

Environmental Indicators

August 16, 2007



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Environmental Indicators

- The 1993 Government Performance and Results Act (GPRA), hold federal agencies accountable for using resources wisely and achieving program results
- EPA, under direction from Congress, established two environmental indicators (EIs)
- Two indicators: groundwater contaminant migration under control and human exposure under control
- Kentucky has responsibility for making determination
- Three possible indicator conditions
 - Yes, contamination under control
 - No, contamination not under control
 - Insufficient information



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Indicator - Groundwater Contaminant Migration

- “No” condition
- Kentucky does not consider groundwater contaminant migration under control because:
 - Contaminant plumes are not stable
 - Groundwater seeps in Little Bayou Creek releasing contamination to surface water



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Indicator – Human Exposure Controlled

- “No” condition per Kentucky
- DOE believes exposure is adequately controlled
- Kentucky does not consider exposure under control because:
 - Unacceptable levels of uncertainty exist regarding contamination levels in Little Bayou and Bayou Creeks
 - Contamination exists in the off-site portions of the North-South Diversion Ditch
 - Various contaminants have been identified in these areas above background and in excess of agreed upon risk-based screening values
- DOE, EPA and Kentucky working together to achieve a “Yes” to EI



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Path to Gain a 'Yes' to Human Exposure EI

1. Place signs along Little Bayou Creek, a small defined stretch of Bayou Creek and along Section 5 of the North South Diversion Ditch
2. Stay on track with Soil Piles evaluations in accordance with February 2007 letter and the schedules attached
3. Develop a process for managing uncertainties with respect to potential human exposures associated with entire PDGP property
4. Develop a plan to expedite discovery of any yet unaccounted for areas of contamination



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Sign Placement

- Place and maintain signs at all easily accessible points to the creek areas along Little Bayou Creek and portions of Bayou Creek
- No signs would be required where fencing is already in place

Example of sign for Little Bayou Creek as proposed by Kentucky



Sediments in this creek may be contaminated. Use of this waterway for drinking, fishing, swimming or other forms of recreation may expose you to unnecessary health risk.

Do not eat fish caught in this body of water. For more information, call (270) 441-5023.



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Sign Placement

Example of sign for Bayou Creek
as proposed by Kentucky



**Sediments in this creek
may be contaminated.
Use of this waterway for drinking,
swimming or other forms of
recreation may expose you
to unnecessary health risk.
For more information, call
(270) 441-5023.**

Example of sign for North-South
Diversion Ditch as proposed by
Kentucky



**WARNING: The U.S. Federal
Government has determined
that this ditch is contaminated
and should not be used for drinking,
recreational, or fishing purposes.
For more information,
call (270) 441-5023.**



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Current Status

- DOE expects to develop a flowchart to describe how the FFA parties are managing uncertainties with respect to potentially unidentified areas
 - DOE, EPA, and KDEP will jointly evaluate future needs for signs or other controls as more data become available
- DOE will procure and install signs as soon as all three parties are in agreement on the actions specified by Kentucky
- DOE will maintain signs and continue with investigations per the FFA/SMP



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