Superfund Program U.S. Environmental Protection Agency

Mansfield Trail Dump Superfund Site

Byram Township, New Jersey

Proposed Plan June 2017

EPA ANNOUNCES PROPOSED PLAN

This Proposed Plan identifies the Preferred Alternative to address contaminated residential potable wells at the Mansfield Trail Dump Superfund Site (Site) located in Byram Township, Sussex County, New Jersey. This action for impacted potable wells is referred to as Operable Unit 1 (OU1). An investigation of contaminated groundwater at the Site is underway as part of OU2.

The Environmental Protection Agency's (EPA) Preferred Alternative to address the contaminated potable wells at residential properties at the Site is Alternative 3, which includes the provision of potable water to impacted properties through construction of a water line, service connections, and abandonment of private potable wells.

This Proposed Plan includes a summary of all cleanup alternatives evaluated for OU1 at the Site. This document is issued by EPA, the lead agency for the Site, in consultation with the New Jersey Department of Environmental Protection (NJDEP), the support agency. EPA, in consultation with NJDEP, will select a final remedy for the contaminated potable water at the Site after reviewing and considering all information submitted during a 30-day public comment period. EPA, in consultation with NJDEP, may modify the Preferred Alternative or select another response action presented in this Proposed Plan based on new information or public comments. Therefore, the public is encouraged to review and comment on all the alternatives presented in this Proposed Plan.

EPA is issuing this Proposed Plan as part of its public participation responsibilities under Section

MARK YOUR CALENDARS

Public Comment Period
June 13, 2017 to July 13, 2017.
EPA will accept written comments on the Proposed Plan during the public comment period.

Public Meeting
June 27, 2017 at 7:00 P.M.
EPA will hold a public meeting to explain the Proposed Plan and all of the alternatives presented in the Focused Feasibility Study. Oral and written comments will also be accepted at the meeting. The meeting will be held at the Byram Township Municipal Building at 10 Mansfield Drive, Stanhope, New Jersey.

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.

EPA's website for the Mansfield Trail Dump site:
https://www.epa.gov/superfund/mansfield-trail

Sussex County Library Louise Childs Branch
21 Sparta Road
Stanhope, New Jersey 07874
(973) 770-1000
Please refer to website for hours:
http://sussexcountylibrary.org

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117(a) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA or Superfund). This Proposed Plan summarizes information that can be found in greater detail in the OU1 Focused Feasibility Study (FFS) report, Data Evaluation Summary Report (DESR) and other documents contained in the Administrative Record file for this Site.

SITE DESCRIPTION

The Mansfield Trail Dump Superfund Site consists of former waste disposal trenches in a wooded area and groundwater contamination in the area. It is suspected that the Site was used as a dump for septic wastes from the late 1950s through at least the early 1970s. When discovered in the wooded area, five discrete areas of concern (AOCs) were designated as Dump Areas A, B, C, D, and E. The former dump sites are located on wooded, undeveloped properties in Byram Township, Sussex County in northwestern New Jersey.

The Site was added to the National Priorities List (NPL) in March 2011 and consists of two OUs covering long-term remedial work.

OU1 includes 18 properties downgradient of the former dump areas where private drinking well water is known to be impacted by the Site's contaminated groundwater plume.

OU2 includes shallow and deep groundwater contamination. Any residual soil contamination and vapor intrusion also will be addressed during the ongoing investigation for OU2.

SITE HISTORY

Residential Area

In May 2005, the Sussex County Department of Health and Human Services and NJDEP became aware of trichloroethylene (TCE) contamination in residential wells serving homes on Brookwood and Ross Roads, and notified residents in the neighborhood of the contamination. Point-of Entry-Treatment Systems (POETS) were installed on impacted residential properties to provide safe drinking water primarily by NJDEP. By June 2005, 13 residential wells were known to be contaminated with TCE at concentrations in excess of New Jersey drinking water standards and additional POETS were installed. Sampling of the residential wells in the Brookwood and Ross Roads neighborhood conducted by NJDEP in March 2006 indicated the presence of TCE concentrations that ranged from 3.9 to 70 micrograms per liter (µg/L). Currently, 18 homes are equipped with POETS through NJDEP or by homeowners to remove the contamination, and sampling continues to protect area residents' health.

In addition, from 2006 to 2008, NJDEP collected indoor air and sub-slab soil gas samples from homes throughout the affected neighborhood. NJDEP installed vapor intrusion mitigation systems or modified existing radon mitigation systems in five of the affected homes to prevent the migration of harmful vapors from entering the homes.

