

## Bear Creek Burial Grounds ROD and Remediation

**Scope:** The Bear Creek Burial Grounds (BCBG) Record of Decision (ROD) and Remediation project will select a remedy for and complete remediation of the BCBG, a former waste disposal area located approximately 2 miles west of the Y-12 National Security Complex (Y-12) main plant area in the Bear Creek Valley (BCV) Watershed. The BCBG operated from approximately 1955 to 1993, primarily for the disposal of depleted uranium wastes and industrial wastes containing or contaminated with depleted uranium from nuclear weapons production operations at Y-12. Since 1989, several of the BCBG disposal units have been closed and capped under the Resource Conservation and Recovery Act (RCRA). A remedy for the BCBG will be selected and implemented under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) process. The project will:

- Prepare a focused feasibility study (FS), Proposed Plan<sup>1</sup>, and BCBG ROD (also known as the BCV Phase II ROD) for regulatory approval, including evaluation of public comments; and
- Construct additional multilayer engineered caps and drainage controls to further hydrologically isolate the BCBG (the anticipated selected remedy).

The BCBG ROD and Remediation project is planned by the Integrated Facility Disposition Program (IFDP) at an estimated cost of \$41M.

### **Environmental Risk and Principal Threat Source Material Rating: Medium**

- All of the BCBG disposal units contain significant quantities of uranium. Waste constituents include organic compounds, polychlorinated biphenyls (PCBs), acids, metals, and other radionuclides. The Walk-in Pits portion of the BCBG also contains potentially reactive and explosive wastes.
- Uranium and other contaminants in solid and liquid waste buried in the BCBG migrate through shallow groundwater to Bear Creek via North Tributary (NT)-7 and NT-8. A recent evaluation indicated that the contribution of uranium mass from NT-8 to the measured flux at the BCV watershed integration point (located at the planned future boundary of the restricted industrial area) may range between 20 - 40%.
- Consistent with the BCV Phase I Interim ROD<sup>2</sup> goal of reducing uranium concentrations in surface water at the watershed integration point, the anticipated selected BCBG remedy in the BCV Phase II ROD will hydrologically isolate BCBG source areas and reduce migration of contaminants.

### **Other Prioritization Factors:**

- Planned remedial actions are expected to further reduce contaminant migration so that clean groundwater and surface water in western BCV continue to be acceptable for unrestricted use, consistent with future land use goals. DOE has access restrictions in place in all BCV zones and has no current plans for release of land within BCV.
- A final groundwater decision for BCV watershed will be addressed in the planned future BCV Groundwater ROD.

### **Overall Prioritization: Medium**

The overall prioritization for the BCBG ROD and Remediation project is **Medium**.

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

<sup>1</sup> D1 versions of the BCBG Focused Feasibility and Proposed Plan were submitted to regulators in 2008.

<sup>2</sup> Record of Decision for Phase I Activities in Bear Creek Valley at the Oak Ridge Y-12 Plant, Oak Ridge, Tennessee (DOE/OR/01-1750&D4, DOE 2000)

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

