**United States Department of Agriculture** | **Forest Service** | **Pacific Southwest Region** | **Regional Office, R5**
**1323 Club Drive**
**Vallejo, CA 94592**
**(707) 562-8737 Voice**
**(707) 562-9130 Text (TDD)**

# Response to Public Meeting Comments and Questions

This document addresses public comments and questions received at the May 24, 2007 and June 14, 2007 public meetings on the Proposed Plan for the Meyers Landfill Site Operable Unit 1 (OU-1), issued on May 21, 2007. Additional information on the community involvement for OU-1 will be discussed in Section 2.3 of the Record of Decision.

## OVERVIEW

The USDA Forest Service (Forest Service) distributed a Proposed Plan for remedial action for OU-1 at the Meyers Landfill Site near South Lake Tahoe, California. The Proposed Plan identified the preferred remedial alternative for OU-1. The major components of the proposed remedial alternative for OU-1 of the Meyers Landfill Site presented in the Proposed Plan are as follows:

- Capping and containment of the waste with a Multilayer Cap comprised of, at a minimum:
  - 24-inch cover soil layer (6 inches of vegetation plus 18 inches of cover soil)
  - 0.5-cm geotextile drainage fabric layer
  - 12-inch drainage layer (sand with minimum 3% slope)
  - 60-ml geosynthetic barrier layer
  - 24-inch foundation layer (existing cover soil)
- Consolidation of waste from above and east of the South Tahoe Public Utilities District Sewer Line which runs along the eastern side of the landfill
- Expansion of the French Drain on the western side of the side to help reduce groundwater/waste interaction resulting from the movement of perched groundwater along the western boundary of the Site.
- Passive LFG venting
- Long term maintenance, monitoring, and institutional controls

The Forest Service received oral comments and questions on the Proposed Plan during the May 24 and June 14, 2007 public meetings. The following is a summary of significant public comments and questions. General comments and multiple comments on the same subject are presented first. Specific comments are presented following general comments.

## I. Verbal Comments Received During the June 14, 2007 Public Meeting:

### 1) Future Land Use:

Many of the questions the Forest Service received concern two primary issues: 1) the future use of the Site and how it was factored into the Forest Service's remedy evaluation and selection process, and 2) the overall confusion regarding the scope of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) remedy selection as

it relates to choosing a specific post-closure use under the Forest Plan and Forest Service regulations.

a) In answer of the first, how was the future use of the Site factored into the Forest Service's CERCLA remedy evaluation and selection process: CERCLA response actions have to address "reasonably anticipated future land use" as part of the remedy evaluation and selection process. The consistency of the chosen remedy with the future use of a site contributes to its long-term protectiveness. Protecting human health and the environment over the long term is the key objective of remedial action. Thus, understanding and accommodating reasonably anticipated future use in selecting and implementing remedies is an integral part of CERCLA process and the lead agency's cleanup responsibility. The U.S. Environmental Protection Agency (EPA) has issued a directive that outlines how future land use should be evaluated as part of the remedy selection process. This directive, entitled "*Land Use in the CERCLA Remedy Selection Process",* EPA OSWER Directive No. 9355.7-04 is included in the Administrative Record.

   As discussed in the directive, a key component of identifying the "reasonably anticipated future land use" of a site is to look at factors such as; current surrounding land uses, zoning, development plans, and Federal/State land use designations. The Meyers Landfill Site is located on National Forest System lands and, as such, the Federal land use designation in the Forest Plan and Forest Service land management regulations are critical for identifying the "reasonably anticipated future use" of this Site.

   The RI/FS and Proposed Plan were prepared based on anticipated future land use as designated by the Forest Plan and is consistent with established protocol. Under the Forest Plan, the Site is designated for non-motorized dispersed recreation which includes activities such as hiking, picnicking, mountain biking, horseback riding and other non-motorized day uses.

b) To answer the second, the scope of the CERCLA remedy selection as it relates to choosing a specific post-closure use under the Forest Plan and Forest Service regulations: As discussed above, CERCLA response actions have to be consistent with "reasonably anticipated future land use". The identification of the "reasonably anticipated future land use" of a site is different from the siting and permitting of a specific site re-use or development.