Source Area

NJDEP first identified the former waste disposal trenches at the Site in 2009 during an effort to determine the source of the TCE contamination detected in the nearby residential wells along Brookwood and Ross Roads. Subsequent reconnaissance efforts conducted by NJDEP, EPA, and contractors in December 2009 and May 2010 indicated disposal trenches that were designated Dump Areas A, B, C, D and E. The Dump Areas consisted of contaminated soil and sludge-like-waste from unknown origins. Sampling done by NJDEP in 2009 showed elevated concentrations of TCE, 1,2-dichloroethylene (1,2-DCE), and vinyl chloride in groundwater. Soil samples in the dump areas indicated the presence of TCE, cis1,2-dichloroethylene (cis-1,2-DCE), benzene, ethylbenzene, toluene, and xylene (BTEX) compounds, as well as various chlorinated benzene compounds. EPA collected soil and sludge-like-waste, groundwater (on-site monitoring wells), and residential well samples from February to May 2010. EPA also installed a background monitoring well (MW-3) south of NJDEP's monitoring wells (MW-1 and MW-2). Analytical results documented the presence of TCE and other volatile organic compounds (VOCs) above background conditions in these on-site wells. The TCE groundwater plume was found to begin at the former source areas and extends downgradient towards the Brookwood and Ross Road residential area.

During May and June 2010, EPA collected soil, groundwater, and composite waste samples from test borings advanced throughout the Site, using Geoprobe™ direct-push technology. Although former Dump Area C was observed to be littered with tires and miscellaneous trash, and was considered an additional AOC, no evidence was found of the same type and method of waste deposition as the other dump areas (i.e., excavated trenches and sludge-like-waste material).

Analytical results of soil and waste samples collected during the waste-source-delineation phase indicated the presence of VOCs, such as TCE, 1,2-DCE, and various chlorinated benzene compounds throughout the site. Polychlorinated biphenyls (PCBs) were detected in composite samples collected from the former Dump Area A lower trench, Dump Area B, and Dump Area D, trenches 1 and 2. Contaminants were not detected in the former Dump Area D, Trench 4. In March 2011, based on the impacted on-site and residential areas outlined above, the Site was added to the NPL.

From February 21 to May 30, 2012, EPA's Region 2 Removal Action Branch completed excavation to remove soil contamination from Dump Areas A, B, C, D and E. Approximately 11,170 tons of non-hazardous soil and debris and 383 tons of hazardous soil were removed from the Site and transported to approved off-site disposal facilities.

The dump areas were excavated to bedrock and re-graded and restored to match the former topography.

Additional Investigation

From August 2013 to December 2015, EPA performed remedial investigation activities at the Site. EPA collected environmental data, including overburden soil samples, subsurface soil samples, rock core samples, groundwater samples, and performed site reconnaissance activities. Samples were taken from both the source area and the downgradient residential neighborhood.

SITE CHARACTERISTICS

Setting/ Geology/ Hydrology

The Site is bordered to the east by a steep, narrow valley. An abandoned railroad bed and a waterway, Cowboy Creek, that flows north are located on the valley floor. Cowboy Creek flows to Lubbers Run and the Musconetcong River. Both Lubbers Run and the Musconetcong River are used for recreation, including fishing, boating, and hiking. Information obtained from the New Jersey Division of Fish and Wildlife indicates that portions of the Musconetcong River are fished for human consumption. Segments of the Musconetcong River downstream of the Site are federally designated as a Wild and Scenic River. Water samples taken from the unnamed stream did not indicate any contamination.

Based on the topography and the detections of VOCs in the residential wells, it is likely that shallow groundwater flows beneath Former Dump Area A, which lies on the west side of the ridge, is to the west-northwest toward the Brookwood and Ross Roads neighborhood. The ridge forms a local groundwater divide and sources to the east (i.e., former Dump Areas B, D, and E) overlie a separate surficial aquifer.

As a part of the ongoing OU2 remedial investigation, 24 monitoring wells were sampled in the shallow and deep groundwater aquifer between March 2014 and December 2015. Sampling during this time period showed that TCE levels exceeded the New Jersey Groundwater Quality Standards (NJ GWQS) in six out of 13 shallow groundwater samples and 62 out of 94 deep groundwater samples. Concentrations of TCE ranged between 0.11 ug/L and 320 ug/L. Installation of additional groundwater monitoring wells and continued sampling is planned to further delineate the extent of groundwater contamination.

