

Chestnut Ridge ROD and Remediation

Scope: The Chestnut Ridge Record of Decision (ROD) and Remediation project will select a remedy for and complete remediation of Chestnut Ridge, an area south of the Y-12 National Security Complex (Y-12) where active construction and industrial landfills and former waste management units are located. A remedy for Chestnut Ridge, including a final groundwater decision for the area, will be selected and implemented under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) process. The project will:

- Prepare a remedial investigation (RI)/feasibility study (FS), Proposed Plan and ROD for regulatory approval, including evaluation of public comments;
- Excavate, transport, and dispose soils and construction debris from the Temporary Storage Area; and
- Prepare a plan for monitored natural attenuation of groundwater and other surveillance and maintenance activities for the Chestnut Ridge area.

A single, defining hydrologic watershed is not present for Chestnut Ridge; rather, the ridge is dissected by a number of small tributaries that flow south along the flank of the ridge and discharge directly to the Clinch River (Melton Hill Reservoir). Former disposal sites that have previously undergone Resource Conservation and Recovery Act (RCRA) closure and require post-closure monitoring, as well as other sites within the area boundary, will be addressed in the Chestnut Ridge ROD. The groundwater remedy that is anticipated to be selected is monitored natural attenuation of contamination from the Chestnut Ridge Security Pits (a RCRA closed unit) and Arboretum Spring.

The Chestnut Ridge ROD and Remediation project is planned by the Integrated Facility Disposition Program (IFDP) at an estimated cost of \$14M.

Environmental Risk and Principal Threat Source Material Rating: Medium

- Soils and construction debris from the Temporary Storage Area do not pose a principal threat or high environmental risk. Excavation of the Temporary Storage Area is consistent with planned controlled industrial land use for Chestnut Ridge.
- Volatile organic compound (VOC) groundwater contaminants from past waste disposal on Chestnut Ridge exceed drinking water standards. The groundwater plume beneath Chestnut Ridge can be detected in a spring east of the Oak Ridge Reservation at the University of Tennessee Arboretum, a public area for which institutional controls are in place to restrict groundwater use.

Other Prioritization Factors:

- Due to the complex karst hydrogeology underlying Chestnut Ridge, it will likely be determined to be impractical to actively restore groundwater to drinking water standards within a time frame significantly shorter than would occur through natural processes.
- Remediation of Chestnut Ridge (located south of the Y-12 main plant area) is not an integral part of the planned transformation of Y-12 into a modernized, cost-effective Nuclear Weapons Complex.

Overall Prioritization: Low

The overall prioritization of the Chestnut Ridge ROD and Remediation project is **Low**.

The information presented in this fact sheet is preliminary and will be refined during Critical Decision-2/3 development.

January 2009

For more information, please contact the DOE public affairs office at (865) 576-0885.