   In terms of the Meyers Landfill Site, CERCLA does not have the authority to alter the Federal land use designation specified in the Forest Plan nor does it have the authority to authorize a specific future site use such as a power plant, ball field or wildlife center. Any specific future use of National Forest System lands is a separate administrative process outside of CERCLA that needs to go through the normal agency administrative process for authorizing those types of activities. The U.S. Environmental Protection Agency (EPA) has issued a directive that outlines how future land use should be evaluated as part of the remedy selection process. This directive, entitled "*Land Use in*

*the CERCLA Remedy Selection Process"*, EPA OSWER Directive No. 9355.7-04 is included in the Administrative Record.

## II. Specific Questions Received During the May 24, 2007 Public Meeting:

**1) Question:**

Is the preferred cover system alternative compatible with the Lake Tahoe Wildlife Center Feasibility Study?

**1) Answer:**

Based on discussions with the Wildlife Center proponents, it is the understanding of the Forest Service that the current proposal for the Wildlife Center does not include any form of structures or activities on the landfill cap area aside from being left as open space and having potential picnic areas. As stated during the May 24th Public Meeting, both the preferred remedy for the Landfill OU-1 (Cap Alternative 3) and Cap Alternative 4 are compatible with these proposed types of activities from an engineering standpoint. As stated during the May 24 Public Meeting, the Wildlife Center is not consistent with the Forest Service land use plan for the area.

## III. Specific Questions and Comments Received During the June 14, 2007 Public Meeting:

**1) Question:**

The RI/FS and Proposed Plan do not identify who is going to pay for the proposed remedy. Who is going to pay for the implementation of the proposed remedy?

**1) Answer:**

The question of who will pay for the implementation of the CERCLA remedy at the Meyers Landfill Site will ultimately be decided in the CERCLA settlement negotiations between the Forest Service and the potentially responsible parties or by the court in the litigation pending in the United States District Court for the Eastern District of California (U.S. v. El Dorado County, et al, Civil Action No. S-01-1520 MCE GGH). It is not the purpose of the RI/FS and Proposed Plan to discuss and/or identify who will pay for the implementation of the CERCLA remedy. The overall purpose of the RI/FS is characterization of the nature and extent of risks posed by uncontrolled contaminated sites and the evaluation of potential remedial options, while the Proposed Plan is a document that presents the lead agency's preliminary recommendation concerning how best to address contamination at the Site, the alternatives that were evaluated, and explains the reasons the lead agency recommends the Preferred Alternative.

For further information regarding the purpose and scope of the RI/FS and Proposed Plan, see the following EPA guidance documents *"Guidance for Conducting Remedial Investigations and Feasibility Studies Under CERCLA"*, EPA/540/G-89/004; *"Conducting*

*Remedial Investigations/Feasibility Studies for CERCLA Municipal Landfill Sites"*, EPA/540/P-91/001, and *"A Guide To Preparing Superfund Proposed Plans, Records of Decision, and Other Remedy Selection Decision Documents"*, EPA 540-R-98-031. These documents are available in the Administrative Record.

**2) Question:**

Does the Forest Service currently have the funds budgeted to implement the Proposed Remedy?

**2) Answer:**

The Forest Service currently has funds budgeted for the completion of the public comment period and preparation of the CERCLA Record of Decision. The Forest Service also has funds budgeted to continue the groundwater monitoring and to continue investigation efforts of OU-2, the contaminated groundwater plume.

The Forest Service will not know if it has sufficient funding for the next phase of the CERCLA remedial action process for the Landfill OU-1, the Remedial Design and the preparation of the design and construction plans and specifications, until the Fiscal Year 2008 budget is passed. The actual implementation and construction of the Landfill OU-1 remedy is contingent on the availability of funds and the speed and outcome of the CERCLA settlement negotiations or litigation between the Forest Service and the potentially responsible parties.

**3) Question:**

The RI/FS and Proposed Plan discuss that landfill gas monitoring will be conducted as part of the remedy. At what level will it be decided that something has to be done with regards to the cap because gases have reached a level that is not compliant with the State Clean Air Act?