Residential Groundwater Sampling

Based on sampling results conducted by local residents and NJDEP, 18 residential wells in the site area were found to contain TCE concentrations above the NJ GWQS of 1 µg/L. When contamination was discovered, NJDEP took protective actions including confirmation

sampling, and the installation and maintenance of POETS. Eighteen POETS have been installed since 2005 at properties where TCE contamination was confirmed above the NJ GWQS.

In April 2014, EPA collected water samples from residential wells equipped with POETS, plus an additional eight wells. This sampling was conducted as a part of the remedial investigation. Samples were taken from residential wells prior to treatment. NJDEP continues to monitor and maintain eligible POETS at impacted residences under the state Spill Compensation Fund.

SCOPE AND ROLE OF THE ACTION

As with many Superfund sites, the contamination at the Site is complex. In order to manage the cleanup of the Site more effectively, EPA has organized the work into two phases of long-term cleanup called OUs, under the authority of CERCLA. This Proposed Plan addresses OU1, which addresses providing potable water to impacted residents through connection to a water supply. The OU2 remedy will address any residual soil contamination, vapor intrusion, and the contaminated groundwater. A Remedial Investigation is underway for the OU2 portion of the Site.

HUMAN HEALTH RISK ASSESSMENT

EPA conducted a four-step baseline human health risk assessment (HHRA) as part of OU1 to assess site-related cancer risks and non-cancer health hazards in the absence of any remedial action. 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").

The HHRA began with selecting chemicals of potential concern (COPCs) in groundwater that could potentially cause adverse health effects in exposed populations. Groundwater onsite is being used for drinking water purposes. Although POETS have been installed within impacted homes, if additional wells become contaminated or the POETS are not maintained, exposure to contaminated groundwater could occur. Therefore, the current and future pathways and populations evaluated in the HHRA included

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

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

Toxicity Assessment: In this step, the types of adverse health effects associated with chemical exposures, and the relationship between magnitude of exposure and severity of adverse effects are determined. Potential health effects are chemical-specific and may include the risk of developing cancer over a lifetime or other noncancer 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 noncancer health hazards.

Risk Characterization: This step summarizes and combines outputs of the exposure and toxicity assessments to provide a quantitative assessment of site risks for all COPCs. Exposures are evaluated based on the potential risk of developing cancer and the potential for noncancer 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 noncancer health effects, a "hazard index" (HI) is calculated. The key concept for a noncancer HI is that a "threshold" (measured as an HI of less than or equal to 1) exists below which noncancer health hazards are not expected to occur. The goal of protection is 10-6 for cancer risk and an HI of 1 for a noncancer 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.

adult and child residents potentially being exposed to groundwater via ingestion, dermal contact, and inhalation of chemical contaminants while showering/bathing.

In this assessment, exposure point concentrations were estimated using either the maximum detected concentration of a contaminant or the 95% upper-confidence limit (UCL) of the average concentration. Chronic daily intakes were calculated based on the reasonable maximum exposure (RME), which is the highest exposure reasonably anticipated to occur at the Site. The RME is intended to estimate a conservative exposure scenario that is still within the range of possible exposures. A more detailed discussion of the exposure pathways can be found in the baseline risk human health risk assessment.

Summary of Risks to Residential Receptors

Cancer risks and noncancer health hazards from exposure to contaminated groundwater were evaluated for adult and child residents. The estimated excess lifetime cancer risk estimate is $1x10^{-2}$ (one-in-one hundred), primarily driven by chromium, VC, and TCE. The calculated hazard index (HI) is 110 for an adult and 106 for a child. Noncancer hazards are driven by TCE and chromium, and to a lesser extent by nickel, cobalt, and cis-1,2-DCE. For these receptors, exposure to site-related contaminants in groundwater results in an excess lifetime cancer risk that exceeds EPA's target risk range of $1x10^{-4}$ (one-in-ten thousand) to $1x10^{-6}$ (one-in-one million) and a noncancer HI above the acceptable level of 1.

