHs) – PAHs are formed when wood, coal, or other materials are burned. Benzo(a)pyrene was the most commonly detected PAH in site soils and on residential properties. PAHs are known carcinogens.

To date, thousands of environmental samples have been collected from soil, sediment, groundwater, surface water, and air. Sampling occurred on publicly owned property (townships and county), commercial, and residential properties.

Soil samples, collected from residential properties, were analyzed for metals, volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs) including PAHs, pesticides, and polychlorinated

[1] The *National Priorities List* (NPL) is the list of national priorities among the known releases or threatened releases of hazardous substances, pollutants, or contaminants throughout the United States and its territories. The NPL is intended primarily to guide EPA in determining which sites warrant further investigation. At some sites proposed for the NPL, EPA has entered into an enforcement agreement with a private party prior final placement on the NPL, whereby the private party agrees to proceed with Superfund investigations or cleanup at the site. In certain circumstances (including at the Dump Site), EPA has elected not to finalize the NPL listing as long as Superfund work proceeds in accordance with the enforcement agreement, but EPA maintains the site as "proposed" so that it can be quickly placed on the NPL if conditions change.

biphenyls (PCBs). Analyses of soil samples indicated the Sherwin-Williams sites were sources of soil contamination found on residential properties. A human health risk assessment was conducted on the soil sample 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's Residential Direct Contact Soil Remediation Standards (RDCSRS).

Lead and arsenic are found most frequently and at the greatest concentrations above the RDCSRS at both the source area sites and the residential properties. PAHs above RDCSRS were found less frequently at both the sites and the residential properties. Based on the residential sampling efforts and comparison of the data to the COC's detected at the sites; lead, arsenic and PAHs were identified as COC's for this Proposed Plan.

Contamination is found in shallow soils on residential properties. Shallow soils are generally defined as the 0 to 2 foot depth interval. The extent of the shallow contaminated soils at residential properties is principally limited to near shore or floodplains of Hilliards Creek and Kirkwood Lake. In general, the contaminant concentrations within the floodplain properties are greater upstream, closer to the source areas, and decrease downstream. Contaminated soils at the residential properties in the vicinity of the FMP area are likely the result of historic fill placement and have no clear distribution pattern.

SCOPE AND ROLE OF THE ACTION

Due to the large area, the different media affected by contamination, the complexity of multiple sites and varying land uses, EPA is addressing the cleanup of the Sherwin-Williams sites in several phases, or operable units (OUs). This Proposed Plan is the first operable unit associated with the SW/HC Site, Dump Site, and Burn Site and addresses contaminated soils on residential properties. Future OUs will address soil, groundwater, surface water and sediment contamination associated with the SW/HC Site, Dump Site, and the Burn Site.

The results of the residential remedial investigation identified residential properties as falling into one of three categories, where either: a) no remedial action is anticipated; b) remedial action is required; or c) additional soil sampling is required to determine the extent of, or need for, remedial action (Figures 2 – 5).

The number of affected properties, referenced in this Proposed Plan with elevated levels of soil contaminants, is an estimate used to calculate the approximate costs of the cleanup alternatives. The precise number of residential properties that would require soil remediation under this proposed operable unit one (OU1) remedy would be determined upon completion of additional soil sampling during the remedial design.

SUMMARY OF SITE RISKS

As part of the RI/FS, a baseline human health risk assessment (HHRA) was conducted to estimate current and 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 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 COCs, as well as the toxicity of these contaminants.

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).

COCs were selected by comparing the maximum detected concentration of each analyte in surface soils with available state and federal risk-based screening values. This screening assessment was conducted on each property. COCs in soil generally included metals (particularly lead and arsenic) and PAH compounds, although not all of these compounds were COCs on every property.

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) and inhalations of particulates emitted from soil due to wind erosion with surface soil

(0 to 6 inch depth interval). Soils from both the surface and shallow depth intervals were used to evaluate lead hazard from incidental soil ingestion. When screening indicated further evaluation was necessary, lead exposure was evaluated for the child resident using EPA's Integrated Exposure and Uptake Biokinetic (IEUBK) blood lead model.

For COCs 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.

Below is a summary of the Residential HHRA findings. A complete discussion of the exposure pathways and estimates of risk can be found in the *Residential Properties Human Health Risk Assessment* available in the administrative record.

Residential Properties Adjacent to Dump Site: A total of three properties were evaluated in the area adjacent to the Dump Site. The calculated cancer risks and noncancer hazards did not exceed threshold values for any of the suspected site-related COCs.

Residential Properties on West Clementon Road: A total of eight properties were evaluated on West Clementon Road adjacent to the former manufacturing plant. The results of the risk assessment indicated that one property had a cancer risk of $2x10^{-4}$ and an HI of 2. The cancer risk was primarily due to incidental ingestion of and dermal contact with benzo(a)pyrene in surface soil. When separated by target organ effect, the HI did not exceed EPA's threshold value of 1.

Hilliards Creek Properties: A total of 13 properties were evaluated adjacent to Hilliards Creek. Eight properties exceeded EPA's target cancer risk range, with risks ranging from $2x10^{-4}$ to $9x10^{-4}$. The cancer risks were primarily driven by incidental ingestion of and dermal contact with surface soil. The major risk contributors were arsenic and/or PAH compounds including benzo(a)pyrene and dibenzo(a,h)anthracene. Five properties exceeded the noncancer hazards threshold values for site related COCs. The HI estimates ranged from 2 to 20. The major contributor of noncancer hazard was mainly based on ingestion of arsenic contaminated surface soils.

Based on the IEUBK model results, potential hazards associated with lead exposure to shallow soils were found to present a level of concern at six properties. A total of two properties were found to present a level of concern when the surface soils were considered.

Kirkwood Lake Properties: A total of 31 properties were evaluated adjacent to Kirkwood Lake. None of the cancer risks and target organ specific HI estimates exceeded EPA's target threshold values.

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 (COCs) 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 COCs. 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.

Based on the IEUBK model results, potential hazards associated with lead exposure to shallow soils were found to present a level of concern at two properties. A total of four properties were found to present a level of concern when the surface soils were considered.

Ecological Risk Assessment: Since this operable unit focuses on residential properties, no ecological risk assessment was conducted. However, ecological risk assessments are being performed for the other sites that address affected media and wetlands.

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 contaminants on residential properties are present in surface and/or subsurface soils. The following remedial action objectives (RAOs) for contaminated soils address the human health risks at residential properties:

- Prevent human exposure via direct contact with contaminated soils.
- Prevent transport and migration of site contaminants to nearby surface water bodies (including wetlands, lakes, and streams).

To achieve RAOs, EPA has selected soil cleanup goals for residential properties. The soil cleanup goals for COCs are consistent with New Jersey RDCSRS. The cleanup goals for COCs on residential properties are as follows:

- Lead: 400 milligrams per kilogram (mg/kg)
- Arsenic: 19 mg/kg
- Benzo(a)pyrene 0.2 mg/kg
- Benzo(a)anthracene 0.6 mg/kg
- Benzo(b)fluoranthene 0.6 mg/kg
- Benzo(k)fluoranthene 6 mg/kg
- Dibenzo(a,h)anthracene 0.2 mg/kg
- Indeno(1,2,3-cd)pyrene 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 statue 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 seventy seven residential properties identified during the course of the RI, it is estimated that 33 residential properties will require remediation. The remedial alternatives will require additional sampling at residential properties during remedial design to determine the extent of remedial activities.

Thirty residential properties have been identified where additional sampling is required, either due to limited data, or because properties were not sampled during the residential RI. Finally, there are 14 properties where no remediation is anticipated based on the available data.

The time frames below for construction do not include the time for designing a remedy, negotiating with the responsible parties, 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 soils 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 – Containment and Institutional Controls

Under this alternative, soil cover would be placed over contaminated soils to minimize direct contact. In addition, institutional controls (deed restrictions) would be implemented to prevent human exposure by regulating future use of contaminated areas within the properties. The deed restrictions would require maintenance of the cover material and restrictions on excavation of the property. The soil cover would consist of three vertical zones. The zones, from top to bottom, would include a vegetative layer on top of a minimum one foot clean fill, which would be a barrier layer. Beneath the barrier layer would be a buffer layer consisting of a minimum of one foot layer of clean fill followed by a geotextile fabric which would act as a demarcation between clean fill and contaminated soil. The geotextile would be used to delineate the native soil horizon and limit penetration into the contaminated area, while maintaining infiltration.

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.

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	$7,494,000
Annual O&M	$68,000
Total Present Worth	$8,864,000
Construction Time Frame:	1 year

Alternative 3 – Excavation with Off-site Disposal

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

- Survey property boundaries;
- Wetland delineation;
- Clearing vegetation from the contaminated area;
- Utility relocation (as needed);
- Perimeter air monitoring (for dust);
- Excavation of contaminated soil;
- Transportation and disposal to an approved facility;
- Backfill of the excavation with clean soil; and
- Property restoration (grading, re-vegetation).

Excavated soils would be sampled to determine if soils would be disposed of as either hazardous waste or non-hazardous waste. Treatment of soils, 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	$14,240,000
Annual O&M	0
Present Worth Cost	$13,774,000
Construction Time Frame:	2 years

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 FS report.

Overall Protection of Human Health and the Environment

Since Alternative 1 (no action) would not address the risks posed by soil contaminants, it would not be protective of human health and the environment.

Alternatives 2 (containment and institutional controls) and 3 (excavation and off-site disposal) would provide adequate protection of human health and the environment by eliminating, reducing, or controlling risk through containment, soil cover/capping, or removal. Engineering controls (i.e., soil cover or capping) and a deed restriction would prevent exposure

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.

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 (containment and institutional controls) provides compliance with chemical-specific ARARs, because the soil cover would be effective in preventing exposure to the contaminants. Location-specific ARARs (wetlands, floodplains, etc.) and Action-specific ARARs (Occupational Safety and Health Administration, etc.) would both be met by proper design and implementation of the respective components.

Alternative 3 (excavation and off-site disposal) provides compliance with chemical-specific ARARs by removing contaminated soils above cleanup standards. Action-specific ARARs would be met during the construction phase by proper design and implementation of the action and for the disposal phase by 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 cap is maintained. Cap maintenance would include periodic maintenance (primarily mowing) of the vegetative cover (where used), periodic inspection of the cap, repair of any defect or deficiency in the soil cover, and repair (e.g., reseeding and/or replanting) of the vegetative layer (where applicable).

These maintenance activities would be complicated by the lack of direct control of capped 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 (Excavation and off-site disposal) would provide long-term effectiveness and permanence by removing contaminants from residential properties and providing secure disposal of excavated soils 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 (containment and institutional controls) does not provide reduction of toxicity, mobility, or volume of contamination through treatment. Mobility would be reduced to the extent that the soil cover limits dust/erosion impacts.

Alternative 3 (excavation and off-site disposal) would not provide reduction of toxicity, mobility, or volume of contamination at the properties through treatment, however, contaminated soils may be treated at the disposal facility as needed, to meet permitting and disposal requirements.

Short-Term Effectiveness
Alternative 2 (containment and institutional controls) would be effective in the short term since contaminated soil would not be significantly disturbed during construction activities. Dust control would be limited to exposures to non-contaminated dusts associated with earthwork. Construction of the required containment system and establishment of the deed restrictions, could be accomplished in approximately 1 year.

Alternative 3 (excavation and off-site disposal) involves excavation of contaminated soils and thus would present a potential for short-term exposure. Under this alternative, any potential environmental impacts associated with the excavation of soils 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 soils to approved off-site disposal facilities. Completion of the required construction for most properties can be accomplished in approximately 2 years.

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 are complicated to some extent by the need to perform either cap construction (alternative 2) or excavation and backfilling (alternative 3) on residential properties. Additionally, construction of a soil cover (alternative 2) in a floodplain may encounter sensitive environmental areas. Excavation activities (alternative 3) within the floodplain may require excavation below the water table. Excavation below the water table may require dewatering of the excavation area and dewatering of excavated soil prior to disposal.

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 soils in to construct a cap) would generate less truck traffic than Alternative 3 (removing contaminated soils from properties and bringing soils 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 restrictions on residential properties. These restrictions would restrict the owner's use of the property and would not likely be acceptable to the owner. Therefore, deed restrictions are not likely to be administratively feasible on residential properties. Since Alternative 3 results in the removal of contaminated soils a deed notice placing restrictions on use of the property would be unnecessary.

Cost
The total estimated cost for Alternative 2 (Containment and Institutional Controls alternative) is $7,494,000. Capital costs include the cost for construction of the containment system and administrative cost for establishment of the deed restrictions. Annual O&M costs include maintenance of the containment systems.

The total estimated cost for Alternative 3 (Excavation and Off-site Disposal) is $14,240,000. Capital costs include the cost for the excavation and disposal of soils 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 EPA's 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 soils impacted by site-related contamination is Alternative 3, excavation and off-site disposal of contaminated soil.

The preferred alternative is believed to provide the best balance of trade-offs among the alternatives with respect to the evaluation criteria. Based on the information available at this time, EPA and NJDEP believe the preferred alternative will be protective of human health and the environment and will comply with ARARs.

Consistent with EPA Region 2's Clean and Green policy, EPA will evaluate the use of sustainable technologies and practices with respect to implementation of a selected remedy.

