RI/FS Considerations

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CEHNC-EMM

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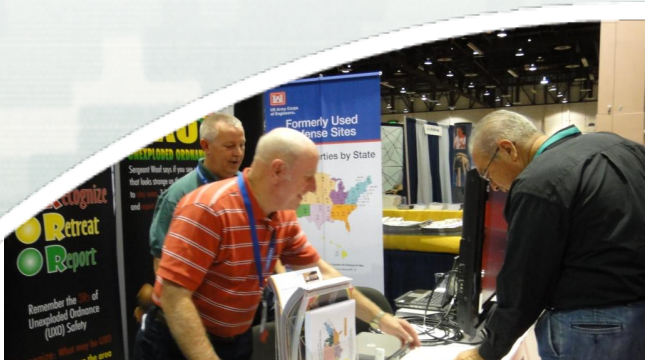

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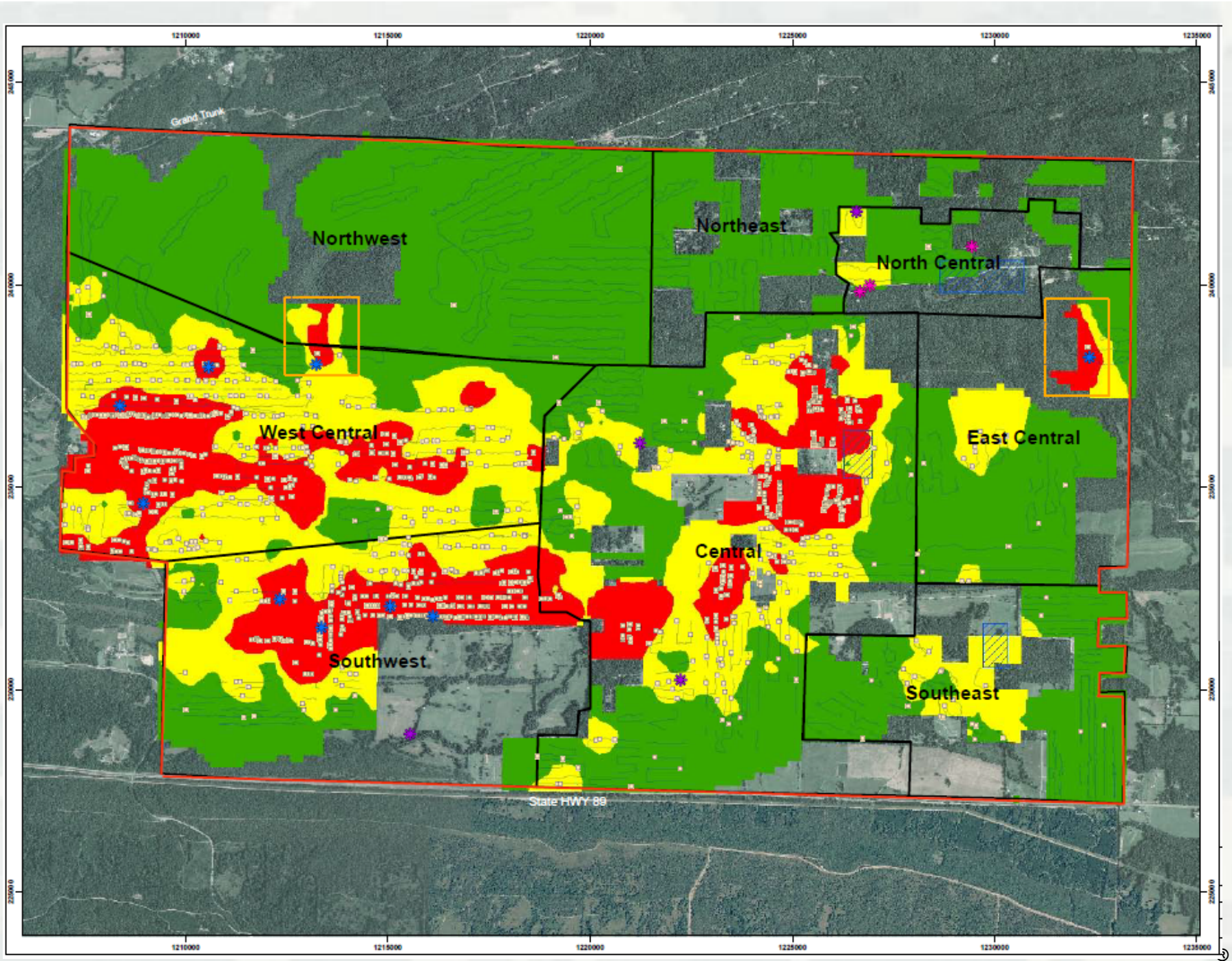
Topics