The chromium and nickel maximum values used for exposure point concentrations in the HHRA were anomalously higher (several orders of magnitude) compared to other wells onsite and results from previous sampling events. A statistical outlier test was performed to determine whether these concentrations can be considered representative of site exposure based on data collected from other monitoring wells within the groundwater plume. The outlier testing concluded that both chromium and nickel sampling results contained outliers from the same sample multi-level system (MLS-3) location. When these outliers were replaced with the next highest concentration detected from that location, the total risk from all carcinogens decreased to $5x10^{-3}$ (one-in-one thousand). Although the adjusted risk still exceeds EPA thresholds, the outlier test indicated TCE and VC are the primary contributors of site-related risk. Exposure to TCE and VC individually accounted for risks of $5x10^{-4}$ and $4x10^{-3}$, respectively. In addition, cancer risk due to chromium may be overestimated because it was assumed that all of the chromium present is in the more toxic hexavalent form. This is conservative since chromium in the environment is generally dominated by the less toxic, trivalent form. Further discussion of the outlier test can be found in the baseline human health risk assessment.

Summary of Human Health Risks

Residential exposure to contaminated groundwater, in the absence of any current or ongoing remedial action, yields Site risks and hazards that exceed EPA's acceptable cancer risk range ($1x10^{-4}$ to $1x10^{-6}$) and noncancer hazard threshold (HI of 1). It is EPA's current judgement that the Preferred Alternative identified in this Proposed Plan, or one of the other active measures considered in the 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

Remedial Action Objectives (RAOs) are specific goals to protect human health and the environment. These objectives are based on available information and standards, such as applicable or relevant and appropriate requirements (ARARs), to-be-considered (TBC) guidance, and site-specific risk-based levels.

The primary objective of any remedial strategy is overall protectiveness. The RAO in the FFS has been developed to focus on preventing exposure to contaminated potable water. The RAO for the Mansfield Trail Dump OU1 is:

- Prevent or minimize current and future human exposures from ingestion or, inhalation or, dermal contact with contaminants in potable water attributable to contaminated groundwater at the Site.

SUMMARY OF REMEDIAL ALTERNATIVES

CERCLA, Section 121(b)(1), 42 U.S.C. Section 9621(b)(1), mandates that remedial actions must be protective of human health and the environment, cost-effective, comply with ARARs, and utilize permanent solutions and alternative treatment technologies and resource recovery alternatives to the maximum extent practicable. Section 121(b)(1) also establishes a preference for remedial actions which employ, as a principal element, treatment to permanently and significantly reduce the volume, toxicity, or mobility of the hazardous substances, pollutants, and contaminants at a site. CERCLA, Section 121(d), 42 U.S.C. Section 9621(d) further specifies that a remedial action must attain a level or standard of control of the hazardous substances, pollutants, and contaminants, which at least attains ARARs under federal and state laws, unless a waiver can be justified pursuant to CERCLA Section 121(d)(4), 42 U.S.C. Section 9621(d)(4).

The objective of the FFS for the OU1 Study Area was to identify and evaluate remedial action alternatives to meet the RAOs. A total of four alternatives were initially developed and screened in the FFS for overall implementability, effectiveness, and cost and three were carried over for further evaluation.

Three alternatives were retained for a detailed evaluation against the seven National Contingency Plan (NCP) evaluation criteria. The sections below present a summary of the alternatives that were retained and evaluated. The Present-Worth Costs are based on a 30-year timeframe in accordance with EPA guidance.

The time frames presented below for construction do not include the time for pre-design investigations, remedial design, or contract procurements.

Detailed descriptions of the remedial alternatives for the OU1 can be found in the FFS report.

Alternative 1 – No Action

The No Action Alternative was evaluated, as required by the NCP, and provides a baseline for comparison with other alternatives. No remedial actions would be implemented as part of the No Action Alternative. Furthermore, this alternative would not involve any monitoring of groundwater or institutional controls. Although there are already existing POETS and vapor intrusion mitigation systems within the impacted area, it is assumed for the No Action Alternative that no additional remedial measures would be taken, and no monitoring would be conducted.

Capital Cost:	$0
Annual O&M Cost:	$0
Present-Worth Cost	$0
Duration Time:	None

Alternative 2 – Treatment via POETS

Alternative 2 relies on the continued operation of existing POETS. The 18 existing POETS would be assessed and necessary upgrades would be evaluated. The cost estimate includes upgrades to five of the systems. All 18 systems would then need to be operated, monitored, and maintained in accordance with current practices.

Previous investigations do not support the imminent spread of groundwater contamination beyond the area that has been impacted, but monitoring of drinking water wells in the vicinity would be conducted to assure that they meet drinking water standards. POETS would need to be installed, operated, monitored, and maintained if homes were to become impacted.