COMMUNITY PARTICIPATION

EPA provided information regarding the cleanup of the residential properties affected by contamination associated with the sites through meetings, the Administrative Record file for the residential properties and announcements published in the local newspaper. EPA encourages the public to gain a more comprehensive understanding of the sites and the RI activities that have been conducted at them.

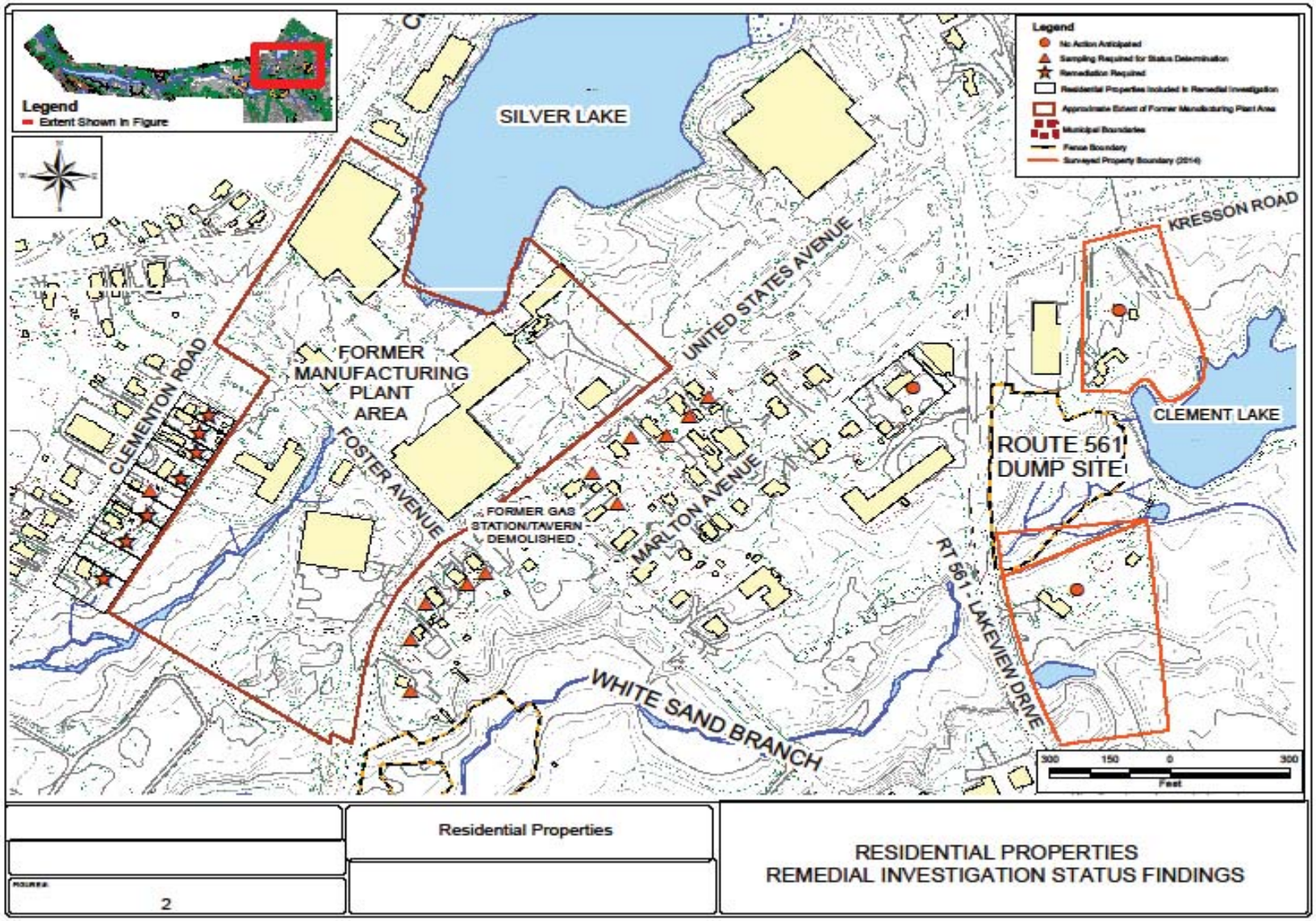
The dates for the public comment period; the date, the location and time of the public meeting; and the locations of the Administrative Record file are provided on the front page of this Proposed Plan.

For further information on EPA's preferred alternative for the affected residential properties and the sites:

Ray Klimcsak	Pat Seppi
Remedial Project Manager	Community Relations
(212) 637-3916	(212) 637-3679

U.S. EPA
290 Broadway 19th Floor
New York, New York 10007-1866


EPA DESIGNATED SITES
FORMER MANUFACTURING PLANT
SHERWIN-WILLIAMS HILLIARDS CREEK SITE
ROUTE 561 DUMP SITE
UNITED STATES AVENUE BURN SITE
ARMOUR LAKE
HILLIARDS CREEK
BRIDGEWOOD LAKE
SILVER LAKE
CLEMENT LAKE
0.25 0.125 0 0.25 Miles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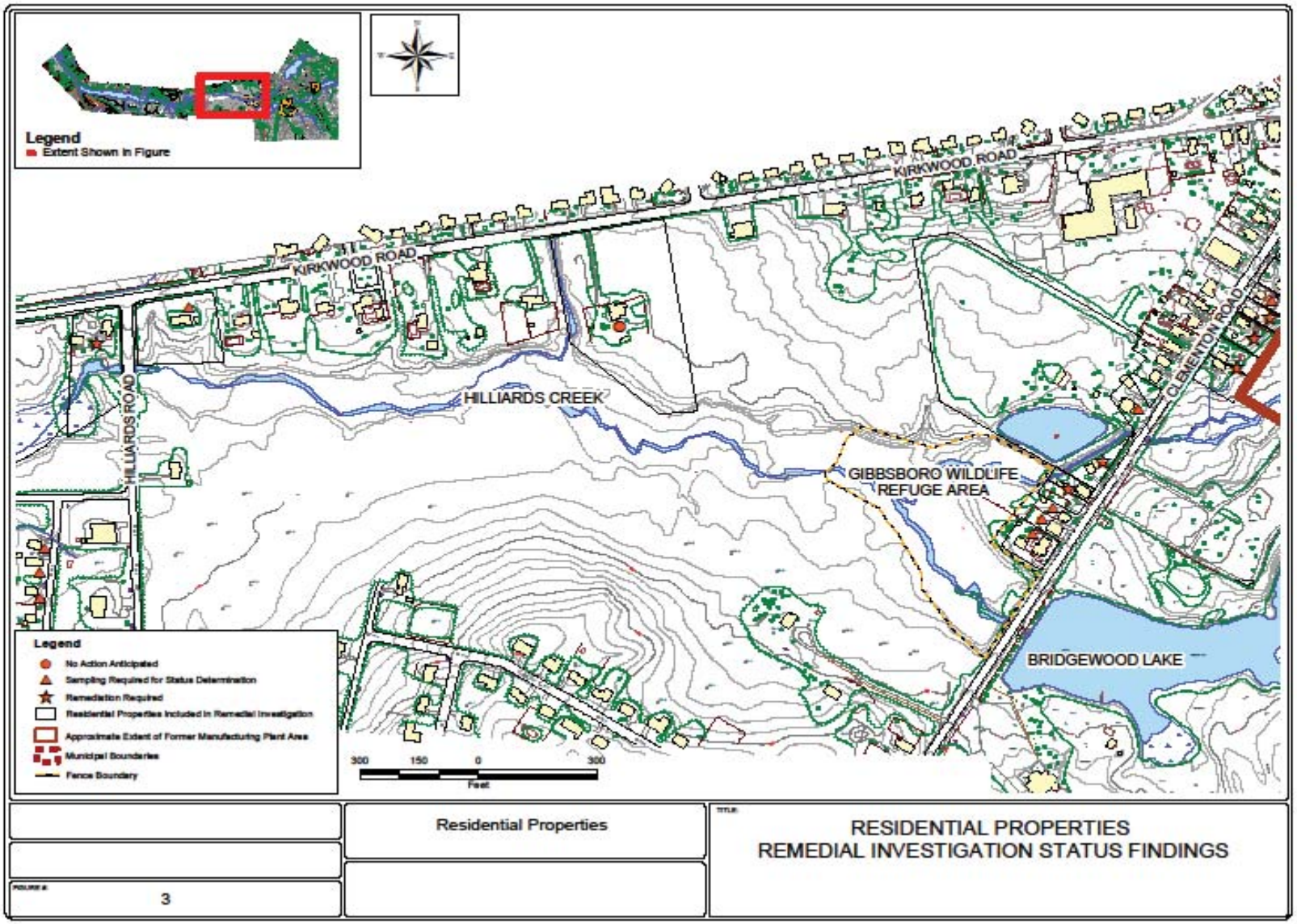
SILVER LAKE
FORMER MANUFACTURING PLANT AREA
CLEMENTON ROAD
FOSTER AVENUE
FORMER GAS STATION/TAVERN - DEMOLISHED
MARLTON AVENUE
UNITED STATES AVENUE
KRESSON ROAD
CLEMENT LAKE
ROUTE 561 DUMP SITE
RT 561 - LAKEVIEW DRIVE
WHITE SAND BRANCH
Legend
No Action Anticipated
Sampling Required for Status Determination
Remediation Required
Residential Properties Included in Remedial Investigation
Approximate Extent of Former Manufacturing Plant Area
Municipal Boundaries
Fence Boundary
Surveyed Property Boundary (2014)
300 150 0 300
Feet
Residential Properties
2
RESIDENTIAL PROPERTIES
REMEDIAL INVESTIGATION STATUS FINDINGS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KIRKWOOD ROAD
HILLIARDS ROAD
HILLIARDS CREEK
CLEMENTON ROAD
GIBBSBORO WILDLIFE
REFUGE AREA
BRIDGEWOOD LAKE
Legend
No Action Anticipated
Sampling Required for Status Determination
Remediation Required
Residential Properties Included in Remedial Investigation
Approximate Extent of Former Manufacturing Plant Area
Municipal Boundaries
Fence Boundary
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Feet
Residential Properties
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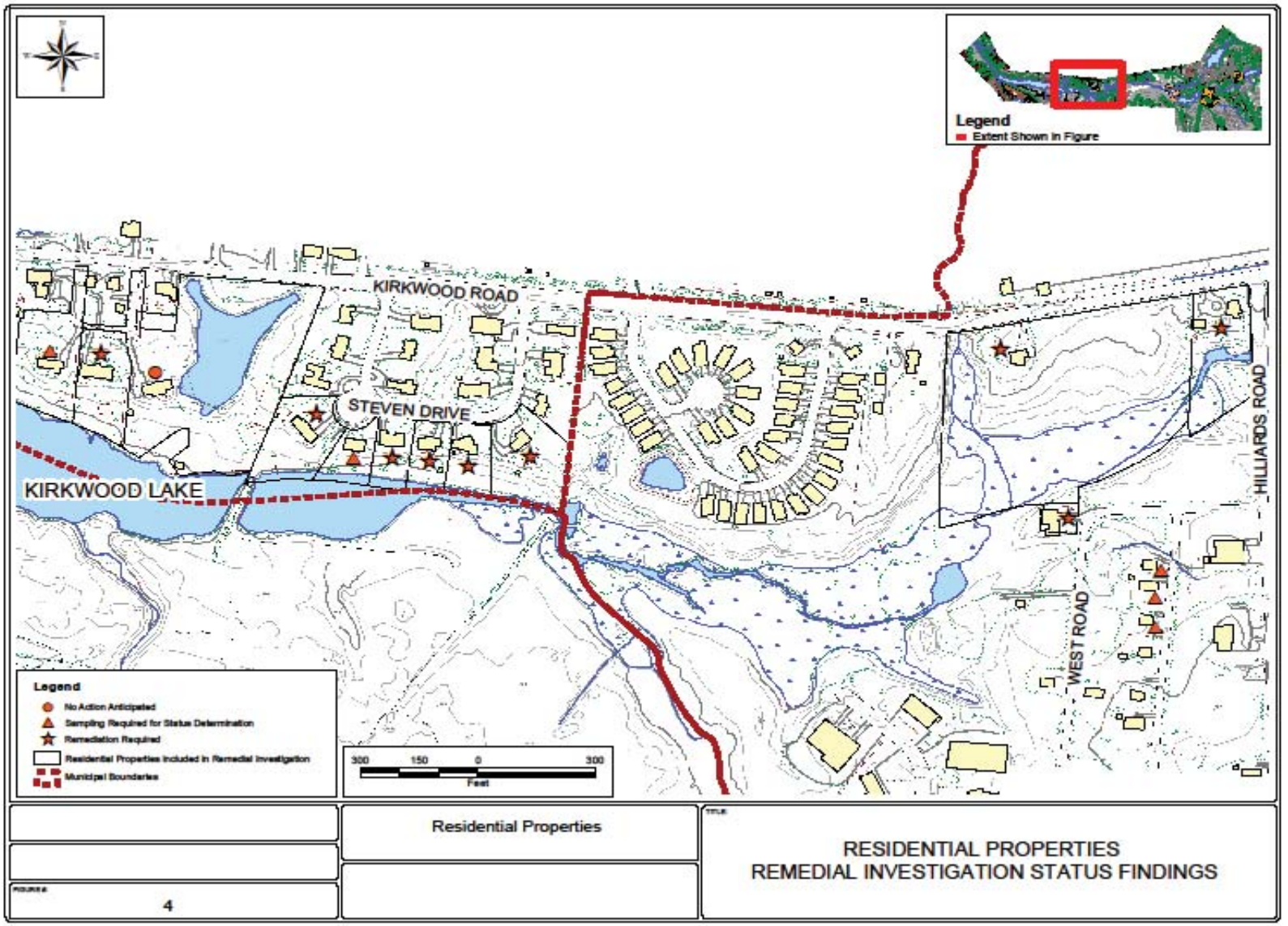
RESIDENTIAL PROPERTIES
REMEDIAL INVESTIGATION STATUS FINDINGS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STEVEN DRIVE
KIRKWOOD LAKE
HILLIARDS ROAD
WEST ROAD
Legend
No Action Anticipated
Sampling Required for Status Determination
Remediation Required
Residential Properties Included in Remedial Investigation
Municipal Boundaries
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Feet
Residential Properties
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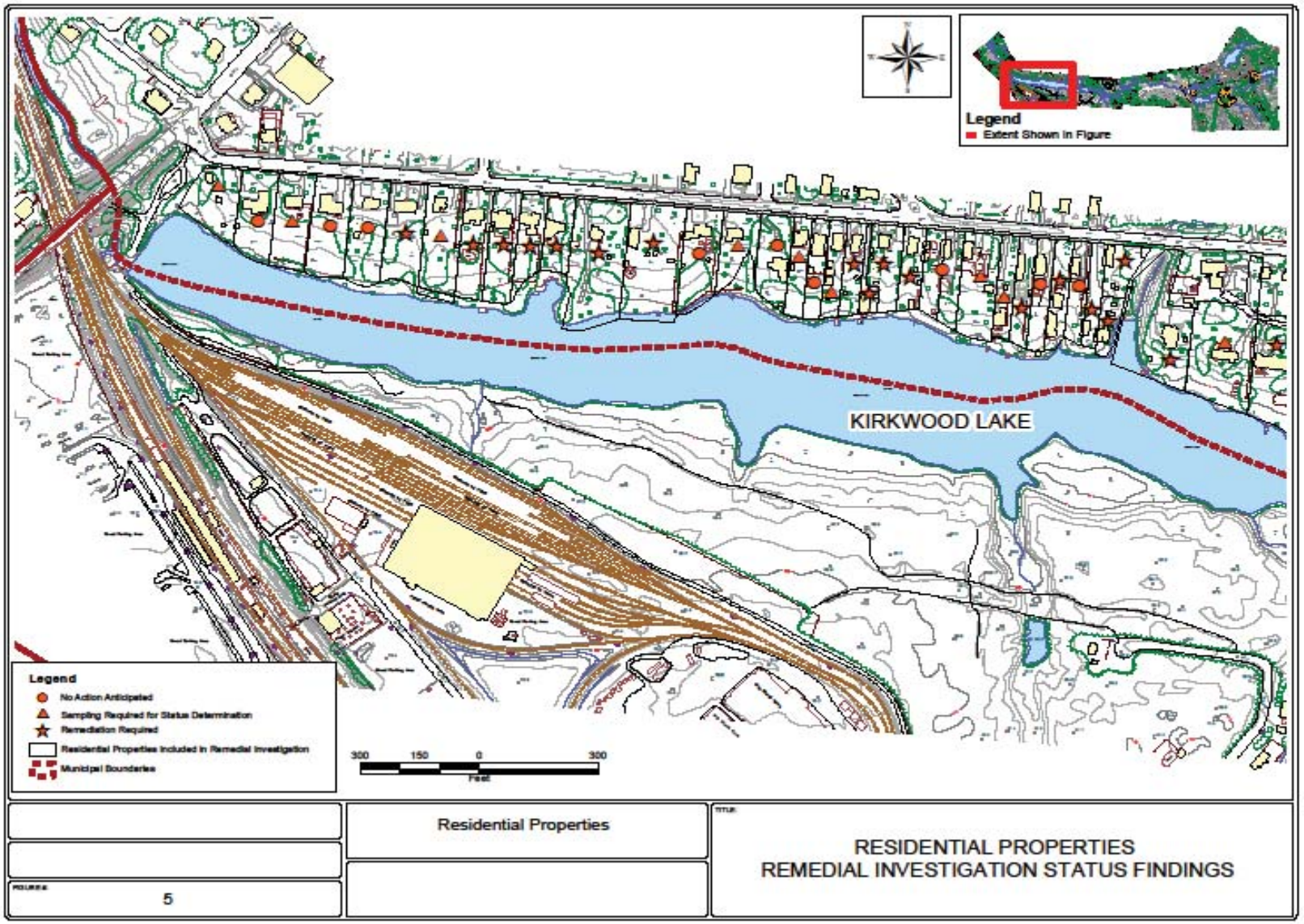
RESIDENTIAL PROPERTIES
REMEDIAL INVESTIGATION STATUS FINDINGS