**3) Answer:**

Monitoring, operation, and maintenance of the Meyers Landfill remedy are included for two years after the remedy is installed to ensure that the capping and venting systems work as designed. The estimated costs include the anticipated level of effort that will be required for quarterly air monitoring and initial landfill, cap, and vent system maintenance. Costs have also been included for system modification, if needed. The size and age of the landfill, and gas modeling do not indicate that there will be problems meeting current Clean Air Act requirements. However, monitoring will be performed to determine if the landfill emissions are in compliance with all Federal, State, and local requirements. If current emission thresholds are exceeded, a corrective action plan will be implemented.

Under CERCLA 121(c), periodic reviews are required to be conducted at least every five years when hazardous substances remain on a site above levels that do not allow for unrestricted use and unlimited exposure. The purpose of a five-year review is not to reconsider decisions made during the selection of the remedy, as specified in the Record of

Decision, but to evaluate the implementation and performance of the selected remedy to determine whether it remains protective of human health and the environment. This includes whether the remedy is functioning in compliance with applicable federal and state regulations as identified in the Record of Decision. Protectiveness is determined by answering the following three questions:

a) Is the remedy functioning as intended by the decision documents?
b) Are the exposure assumptions, toxicity data, and Remedial Action Objectives used at the time of remedy selection still valid?
c) Has any other information come to light that could call into question the protectiveness of the remedy?

The data collected as part of the remedy operations and maintenance plays a key role in the five-year remedy review process. If the landfill gas monitoring program indicates that gas emissions are exceeding applicable standards, the effect and cause would be evaluated as part of the review process and potential mitigation measures developed.

For more information regarding the CERCLA 5- Year remedy review process, please see the following EPA guidance document, *"Comprehensive Five-Year Review Guidance"*, EPA 540-R-01-007 and the April 2003 EPA fact sheet *"Five-Year Review Process in the Superfund Program"*. Both of these documents are available in the Administrative Record.

**4) Question:**

The RI/FS and Proposed Plan do not identify who is going to pay for and perform the landfill gas monitoring and who will pay for the monitoring. Who will pay for and perform the landfill gas monitoring?

**4) Answer:**

The performance of the landfill gas monitoring is part of the implementation and monitoring and maintenance of the Landfill OU-1 cover system remedy. The RI/FS and the Proposed Plan do not provide this level of detail. For further information regarding the purpose and scope of the RI/FS and Proposed Plan, see the following EPA guidance documents *"Guidance for Conducting Remedial Investigations and Feasibility Studies Under CERCLA"*, EPA/540/G-89/004; *"Conducting Remedial Investigations/Feasibility Studies for CERCLA Municipal Landfill Sites"*, EPA/540/P-91/001, and *"A Guide To Preparing Superfund Proposed Plans, Records of Decision, and Other Remedy Selection Decision Documents"*, EPA 540-R-98-031. These documents are available in the Administrative Record. The actual implementation of the Landfill OU-1 remedy, including monitoring and maintenance, will be determined by the CERCLA settlement negotiations between the Forest Service and the potentially responsible parties or as part of the pending litigation. These negotiations or the court in the litigation will determine who will ultimately pay for the implementation of the landfill gas monitoring.

Cost estimates for the remedies include operation and maintenance costs which include air monitoring. Operations and maintenance costs are slightly higher for years one and two

versus years 2-30 to account for a more intense monitoring program during the first two years.

**5) Question:**

How are the costs for the landfill gas monitoring incorporated into the remedy alternatives?

**5) Answer:**

The costs for quarterly landfill gas monitoring are incorporated into the operations and maintenance (O&M) costs for each of the cover system alternatives. See Tables 12-1 through 12-4 of the May 2007 Supplemental RI/FS for summaries of O&M costs. Detailed O&M costs are shown below and include increased costs for the first two years of operation to monitor and modify the remedy, if required, to ensure that it is working as designed and is in compliance with current regulations. Monitoring programs will be developed in the design phase.