- Goals of the RI
- Contracting issues affecting characterization
- Data Needs and Quality
- Institutional Analysis during characterization

Goals of the RI

- Determine where the problem is and where it is not (nature and extent)
  - If no risk or hazard is identified or suspected, document no action and allow for unlimited use/unrestricted exposure (UU/UE).
  - Consequences of not doing this could result in:
    - DoD having to conduct unnecessary removal or remedial actions
    - Property owners may have restrictions on land use on property that is not contaminated
    - Artificially elevates our Cost-to-Complete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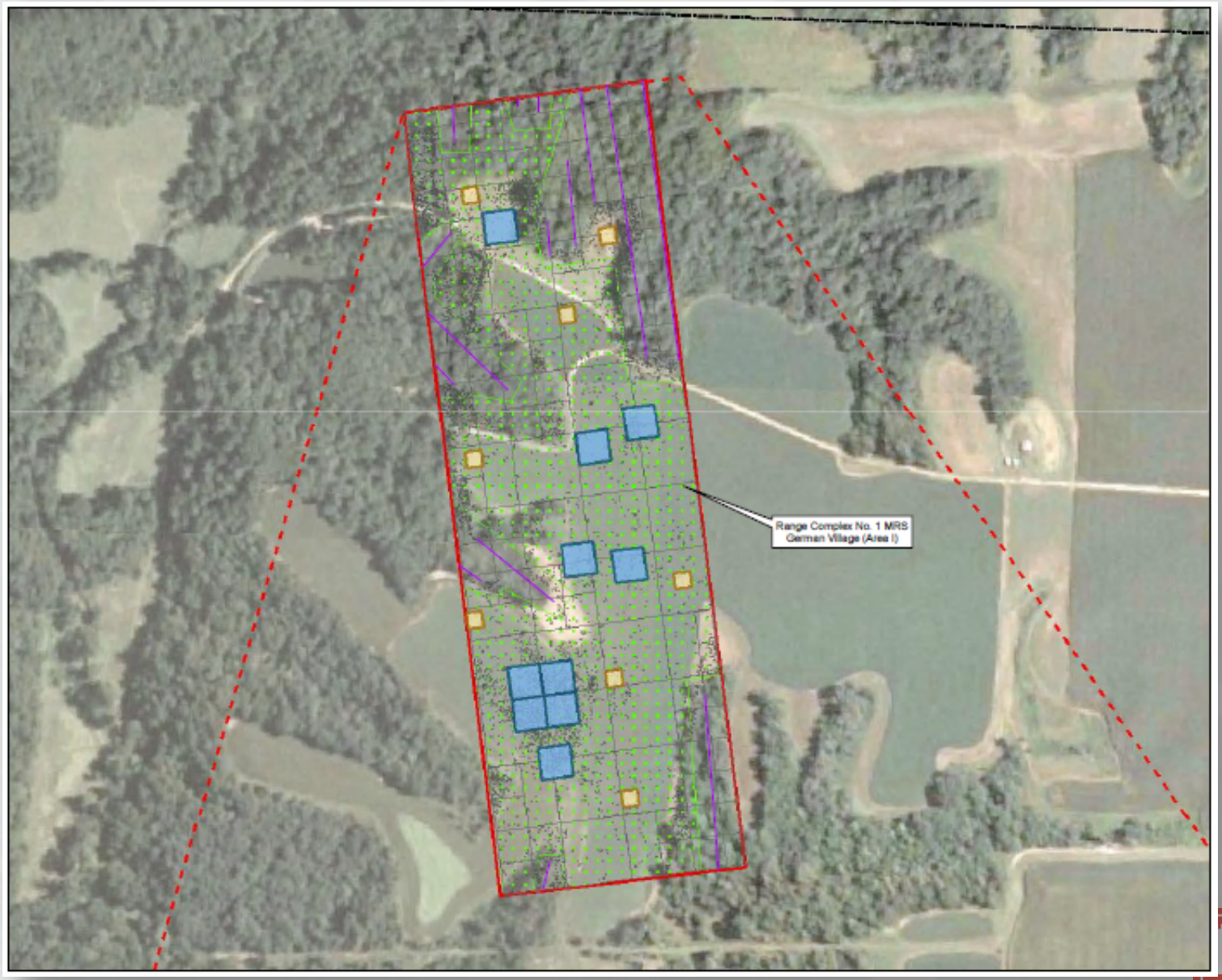
Contracting Issues