Legend
Extent Shown in Figure
KIRKWOOD LAKE
Legend
No Action Anticipated
Sampling Required for Status Determination
Remediation Required
Residential Properties Included in Remedial Investigation
Municipal Boundaries
300 150 0 300
Feet
Residential Properties
5
RESIDENTIAL PROPERTIES
REMEDIAL INVESTIGATION STATUS FINDINGS

Attachment B
Public Notice

Voice

Continued from Page 1A

After suffering a stroke in 2005, Steve Kordos taught himself to paint with his non-dominant hand.

STAFF PHOTO/CRAIG MATTHEWS

Former Buena track coach Steve Kordos works on a painting.

Painting as therapy

Within two years or so of his stroke, Kordos started art projects. They began as simple sketches and evolved into more detailed and elaborate paintings.

And it's all done with his non-dominant hand.

"That's what's amazing to me," said his longtime friend and companion Debbie Orlandini. "That he was able to teach himself to use his left hand, not just for daily living skills but to paint."

Orlandini, who has known Kordos since 1982, was aware the former track coach was "artsy" but didn't know the depths of it. She remembers a younger Kordos drawing, sometimes designing shirts for his track teams if they were hosting a meet or a tournament.

But back then she never thought his art would transform into what it is today. Along with a plaque from the 2004 Cape-Atlantic League National championship track team and one from the 34th annual Woodbury Relays dedicated to him in 2006, the walls of Kordos' apartment are covered with paintings. They fill walls but they also fill his walk-in closet.

Kordos, smiling and happy, looks through a stack of paintings until he finds his favorites: two incredibly detailed works featuring tribal people and horses.

The small one-room apartment has a bed, a couch and a table. The square dining room table is his workstation and he sits on a wooden chair with a small cushion for two hours daily.

Ed Zirbsir, the director of The Heritage Assisted Living, sees Kordos send out packages every week. In the years since he began painting, Kordos gleefully distributes his works of art to those close to him.

"He wants to give everybody paintings," Orlandini said. "Well, we're all out of walls. Now, it's like you have to start sharing them with other people because we don't have room."

But each painting Kordos gives away is cherished by the receiver.

Kenneth Soboloski was Kordos' boss at the high school for more than two decades. The former principal retired in 2008 and had a retirement party at the Buena Vista Country Club. To Soboloski's surprise, Kordos showed up.

"I was shocked that he was there," Soboloski said. "But I was really happy that he was."

And, of course, Kordos didn't arrive empty handed. His gift to Soboloski was a simple painting of a bird.

Those were the days the paintings weren't yet very elaborate, but Soboloski was so impressed by it that he walked the painting from table to table to show it off. It still hangs on the wall of his bedroom.

Plenty of support

Marcellus Manning, 27, graduated high school in 2005 from Buena, where he competed in track under Kordos.

After Manning graduated from Rider University and eventually returned to South Jersey, he visited his former coach in 2011 or 2012. Shortly after the visit, Manning got a package in the mail: a painting of a snowy mountainside with Kordos' signature initials in the corner.

"It was amazing. I put it right on my wall," he said. "And it just kind of inspires me daily. It kind of clicked to me that in every troubling circumstance, I believe that God gives you a gift — if you don't give up. He could have given up and just wallowed. He discovered a great gift to paint. I think it's amazing. I think his painting is amazing."

Manning didn't learn about Kordos' stroke until 2007 or 2008, while at a Chiefs' track meet. When he found out, Manning visited his former coach but not often at first.

Kordos meant a lot to him but Manning wasn't comfortable initially.

Kordos was the tough track coach and now he couldn't speak. It was difficult for Manning to see his coach like that and it was tougher when he wasn't sure how to act.

Recently, though, Manning has been visiting more often — sometimes three times per month — and started a GoFundMe page to raise money for his former coach.

In just over two weeks, the page has raised $1,500 from 26 people, many of whom are Kordos' former students and athletes. The money will help pay for his residency, clothes and, of course, art supplies.

"The comments (on the GoFundMe page) are really emotional to me," Manning said. "It's really, really cool because he enjoys it. I went and I read it to him. I read every single person; I read every single email that they sent and he remembers these people and it makes him happy. You can see it in his face. He gets very happy and very excited. It's cool for me. That's my satisfaction."

Alison Phillips is another one of Kordos' former athletes who continues to make sure he's a part of her life. The 2004 Buena graduate and her friend and fellow track athlete Shannon Elbert visit their former coach as often as possible.

Kordos can't speak aside from sounds and gestures but his personality comes through. And to Phillips, he's the same guy who coached her a decade ago.

"He's hilarious," she said. "It's tough because you spend a lot of time reading his body language and listening to the tone. Since he can't form words, you have to listen to the other things. He cracks jokes and he's really funny. It's interesting how much you can understand without words."

For Phillips, Kordos was much more than a track coach. In the winter of Phillips' sophomore year of high school, her family's house burned down. It was Kordos who walked her to Soboloski's office to meet her mom. When Phillips decided she didn't want to leave school, Kordos allowed her to sit in his classroom for the remainder of the day.

After the school day ended, the pair did a few laps around the school to help clear Phillips' mind. And that night, Kordos and the Orlandini family took Phillips shopping to buy a brand new wardrobe to replace what she lost in the fire.

"He was just such a rock for me," Phillips said. "I'll never forget it. I personally feel like I'm forever in debt to him for that. He was my rock. He played a really important role. It's really easy for me to want to go see him and take him out. I want to do those things."

Connection with students

Kordos always connected with his athletes. He was tough on them on the track but cared about them. Orlandini said she's not surprised about the many former students and athletes who keep in touch and want to remain in his life.

It doesn't surprise Soboloski, Kordos' former boss, either.

"He was real. The kids can tell a phony right away," Soboloski said. "He wasn't a phony. What you saw was what you got. He was someone they could talk to and he wouldn't divulge their problems. He was trustworthy. The kids seemed to gravitate toward someone they trust. He was also a funny guy. Kids enjoy being around him."

Above Kordos' bed and on the door to his room at Heritage hangs the U.S. Marine Corps insignia. Kordos is proud to be a retired Marine and his time in the Corps still very clearly shapes his life. He keeps his room tidy and his appointments are always on time.

"He's very regimented," said Zirbsir, the director of Heritage. "If breakfast is supposed to start at 8, it's supposed to start at 8, not 8:15."

Zirbsir said Kordos doesn't care much for the scheduled activities at the assisted living facility.

While fellow residents play board games, cards and bingo, Kordos favors being on his own. He enjoys taking walks and working out in the

See VOICE, Page 5A

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY INVITES PUBLIC COMMENT ON THE PROPOSED PLAN FOR THE SHERWIN WILLIAMS/HILLIARDS CREEK SUPERFUND SITE GIBBSBORO AND VOORHEES, NEW JERSEY

The U.S. Environmental Protection Agency (EPA) announces the opening of a 30-day comment period on the preferred plan to address contaminated soil on residential properties at the Sherwin Williams/Hilliards Creek Superfund site in Gibbsboro and Voorhees, New Jersey. The preferred remedy and other alternatives considered are identified in the Proposed Plan.

The comment period ends on July 2, 2015. As part of the public comment period, EPA will hold a public meeting on Thursday, June 11, 2015 at 7 p.m. at the Gibbsboro Senior Center located at 250 Haddonfield-Berlin Road. The Proposed Plan is available electronically at the following address:

http://www.epa.gov/region02/superfund/npl/sherwin/index.html

Written comments on the Proposed Plan, postmarked no later than close of business July 2, 2015 may be emailed to Klimcsak.raymond@epa.gov or mailed to Ray Klimcsak, U.S. EPA, 290 Broadway, 19th Floor, New York, NY 10007-1866.

The Administrative Record files are available for public review at the following information repositories:

Gibbsboro Town Hall, 49 Kirkwood Rd., Gibbsboro, NJ

M. Allan Vogelson Library, 203 Laurel Rd., Voorhees, NJ

USEPA Region 2, Superfund Records Center, 290 Broadway, 18th Floor, New York, NY

Please contact Pat Seppi, EPA's Community Involvement Coordinator, at 212-637-3679 for more information.

CP-0010550177

Attachment C
Public Meeting Transcripts

SHERWIN-WILLIAMS SUPERFUND SITES
RESIDENTIAL PROPERTIES
PUBLIC MEETING

June 11, 2015

Meeting held at the Gibbsboro Senior Center, 250 Haddonfield-Berlin Road, Gibbsboro, New Jersey beginning at 7:00 p.m. before Karen L. Siedlecki, a Certified Court Reporter in the State of New Jersey, a Registered Professional Reporter and Notary Public.