**Operation and Maintenance Detail**
**Landfill Cap Alternatives 2, 3, and 4**
Meyers Landfill
El Dorado County, California

| Item Description | Unit | Qty | Unit Price | Total | Source | Comments |
|---|---|---|---|---|---|---|
| Groundwater Quarterly monitoring | EA | 8 | $28,000.00 | $224,000 | Engineer's Estimate | Two year time frame to cover basic monitoring until groundwater RI/FS is complete. Based on similar work performed in 2006. |
| Gas monitoring | Ea | 20 | $20,000.00 | $400,000 | Engineer's Estimate | Quarterly for 5 years perimeter. Vent sampling. |
| Inspections years 1-2 | EA | 8 | $2,500.00 | $20,000 | Engineer's Estimate | Includes contracted labor and reports |
| Five year CERCLA review | EA | 1 | $30,000.00 | $30,000 | Engineer's Estimate | First 5 year CERCLA review data analyses and report. |
| Institutional Control Review | LS | 1 | $21,500.00 | $21,500 | Engineer's Estimate | |
| | | | | | | Includes any adjustments to cap or |
| | | | | | | |
| Subtotal | | | | $1,315,500 | | |
| NPV | | | | $642,000 | | 3% |
| | | | | | | |
| O&M in perpetuity | 1 | LS | $201,000.00 | $201,000.00 | | Bas |

**6) Question:**

Has groundwater monitoring included sampling and testing for tertiary butyl alcohol (TBA)?

**6) Answer:**

Groundwater and surface samples were analyzed by EPA Method 8260 during the fall 2005 and winter 2006 monitoring events. Tertiary butyl alcohol is a compound measured by EPA Method 8260. Tertiary butyl alcohol was detected in groundwater samples collected from monitoring well D-1 at a concentration of 10 µg/L (equivalent to parts-per-billion or ppb) and in a groundwater grab sample collected from boring SB-4 at a concentration of 13 µg/L (Tables 5-2 and 5-3 in the May 2007 Supplemental RI/FS). Tertiary butyl alcohol was not detected in the surface water samples that were analyzed by EPA Method 8260. Currently, neither the EPA nor the California Department of Health Services list a maximum concentration level (MCL) for tertiary butyl alcohol (http://www.dhs.ca.gov/ps/ddwem/chemicals/MCL/EPAandDHS.pdf). Because tertiary butyl alcohol was detected in only one monitoring well and one soil boring, is contained within the vinyl chloride plume, and because vinyl chloride is the primary contaminant of concern with the lowest MCL, no additional analysis for TBA will be conducted on a regular basis.

**7) Question:**

Has there been soil vapor monitoring that's been done?

**7) Answer:**

Section 5.3 of the May 2007 Supplemental RI/FS describes the soil vapor studies that have been performed.

**8) Question:**

Several questions have been asked regarding the proposed thickness of the cover soils and whether it will be sufficient for the rooting depths of native plant species in the area.

**8) Answer:**

The purpose of the Feasibility Study is to develop remedial alternatives for the Site, and determine the most effective method of mitigating potential impacts to human health and the environment. The Feasibility Study is a "broad brush" approach that provides enough detail to estimate the cost of implementing the various remedial actions that are selected. More detailed analysis of the remedial action that is ultimately selected will be performed during the design stage. Native grass and plant species appropriate to both the South Lake Tahoe climate and possessing characteristics that are compatible with the proposed cover will be evaluated during the upcoming design stage. LTBMU botanists know of a number of native grass and plant species with shallow roots suitable for the soil and cover thickness

in the preferred alternative. Specific species to be used as vegetative cover will be identified during the design stage.

**9) Question:**

A question was raised regarding the longevity of the plastic liner material in the proposed cover system.

**9) Answer:**

The cover system in the preferred alternative incorporates a 60-mil thickness High Density Polyethylene (HDPE) geomembrane as the impermeable layer to prevent surface water infiltration into the buried wastes. Studies conducted by the Geosynthetic Institute in 2005 show that the expected half-life (time for properties to degrade to 50% performance) is predicted to be from 270 to 449 years.