

UEFPC Sediments, Streambed, and Lake Reality Remediation

Scope: The Upper East Fork Poplar Creek (UEFPC) Sediments, Streambed, and Lake Reality Remediation project will complete the sediment excavation remedial actions specified in the Upper East Fork Poplar Creek (UEFPC) Phase I Record of Decision (ROD)¹. The project objective is to remove mercury contaminated sediments and associated contaminated bank soils from UEFPC and Lake Reality, a lined retention basin located near the point where UEFPC leaves the Y-12 National Security Complex (Y-12) site. UEFPC has not flowed through Lake Reality since 1998; however, the capability remains to direct UEFPC into Lake Reality and contain flow should an emergency need (e.g., spill containment) arise. The project will:

- Remove and disposition contaminated sediment and soil from UEFPC streambed and banks. Contaminated sediment will be removed to bedrock (1 to 6 ft deep) from approximately 4750 linear ft of the UEFPC streambed.
- Backfill and grade the streambed to restore the creek channel.
- Remove and disposition contaminated sediment (approximately 1 ft deep) from Lake Reality.

The UEFPC Sediments, Streambed, and Lake Reality Remediation project is planned for implementation as part of the Integrated Facility Disposition Program (IFDP) at an estimated cost of \$62M.

Environmental Risk and Principal Threat Source Material Rating: High

- Contaminated sediments will be removed from UEFPC and Lake Reality to reduce ungauged (non-point source) mercury flux in UEFPC.
- The sediment remediation and other UEFPC Phase I ROD interim actions are not projected to restore UEFPC surface water to meet Ambient Water Quality Criteria (AWQC) for mercury. However, the sediment remediation will help meet the UEFPC Phase I Interim ROD goal of restoring surface water to human health recreational risk-based values for mercury [200 parts per trillion (ppt)] at Station 17, a UEFPC monitoring location near the Y-12 site boundary. Compliance with AWQC will be addressed in future watershed decisions.
- Reduction of mercury flux at Station 17 is tied to the goal of reducing mercury in fish tissue and compliance with anticipated mercury limits in the Y-12 site National Pollutant Discharge Elimination System (NPDES) permit which is scheduled for issuance in 2009.

Other Prioritization Factors:

- In order to address primary point source contributors to mercury flux in UEFPC and limit the potential for recontamination, IFDP plans to implement upstream D&D and remediation activities in the West End Mercury Area (WEMA) at Y-12 prior to excavation of UEFPC and Lake Reality sediments.

Overall Prioritization: Low

- The overall prioritization for the UEFPC Sediments, Streambed, and Lake Reality Remediation 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

January 2009

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

