



PGDP Property Acquisition Study

**PGDP PRS Briefing
June 15, 2006**

Presented by Lindell Ormsbee,
Director; Kentucky Research Consortium for Energy and
Environment (KRCEE)



Congressional Directive to DOE

“Within the funds provided the Department shall undertake a study of the potential purchase of property or options to purchase property that is located above the plume of contaminated groundwater near the facility site. The study shall evaluate the adequate protection of human health and environment from exposure to contaminated groundwater and consider whether such purchase, when taking into account the cost of remediation, long-term surveillance, and maintenance, is in the best interest of taxpayers.”

Energy and Water Development Appropriation Bill, 2006 (Senate Report 109-084)



Objective

Evaluate the risk reduction and cost benefits of DOE potentially purchasing property located above the groundwater plumes in comparison to other cleanup alternatives.

Information developed will be used in decision documents in a manner consistent with applicable requirements and procedures.

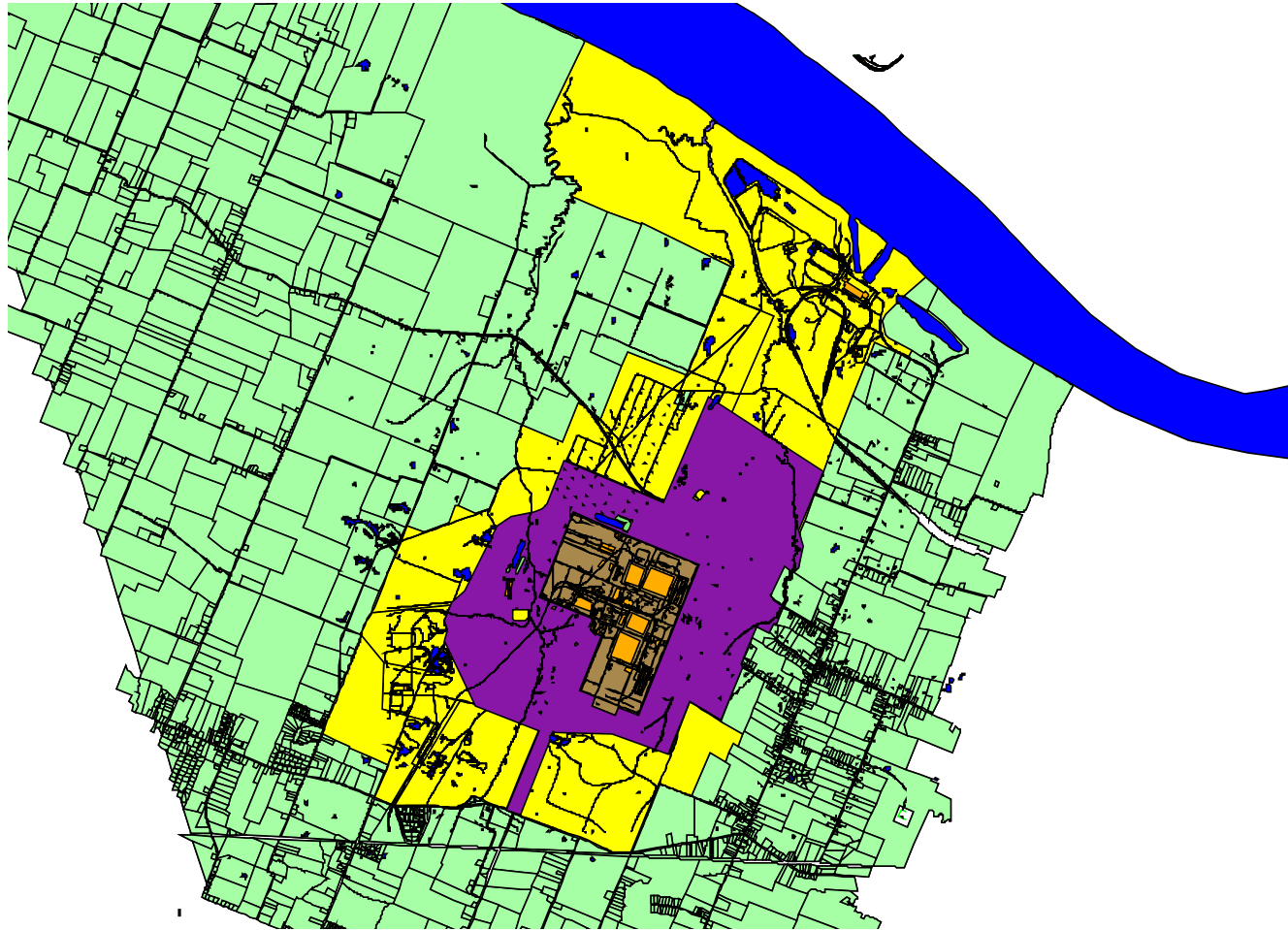


Project Tasks/Responsibilities

- **Task #1: Identification of properties**
 - Identification of property overlying and adjacent to contaminated groundwater plumes and potential surface water contaminant pathways
 - Performed by KRCEE, UK Ag Economics, UK Ag Engineering, and UK Civil Engineering
- **Task #2: Delineation of property acquisition options**
 - Delineation of approaches for property purchase, or obtaining options to purchase properties identified in Task 1.
 - Performed by UK College of Law
- **Task #3: Development of cost estimates**
 - Development of cost estimates to acquire interests in property based upon the approaches delineated in Task #2
 - Performed by KRCEE, UK Ag Economics



