

## Bethel Valley Groundwater ROD

**Scope:** The Bethel Valley (BV) Groundwater Record of Decision (ROD) project will select a final remedy for groundwater in the BV Watershed located at the Oak Ridge National Laboratory (ORNL). The remedy will be selected and implemented under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) process. The project will:

- Prepare a focused Remedial Investigation (RI)/Feasibility Study (FS), Proposed Plan, and ROD for regulatory approval, including evaluation of public comments; and
- Prepare a plan for future monitoring and institutional controls of the area.

The BV Groundwater ROD project is planned for implementation by the Integrated Facility Disposition Program (IFDP) at an estimated cost of approximately \$9M, which is based on an assumed remedy of monitored natural attenuation.

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

- Strontium-90 contaminated soil in Central BV is a primary contributor to groundwater contamination and is the principal threat material of most concern for off-site contaminant migration via White Oak Creek at the confluence of White Oak Creek Embayment and the Clinch River.
- Cleanup of contaminated source areas will be addressed by IFDP under separate projects:
  - The Corehole 8 Project will complete excavation of Strontium-90 contaminated soils in the Tank W-1A area of Central BV, thereby removing a major source of contaminant migration.
  - The ORNL Soils and Sediments Project will complete the remedial actions specified in the BV Interim ROD.<sup>1</sup> Remediation of sources contributing to groundwater contamination and targeted groundwater actions are part of the selected remedy.
- Implementation of BV Interim ROD actions is expected to reduce risk by 45% at the Bethel Valley White Oak Creek exit point. The 45% risk reduction objective is directly tied to the downstream Melton Valley Watershed goal of protecting an off-site residential user from radiological contaminants at the confluence of White Oak Creek Embayment and the Clinch River.

### **Other Prioritization Factors:**

- Contaminated groundwater in BV is being actively collected and treated in order to minimize the uncontrolled flux of groundwater contamination into adjacent surface water systems. Approximately 50M gal/yr are collected and treated prior to discharge via a permitted outfall. One extraction well is specifically targeting Corehole 8 plume groundwater contamination from the Tank W-1A area.
- Separate projects for facilities D&D and remedial actions in BV Watershed are scheduled for IFDP implementation prior to the BV Groundwater ROD.
- BV is a restricted area under Department of Energy (DOE) control. Data in the planned future RI will be used to evaluate the effectiveness of interim ROD actions and prepare the BV Groundwater ROD, which is anticipated to require institutional controls and monitoring.

### **Overall Prioritization: Low**

The overall prioritization for the BV Groundwater ROD project is **Low**.

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

<sup>1</sup> Record of Decision for Interim Actions in Bethel Valley Watershed, Oak Ridge, Tennessee, DOE/OR/01-1862&D4, DOE 2002

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

