Groundwater Remedy Improvement Plan Fact Sheet

U.S. DEPARTMENT OF ENERGY | Legacy Management

Monticello, Utah, Disposal and Processing Sites
CERCLA/RCRA sites

This fact sheet provides information about groundwater remedy improvements conducted at the **Monticello, Utah, Disposal and Processing Sites**. The U.S. Department of Energy Office of Legacy Management manages this site.

Site Description and History

The Monticello, Utah, Disposal and Processing Sites are located in and near the city of Monticello, Utah, in southeastern Utah approximately 250 miles southeast of Salt Lake City. From 1942 until 1960, an on-site mill processed vanadium and uranium ore for military purposes. This production process resulted in mill tailings, which were impounded at four locations along the local Montezuma Creek.

Remediation

The U.S. Department of Energy (DOE) cleaned up contamination at the mill tailings site and at several properties located in and near Monticello according to requirements set by the Comprehensive Environmental Response, Compensation, and Liability Act, as amended by the Superfund Amendments and Reauthorization Act of 1986. By August 1999, DOE removed all contaminated material to a DOE disposal cell, constructed about 1 mile south of the mill site.

DOE monitors residual contamination to ensure the protection of human health and the environment.

Groundwater Remedy Improvement

Ore-processing contaminated groundwater in a shallow alluvial aquifer beneath and to the east of the former mill site. Groundwater contaminants of concern include uranium, arsenic, manganese, molybdenum, nitrate, selenium, vanadium, gross alpha activity, and gross beta activity. The affected aquifer is not to be used as a source of water for domestic purposes.

The purpose of groundwater remediation is to restore water quality and protect human health and the environment. The groundwater remedy selected in May 2004 for the Monticello site was monitored natural attenuation, which allows contamination to dissipate through natural processes in the aquifer without the need for engineered controls. DOE added active groundwater remediation using pump-and-treat technology to the groundwater remedy through an Explanation of Significant Difference issued in January 2009. DOE regularly monitors groundwater to measure the progress of the remedy. DOE has also established institutional controls that restrict groundwater usage to ensure that the selected remedy continues to be protective of human health and the environment.

DOE optimized active groundwater remediation to improve aquifer-contaminant removal and speed up progress toward meeting established site-cleanup goals for groundwater and surface water. Construction began in May 2014 with the

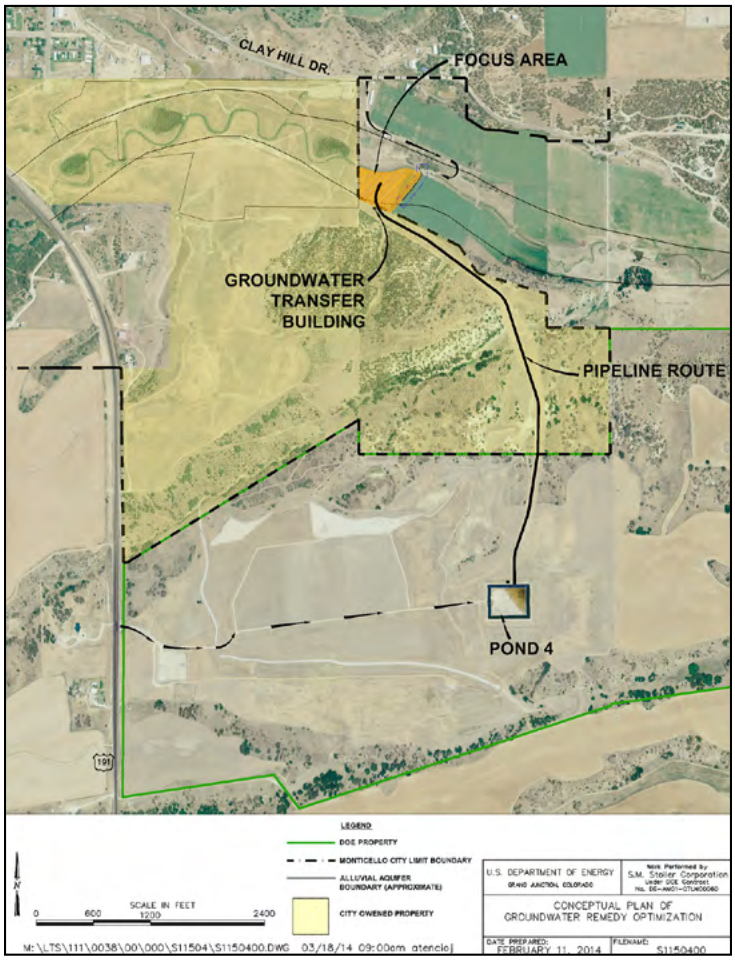
Interior of groundwater transfer building.

installation of new groundwater-monitoring wells and extraction wells. The system began operation in January 2015. The optimized pump-and-treatment remediation system uses eight extraction wells to remove contaminated groundwater from a focus area. A buried pipeline transports the extracted water to an evaporation pond (Pond 4), located on the DOE disposal cell property. The remediation system is designed for year-round operation and utilizes instrumentation that provides continuous monitoring. A utility building (groundwater transfer building) to house the system controls was built on city-owned property near the focus area.

CERCLA Five-Year Reviews

Section 121(c) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) requires that remedial actions resulting in hazardous substances, pollutants, or contaminants remaining at a site — above levels that allow for unlimited use and unrestricted exposure — be reviewed every five years to ensure protection of human health and the environment.

CERCLA Five-Year Reviews of the Monticello sites began in 1997. The sixth and most recent review, completed in July 2022, concluded that the optimized pump-and-treat remediation system may no longer be effective at reducing the time frame to reach the site-cleanup goals. To address this issue, DOE is preparing a feasibility study that will evaluate alternative remedies for achieving the groundwater and surface water cleanup goals. DOE anticipates completing the feasibility study in 2023.



Groundwater remedy improvement area.

CONTACT INFORMATION

IN CASE OF AN EMERGENCY AT THE SITE, CONTACT 911

LM TOLL-FREE EMERGENCY HOTLINE: (877) 695-5322

Site-specific documents related to the **Monticello, Utah, Disposal and Processing Sites** are available on the LM website at **www.energy.gov/lm/monticello-utah-disposal-and-processing-sites**

Monticello Sites Mapping and Monitoring: **https://gems.lm.doe.gov/#site=MNT**

For more information about LM activities at the **Monticello, Utah, Disposal and Processing Sites** contact:

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