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VERITEXT NATIONAL COURT REPORTING COMPANY
MID-ATLANTIC DIVISION
1801 Market Street - Suite 1800
Philadelphia, Pennsylvania 19103

P R E S E N T:
Pat Seppi
Ray Klimcsak
Rich Puvogel
Elias Rodriguez
Mary Lou Capichioni
Gwen Zervas
Renee Gelblatt
Chloe Metz
Ula Filipowicz

PAT SEPPI: Good evening, everybody. Thank you for coming out tonight for our meeting. And as you know, this meeting is to discuss EPA's proposed plans for the Sherwin-Williams soil contamination residental properties.

Now, before we start, I'd like to ask Al to please come up and lead us in the Pledge of Allegiance.)

(Pledge of Alleges conducted.)

(America the Beautiful sung.)

PAT SEPPI: Thank you. We don't always have that at meetings, and it's very nice. Thank you.

Okay. So my name is Pat Seppi, I'm with the EPA. I'm the Community Liaison for this site. And we have some other people here tonight from EPA, from the state, the DEP, and from Sherwin-Williams. And I'd like to ask them just to stand up, turn around, introduce themselves and tell you their relationship to the site.

My going to start with Ray.

RAY KLIMCSAK: Hi. My name is Ray Klimcsak and I'm the Project Manager for the site.

PAT SEPPI: EPA.

RAY KLIMCSAK: EPA.

RICH PUVOGEL: Hi, my name is Rich Puvogel, I'm the section chief in Ray's section.

PAT SEPPI: Thank you. Elias?

ELIAS RODRIGUEZ: Hi, I'm Elias Rodriguez with the EPA, I'm the Public Information Officer.

PAT SEPPI: Mary Lou?

MARY LOU CAPICHIONI: Hi, I'm Mary Lou Capichioni and I am the Project Manager for Sherwin-Williams.

PAT SEPPI: Gwen?

GWEN ZERVAS: Hi, I'm Gwen Zervas with the State of New Jersey DEP.

PAT SEPPI: Thank you. Renee?

RENEE GELBLATT: Renee Gelblatt with EPA. I have the Route 561 Dump Site portion of the Sherwin-Williams project.

PAT SEPPI: Thank you. Chloe?

CHLOE METZ: Hi, I'm Chloe Metz, I'm a Risk Assessor and also Chief of our Technical Support section that supports the site.

PAT SEPPI: Thank you. Ula?

ULA FILIPOWICZ: My name is Ula Filipowicz, I'm Human Health Risk Assessor assigned to the site.

PAT SEPPI: Thank you. Is there anybody that I missed? Mayor Campbell is here in the back, and thank you for the use of the Senior Center. This is a really wonderful place to have a meeting.

So you're probably used to the normal way

EPA has meetings. The reason for the meeting tonight is a little bit different. Usually we'll come out, we'll give a presentation, we open it up to questions and answers. But for a Proposed Plan Meeting, the meeting that we're having tonight, it's to take your comments on the proposed plan.

And I hope everybody's had a chance to read it? No? If anybody hasn't read it or needs a copy, let me know afterwards and I'll make sure that you get it.

Now, another difference in tonight's meeting is we have Karen, our stenographer, up front. Because all the comments that are made tonight about the residential property clean-up will go into a transcript which will be put on our website and you'll be able to see it.

Now, the culmination of tonight and when the comment period is over -- we're in a 30-day comment period now as you know, that comment period is over on July 2nd. Once that comment period is done, Ray will take all the comments and put them in what's known as a Responsiveness Summary and that will be attached to what's called our Record of Decision. That's our final, legally-binding document which details our plan to clean up the site.

So if you have comments after you leave

tonight, maybe something will jog your memory when you get home or when you hear Ray's presentation, you certainly have until July 2nd to send them to Ray either by written mail or by e-mail.

So, you know, as I said, your comments tonight will be part of the transcript and so will all the other comments that we get by July 2nd.

I talked about -- oh, Ray has a short presentation. He really does, it's only about 20 minutes. So we ask if you have any questions or comments, if you could just hold them until the end of the presentation.

And then we have a mike up here. And we'll ask you to come up with your comments, and Karen will be taking them down. And if you could start off by saying your name and then spelling it, that would really be helpful.

Just for my own information, could I just see a show of hands, do a lot of people have comments they want to make tonight? Okay. I just want to make sure we have enough time, you know, because that's the most important part of this presentation is time for your comments. So if you decide during the presentation that you have something you'd like to say, you know, please feel free to come up.

I don't like to restrict people's time, you know, if we don't have to. Sometimes if we have a hundred commenters we do have to kind of say: Could you keep it to three minutes? But this looks like, you know, we should be fine for time.

There is a sign-in sheet on the side. If you haven't signed in, I would appreciate that if you would. We do have a mailing list for the site, but we're trying to also generate an e-mail list so we can reach people even more quickly.

One other thing I wanted to mention is some of the people here who have the residential properties received letters from EPA a short time ago. And in those letters we said that we would like to sit down and meet with you face-to-face to talk about your properties. You know, and that's what we intend to do after tonight.

There is -- Karen is in the back, and she has a calendar -- there she is, back there. Hi, Karen. And she has a calendar. So if anybody here tonight has a date in mind that they would like to sit down and meet with us, please go back there and fill in the time and, you know, we'll be happy to set that up.

So I think that's all I have. So I'd like to turn the presentation now over to Ray.

RAY KLIMCSAK: Thank you, Pat. Can

everybody hear me if I don't use the microphone? Excellent.

So as Pat mentioned, tonight's discussion is on the residential properties that were investigated by Sherwin-Williams under the oversight of EPA. These residential properties are throughout Gibbsboro and Voorhees, New Jersey. They were investigated because of a former plant that sat at the base of Silver Lake in Gibbsboro.

This plant, paint and varnish plant, operated for nearly 120 years. It was first operated by John Lucas or Lucas Paint, and later by the Sherwin-Williams Company. Through natural processes such as the erosion of contaminated sediments and a deposition of soils on properties, homes have gotten contaminated as well as the historic placement of fill.

Tonight I'm going to go through the different alternatives that were considered by EPA in terms of cleaning up the contaminated soil on residential properties. And I'm going to conclude with stating what is EPA's preferred remedy for cleaning up the soil on residential properties.

So real brief, I'm going to go through the Superfund Process. It's only two slides that I have. The first item that I have on there is Preliminary

Investigations. I have to give a nod to the New Jersey state -- New Jersey Department of Environmental Protection or DEP because they did a lot of the early investigations of the sites and they also do a lot of early enforcement actions which I'll discuss in the coming slides.

Once the site scores as a Superfund site or is listed on the National Priorities List, we then begin the phase of remedial investigation. Remedial investigation is intensive sampling that occurs, and this helps identify the nature and extent of contamination.

It is followed by a Feasibility Study. The Feasibility Study presents various alternatives that could clean up the contamination. And ultimately it results in what EPA's preferred remedy is, and that is presented in the proposed plan.

Tonight we are holding a requirement under EPA which is a public meeting, and we seek public comments as Pat mentioned. We are within the public comment period and those comments could be directed towards me either tonight or in writing or by e-mail.

EPA then selects its remedy in what's called a Record of Decision. This Record of Decision presents EPA's preferred -- presents EPA's recommended clean-up alternative. And this Record of Decision or ROD

is targeted for this September for the residential properties.

At the completion of the ROD we then begin the remedial design phase which is often additional sampling in order to define either the extent or volumes to be remediated. And finally the action, the clean-up action is employed during the remedial action phase.

I now want to just briefly go through the site history. On the wall here is an aerial of the former plant in operation in the 1970s. At the top is Silver Lake. This is Clementon Road and this United States Avenue and this is Foster Avenue.

The significance of this figure is to drive home the fact that this was a large paint manufacturing facility. On the bottom you'll see a series of lagoons as well as holding ponds. At the closure of the plant in '78, DEP oversaw the clean-up by Sherwin-Williams of these features.

Several other of the more notable features are a series of tank farms. And these tank farms, you'll notice, there was several rail spurs that went into the facility as well as several tanker cars. Contents from the tanker cars were pumped into these tank farms and contamination did occur.

Finally, a few other notable features are

open drum storage as well as a former resin plant. And before I move from this slide I want to drive home that it was this, these actions at this facility that led to contamination at two other source areas in Gibbsboro, New Jersey.

The three sites that we, EPA commonly refers to at the Sherwin-Williams sites include what are known as the Sherwin-Williams Hilliards Creek site, which does include Kirkwood Lake. Next is the Route 561 Dump Site, or you may hear me refer to it tonight as the Dump Site. And finally, the United States Avenue Burn Site or what we commonly refer to as the Burn Site.

Real briefly, this is an aerial -- not an aerial, but this is a figure of the layout of all of the sites. I showed you earlier where the former facility sat at the base of Silver Lake. Over here are the locations of the Dump Site as well as the Burn Site.

And you'll notice that there are waterways that pass through. These waterways have enabled contamination to be eroded and migrated downstream. They merge into Hilliards Creek and flow downstream where they then flow downstream into Kirkwood Lake.

I also just briefly want to point out as tonight we're talking about the residential properties, I'll highlight a few of the areas. There are a series of

residential properties which line the northern shore of Kirkwood Lake. There are a series of homes which were investigated on Stevens Drive. There were several homes along Hilliards Creek that were within the floodplain. And finally, we also investigated, Sherwin-Williams investigated several homes that were within the vicinity of the three source areas.

So one of the things I wanted to mention is once EPA identifies a site and classifies it as a Superfund site, we often seek to see if there is a responsible party. We identified Sherwin-Williams as a responsible party through a legal mechanism called an Administrative Order on Consent, or more commonly referred to as an Order.

Sherwin-Williams willingly came to the table and is employing sampling activities as well as going through the process. So they are an active, willing participant with the EPA to conduct the work.

Beginning in 2005, comprehensive sampling activities began at the sites that I had on the previous figures as well as Hilliards Creek and later Kirkwood Lake. All media -- and by "media" I mean soil, sediment, surface water, ground water, these were all media that are sampled during the intensive sampling efforts.

So what did the data show? The data shows

that mostly the contaminates of concern that we see are metals, specifically lead and arsenic.

Okay. So I've described the Superfund process, I've described the sites. I've described the comprehensive sampling that occurred at the sites. Now I want to discuss what residential sampling was focused on.

In addition to soil, EPA and Sherwin-Williams also looked at tap water or potable well water. Homes within the vicinity of the sites were sampled where they were not connected to municipal well water. And we also, EPA conducted soil gas sampling for homes that were close to the former facility where volatile organic compounds were used. Soil gas essentially is the gas which would come off of contaminated ground water.

So EPA conducted sub slab soil gas sampling at homes that were in close proximity to the former facility.

Before I move on, I want to stress that after EPA looked at both tap water and soil gas, we did not find those media to be of concern. So the remainder of the focus of the investigation as well as tonight's discussion is on contaminated soils.

So what were the criteria for selecting a property for sampling? Well, it was either the fact that

Page 14

the property was in close proximity to one of the three sites or the property was within the floodplain of either Hilliards Creek or Kirkwood Lake.

In total, approximately 55 homes were sampled during the remedial investigation sampling activities performed. The interval sampled were both the zero to six, or more commonly referred to as surface, and the one and a half to two foot interval or subsurface. These two intervals are the more likely intervals that a resident would be exposed to or encountered with. So that's why we focused on those two intervals.

So I created this slide just to illustrate homes that were within the floodplain. You'll see that this is Hilliards Creek, which flows westward on into Kirkwood Lake. Even though there was a series of homes, these homes, the property line did not extend into the floodplain whereas this one did and that home was sampled. There are also a series of homes on Clementon Avenue that were sampled.

Finally, I want to point out that there was a series of homes on West Clementon that were in close proximity to the former paint plant. I mentioned earlier that contaminated soils were the result of either the deposition of contaminated sediments or it was the placement of historic contaminated fill. And that is an

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example of that scenario.

So the data that was collected from that surface and subsurface intervals at the properties, what they showed is that they were, mainly contained lead and arsenic. And those were what were found at the sites. As I mentioned, the contaminates were found within the floodplain and they were also found in close proximity to the site as a result of historic placement of fill.

With the data that was collected, EPA and Sherwin-Williams then performed Human Health Risk Assessments. The results of the Human Health Risk Assessment showed that there were levels of contaminates within residential soils that exceeded EPA's acceptable risk range.

So -- you can move on to the next slide -- but once we trigger a health risk, that then warrants EPA to conduct an action. That action is then set for an objective. And our objective then for residential properties is to prevent the ingestion of, dermal contact with or the inhalation of contaminated soils.

I have on here the DEP residential criteria for soil, for both lead and arsenic.

All right. So I've described the residential soil sampling activities. I've described what the contamination was.

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Now, if you recall, I talked about the feasibility study which was considering what alternatives could clean up contaminated soil. I have on here five alternatives that were considered, but I've only highlighted two. And those two were the ones that were carried forward for consideration by EPA in comparison to criteria.

The other ones that we did not retain did not meet our criteria and were not considered further. So the focus of the remainder of this presentation is on these two alternatives.

And in summary they are basically either capping the contaminated soil or excavating the contaminated soil and putting clean fill in and doing property restoration.

