DOE Sampling at U.S. Army Corps of Engineers Area of Concern 4

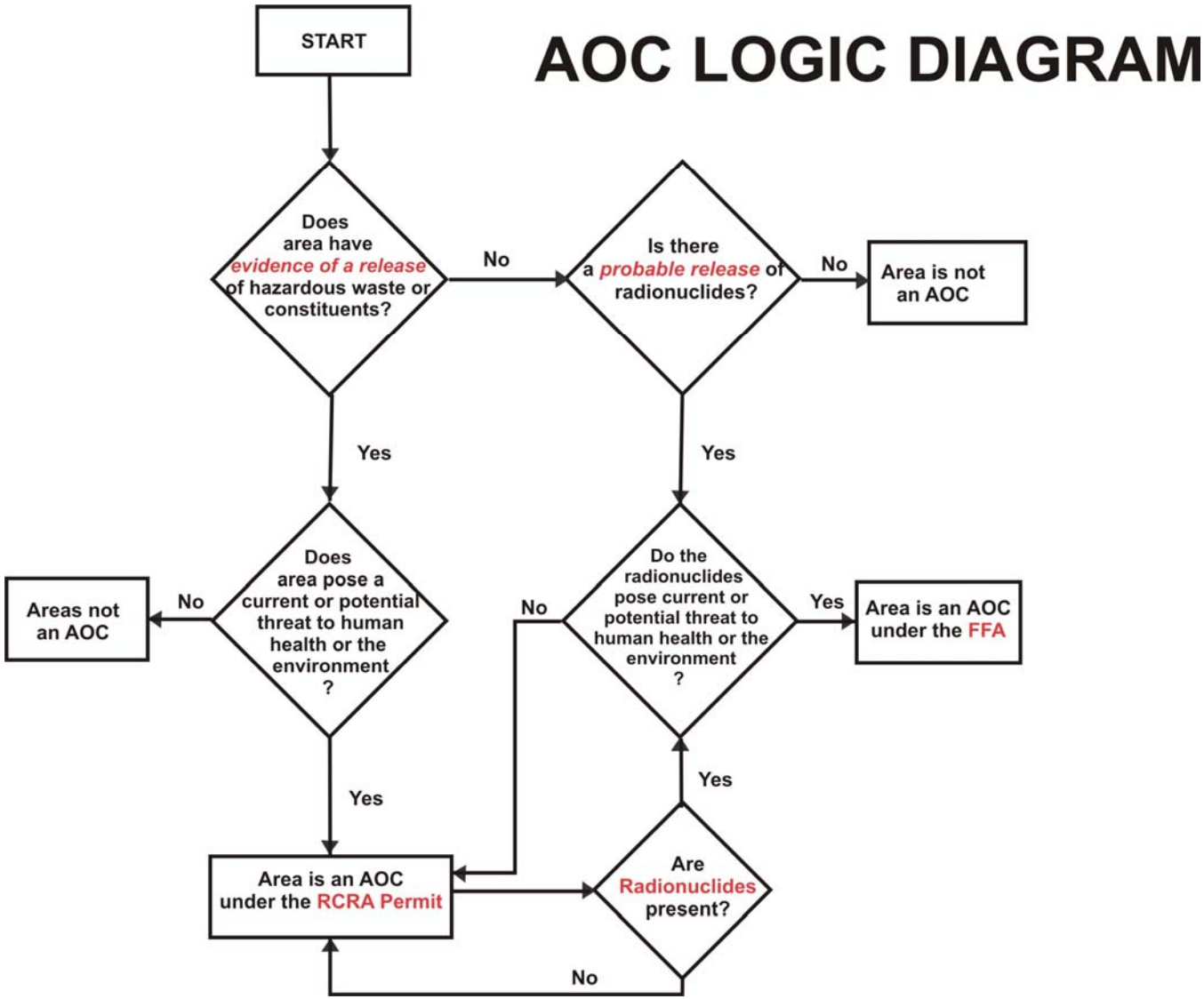
Paducah Citizens Advisory Board

November 15, 2007

Purpose of Presentation

- DOE definition of Area of Concern (AOC)
- Corps of Engineers definition of AOCs
- DOE sampling results from Corps AOC 4