Capital Cost:	$381,872
Annual O&M Cost (Year 1 to 5):	$219,612
Annual O&M Cost (Year 6 to 30):	$231,844
Present-Worth Cost:	$3,209,000
OM&M of POET Systems:	30 years
Time to Install POETS:	5 weeks

Alternative 3 – Connection to an Existing Water Supply System.

Alternative 3 includes the provision of potable water to impacted properties through construction of a water line and abandonment of private potable wells. Service connections to each impacted house from an existing water supply system in the area would be made in accordance with Byram Township, Sussex County, and New Jersey regulations.

For cost estimation purposes, the closest privately owned water supplier, East Brookwood Estate Property Owners Association (EBEPOA), was used as the water supply system. In order to add the impacted area to the EBEPOA, upgrades to the existing system and consent of the owners of the EBEPOA would be necessary. The final water system configuration would be determined during design should this alternative be selected.

During the design and construction phases of the water main, eligible POETS would continue to be operated and maintained by NJDEP, until individual residences are switched over to the alternate water supply. EPA would periodically monitor residential wells in the vicinity of the impacted area that are currently not impacted above the cleanup goal for TCE. If these wells were to become impacted above that criteria, POETS would need to be installed at these locations until the remedy is implemented and an alternate potable water source is available.

After the remedy is in place, homes in the vicinity of the impacted area would continue to be monitored. If any of these monitored homes were to become impacted, connection to the water line would be made available. The capacity of the water supply system would then be reassessed.

Capital Cost:	$8,333,160
Annual O&M Cost (year 1):	$77,278
Annual O&M Cost (year 1 to 30):	$27,016
Present-Worth Cost:	$8,746,000
Time to Complete Construction:	8 months

EVALUATION OF ALTERNATIVES

Nine criteria are used to evaluate the different remediation alternatives individually and against each other in order 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 alternative can be found in the FFS.

Overall Protection of Human Health and the Environment

The No Action Alternative (Alternative 1) is not considered protective of human health and the environment, because it does not prevent the current and future use of contaminated groundwater which presents an unacceptable human health risk. It also does not include any long-term groundwater monitoring to assess or address potential short or long term exposure to groundwater by area residents. Because Alternative 1 (No Action) is not protective of human health and the environment, it was eliminated from consideration under the remaining evaluation criteria.

Alternative 2 would be protective of human health because contaminated groundwater would continue to be treated prior to use by residents within the impacted area. This alternative relies on consistent maintenance of individual systems in order to ensure effectiveness of the treatment.

Alternative 3 would be protective of human health in the impacted area by providing potable water through construction of a water line and abandonment of private potable wells. Other homes in the vicinity of the impacted area would be monitored, as a safeguard, and offered connection to the system if necessary.

Compliance with ARARs

Actions taken at any Superfund site must meet all applicable or relevant and appropriate requirements under federal and state laws or provide grounds for invoking a waiver of those requirements.

Alternatives 2 and 3 would assure that potable water would meet NJ GWQS in the short term. However, Alternative 3 is the alternative that best meets this criterion as it provides for residences to be connected to an alternate water supply, ensuring that potable water meets all applicable standards due to state and federal regulations. Alternative 2 would provide for potable wells to meet NJ GWQS through the use of POETS. POETS require diligent operations and maintenance to assure that they continue to properly address groundwater contamination in each residence over time in order to provide safe potable water. All of the alternatives would comply with location- and action-specific ARARs such as the Freshwater Wetlands Protection Act, and the Federal Clean Water Act.

Long-Term Effectiveness and Permanence

Alternative 3 would be effective and permanent because this alternative relies on permanent infrastructure to convey water from a reliable source of potable water. In addition, it meets this criterion the best, as it is most effective in the long term. Alternative 2 would require significantly more maintenance to remain reliable, such as confirmation sampling and carbon replacement in order for POETS to remain protective, and is not considered as permanent as Alternative 3.

Reduction in Toxicity, Mobility or Volume (TMV) through Treatment

Alternatives 2 and 3 would reduce the TMV of the contaminants by preventing the exposure of the residents to the contaminants. The POETS would control exposure to contaminant concentrations above NJ GWQS by treatment at the point of use. Connection to a water system would provide an alternate supply of potable water, therefore eliminating exposure to the contaminants.

Short-Term Effectiveness

The necessity to construct parts of the remedies on the property of land owners, in roadways and right-of-ways for both Alternative 2 and 3 would result in some short-term adverse effects to the surrounding community. Alternative 2 would require limited site work and, therefore, resulting in minimal short-term impacts to the community and workers.