Task 1: Identify Properties



Property ownership near the Paducah Gaseous Diffusion Plant

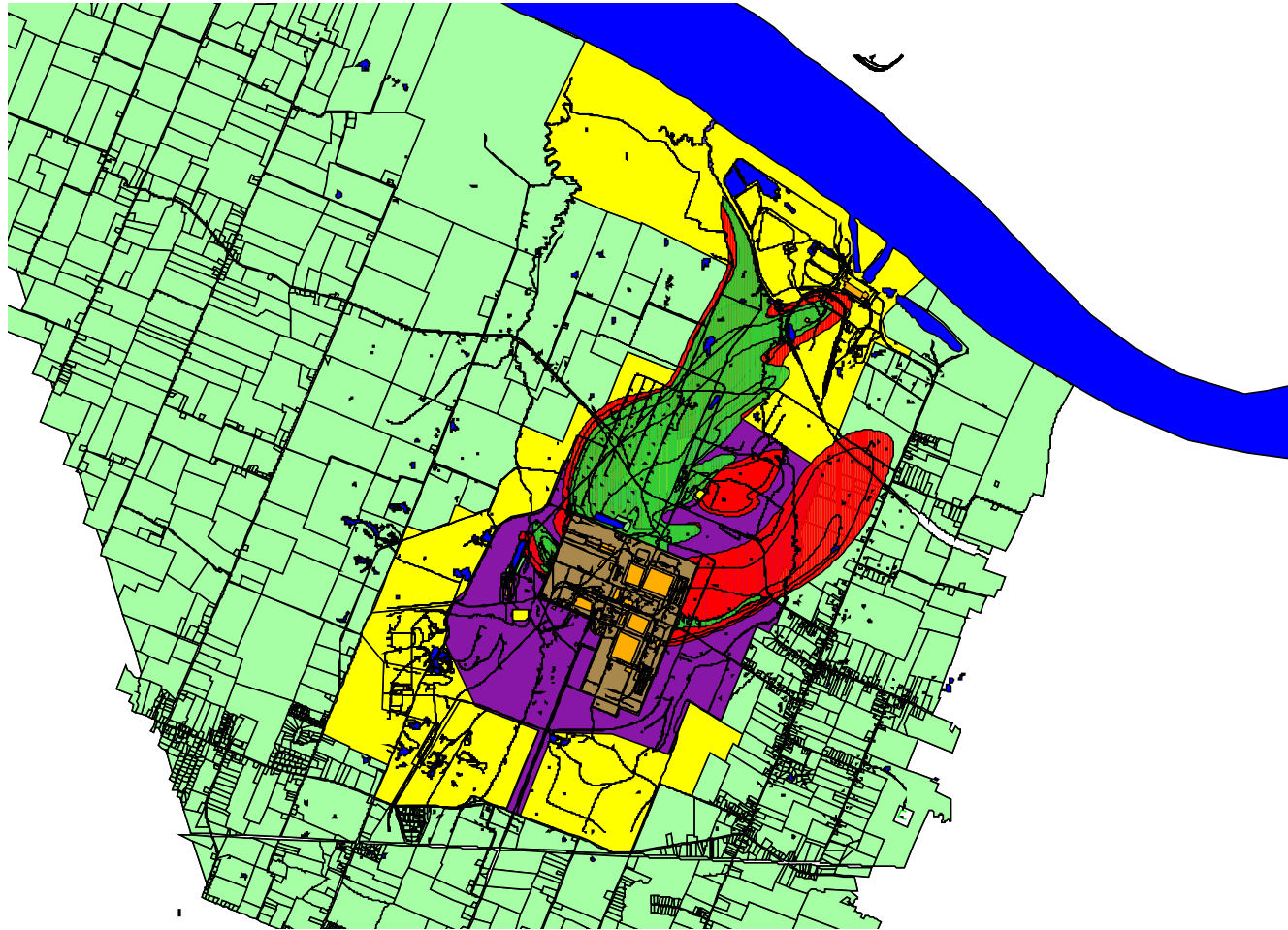


Project Tasks/Responsibilities

- **Task #4: Completion of GW sensitivity analyses**
 - Determination of groundwater flow paths that might result upon cessation of enrichment operations
 - Identification of zones of potentially impacted properties
 - Performed by KRCEE and UK Civil Engineering
- **Task #5: Identification of remedial action assumptions**
 - Identification of current remedial action assumptions for sources contributing contamination to groundwater and surface water