DOE Definition of an Area of Concern (AOC)



Assessment Reports

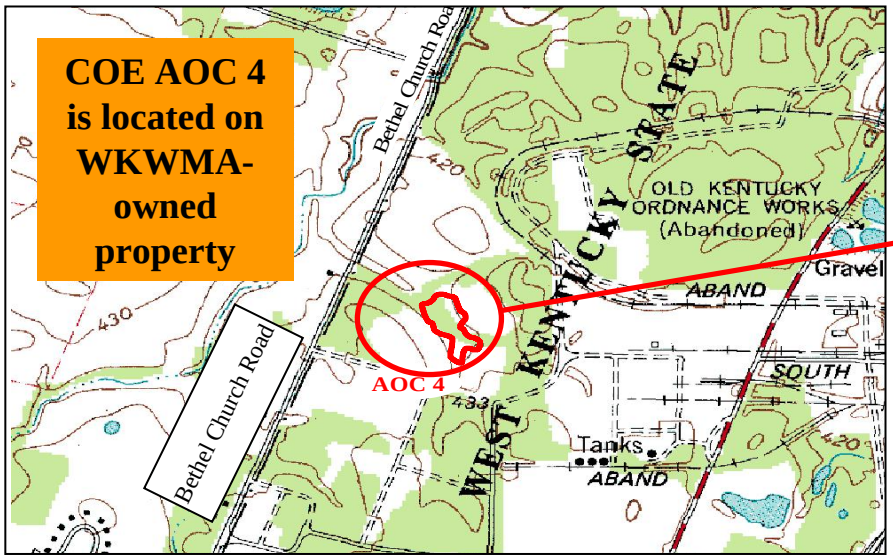
- DOE must maintain a description of each AOC that includes the following:
  - The location and type of the unit
  - The size of the unit
  - Historical information
  - Specification of wastes that have been managed at the unit
  - All available information regarding any release of hazardous wastes or hazardous constituents
  - Results of required sampling