Construction of Alternative 3 would result in the most significant short-term effects in the community, with the installation of a water line. These effects would be limited to the construction work in the neighborhood and on private property for connections. However, EPA would work with the community to alleviate concerns. In addition, standard health and safety practices would be used to mitigate any impacts on workers. There would be no adverse environmental impacts to habitats or vegetation as implementation would only affect previously developed areas such as roads and private properties.

Implementability

Under Alternative 2 it is expected that not all homes would need upgrades to their existing systems. The limited site work would be easily implemented.

Alternative 3 would be implementable using conventional construction methods and readily available materials. Due to construction required on roads, disruptions to local traffic would be likely. Right-of-way access and coordination with local government would be needed as well. Depending on the chosen water system, distance from the impacted properties and capacity of the system might affect implementability.

Cost

The estimated present worth of Alternative 2 is $3,209,000. This cost includes an estimated number of upgrades to existing systems as well as the installation of an estimated number of new systems in the vicinity of the impacted properties. Also included in this cost is residential water sampling to ensure POETS were operating properly. This alternative assumes O&M on the POETs and monitoring over a 30-year time period.

The present worth of the estimated cost for Alternative 3 is $8,746,000. This estimate includes construction of the proposed water line as well as O&M of the alternate supply system for one year. O&M costs for the monitoring program are estimated over a 30-year time period.

For costing purposes, each alternative has an estimated duration of 30 years although, as discussed above, it is unknown what the period of time will be that contaminants remain above ARARs. The OU2 investigation and remedy will examine estimated duration of contaminants above ARARs in the aquifer.

State/Support Agency Acceptance

The State of New Jersey supports EPA's preferred remedy as presented in this Proposed Plan.

Community Acceptance

Community acceptance of the preferred alternatives will be evaluated after the public

comment period ends and will be described in the Record of Decision, the document that formalizes the selection of the remedy for the Site.

PREFERRED ALTERNATIVE

The preferred alternative for potable water is Alternative 3, which includes the provision of potable water to impacted properties through the construction of a water line, service connections, and abandonment of private potable wells, hereafter referred to as the Preferred Alternative. The preference for Alternative 3 is based upon two factors: (1) the limited potential for treatment or containment of groundwater contamination to result in a measureable improvement in groundwater quality anywhere in the aquifer within a reasonable time period; and (2) the reliability and permanence of an alternate water supply as compared to individual treatment systems.

EPA believes an alternate water supply would effectively mitigate exposure to contaminated drinking water. The installation of an alternate water supply in the area affected by the contaminated groundwater would eliminate risks to residents from consumption of, inhalation of, and dermal contact with contaminated drinking water. EPA expects this to be the final potable water remedy for the Site.

POETS would need to be operated and maintained, until individual residences are switched over to the alternate water supply. EPA will periodically monitor residential potable wells in the vicinity of the impacted area that are currently not impacted above the cleanup goal for TCE. If these wells become impacted above that criteria, POETS would be installed and maintained at these locations until the remedy is implemented and an alternate potable water source is available. Properties connected to the alternate water supply would be responsible for payment of water bills once the connections are complete.

Alternative 3 is believed to provide the most protective remedy for impacted residents. 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 believes the Preferred Alternative will be protective of human health and the environment, and will comply with ARARs to the extent practicable.

Consistent with EPA Region 2's Clean and Green policy, EPA will evaluate the use of sustainable technologies and practices with respect to any remedial alternative selected for the Site.

COMUNITY PARTICIPATION

EPA encourages the public to gain a more comprehensive understanding of the Site and the Superfund activities that have been conducted there. The dates for the public comment period, the date, location and time of the public meeting, and the locations of the Administrative Record files, are provided on the front page of this Proposed Plan. Written comments on the Proposed Plan should be addressed to the Remedial Project Manager, Anne Rosenblatt, at the address provided. EPA Region 2 has designated a public liaison as a point-of-contact for the community concerns and questions about the federal Superfund program in New York, New Jersey, Puerto Rico, and the U.S. Virgin Islands. To support this effort, the Agency has established a 24-hour, toll-free number that the public can call to request information.

For further information on Mansfield Trail Dump Superfund site, please contact:

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Written comments on this Proposed Plan should be addressed to Ms. Rosenblatt.

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The public liaison for EPA Region 2 is:
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A
B
C
D
E
LEGEND
Source Area
Former Dump Areas
50-foot Contours
Roads

Site Map