 - Identification of changes to current remedial action assumptions that could result from implementation of sustainable restrictions to human exposure
 - Performed by KRCEE
- **Task #6: Identification of cost-effective property acquisition conditions**
 - Identification of conditions that make property acquisition cost-effective while still ensuring protection for human health and the environment
 - Performed by KRCEE



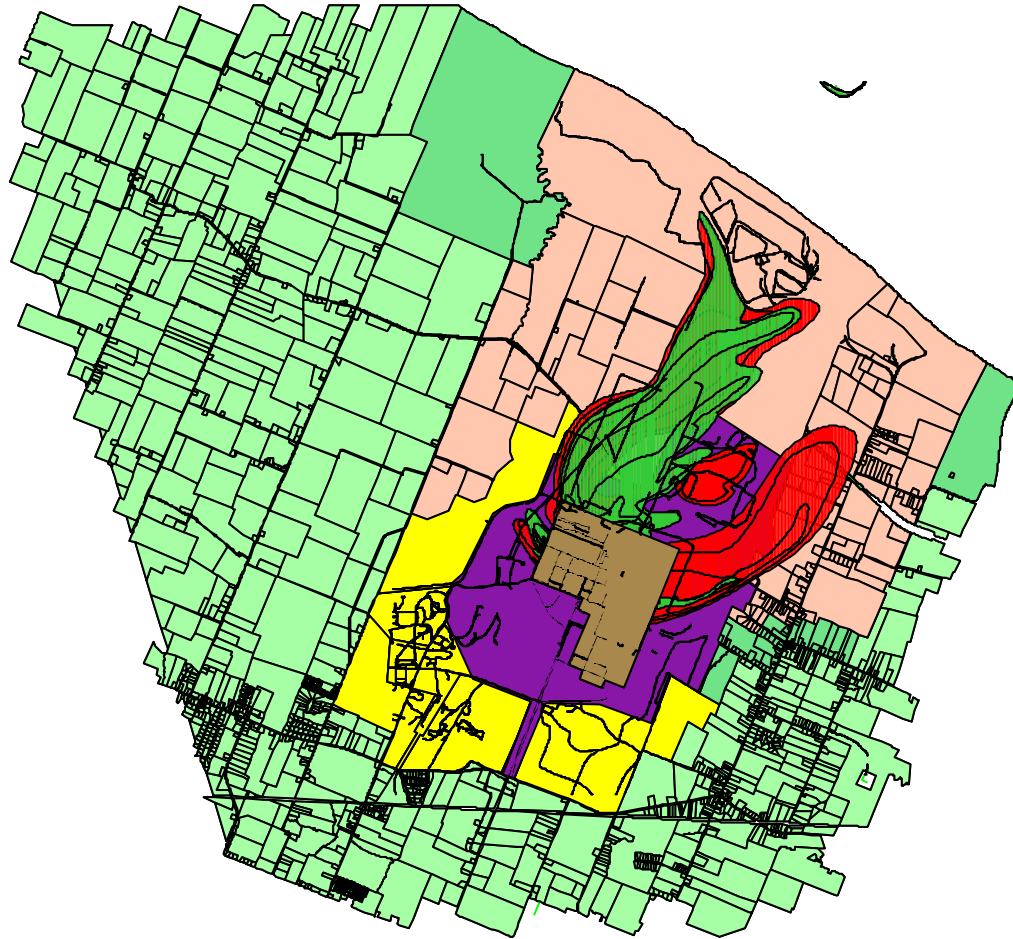
Task 4: Identify Properties Impacted by Contamination



