

This fact sheet provides an update on the supplemental groundwater investigation and remedial activities the U.S. Forest Service is conducting at the Meyers Landfill Site (Site) pursuant to its authorities under the Comprehensive Environmental Response, Compensation and Liabilities Act (CERCLA).

### **Background**

Meyers Landfill was a municipal landfill operated by private parties from 1946 to 1955 and El Dorado County (County) from approximately 1955 to 1971 under Forest Service Special Use Permits. Water leaching through the decomposing landfill waste has impacted groundwater beneath the site, resulting in a plume of contaminated groundwater extending approximately 1,600 feet down-gradient. The primary contaminants of concern are vinyl chloride and related volatile organic compounds (VOCs).

The United States brought a cost recovery action under CERCLA against the County and the City of South Lake Tahoe, both potentially responsible parties at the Site. The United States has reached a settlement with these and other potentially responsible parties.

### **Recent Activities**

In June 2010, the United States entered into a partial consent decree (PCD) with the County which resolved certain federal claims against the County and counter-claims made by the County against the United States for cleanup of the Site. Under the PCD, the County is responsible for constructing and maintaining the selected remedy (with Forest Service oversight) for OU-1, the landfill waste mass and contaminant source area.

The selected remedy for OU-1 consists of the installation of an impermeable landfill cover system, which includes consolidating waste, capturing and diverting perched groundwater, directing and controlling surface water drainage, and capturing landfill gases emitted from waste decomposition. Properly covering the landfill will minimize further migration of contaminants into groundwater beneath the Site. Figure 1 shows waste consolidation activities.

During the 2010 construction season, waste consolidation was completed, and a French drain was installed to collect subsurface drainage from adjacent slopes. The County's construction contractor has covered the waste with clean soil and installed best management practices (BMPs) to prevent stormwater runoff during the winter and spring. During the 2011 construction season, an impermeable cover will be put in place and vegetated. Figure 2 shows the Site prepared for winter and Figure 3 shows the cover design.

The Site has been under a Forest Closure Order since 1999 to protect the public from the hazards of the Site and to protect Site surface features from potential damage. In 2010, the Order was extended and expanded to include the landfill cover construction area. Figure ? shows the closure area. The Forest Service asks that the public comply with the closure order, which will be actively enforced.

### **Groundwater (OU-2) Remedial Investigation**

The plume of VOC impacted groundwater at the Site has been designated as Operable Unit 2 (OU-2). The Forest Service and the County have been conducting groundwater investigations and monitoring at the Site since the 1990s. The initial Remedial Investigation and Feasibility Study Reports (RI/FS) did not fully describe groundwater conditions at the Site. In 2005, the Forest Service began the CERCLA Supplemental Remedial Investigation for OU-2 to fully define the nature and extent of the contamination. This is a key step in identifying a groundwater remedy for the Site. The selection of a final groundwater remedy for the Site will be greatly affected by how successful the OU-1 remedy is in mitigating the release of contaminants to groundwater. As a result, the Forest Service anticipates that the OU-2 investigation efforts will continue

for several years after construction of the OU-1 remedy to determine the effectiveness of the remedy.

The investigation to date shows that groundwater is present in two interconnected zones, the Upper Groundwater Zone (UGZ) and Middle Groundwater Zone (MGZ), and in a separate deeper zone, the Lower Groundwater Zone (LGZ). The UGZ and MGZ are impacted by vinyl chloride and other VOCs. Figure 4 shows a cross section of the VOC contaminant plume.

Vinyl chloride concentrations in the UGZ and MGZ have historically ranged from less than 0.5 parts-per-billion (ppb) to 100 ppb. A ppb is about one drop in 13,750 gallons of water. Sampling has not detected VOCs in the LGZ. Figure 5 shows the known extent and migration direction of vinyl chloride in the UGZ and MGZ as of October 2010.

Current groundwater investigation efforts indicate that contaminated groundwater in the UGZ appears to be moving northeastward and that groundwater in the MGZ is moving in a more northerly direction. Sampling results from monitoring wells installed north of the landfill indicate that VOCs, including vinyl chloride, have migrated beneath Pioneer Trail. The OU-2 investigation will continue to define the extent of VOCs in groundwater.

### **What Does This Mean?**

The groundwater contamination at the Site does not present a threat to nearby residents or drinking water supplies. The South Tahoe Public Utility District supplies drinking water from wells that are distant from the impacted area. There are no known private wells in the Pioneer Trail area.

Vinyl chloride and other VOC levels are very low and impacted water is far underground (about 160 feet below ground surface), where no one will come in contact with it. The presence of contaminated groundwater will restrict installation of private or public drinking water wells in the area.

### **What is Being Done?**

Waste consolidation and construction of the impermeable landfill cover is underway and will minimize further groundwater contamination.

The Forest Service will be installing additional groundwater monitoring wells during 2011 to continue to define the nature and extent of the groundwater contamination at the Site and in the Pioneer Trail area. Once the extent of groundwater contamination is clear, and the effectiveness of the OU-1 remedy is known, the Forest Service will prepare a supplemental RI/FS, proposed plan, and ROD for OU-2 (OU-2 ROD) and select a final remedy for the Site. The OU-2 ROD will address the contaminated groundwater plume and any response action that may be required if contaminants continue to emanate from the landfill waste.

### **How to find more information**

For more information, please refer to the contact individuals shown on page 4. Information on Meyers Landfill Remediation, including a Site history and relevant documents are available on the web at:

**<http://www.fs.usda.gov/goto/MeyersLandfill>**

The Administrative History of the Meyers Landfill Remediation is available for inspection upon request at the Forest Supervisor's Office, 35 College Drive, South Lake Tahoe, CA 96150.

Switchboard: 530-543-2600

Information: 530-543-2694

Notes:

Photos have been posted that could be used for Figure 1.

Figure 2 will be a photo taken on Nov. 17 showing the landfill with stormwater BMPs. I will bring photos to the Basin office after the construction meeting.

Figure 3 will be a simplified schematic of the final design. ERRG is preparing this and will have a draft ready by Nov. 9.

Figure 4 will be a cross section of the plume. Weston is preparing this and a draft should be ready by Nov. 12.

Figure 5 will be a plan view of the vinyl chloride plume in the UGZ and MGZ. Weston is preparing this and a draft should be ready by Nov. 12.