- Language in the Contract can cause difficulties in project execution
  - Contracting the RI and FS separately
  - Optional tasks

Performance Work Statements

- If the initial PDT meetings are held before the Contract has been awarded, make sure all agreements are included in the PWS.
- Make sure the entire MRS is included.
- Don’t limit the Contractor to the amount of acreage they can investigate in transects and mini-grids.


Range Complex No. 1 MRS
German Village (Area I)

Data Needs and Quality

- What is the ultimate outcome of all remedial actions?
  - Determine what receptors use the site and how they use the site
  - What are the Remedial Action Objectives (RAOs)?
  - How much data is necessary to evaluate remedial alternatives and make decisions? **ALL PDT MEMBERS SHOULD AGREE**
- Decisions made early in the process determine:
  - What alternatives make sense
  - Amount of data required to support characterization and alternatives analysis
  - Quality of required data

Remedial Action Objectives

- Bad RAO – “Limit interaction with surface and subsurface MEC.”
  - Much too vague
  - Without specifics, it is impossible to develop appropriate alternatives and make protectiveness statements in the FS, DD and protectiveness determinations during the 5-year reviews.

Remedial Action Objectives

- Good RAO – “Reduce the probability of human interaction with UXO during recreational activities which currently include surface use and subsurface use to a depth of 1 ft. bgs.”
  - Identifies contaminants/hazards of concern and media of concern
  - Identifies exposure pathways/routes and receptors
  - Provides clear basis for discussing and developing appropriate alternatives
  - Can support protectiveness statements and determinations

Identify Receptors and Activities

Park Workers—Park workers are adults responsible for groundskeeping/maintenance and teaching educational programs. However, teachers from the education center were not evaluated quantitatively as separate receptors because it was assumed that their exposure to contaminated media is equal to or less than those of the park groundskeeping/maintenance workers. The park worker is exposed to surface and subsurface soil. The park worker was evaluated at all EUs.

Recreational Adults—Recreational adults are park users who are engaged in activities such as jogging, dog walking, and bird watching. Recreational adults are more likely to stay on roads or chipped paths where exposure to soil would be lower. Furthermore, under a recreational scenario, excavation of the soil would not be expected. Therefore, recreational adults are assumed to be exposed to only surface soil. The recreational adult was evaluated at all EUs.

Recreational Children/Students—A youth receptor was evaluated that encompasses both the student from the education center and the recreational child from the public (i.e., a student/child aged 6 to 16 years). This age group was selected based on discussions with Atwood Park personnel. Recreational children/students are assumed to visit the park each year for a school program, summer camp, and recreational visits with family and friends. They are assumed to be exposed to only surface soil. The recreational child/student was evaluated at all EUs.

Hypothetical Residents—Residential land use is very unlikely at the former CGRR because of its establishment and use as a public park and thus is considered hypothetical. This land use typically reflects higher exposures than worker or recreational scenarios and was evaluated (through comparison of site exposure point concentrations to risk-based screening values) to represent risks associated with an unrestricted land use scenario. Residents may be exposed to both surface and subsurface soil. Residents also are assumed to drink groundwater. Residents were evaluated at all EUs.

Institutional Analysis

- Why is this needed during characterization?
  - If Land Use Controls (LUCs) are a potential alternative, data required to analyze the alternative must be collected during the RI.
- What is needed for the Institutional Analysis?
  - Determine what agencies have authorities on the site and who is willing to enforce LUCs.
  - Determine what property owners are willing to do or will accept.
  - Determine how educational material would be delivered to the property owners.
  - Determine if schools are willing to provide time for safety training.

Questions?