Contaminant plumes at the Paducah Gaseous Diffusion Plant



Task 4: Develop Property Zones Based on Impacts



Contaminant plumes and potential property zones at the Paducah Gaseous Diffusion Plant



Project Tasks/Responsibilities

- **Task #7: Completion of an economic analysis of the potential purchase options**
 - Integration of information from Tasks 1 – 6 to identify the overall cost of property/options purchase.
 - Performed by KRCEE, UK Ag Economics
- **Task #8: Public interaction support**
 - Preparation of presentations for describing methods and results of the Property Acquisition Study
 - Three presentations for CAB (May, July, September)
 - Two presentations for public (June and October)
 - Additional public interaction may occur as needed
 - Performed by KRCEE
- **Task #9: Reporting**
 - Preparation of progress reports and draft/final project reports
 - Draft report due September 15, 2006
 - Final report due October 31, 2006
 - Performed by KRCEE



Property Acquisition Study Schedule

| ID | Task Name | Start | End | Duration | Mar 2006 | | Apr 2006 | | | | May 2006 | | | | Jun 2006 | | | | Jul 2006 | | | | Aug 2006 | | | | Sep 2006 | | | | Oct 2006 | | | |
|----|--------------------------------------------------------------------------|-----------|------------|----------|----------------------|------|----------|-----|------|------|----------|-----|------|------|----------|-----|------|------|----------|-----|-----|------|----------|------|-----|------|----------|------|-----|------|----------|------|------|------|
| | | | | | 3/19 | 3/26 | 4/2 | 4/9 | 4/16 | 4/23 | 4/30 | 5/7 | 5/14 | 5/21 | 5/28 | 6/4 | 6/11 | 6/18 | 6/25 | 7/2 | 7/9 | 7/16 | 7/23 | 7/30 | 8/6 | 8/13 | 8/20 | 8/27 | 9/3 | 9/10 | 9/17 | 9/24 | 10/1 | 10/8 |
| 1 | Project Scoping | 3/15/2006 | 5/19/2006 | 9.60w | ↔ KRCEE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | Project Kickoff | 5/19/2006 | 5/19/2006 | 0.04w | ↓ PROJECT TEAM & DOE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | Task #1 Identification of properties | 5/19/2006 | 7/12/2006 | 7.80w | ↔ UK Ag Engr, KRCEE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | Task #2 Delineation of property of acquisition options | 5/19/2006 | 7/27/2006 | 10w | ↔ UK Law | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | Task #3 Development of cost estimates | 5/19/2006 | 7/13/2006 | 8w | ↔ UK BE & UK Ag Ext | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | Task #4 Completion of groundwater sensitivity analyses | 5/19/2006 | 7/6/2006 | 7w | ↔ UKCE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 | Task #5 Identification of remedial action assumptions | 5/19/2006 | 6/8/2006 | 3w | ↔ KRCEE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8 | Task #6 Identification of cost-effective property acquisition conditions | 6/20/2006 | 7/17/2006 | 4w | ↔ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 9 | Task #7 Completion of economic analysis of potential purchase options | 7/17/2006 | 8/11/2006 | 4w | ↔ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10 | Task #8 Public interaction support | 4/20/2006 | 9/21/2006 | 22.20w | ↔ KRCEE & DOE PPPO | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 11 | Task #9 Reporting | 5/19/2006 | 10/31/2006 | 23.60w | ↔ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 12 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 13 | Brown = UK Ag Engineering | 3/15/2006 | 3/15/2006 | 0w | ◆ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 14 | Gray = UK Ag Econ | 3/15/2006 | 3/15/2006 | 0w | ◆ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 15 | Cyan = KRCEE | 9/5/2005 | 9/5/2005 | 0w | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 16 | red = Project Team | 9/5/2005 | 9/5/2005 | 0w | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 17 | green = UK Law | 9/5/2005 | 9/5/2005 | 0w | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 18 | yellow = UK Civil Engineering | 9/5/2005 | 9/5/2005 | 0w | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 19 | Blue = DOE PPPO | 9/5/2005 | 9/5/2005 | 0w | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |