

Upper East Fork Poplar Creek Groundwater ROD

Scope: The Upper East Fork Poplar Creek (UEFPC) Groundwater Record of Decision (ROD) project will select a final remedy for groundwater in the UEFPC Characterization Area (CA), which includes the Y-12 National Security Complex (Y-12) main plant area. The UEFPC CA also includes a contaminated groundwater plume [East End Volatile Organic Compound (VOC) Plume] that extends beyond the Y-12 site and Oak Ridge Reservation (ORR) boundary to the east into Union Valley. The project objective is to reach a final decision for groundwater remediation for the UEFPC CA and Union Valley. The remedy 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; and
- Prepare a plan for future monitoring and institutional controls of the area.

The UEFPC Groundwater ROD project is planned for implementation by the Integrated Facility Disposition Program (IFDP) at an estimated cost of approximately \$6M, which is based on an assumed remedy of monitored natural attenuation.

Environmental Risk and Principal Threat Source Material Rating: High

- Release mechanisms to groundwater include historical spills and leaks from source areas at Y-12. VOCs are the most widespread contaminant class in groundwater. An early action is ongoing to intercept and treat the East End VOC Plume. Other prevalent groundwater contaminants are radionuclides, nitrate, and metals, including mercury from legacy contamination.
- The UEFPC Phase I Interim ROD¹ is designed to reduce mercury loading in UEFPC. The UEFPC Phase II Interim ROD² addresses contaminated soil and scrap, including contaminated soil exceeding risk-based levels for protection of groundwater and surface water. Except for the Big Spring Water Treatment System (BSWTS) completed in 2005 to capture and treat mercury contaminated groundwater, the interim ROD remedy components have not yet been implemented.

Other Prioritization Factors:

- In addition to ongoing treatment of the East End VOC Plume and BSWTS operation, mercury-contaminated groundwater from several Y-12 building sumps is being actively collected and treated.
- In order to limit the potential for recontamination and to evaluate the effectiveness of planned source removal actions, the UEFPC Groundwater ROD is scheduled for IFDP implementation after completion of upstream remediation and D&D projects at Y-12.
- Institutional controls and monitoring in UEFPC and Union Valley continue to be implemented. Data in the planned future RI will be used to prepare the UEFPC Groundwater ROD, which is anticipated to require institutional controls and monitoring.

Overall Prioritization: Low

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

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

¹ Record of Decision for Phase I Interim Source Control Actions in the Upper East Fork Poplar Creek Characterization Area, Oak Ridge, Tennessee, DOE/OR/01-1951&D3, DOE 2002

² Record of Decision for Phase II Interim Remedial Actions for Contaminated Soils and Scrapyard in Upper East Fork Poplar Creek, Oak Ridge, Tennessee, DOE/OR/01-2229&D3, DOE 2006

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

