

**Solving Cleanup Challenges Through Risk Reduction**

**Surface Water  
Operable Unit  
RI/FS Scoping**



**Briefing for Paducah  
CAB Subcommittee**

**April 15, 2010**



# *Surface Water Overview*

## **Two Actions**

- On-site Hot Spot Removal (now underway)
- Off-site Remedial (in scoping)

## **Off-site Action Remedial Investigation Scope**

- 16 Solid Waste Management Units (SWMUs) including
  - Bayou and Little Bayou creeks
  - Rubble piles, dams and rubble used for bank stabilization in creeks
  - Miscellaneous SWMUs (including a former monitoring station on Bayou Creek, Horseshoe Lagoon, and portion of Yellow Water line associated with the former Kentucky Ordnance Works)
- Sitewide baseline ecological risk assessment

# *Scoping Process*

**Purpose of scoping** is to reach an understanding of sampling necessary to assess risks to human and ecological receptors and determine appropriate action

**Scoping meetings -> Work Plan development**

**Scoping Team** includes representatives from

- U.S. Environmental Protection Agency
- Commonwealth of Kentucky (Division of Waste Management and Radiation Health Branch)
- U.S. and Kentucky Fish and Wildlife Services
- West Kentucky Wildlife Management Area
- DOE and subcontractors

# Scoping Approach

- Develop **scoping summaries** for each SWMU (what do we know about each SWMU already?)
- **Group** SWMUs into **SWMU types** so that a common approach is developed for each type (i.e., creek SWMU, rubble pile SWMU, etc.)
- Develop a desired **end state** of each SWMU type (who/what are we trying to protect and to what extent?)
- Develop **conceptual site models** for the various SWMU types (who/what is affected and how?)
- Develop **investigation approaches** for each SWMU type to develop data that answers the above questions
- Develop **Sampling and Analysis Plans** (SAPs) for each SWMU

# *Expected Results of Scoping for SWMUs*

- What **data do we already have** that can help us get answers more quickly or will supplement new data?
- What **media** need to be sampled?
- What **types** of samples do we need? (i.e., discrete or composite? random or biased?)
- How **many** samples do we need? (for both nature of contamination and extent)
- What information might result in a decision for an **early action**?
- What do we need to analyze for (**chemical/physical properties**) and what are the appropriate analytical **methods**?

# *Sitewide Ecological Risk Assessment*

- A sitewide ecological risk assessment was assigned into the Surface Water Off-Site scope per FFA managers
- Scoping team formed an **ecological working group** to develop sampling requirements to assess off-site comprehensive sitewide ecological risks
- Physical area of assessment is not limited to individual SWMUs but encompasses habitat for ecological receptors who might come into contact with soil, sediment, and surface water affected by PGDP activities
- Ecological working group discussions conducted beginning in December 2009 - ongoing

# *Project Schedule*

- Scoping team meetings started October 2009–ongoing
- Scoping team determined no formal scoping document required to be submitted by DOE to regulatory agencies preferring to have a more open and continuous dialogue to ensure constructive progress; agreements reached during the scoping process are being documented
- Work Plan scheduled for April 2011