So this slide does present EPA's nine criteria for evaluating alternatives. They are basically broken into three categories, and I'm going to discuss the three categories separately.

I have on here and highlighted community concerns, because as I mentioned, a requirement by EPA is to hold the public meeting to present the proposed plan and to hear from you, the public, as to your opinion of EPA's preferred remedy.

So the first criteria is threshold

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criteria. And that is, you can see the overall protection of human health and the environment and the compliance of state and federal regulations. Both capping and excavation of contaminated soils meet the threshold criteria because if you capped the contaminated soil you wouldn't come in contact with it, and if you excavated it, well, it wouldn't be there.

So both capping and excavating meet the threshold criteria and they move forward into comparison to the next category.

So when evaluating capping and excavation in comparison to long-term effectiveness, basically means if capping were to be performed, how long-term would its effectiveness be or permanence be. Our one concern with the permanence of capping is that some residential properties are along waterways where erosion could occur. Therefore, capping would require an element of maintenance.

Whereas if the material was excavated and clean fill was placed, the long-term permanence of that alternative would be much more effective. So in that regard excavation meets that criteria of long-term effectiveness.

When you look at the reduction of toxicity, neither capping or excavation of the soils reduces the

toxicity. Because they are all metals, they don't break down. Neither alternative addresses a reduction of volume because the same material would either be capped or the same amount of volume of material would be excavated.

The mobility, it would not -- I'm sorry. The capping would not reduce the mobility, whereas if the material was excavated and brought to a facility, it could be encapsulated and it would, therefore, reduce its mobility. So in that respect, excavation does meet a reduction of mobility.

Short-term effectiveness is basically what sort of impacts do either alternative have on the residents. In performing the capping, it would be less intrusive to the public because the contaminated soil would not be dug up, it would be capped in place.

Whereas digging up contaminated soils, there would be dust exposure and so on. However, there are engineering controls that could be taken in place to both reduce dust exposure as well as conducting air monitoring.

So while capping would potentially have a greater short-term effectiveness, there are engineering controls that would make the excavation activities also beneficial.

The implementability, both alternatives can be implemented. There is the construction equipment out there to do this work.

And finally, the cost. The cost of capping is approximately 7.2 million, whereas the cost for excavation is approximately 14.2 million.

So modifying criteria, these two criteria include DEP's concurrence of EPA's remedy. Well, DEP has reviewed the proposed plan and DEP does concur with EPA's preferred remedy. And finally, community concerns.

So in summary, based on the balancing criteria of the nine criteria, EPA does select and does want to select the preferred alternative of excavation of contaminated soils.

So that is, that concludes my presentation. And just in summary, EPA does prefer the alternative of excavating the contaminated soils from residential properties, placing clean fill in place and doing site property restoration.

So I know the mayor wanted to have a quick -- before we move on to the comments.

PAT SEPPI: Yes. I think Mayor Campbell has just a short speech -- not a speech. A 30 second.

And if anybody came in after we started and you haven't signed in, I would appreciate if you would

over at this side table.

MAYOR CAMPBELL: I would just make a public announcement, but before that I would like to thank EPA. Late last year a number of us have held many, many meetings with EPA late last year. EPA made a commitment that we would get to this point in 2015. And I'm really pleased that we're here in May and not December. So it's a really great day for all of us.

There's a process through EPA where technical services could be available. Gibbsboro has applied for those services, they have been granted. And we have a consultant, Teri Begoski, back here who will hold a follow-up meeting. It's going to be June 29th, it will be in Gibbsboro. And she will answer -- again, so what she will be is she's completely independent. It will not be an EPA pitch, it will not be a Sherwin-Williams pitch, it will be an independent pitch.

And then following that, the next day she will be available. You can sign up for individual sessions with her. So you'll be able to meet with EPA, you'll be able to meet with Sherwin-Williams and you'll be able to meet with somebody independent with any questions or concerns.

This is a great program that EPA has made available. I would encourage everybody to take advantage

of it. Whether you're from Gibbsboro or Voorhees, that service is available to you. So, that's all I have to say. Thank you.

PAT SEPPI: Thank you, Mayor.

Just a reminder, when you come up to give your comments on the proposed plan, if you would please come up to the mike. And then say your name and spell your name for Karen so she makes sure to get it right.

And anybody would like to make the first comment? Sir, please come up.

JAMES OWENS: Hi, my name is James Owens. I live in Gibbsboro down in the Terrace area.

PAT SEPPI: I'm sorry, would you spell your name for us?

JAMES OWENS: J-A-M-E-S, O-W-E-N-S.

PAT SEPPI: Thank you.

JAMES OWENS: I live down in the Terrace area. Now, if you drain the water in Kirkwood Lake, what happens to the water in Terrace Lake?

RAY KLIMCSAK: I'm not sure. We're not proposing to drain Kirkwood Lake.

JAMES OWENS: Well, I thought that's what this was all about.

RAY KLIMCSAK: No, no. I'm sorry. This is the residential soils preferred alternative. So these

were homes that were sampled during comprehensive sampling efforts. And basically we've run through a risk assessment and we said this is the alternative that we're proposing, the excavation of contaminated soils on impacted residential properties.

JAMES OWENS: Not from the bottom of the lakes?

RAY KLIMCSAK: No.

JAMES OWENS: Because I was wondering about the stench if the lakes are drained, what's that going to be like. But if they're not going to be drained, I'm sorry.

RAY KLIMCSAK: No, that's okay. It's a question.

BEVERLY OWENS: I'm the wife of James Owens, Beverly Owens.

Listen, I don't get it. We live in the Terrace, which, okay, if you don't clean up all that coming down and then it keeps running into Kirkwood Lake no matter what you do, it's going to still be there.

RAY KLIMCSAK: You're right. So there are many other elements to these sites that are not being discussed tonight. And, you know, they could certainly be discussed -- if we pull the other figure up.

So this is the first series of many steps

to clean up the various sites. So we're saying tonight we have a remedy that we feel is in place to clean up impacted residential properties.

The Dump Site that's up here, that's in the next queue to go through this process to get to the remedy. It's then going to be followed by United States Avenue Burn Site, we're going to clean that up. We'll clean up the plant.

This way all the sources that are feeding into Hilliards Creek are cleaned up first. And then we can clean up Hilliards Creek and move downstream to Kirkwood Lake.

BEVERLY OWENS: Yeah, that makes sense.

Now, give me an overall view of how long do you think this process will go on?

RAY KLIMCSAK: So we are targeting a process similar to tonight for each of the sites in consecutive years. So 2015 we have a residential ROD targeted. We have a Dump Site ROD targeted within the calendar year of early 2016.

We're working on the Burn Site, that's targeted for -- you know, it's going to follow almost every year, you know, one, two, three will be moving on these RODs and begin, you know, the process of cleaning up.

BEVERLY OWENS: Okay. Now, who's paying for it?

RAY KLIMCSAK: Well, I briefly mentioned that when EPA identifies Superfund sites, we also attempt to pursue responsible parties. The responsible party for these sites is Sherwin-Williams. And Sherwin-Williams has willingly come to the table and agreed to do the work.

They are paying for the efforts, all efforts, including EPA's time and effort on these projects. EPA bills Sherwin-Williams and they are paying those bills.

BEVERLY OWENS: Great.

RAY KLIMCSAK: So Sherwin-Williams has stepped up to the table to be an active participant of cleaning up these sites.

BEVERLY OWENS: Thank you, Sherwin-Williams. Because we can't afford to have a tax hike or something like that. We're a very small town. And it's run very efficiently and it's great that way. But we just wondered if we're going to, down the line, get hit with this.

RAY KLIMCSAK: No. Sherwin-Williams is an active participant in this process.

BEVERLY OWENS: Okay. Well, thank you very

much for all your information.

RAY KLIMCSAK: Any other question? Ed? Would you like to come up and introduce yourself?

ED KELLEHER: My name is Ed, E-D, Kelleher, K-E-L-L-E-H-E-R.

Ray, any idea, I'm talking about timelines, of when we're going to see shovels in the ground?

RAY KLIMCSAK: So I briefly had the steps after the Record of Decision, which is targeted for this --

ED KELLEHER: September.

RAY KLIMCSAK: -- September. We then begin the process of remedial design work, which will include some additional sampling just to identify the extent of areas that need to be excavated or addressed.

I think it's reasonable to say within a year and a half to two years there will be shovels in the ground if not sooner.

ED KELLEHER: And then when you look at the ROD targets, '16, '17, lake is what?

RAY KLIMCSAK: You know, it's probably 2018.

ED KELLEHER: I'm 73. I've been looking at this stuff for the last how many years? 35. My baby that I brought home to our house on the lake, you know,

is now 35. I don't have another 35 years. '18?
The county has come forward with a proposal. Is that still under consideration to do something with the lake out of phase with what naturally would be upstream to downstream? I understand that, but we got a lake that's dying.
If we're looking at a ROD in '18, I don't know, when is it remediated, 2025? May not be a lake in 2025.
RAY KLIMCSAK: Right.
ED KELLEHER: Is the county proposal being considered? Considered. I understand a plan needs to be seen, the devil's in the details. But is that still under consideration?
RAY KLIMCSAK: So for some of the people here tonight, you know, Kirkwood Lake --
ED KELLEHER: Thank you.
RAY KLIMCSAK: -- is owned by Camden County. And they have come to EPA to see if EPA is willing to review any sort of plans that they would have for addressing the lake.
I'm not sure if anybody from the county is here tonight. It wasn't the intention of tonight's program to have the county come up and present. But, you know, I think, Ed, that both Sherwin-Williams and EPA

have made themselves available and will continue to do so with the county as well as the residents along the lake.
PAT SEPPI: Thank you. Yes? Would you come up to the mike, please?
MARIE HAINES: My name is Marie Haines, M-A-R-I-E, H-A-I-N-E-S. I live at 15 United States Avenue. And I just have a couple questions.
They have tested in our basement and they tested out in the backyard. We have a stream beyond that. But across the street from us the ground's apparently contaminated and they got things there they're testing all the time. Every so often they're there testing.
When we got sewerages in Gibbsboro, we did not get it down United States Avenue our way because they said the ground was contaminated underneath the road and it would cost too much for the town to do that. Like the girl said before, we're a small town, we're very efficiently run. So they couldn't afford to do it.
Does Sherwin-Williams have any plans to correct across the street and underneath the street?
RAY KLIMCSAK: So that -- you know, I discussed the Dump Site, I discussed the Burn Site. We are actively looking at the former plant. The contamination that you mentioned that's beneath the

ground, we are actively looking at ways to address that like three-phase product that is there.
MARIE HAINES: And if they do that or even if they, you know, clean up United States Avenue where I live, is this all going to be Sherwin-Williams paying for it?
RAY KLIMCSAK: It is. That is part of the site and that is part of what Sherwin-Williams is actively --
MARIE HAINES: Because the Burn Site is only three houses from us.
RAY KLIMCSAK: Right. That creek that you mentioned in the back of your yard is White Sands Branch. And that is being looked at. And that's actually being considered because where it runs in your backyard, it's before it gets to the Burn Site.
Renee, who's also with the EPA and is the project lead for the Dump Site, she is looking at that stretch of the creek.
MARIE HAINES: Okay. And the road and across the street, is that going to be cleaned up?
RAY KLIMCSAK: So that, you know, that is on the -- yes. That's being considered and if it requires clean-up, it definitely will be. But not right now.

PAT SEPPI: Thank you. Alice?
ALICE JOHNSTON: My name is Alice Johnston, A-L-I-C-E, J-O-H-N-S-T-O-N. And I have a question.
I have three properties on the lake, all three are contaminated. My home where I live has 17 areas of contamination.
And we've had many discussions, as all you folks from EPA and Sherwin-Williams know, about recontamination and the willingness to clean Kirkwood Lake first or in conjunction with the rest of the site has been an issue amongst particularly EPA and Sherwin-Williams members. Because, again, you guys feel that it needs to be upstream first, downstream later, which seems to make sense.
So I'm confused why we're talking about cleaning residential properties when on a regular basis these properties overflow with water from the lake every time we get a heavy rain.
And I'm not understanding why you're not concerned about recontamination in that particular instance, particularly when there's exposure to residents. So can you please explain that to me?
RAY KLIMCSAK: So what we are looking at, both EPA and Sherwin-Williams, is the fact that this contamination that likely resulted on residential

properties was from the fact that the plant operated for 120 years.

And there's not active dumping now. The sediments are contaminated. We're looking at even, you know -- we're looking at the possibility of cleaning up those homes and considering the fact, would they be recontaminated. So we're being aggressive in looking at homes to clean those up to see whether or not they would be recontaminated.

ALICE JOHNSTON: Okay. So do I understand that you're not going to be cleaning up all the residential properties then at this time? You're selecting which ones to clean up?

RAY KLIMCSAK: No. Well, it's a good question because we're certainly going to start on the ones that are near the source areas where they don't have the chance to be recontaminated.

ALICE JOHNSTON: Okay.

RAY KLIMCSAK: So like the ones that I showed you on West Clementon that are outside the former paint plant, they're outside the floodplain. They present themselves to be the first properties to be cleaned up.

ALICE JOHNSTON: Okay. So how many properties are we talking about that are really being

cleaned up versus the 55 that are on the list?