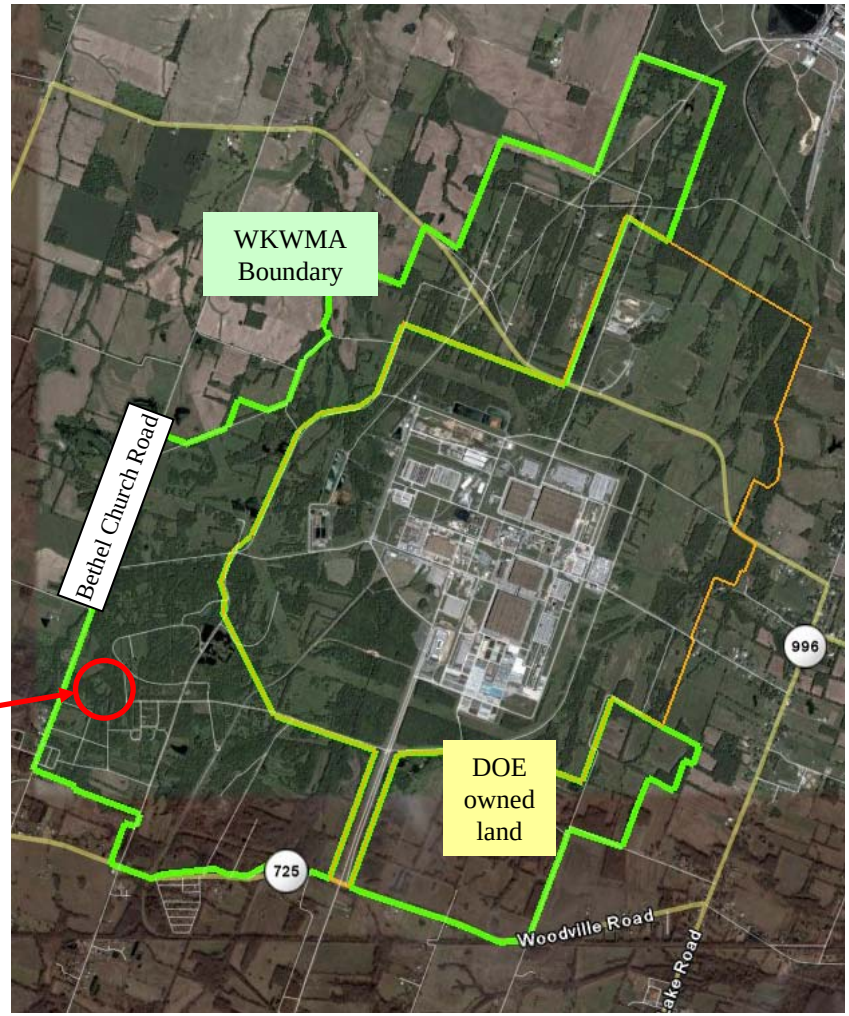
AOCs and the Army Corps of Engineers

- COE definition of an Area of Concern different from DOE definition
- COE definition more geographic, closer to DOE usage of Waste Area Grouping
- COE performed a Remedial Investigation/Feasibility Study of AOC 4 (www.specproenv.com/KOW/index.htm)
- COE held a public meeting in March 2007 to discuss its Proposed Plan for Area of Concern 4
- Record of Decision pending

KOW Background

- Former Kentucky Ordnance Works (TNT manufacturing during WWII) site located to the west and south of PGDP
- Cleanup responsibility of the Army Corps of Engineers (COE)





A map showing DOE-owned property, the WKWMA, and COE AOC 4.

DOE Sampling at COE Area of Concern 4

- In late September 2007, DOE obtained from the Department of Justice coordinates to perform sampling at four locations within the COE's AOC 4
  - Located within two former gravel pits divided by a drainage swale
  - Heavily wooded site of two former gravel pits, covering about 2.5 acres
  - Coal sludge and construction debris was placed in the pits
  - No known DOE activities in this area
  - Sampling conducted to verify this fact

