

**FLOODPLAIN STATEMENT OF FINDINGS  
FOR THE CHROMIUM PLUME CONTROL INTERIM MEASURE  
AND PLUME-CENTER CHARACTERIZATION,  
LOS ALAMOS NATIONAL LABORATORY, LOS ALAMOS, NEW MEXICO**

**AGENCY:** U.S. Department of Energy (DOE) Environmental Management, Los Alamos Field Office (EM-LA)

**ACTION:** Floodplain Statement of Findings

**SUMMARY DESCRIPTION OF PROPOSED ACTIONS:** The DOE EM-LA proposes to install two to six angled or vertical injection wells and up to three extraction wells that range in depth between 1,000 and 1,300 ft below ground surface, screened within the regional aquifer, capable of pumping up to 150 gallons per minute (gpm) each. In addition, the project would design and install a piping network capable of delivering 100 to 450 gpm of chromium-contaminated water from the extraction wells to the ion exchange treatment units and then from treatment to the injection wells for injection into the regional aquifer. The wells would be located in the canyon bottom and mesa top on the south side of Mortandad Canyon at Los Alamos National Laboratory. Until the injection wells are installed, treated groundwater that meets clean water standards would be land applied using sprinkler systems and water trucks along roads in designated spray zones. To further characterize infiltration in Sandia Canyon, DOE EM-LA also proposes to install shallow alluvial piezometers varying in depth with the maximum depth down to 40 feet. They are currently planned to be installed on terraces on either side of the channel in lower Sandia Canyon. The piezometers would be installed with a concrete pad but would not require additional infrastructure. Associated facilities may be built in the 100-year floodplain such as well pads, settling ponds, sprinkler arrays, access roads, and staging areas. In addition to these facilities, application of treated groundwater, as permitted under the approved groundwater discharge permit (DP-1793) work plans for treatment and land application of treated groundwater, may occur within the floodplain.

The locations of the 100-year floodplain, water courses, and project infrastructure are shown in Figure 1. The locations of designated spray zones are shown in Figure 2. The placement of project infrastructure and spray zones within the floodplain in the bottom of Mortandad Canyon is necessary because of the location of the chromium plume beneath Mortandad Canyon and because steep slopes along the canyon sides are unsuitable for installation of wells and operation of spray irrigation systems.

**SUPPLEMENTARY INFORMATION:** This Floodplain Statement of Findings, prepared in accordance with Executive Order 11988: Floodplain Management and DOE implementing regulations 10 Code of Federal Regulations 1022, provides a summary of the results of the Floodplain Assessment, which is incorporated as an appendix to the *Final Environmental Assessment for Chromium Plume Control Interim Measure and Plume-Center Characterization, Los Alamos National Laboratory, Los Alamos, New Mexico* (DOE/EA-2005). The public comment period for the Proposed Floodplain Action began November 4, 2015 and ended on November 20, 2015. Comments were received from Communities for Clean Water.

**ALTERNATIVES:** Alternatives to the proposed action that were considered, but not evaluated, included monitored natural attenuation and in situ treatment. However, these alternatives were eliminated from further consideration once it was determined they would not meet DOE EM-LA's stated purpose and need. In addition, DOE EM-LA considered a No Action Alternative, which was not selected because without this action, the chromium plume would be left uncontrolled and the chromium groundwater plume would be expected to continue to migrate.

**FLOODPLAIN IMPACTS:** DOE EM-LA has determined that this project would not result in adverse impacts to the 100-year floodplain. The project would conform to applicable floodplain protection standards. Temporary disturbance within the floodplain would cease following completion of construction activities associated with this proposed project. Best management practices, including erosion and sediment control measures would be utilized during construction to minimize any potential harm. This proposed project would not significantly modify existing elevations and flow paths within the floodplain or result in other long-term impacts to the floodplain and its functionality. No effects to lives and property associated with floodplain disturbance are anticipated.

**FOR FURTHER INFORMATION CONTACT:** For further information on this EA, contact M. Lee Bishop, Document Manager, U.S. Department of Energy, Office of Environmental Management, Los Alamos Field Office (EM-LA), 3747 W. Jemez Road, MS-A316, Los Alamos NM 87544; e-mail [CRProjectEA@em.doe.gov](mailto:CRProjectEA@em.doe.gov).