RAY KLIMCSAK: Well, out of 55 that I cited, 33 are going to be cleaned up. Out of the 55, there was 14 no action -- if you recall in the proposed plan, it cited the number. There was 14 no action, there was 33 that were going to be cleaned up and there was a handful that needed some additional sampling because either the resident didn't grant access at the time or there was just very few samples collected.

ALICE JOHNSTON: Okay. I have not seen this proposed plan. So you will provide this?

RAY KLIMCSAK: Absolutely.

PAT SEPPI: I can send you to the link if you'd like to get it online.

ALICE JOHNSTON: Sure, that's fine.

PAT SEPPI: I'll send that to you.

ALICE JOHNSTON: Thank you.

PAT SEPPI: Yes, sir?

KK WU: My name is KK Wu. I am Voorhees resident. I have a couple questions for Ray.

First, you know, you have two option, cleaning --

RAY KLIMCSAK: Capping or excavating.

KK WU: Capping or excavating. And one costs about 7.2 million.

RAY KLIMCSAK: Right. Capping.

KK WU: Capping. And then excavation costs about 14 million. I just wondered, have you done the cost effective analysis, you know, before you make that decision?

RAY KLIMCSAK: I'm sorry, I didn't understand the question.

KK WU: The cost effectiveness analysis. You got two options that have a cost. Which one is more cost effective?

RAY KLIMCSAK: Being that these are residential properties and we want it to be the final remedy for residential properties, the capping, as I mentioned, would require -- potentially because they're along waterways -- it would require maintenance if they underwent erosion.

What I didn't mention, and I apologize, during the presentation, is capping would also require a deed notice be put onto that property. And being that these are residential properties, that is not a really good option to have a resident sign a deed notice to say: This is going to be here on your property and that's where it's going to stay.

So there were other -- there was other criteria that EPA used in selecting excavation over

capping, it wasn't based solely on cost.

KK WU: Okay. But I understand, you know, the decision, you know, to be considering, you know, the cost effectiveness. Because cost is a very, you know, big factor, you know. You talking about double, you know, the cost.

RAY KLIMCSAK: And it's largely because of disposal costs.

KK WU: Yeah. I mean --

RAY KLIMCSAK: That makes up a large part of the cost for excavation.

KK WU: Yeah, yeah. Both can do the job. I would prefer do the minimum cost. You know, that's my suggestion.

The second question is I hear the residents in here, they're very frustrated. You know, waiting for 35 years, you know, this Superfund site. It had adverse effect on our natural resource and also adverse affecting their home value and their quality of life.

You know, we can send a man to the moon, you know, but we can't do things for the people in here. I mean, I can understand their frustration.

But what I'm suggesting you, if you considering, you know, just like the Dump Site and the Burn Site, you know, they are clean up -- the clean-up

method, I think they are similar, you know, it could be capping or evacuation, you know. But why can't we, you know, put it together, you know, do it at the same time, you know, to speed up our clean-up process? I think that will at least relieve some of the pain they have, you know, to speed up the process.

Same thing apply to the Hilliards Creek. You know, in the Kirkwood Lake, I mean, it's almost is identical, same procedure, clean-up method. Why can't we combine them together? You know, move up, you know, speed up our timeline. I think that's what I hope you are considering, you know. If it makes sense or not.

You know, we, the United States of America is the best technology, you know, in the world, you know. But if you can't -- you know, people are suffering, you know, why can't we do something. You know, that's my suggestion. I hope you considering it.

DOUG BIEMILLER: Doug Biemiller, 185 Kirkwood Road, B-I-E-M-I-L-L-E-R. I've got nine acres that runs right along Hilliards Creek there. And I just got a question.

Why did my neighbor like 10 or 12 years ago have all his lane cleaned up and not my property or any other properties? They went in and excavated his whole ground, put up fence, put shrubbery up and they didn't do

anything to my property.

RAY KLIMCSAK: You're right.

DOUG BIEMILLER: Do you know who I'm talking about?

RAY KLIMCSAK: Yeah. I wasn't on the project then but I know there was a --

DOUG BIEMILLER: Why was he picked out of everyone else in Gibbsboro?

RAY KLIMCSAK: I don't know the answer to it, sir.

PAT SEPPI: But we can get an answer and get back to you.

DOUG BIEMILLER: Well, I just don't understand any of it.

PAT SEPPI: How long ago was it?

DOUG BIEMILLER: I can't give you the exact year.

RAY KLIMCSAK: I think it was '03.

DOUG BIEMILLER: But they worked on it for over a month on his property. And I asked them why aren't they coming down to my property, and they wouldn't give me an answer.

PAT SEPPI: Do you know what property that would be?

RAY KLIMCSAK: I do. And I don't know the

answer as to why.

PAT SEPPI: And did you sign in so we have your name?

DOUG BIEMILLER: Yes. I live right across from Triple K farm.

PAT SEPPI: Okay. We will get back to you.

ALICE JOHNSTON: It's pretty commonly known in our neighborhood, there was a settlement on that property.

PAT SEPPI: I guess neither one of us was involved at that time.

RICH PUVOGEL: That wasn't a settlement that involved EPA, so we're not part of it.

DOUG BIEMILLER: Who did it involve then?

RICH PUVOGEL: I don't know anything about it, so I couldn't speculate on it.

DOUG BIEMILLER: How did he get picked and not anybody else?

RICH PUVOGEL: Good question.

AUDIENCE MEMBER: Maybe they want to come settle my house.

RICH PUVOGEL: I'll talk to you later about it.

ALBERT HAINES: My name is Albert Haines. As my wife previously said, we live on United States

Avenue.

I have a question for you. You have the Burn Site fenced in. As a matter of fact, that comes all the way up to the back of my house. You have the Dump Site as I understand it fenced in. Correct?

RAY KLIMCSAK: Correct. We have also portions of the Gibbsboro Wildlife Refuge.

ALBERT HAINES: That's right. You have Hilliards Creek fenced in. Correct?

RAY KLIMCSAK: Yes.

ALBERT HAINES: On both sides of Hilliards Road. Why are they fenced in?

RAY KLIMCSAK: So, to answer the question of why particular areas were fenced in, they were sampled and they were found to be much, much more contaminated than other portions. And so they were fenced off to restrict trespassers or exposures to it while this process ran its course.

So when we refer to the sites, the fenced portion of the Dump Site and the Burn Site, that was the first extent to define those sites. And they were fenced off because of the concentration of the contaminates there.

ALBERT HAINES: In other words, they still could be releasing toxins into the streams, correct?

RAY KLIMCSAK: That's correct.
ALBERT HAINES: If they're releasing toxins into the streams, it is also going into Bridgewood Lake?
RAY KLIMCSAK: Bridgewood Lake was tested --
ALBERT HAINES: Why isn't the lake fenced in?
RAY KLIMCSAK: So it's a private lake. It's owned by the gun club. EPA has met with the owners of the gun club to, you know, have catch and release for the fish there.
ALBERT HAINES: You also have the right of eminent domain, right? So you can get it that way. Also why isn't Kirkwood Lake, and I don't believe that's all private, why isn't that fenced in?
RAY KLIMCSAK: I mean, the concentration both in Bridgewood Lake and Kirkwood Lake are much less than the concentrations within the Dump Site and the Burn Site.
ALBERT HAINES: So, therefore, it's not really hazardous? It is hazardous, but not as hazardous as the streams are and all? Is that true?
RAY KLIMCSAK: Of the portions fenced in, that's correct. They're literally hundreds to not 200 times greater in concentrations within the fenced areas

than outside.
ALBERT HAINES: Okay. The reason why I question everything is I grew up in town, from a small kid on up. I've lived in town all my life. So did my father and his father. Okay.
I have swimmed in Silver Lake, I have swimmed in Bridgewood Lake, I swimmed in Kirkwood Lake. As a matter of fact, a few years ago I had a canoe and I used to put it in Kirkwood Lake.
I would canoe all the way up past what we, what is known as Bruins, where they lived and all, almost all the way up to the dam. Okay. Going up there and down in my canoe, I didn't see hardly any boats in back of the houses on Kirkwood Road.
I didn't see any fishing poles leaning against trees or anything where the kids, which would, had to lean their fishing poles, you know, unless they just bought fishing poles. But we didn't buy fishing poles, we went out and cut a sapling down and we made our fishing poles.
So I didn't see anything out there like that. I didn't see the lake being used.
Silver Lake was used. As a matter of fact, John Lucas and I understand the Johnsons who lived there for years had a speed boat on Silver Lake. And they kept

most of the stuff down, most of the weed growth.
So if you're not going to use the lake, weeds are going to start growing in and they're going to choke your lake off. But you got to use it to keep it down. Okay. Thank you.
PAT SEPPI: Anyone else have a comment? Questions?
RAY KLIMCSAK: Could I see a show of hands how many people did not receive the proposed plan?
PAT SEPPI: Well, we didn't send out a hard copy. What we sent out to everybody was the, our EPA web page with a link to the proposed plan.
ALICE JOHNSTON: But the letter said it would be available in two weeks, and the letter went out on the 27th of May.
RAY KLIMCSAK: Actually released June 1st.
PAT SEPPI: And the web page URL was also in the press release and the public notice that appeared in the paper. So that's where we would figure most people got their copy.
So I mean, I can certainly -- if you have a pen right now I can give you, you know, the URL for it. If you want to go online and you can read it online, you can print it out, whatever you want to do.
RICH PUVOGEL: Yeah, Pat, if you would just

say that out loud.
PAT SEPPI: Okay. It's http://www.epa.gov/superfund/npl/sherwin/.
AUDIENCE MEMBER: What if you don't have a computer?
PAT SEPPI: That's what I said in the beginning, if somebody doesn't have a computer and would like a hard copy, come and let me know and then I can send them a hard copy.
RICH PUVOGEL: It's in the letter.
PAT SEPPI: Did everybody get that? Okay. So just let me know, you know, before you leave, give me your name and address and I will get a hard copy to you.
Any more comments? Now, remember, you have until July 2nd to make comments to Ray. You can either e-mail them to him or you can send them to him. If you need his address, I believe it's also in some of the information we sent out, but we'd be happy to share that with you again tonight.
Close of business July 2nd. And don't forget that Elaine is in the back of the room with a calendar. So if any of the people on the residential properties got letters and would like to set up an appointment with us to talk about their particular residence, please do so. Because we're really anxious to

get out and meet with you and talk about, you know, your property. I think that's it.

ALICE JOHNSTON: I have one question.

PAT SEPPI: Sure, Alice.

ALICE JOHNSTON: My name is still Alice Johnston, still spelled the same way.

I guess the next question I have, and I for one -- I think a lot of other people probably made the same assumption, when the letter was dated May 27th and said that the plan would be available in approximately two weeks, probably never checked because they assumed it would not be up by the time of the meeting. So I will go on and check it.

But my question is that since not all the properties are being done early on, and I understand that this portion of the clean-up is supposed to take three years and it will not start until a year from now, how long -- if you're only, if you're only taking care of a portion of those properties, how long is it actually going to take to complete the rest of the properties and the rest of the project?

I mean, realistically. I'm having a hard time believing that 2018 there's going to be an ROD to clean Kirkwood Lake. This is 2015, we're in the middle of that. It took 35 years to get here. Having a hard

time believing in three years we're going to be talking about an ROD for Kirkwood Lake.

So the properties, I mean, I'm assuming that those properties on that end are going to be done close to when the lake is being cleaned. Is that correct? I mean, we didn't even plan to live there that long. I mean, no offense. Wow. Help me out here.

AUDIENCE MEMBER: Cut the time of the meetings down.

ALICE JOHNSTON: I mean, KK Wu made an excellent suggestion. It's been brought up before. Why can't we do these things in concert? Why does it have to be strung out one after the other? Why can't they, why can't some of these projects occur at the same time?

PAT SEPPI: Rich, do you want to --

RICH PUVOGEL: Well, what we're trying to do as we sequence the work, starting with the residential properties and going to the Dump Site and Burn Site, as the residential properties are addressed and starting in design, then the Burn Site starts in with a Record of Decision, a decision follows, the Dump Site, the remedial design then follows the Dump Site.

So while remediation would be starting for the residential properties, then the design would kick in for the Burn Site after a decision is made to address the

Dump Site. And following the Dump Site, as remediation goes on on the residential properties, the Burn Site follows that.

It's difficult to keep these all together, especially when we're so far ahead on the residential properties. And we've characterized the residential properties fairly well. EPA wanted to come out with a decision on those and address those first with a decision.

Some of the tough questions you're asking is when are the properties going to be addressed and on the lake. And we're going to sort that out through design as we move forward.

Those are questions for design. And they're really good questions and we'll be dealing with that as we go down all the road.

It's difficult to put all this all at the same time. And what we'd be waiting for is the Hilliards Creek and the Kirkwood Lake portions of the project to catch up to everything else, when we're so far ahead on these source areas that are up in Gibbsboro.

We'd like to start on those first. Because eventually when you're doing the clean-up, you'd like to get the source areas first, then the downgraded or downstream areas next to protect those from being

recontaminated.

If you did the downgraded areas first, the risk of -- there's a risk of recontaminating them if you don't control or don't have adequate control on the source areas.

PAT SEPPI: Mr. Kelleher?

ED KELLEHER: They put the dam up. It has no core. There's no sluice.

AUDIENCE MEMBER: Stand up to the mike, please.