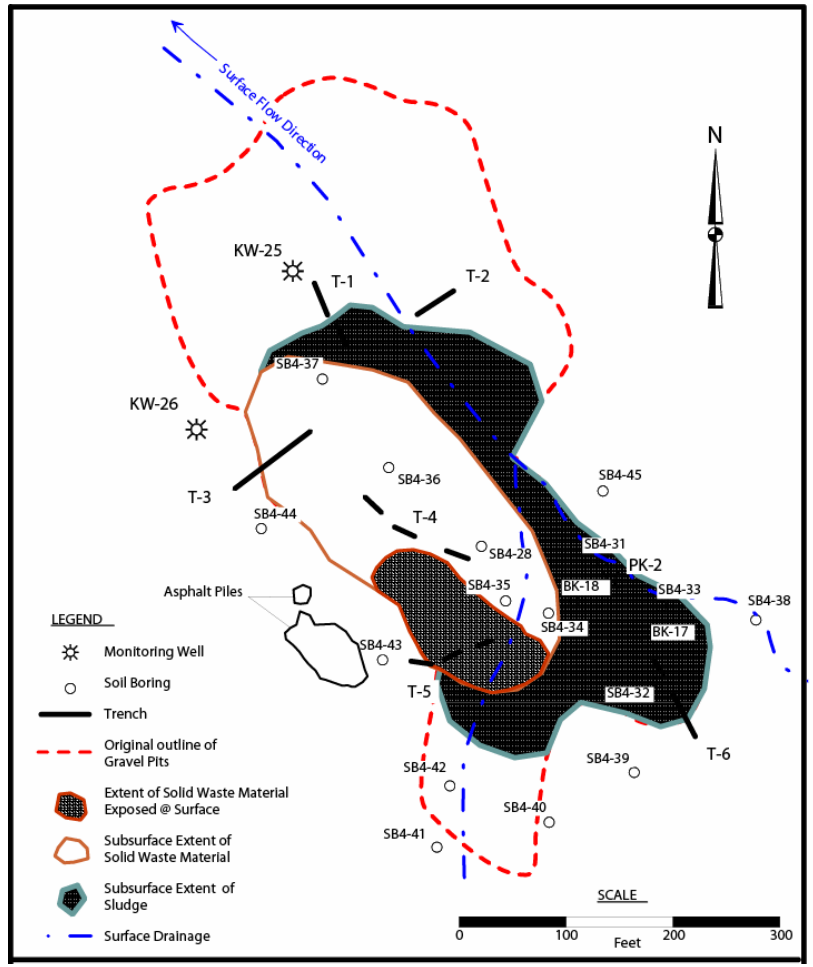
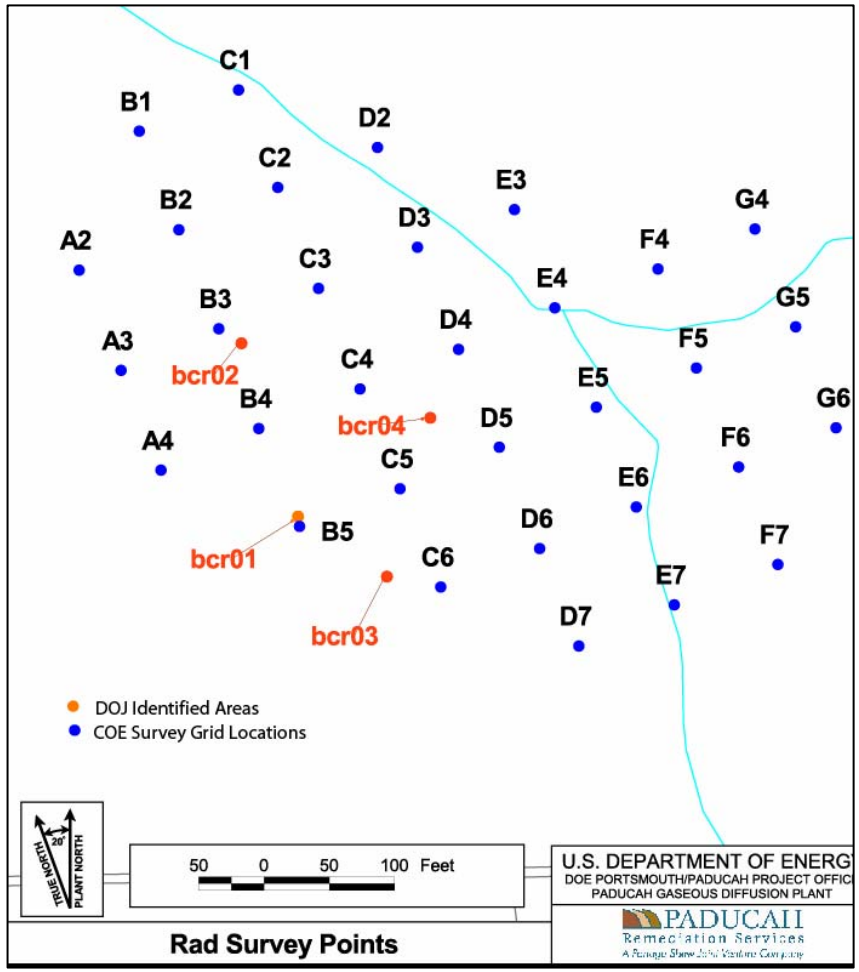


Figure from USACOE Proposed Plan for KOW AOC 4.

DOE Sampling at COE Area of Concern 4

- COE investigation shows metals present, including arsenic, cadmium, chromium, lead, and mercury
- COE performed 40,000+ radiological readings and found no unexpected contamination
  - Uranium and thorium normal in coal and coal residue
- DOE radiological surveys at the four locations shown in red verified COE findings
- Verification samples also taken; results consistent with COE findings
- KDEP personnel accompanied DOE during survey