ED KELLEHER: I'm also still Ed Kelleher. And I live on Kirkwood Lake and I have for 35 years. The point I was making here is without consent, without meetings like this, without hearing anything -- and I'm disappointed as hell that nobody from county is here tonight. The county put in that dam.

It has no core. It has no sluice. The effect of that is they've made -- it's like a catch basin out of Kirkwood Lake.

In the last say five, six years since that dam went in, the solid dam, it used to be boards and residents would take them out and increase the flow. We never had the spatterdock problem that we had.

The gentleman had an anecdotal comment about he doesn't see boats on the lake. Well, if he were

out, you know, this week, last month, in the last year, he'd certainly see boats on the lake.

Two years ago there were no boats on the lake because spatterdocks, an invasive species that thrive on shallow waters, still waters, they've just inundated. The stream in the middle of the lake was maybe ten feet wide, the channel.

Did anybody see the movie African Queen? It reminds me of Humphrey Bogart. I mean, you can't even row in there. You're pulling, that's how bad it got. The lake is shallow, it's getting shallower by the day. And it has been used but not effectively.

I'm a property owner. So first I say I salute -- KK is a distinguished and fine gentleman and I associate myself with much of his comments. But not about the capping versus the removal of the dirt. That's the preferable alternative, and the cost doesn't matter to me. That's going to be borne by Sherwin-Williams, is it not?

RAY KLIMCSAK: Correct.

ED KELLEHER: Yeah. So I -- if I'm a property owner, if it was going to be capped, I sure as heck would not want, you know, some kind of deed indication that that was the case. I mean, that's -- I don't agree with that at all.

The lake is still being used. He says where are the fishing poles? Well, I got tired of every time I threw a line in the water from the shore, I'd lose hook, line and sinker because the spatterdocks -- you know what they look like, the tubers are this big, the fronds are that big, you can't even draw a line out. It's gotten better now that the county has been spraying for spatterdocks, but it doesn't change the situation there.

The lake is too shallow. It gets more and more sediment. Now, that basin, that's the result of 75 years' worth of residential construction, Gibbsboro and all the way up. No offense to Gibbsboro residents, but before the sewer lines went in we used to accept raw sewage. So it's all that.

Once that comes out, you're talking about we want to upstream the downstream, we don't want recontamination. Any recontamination is going to be nothing like what it is now. It's like you scour your tub out, right, and some water comes in, and there might be some particulates suspended in that water but it's not going to be like it's been. And it's not going to result in anything like we have now.

And what we have now is a big problem and I'd like to see more concern on the part of the responsible parties. Thank you.

PAT SEPPI: Yes, sir?

DAVE EVANS: Dave Evans, 18 United States Avenue, Gibbsboro. E-V-A-N-S is the last name. I own two properties, one at 10 Stevens Drive in Kirkwood, and one at 18 United States Avenue.

I want to address the 10 Stevens Drive property which was formerly my mom's. As I understand what you just said, you're going to look at the residential properties and get them through to remedial design, right?

And then you're going to look at the Burn Site and the Dump Site upstream. And are you planning to remediate those sites before you come on the residential properties to decrease the effect of contamination?

RICH PUVOGEL: Right. We're going to look at the residential properties in Gibbsboro first that are closer to the source areas --

DAVE EVANS: What about my house?

RICH PUVOGEL: We're looking at those, too, during the design. It's not done. We'll do the design for all the houses identified.

DAVE EVANS: But you're not going to remediate until you remediate the Burn Site?

RICH PUVOGEL: We have to see what --

DAVE EVANS: So effectively it's going to be 2019, 2020 --

RICH PUVOGEL: It might be. But we have to look at that in design to how effective we can control, remedy --

DAVE EVANS: But I think that that goes to the comments of the other people that came up here saying that why can't you do this in parallel so that you can effect the remediation of properties like the one at 10 Stevens Drive, and all the other ones along Hilliards Creek, upper Kirkwood Lake. Because they're the ones that are the mostly contaminated properties.

So you weren't clear -- initially I was assuming that the residential properties were going to be taken care of first, and then Burn Site and then Dump Site. But that is not the case.

RICH PUVOGEL: That is not the case. We're going to -- that is the objective to achieve that we're looking to achieve. However, we have to look at how the sediment rolls and migrates down. If we can --

DAVE EVANS: But effectively it's not a year and a half --

RICH PUVOGEL: Correct.

DAVE EVANS: -- before I get shovels in the soil.

RICH PUVOGEL: Start on one particular property. We'd like to start shovels in the soil on some properties. We don't know which ones yet, because we haven't designed it yet.

DAVE EVANS: But again, we can do this in parallel in order to cut down that period of time. Because otherwise we're going to talk about five, ten years before my properties are taken care of.

RICH PUVOGEL: We'll try as best we can to move the process forward.

AUDIENCE MEMBER: Just cut out the length of the meetings.

PAT SEPPI: Al, you had another comment?

ALBERT HAINES: I have a question for this gentleman here. You said that the lake is shallow on both sides and there's spatterdocks is growing there, right?

ED KELLEHER: Sure.

ALBERT HAINES: How did it get so shallow? Don't tell me it's from Lucas or from Sherwin-Williams.

ED KELLEHER: It's the cumulative silt that all comes down. And much of that is contaminated by Sherwin-Williams and Lucas, what they left us. Yes, sir.

ALBERT HAINES: Okay, that's some. That's some. How about from coming in from off of your property

and the property on the other side of the lake coming in and going into the lake which is only natural?

ED KELLEHER: Well, on the other side of the lake, that's the High Speed Line. And I don't know whether you guys even talked to those folks. I used to see phosphorus bubbles coming up when they first built that. They would clean their trains, right. And that just ran off.

ALBERT HAINES: Right.

ED KELLEHER: And, yeah, we got a lot of junk that's been coming downstream for a long, long time, sir.

ALBERT HAINES: It's not just coming downstream, it's coming off the sides of your lake.

ALICE JOHNSTON: Of course it is. Every lake in the country you have runoff.

ALBERT HAINES: That's right. So you got to keep it down, don't you, if you don't want spatterdocks?

PAT SEPPI: I'm sorry, wait a second, please.

ALICE JOHNSTON: (Inaudible) originally put that dam in. Well, it was changed in 2008 and now the water cannot flow. So everything is very still. The lake does not flow anymore like it used to.

PAT SEPPI: We really can't have side conversations, I'm sorry, because we're trying to get this into the transcript. So you can certainly come up and say what you'd like to say.

ALBERT HAINES: Thank you.

KK WU: I have a follow-up comment. I think the gentleman in here is right. Because when you saying, you know, we trying to do it step by step, that's the ideal way to do it. But we are under the gun. You know, the people are frustrated.

It's always the solution, you can do both job at the same time. It's just a matter of prioritizing and also the resource, putting more resource to do it. You can do it. Okay.

You know, in the business or in -- I work for EPA before, you know, we can do it both jobs in the same time. No question about that. It's just a matter of resource you putting in here.

And, you know, same thing when I running a business, same. The more jobs come in, I'm really happy, you know, more business. You know, same thing. You just hire more people and get the job done and make everybody happy.

I mean, it can be done. What I'm saying, you know. I'm engineer. But we did that all the time.

All right?

PAT SEPPI: Thank you. And I think that's what Rich is trying to say. I mean, that's exactly what we're trying to do is to see how we can work to get these done as quickly as possible.

KK WU: Great, good. Thank you.

PAT SEPPI: Any other comments? No? Don't forget July 2nd, please. You can certainly send comments to Ray.

Thank you very much. We really appreciate you coming out. And again, don't forget to sign up in the back if you wanted to set up a meeting with us.

Good night. Thank you.

(Meeting concluded at 8:09 p.m.)

CERTIFICATE

I, Karen L. Siedlecki, a Certified Court Reporter and Notary Public of the State of New Jersey, do hereby certify that the foregoing is a verbatim transcript of the meeting as taken stenographically by and before me at the time, place and on the date hereinbefore set forth, to the best of my ability.

I DO FURTHER CERTIFY that I am neither a relative nor employee nor attorney nor counsel to any of the parties to this action, and that I am neither a relative nor employee of such attorney or counsel, and that I am not financially interested in the action.

Karen L. Siedlecki, C.C.R.
Notary Public, State of New Jersey
My Commission expires 2-17-19
NJ C.C.R. License No. XI-01958
Dated: June 22, 2015

q

Attachment D
Written Comments

Klimcsak, Raymond

From: Mary Lamielle <marylamielle@verizon.net>
Sent: Wednesday, June 24, 2015 2:03 PM
To: Klimcsak, Raymond
Cc: Larry Spellman; Mike Mignogna
Subject: Sherwin Williams clenaup and remediation in Voorhees & Gibbsboro

Hello Raymond,
I live in Voorhees along the Main Stem of the Cooper Creek downstream from Kirkwood Lake. I've lived here my whole life—over 60 years. When I was a child I remember the creek running different colors, with paint odor and residue along the creek bed. I wanted to know if the soil has been tested downstream or if arrangements can be made with EPA or the cleanup contractor to do so.
Look forward to hearing from you. Mary Lamielle (856)816-8820

Mary Lamielle, Executive Director
Recipient of a 2012 Camden County Freedom Medal, a
2011 New Jersey Governor's Jefferson Award, and a
2010 US EPA Region 2 Environmental Quality Award
National Center for Environmental Health Strategies, Inc.
1100 Rural Avenue
Voorhees, New Jersey 08043
(856)429-5358;cell (856)816-8820
marylamielle@ncehs.org

Klimcsak, Raymond

From: Larry Schneider Jr <lsjr@mac.com>
Sent: Monday, June 29, 2015 11:40 AM
To: Klimcsak, Raymond
Subject: Gibbsboro and YOPD

Hello, Ray. I am a resident of Gibbsboro, NJ and have been since 1978. I am 45 years of age and my family moved to Gibbsboro when I was 8.

I am writing you today to ask if there are any lawsuits, that you are aware of against Sherwin-Williams by a/the resident(s) of Gibbsboro.

My family had well water that we drank/showered/played in/from and I am seeking legal accountability for contributing to my development of Young Onset Parkinson's Disease.

Feel free to reply to this email at your earliest convenience.

Thank you,

Larry Schneider Jr.

Klimcsak, Raymond

From:	njpikes@comcast.net
Sent:	Wednesday, July 01, 2015 2:14 PM
To:	Klimcsak, Raymond
Cc:	Mmignogna16@comcast.net; Kkw888@aol.com; Alice Johnston
Subject:	Comments on EPA Proposed Plan
Attachments:	Comments on the EPA Plan.docx

Hi Ray. Attached are my personal comments on the Proposed Plan for the Sherman-Williams /Hilliard's Creek Site Residential Property Excavation. In summary, I support the excavation and off-site disposal of the contaminants. I have included comments that apply to the Preferred Alternative. Thank you for your consideration of these comments. If you have any questions on these comments I can be reached at (856) 783-6130. Jeffrey Pike.

Ray Klimcsak, Remedial Project Manager
US EPA Region 2
290 Broadway 19th Floor
New York, New York 10007-1866

July 1, 2015

Dear Mr. Klimcsak:

Thank you for the opportunity to review and comment on the June 1, 2015 Proposed Plan for the Residential Properties at the Sherwin-Williams/Hilliard's Creek Site.

I fully support the Preferred Alternative of excavation and off-site disposal of contaminated soils.

I encourage EPA to move expeditiously to negotiate a Consent Decree with Sherman-Williams to conduct the design and remedial action. If there are delays with the negotiations, issue a unilateral order to Sherman-Williams to complete the design while a Consent Decree is negotiated for the remedial action.

My specific comments are as follows:

The excavation and off-site alternative calls for clearing vegetation from the contaminated properties. I ask EPA consider leaving in place some or all of the large trees that line the edge of Kirkwood Lake. Some of these trees have stood on the lakeside for many decades and every effort should be made to avoid cutting them down and grinding up the roots to achieve cleanup levels. There are strong environmental benefits to having trees along the edge of the lake.

The revegetation of the properties should include native species and be diversified.

The design should specify what actions the contractor needs to take if archaeological artifacts or buried drums or containers are found during excavation.

Truck routes for the waste removal need to be worked out in consultation with Voorhees and Gibbsboro Public Safety Officials. The trucking should avoid impacting School Buses and rush-hour traffic.

The boundary between the residential property excavations and the lake or stream edges needs to be clearly defined. The presumed remedy for Kirkwood Lake is excavation/dredging, so make it easy for the next action to proceed.

Erosion and sediment control will be very important during the excavation and revegetation efforts. Because of the impacts of contaminated material erosion and sediment loss into the lake, the contractor should have a performance standard in their contract to prevent erosion. A few bales of straw or a poorly installed silt fence will not be enough.

The specified perimeter air monitoring for dust should include real-time monitoring with action levels set for when the contractor needs to stop work and remediate the release. The air monitoring should be conducted by an independent firm, with no contractual ties to the excavation contractor.

During the June 2015 Public Meeting it was mentioned that there is some concern over the possible recontamination of residential properties if the up-stream contamination is not addressed first. I ask that EPA evaluate the impact of 100 year storm events on the Sherwin-Williams sites and possible contaminant transport to the lake properties. If the concern is great enough, remediate at least the residential areas above the 100 year flood levels. Residential exposure needs to be addressed immediately and cannot wait until all the other remedial actions are completed.

I ask that the public be allowed to review and comment on the 30, 60 and 90% design submissions at the same time EPA receives these documents. We do not want to slow down the design timeline at all, but feel public review early in the design process will result in a better final design.

Sincerely,

Jeffrey Pike
5 Farmhouse Lane
Voorhees, NJ 08043

From: Campbell, Edward G <edward.g.campbell@lmco.com>
Sent: Tuesday, June 30, 2015 8:50 AM
To: Klimcsak, Raymond
Cc: Seppi, Pat; Puvogel, Rich; Anne Levy; Maria Carrington; Terrie Boguski; Jeff Nash
Subject: RE: requesting an extension to the public comment period

Importance: High

Ray,

On behalf of the Borough of Gibbsboro, I would like to formally request a 30 day extension to the public comment period regarding the Sherwin Williams/Hilliards
Creek Superfund Site Proposed Plan for Residential Properties. As you may know, the Gibbsboro/Voorhees Township area sustained significant damage last week
from severe thunderstorms resulting in power outages of as much as five (5) days. This limited computer and therefore, internet access for many in the area.
Also, scheduling constraints led to our public meeting with our TASC representative being held last night (June 29) and it appears many in attendance would like
to submit comments. In order to maximize the opportunity for public participation and comment, I believe that an extension is warranted.

Thank you for your consideration of this request.

Ed Campbell,
Mayor Gibbsboro Borough

From: Campbell, Edward G [mailto:edward.g.campbell@lmco.com]
Sent: Saturday, August 01, 2015 8:36 PM
To: Klimcsak, Raymond <Klimcsak.Raymond@epa.gov>
Cc: Anne Levy <gibbyclerk@comcast.net>; Maria Carrington <deputyclerk@gibbsborotownhall.com>; Puvogel, Rich <Puvogel.Rich@epa.gov>; Seppi, Pat <Seppi.Pat@epa.gov>; Terrie Boguski <tboguski@skeo.com>
Subject: Comments on Proposed Cleanup of Residential Soil

Ray,

In general I support EPA's plan. Attached are my specific comments and questions regarding the plan.

Thank you for answering my questions and extending the comment period.

Edward G. Campbell
Mayor – Gibbsboro, NJ
Senior Principal Research Engineer
Lockheed Martin
Mission Systems and Training (MST)
760-2 Tech Campus
Mt Laurel, NJ

(856) 359-1800

Comments Regarding the Proposed Plan for Cleanup of Residential Properties in Gibbsboro and Voorhees Township, Camden County, New Jersey

These comments are submitted on behalf of Edward G. Campbell, III, Mayor of the Borough of Gibbsboro.

1. Regarding the Soil Removal Process:
    a. Specific residences should be notified of a tentative schedule involving the cleanup of their property at least 30 days in advance. Final confirmation should be supplied seven days in advance. The local police and governing bodies should receive the same notices.
    b. Where necessary, contractors should contract with the local governing bodies for local police to provide security for activities within or near to roadways and to provide safe access to roads for construction traffic.
    c. The implementation plan needs to address the potential for re-contamination for all properties adjacent to a site or source to be remediated at a future date.
    d. The implementation plan needs to address the measures to be taken to assure that soils from adjacent properties that will be addressed at a later date are not disturbed during the residential clean up.
    e. The implementation plan needs to address how dust will be controlled and, depending on the plan, how contaminated particles in dust will be collected and disposed of.
    f. Will any residents be required to vacate their properties during the cleanup process? If so, will their expenses be covered by Sherwin Williams? If they do not need to vacate the properties, how will they be protected from exposure during the cleanup process?
    g. The implementation plan needs to address how fences and other removable structures will be dealt with. Will they be decontaminated and reinstalled or replaced? If replaced, how will they be disposed of?
    h. Will restoration work be bonded?
        i. If shrubs are removed and replaced then die is the contractor responsible?

ii. If grass is not re-established, will the contractor be required to reseed the lawn?
iii. For those properties with large trees, the removal process may result in damage or the death of those trees. Will the contractor or Sherwin Williams be responsible for the survival of the trees for some period of time? Should trees die will they remove them and replace them with a reasonable replacement?

2. Regarding the off site (with respect to the property from which they are removed) stockpiling of contaminated soils:
    a. Any areas that are to used to stockpile contaminated soils need to be secured from public access.
    b. Proposed storage areas should be disclosed to the public and approved by the local municipality.
    c. Transportation routes to local stockpiling sites should be disclosed to the public and approved by the local governing body.
    d. The transportation of contaminated soils must be in sealed drums or in vehicles that are load such that no material or dust will escape.
    e. Off site storage of contaminated soils must be in sealed drums or within a volume that is not easily penetrated.
    f. No material should be stored off site more than seven days.
    g. Off site storage should be screened such that it cannot be seen from any residence, business, public building, public recreation area, or public street.
3. Regarding the stockpiling of contaminated soils on site:
    a. Any residential properties on which contaminated soils are temporarily stored need to be secured from public access.
    b. Proposed areas should be disclosed to the public and approved by the local municipality.
    c. The on site storage of contaminated soils must be in sealed drums or within a volume that is not easily penetrated.
    d. No material should be stored on site more than 24 hours.
4. Regarding the decontamination of vehicles used to transport contaminated soils:
    a. A process needs to be established to remove contaminated particles from trucks before allow transit on public streets.

b. The process should also address the collection and security of contaminated particles removed during the decontamination process.
c. The process needs to be disclosed to the public and local governing bodies.

5. Regarding the hours of operation:
   a. All work within Gibbsboro or Voorhees Township shall comply with local ordinances regarding commercial operations and noise.
6. Regarding the use of "NJ DEP's Compliance Averaging":
   a. I oppose the use of compliance averaging.
   b. Under compliance averaging small pockets of contamination may be left unmitigated AND the guidelines permit that no deed restriction must be imposed on that property.
   c. The absence of a deed restriction eliminates any notice to future property owners that there is a small hazard on their property.
   d. Given that a PRP is identified and funding the cleanup, I believe that every sample point that exceeds acceptable limits must be investigated AND removed: It is unacceptable to leave undocumented contamination, no matter how small. Property owners deserve "clean" properties.
7. Regarding the Gibbsboro Elementary School property:
   a. Gibbsboro hosted a broad public meeting in late June that drew a wider area of interest. A few residents have requested assurances that the Gibbsboro Elementary School does not have any contamination from Sherwin Williams within its boundaries. Given the school's proximity to the former manufacturing plant I am requesting the EPA direct Sherwin Williams to perform sampling at the school.

-----Original Message-----
From: Alice Johnston [mailto:johnston15@comcast.net]
Sent: Friday, July 31, 2015 3:33 PM
To: Klimcsak, Raymond <Klimcsak.Raymond@epa.gov>
Subject: EPA Comment Letter
Importance: High

Dear Ray,

Attached are my comments to be considered for the Sherwin Williams Hilliard Creek Site. I look forward to your response.

Thank you.

Alice & William Johnston

July 31, 2015

Ray Klimcsak, Remedial Project Manager
US EPA Region 2
290 Broadway 19th Floor
New York, New York 10007-1866

My comments regarding the EPA June 1, 2015 Sherwin-Williams /Hilliard's Creek Site Residential Properties Proposed Plan are as follows:

I wholeheartedly agree that remediation to residential properties is of the utmost importance. However, since Kirkwood Lake is also highly contaminated and exposure is very high, the residential properties along with the lake should be completed in concert with one another. It simply cannot wait until the end of all the other remediation. Concern over a 100 year flood is even more dangerous if it occurs prior to the lake remediation in that if it occurs, the contamination will continue to Cooper River contaminating many other towns, residential properties and waterways along the way in addition to the overflow to residential properties already contaminated. Please remediate the lake and residential properties together to lower the risk of exposure to residents.

Furthermore, It is my understanding that vegetation is cleared when remediating contaminated properties. This is of major concern since many of the trees and vegetation on residential properties surrounding Kirkwood Lake have been there for years and are actually good for the environment. I would like to request that trees (especially large or long standing trees) be preserved. Also, I ask EPA to consider utilizing native species for other, smaller vegetation that cannot be saved and must be replaced.

As discussed at our one on one meeting in June, I would like to know what the plan is in the event archaeological artifacts, buried drums, containers, etc. are found during excavation.

Residents are concerned with air quality during remediation and erosion on their properties. Please outline/specify how this will be done so residents are protected from further exposure.

Thank you,

Alice & William Johnston
12 Stevens Drive
Voorhees, NJ 08043

Klimcsak, Raymond

From: Rosana <mawson2@verizon.net>
Sent: Thursday, July 30, 2015 4:11 PM
To: Klimcsak, Raymond
Subject: Ray Klimcsak Remedial Project Manager Residential Cleanup Kirkwood Lake

Importance: High

Mr. Klimcsak,
This letter is in regard to the residence at 1224 Gibbsboro Kirkwood Road, Kirkwood.

While my property does not have high enough levels of contamination for remediation the adjacent properties do. These properties, on either side, are higher, in elevation, than mine and during heavy rains there is run off from the next door neighbors' yards into our yard making it soggy. And that is excluding any overflow from the lake onto our banks.

My questions are below.

1. While the properties on either side are being remediated, how will you ensure that no contamination comes onto my property through erosion from rain water, wind, etc ?
2. What kind of protection will there be for my property against any contaminates that may be washed into the lake during the remediation, from heavy rains, which in turn floods my bank?

It seems that cleaning the lake in conjunction with cleaning the residential sites would alleviate the problem of contaminiating any further those properties that do not need remediation.

Thank you for your time.

Sincerely,

Rosana B. Mawson

SHERWIN-WILLIAMS.

THE SHERWIN-WILLIAMS COMPANY
Environmental, Health & Regulatory Services
101 Prospect Avenue NW
Cleveland, Ohio 44115-1075
Facsimile: (216) 566-2730

July 29, 2015

Mr. Ray Klimcsak
Remedial Project Manager
U. S. Environmental Protection Agency, Region II
290 Broadway, 20th Floor
New York, N.Y. 10007-1866

Re: Comments on EPA's June 1, 2015 Proposed Plan for Residential Properties at the Sherwin-Williams Sites in Gibbsboro and Voorhees, New Jersey

Dear Mr. Klimcsak:

The Sherwin-Williams Company (Sherwin-Williams) is pleased to submit these comments on EPA's June 1, 2015 Proposed Plan for the residential properties adjacent to the Route 561 Dump Site, the United States Avenue Burn Site, and the Sherwin-Williams/Hilliards Creek Site. In brief, Sherwin-Williams fully supports EPA's Preferred Alternative (Alternative 3 – Excavation with Off-Site Disposal) and stands ready to perform this work under EPA's oversight.

Our specific comments are as follows:

1. Sherwin-Williams is fully committed to working with EPA, NJDEP, and the community to address the issues that are the result of historical operations at our former paint manufacturing facility. To that end, Sherwin-Williams is prepared to perform EPA's preferred remedy (Alternative 3 – Excavation and Off-Site Disposal) for soils at the residential properties described in the Proposed Plan.

2. Sherwin-Williams supports expediting the Superfund remedial work at the residential properties. We believe the quickest way to make progress would be for us to perform the Remedial Design work under a CERCLA Administrative Order on Consent (AOC) between EPA and Sherwin-Williams. We have reviewed the terms of EPA's Model AOC for Remedial Design (available online at http://www2.epa.gov/sites/production/files/2013-10/documents/rd-aoc-05-mem.pdf), and we are ready, willing, and able to begin negotiating the terms of such an AOC here. We look forward to working closely with EPA to expedite this process, so that the Remedial Design work can begin promptly upon EPA's issuance of the final Record of Decision later this year.

3. Although the technical details will necessarily await the Remedial Design deliverables, Sherwin-Williams notes that using the NJDEP Technical Guidance for the Attainment of Remediation Standards and Site-Specific Criteria (2012) will help assure that the remedial work at the residential properties will occur quickly and cost-effectively.

4. Several statements in the Proposed Plan suggest, or at least assume, that the polycyclic aromatic hydrocarbons (PAHs) detected at residential properties originated from historic Sherwin-Williams operations. This suggestion or assumption is not correct. Although lead and arsenic are linked to historic Sherwin-Williams operations, the same cannot be said of PAHs. PAHs are ubiquitous urban contaminants that are found in many settings, and result from a range of urban sources.

   The actual source(s) of the PAHs do not affect the performance of Alternative 3, or the timing of that remedial work. However, EPA's administrative record should still reflect the best available science regarding the origin of the PAHs in urban background sources. At a minimum, we urge EPA to avoid any suggestion that it has already determined the origin of the PAHs detected at residential properties, when EPA clearly has made no such determination, and when there is substantial technical evidence that undermines any such determination.

5. Finally, we note an apparent minor factual error regarding the early history of NJDEP enforcement actions relating to the Sherwin-Williams sites. The Proposed Plan states (at page 3) that "[d]uring the 1980s," NJDEP entered into several administrative orders with Sherwin-Williams. We have found no record of any NJDEP orders dating from the 1980s, although we are aware of one order dating back to 1978 and another one dating back to 1990.

If you have any questions or need further information please do not hesitate to contact me at (216) 566-1794.

Sincerely,

Mary Lou Capichioni

Mary Lou Capichioni
Director, Remedial Services
Environmental, Health & Regulatory Services

cc: Rich Puvogel, USEPA