



PADUCAH GASEOUS DIFFUSION PLANT CITIZENS ADVISORY BOARD

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Paducah Gaseous Diffusion Plant Citizens Advisory Board Re-Scoping Subcommittee Session Summary June 25, 2015

The Citizens Advisory Board (CAB) met at the Environmental Information Center (EIC) in Paducah, Kentucky on Thursday, June 25th at 6:00 p.m.

Board members present: Judy Clayton, Ben Peterson, Dianne O'Brien, Ralph Young, Robert Coleman, Ken Wheeler, Jim Tidwell, David Franklin, Mike Kemp, Jonathan Hines, Victoria Caldwell, Renie Barger, Bill Murphy and Kevin Murphy.

DOE and subcontractors present: Buz Smith, DOE; Steve Christmas, Con Murphy, Alexis Wiseman, Ashley Keen, Zoe Jones, Fluor Paducah; Eric Roberts, EHI Consultants (EHI); Yvette Cantrell, Ginny Manning, Leslie Kusick, Restoration Services Inc. (RSI).

Board Regulators present: None

Public present: Tony Graham

Roberts opened the meeting and turned the meeting over to **Woodard** for a presentation on the baseline. She started by going over a brief history of the site ending up with the creation of a Federal Facility Agreement (FFA) among EPA, Kentucky, and DOE.

Woodard explained that the discovery of offsite contamination is what put the site on the National Priority List. She went on to explain that when looking at the baseline the first thing that is looked at concerning the Site Management Plan are immediate threats, and there aren't any at the Paducah Site. The second priority would be to reduce further contamination. The third priority are the sources of the contamination in the groundwater. The next priority would be other sources of contamination at the site. Next would be the D&D of the gaseous diffusion plant (GDP) and the DUF6 conversion facility. Then would come the post-GDP operable units.

Kemp asked for an explanation of the divisions of operable units. **Woodard** explained that it was based on similar situations, proximity and types of contamination. It allows DOE to break down the work into smaller manageable pieces.

Peterson asked what was a milestone and how was it developed. **Woodard** indicated that by using the FFA, there are primary documents and at some point they all become an enforceable milestone. Those documents are the Remedial Investigation Report, a Feasibility Study Report, Proposed Plan, a Record of Decision, a Remedial Design Work Plan, a Remedial Design Report, a Remedial Action Work Plan and a final completion report for the remediation.

Young asked if the Record of Decision specified an end date for a project. **Woodard** said that it did not. **Peterson** asked if each step was a milestone. **Woodard** said that yes they are each a milestone.

She also said that when there was a report of a regulatory fine or penalty, that they are imposed due to not meeting a milestone. She also indicated that Paducah had end date milestones for each operable unit, and that was unique to Paducah.

Roberts asked if there was any chance of hitting the 2032 end date with the current funding level. **Woodard** said yes. She said that they were re-scoping because they are fearful of not hitting the 2032 date. She indicated that they were re-scoping because it didn't make sense to do the pre-GDP work without consideration of the post-GDP work.

Kemp asked what the CAB could do for DOE. **Woodard** said that they could be involved in understanding the process. She also said that the CAB might benefit from letting the regulators know what the CAB would like to see happen; what its priorities were, and for the regulators to let the CAB know what theirs were also. **Woodard** also asked the CAB to ask questions and let her know what they needed to help them get up to speed better.

Roberts asked if baselining would be done for the site for the full forty years or be done a few years at a time "on the fly". **Woodard** indicated that baselining and logical sequence does not work being done "on the fly". She said you have to do the duration of the project. She also said that the level of detail could change but the priority should not change. **Woodard** also said that the work would not change much in the next 3-4 years. She indicated that the change would happen in the 2020 and further range when work would be focused on the buildings and soils. **Roberts** then asked what **Woodard** thought a realistic timeline would be. **Woodard** said that she thought that the goal would be within one year they would have an agreement on the priorities and at least a solid agreement on the next five to ten years in priorities. She indicated that the baselining was scheduled to be done within 3-4 years.

Wheeler asked if that was her decision of directed by headquarters. **Woodard** said that it was a realistic result from experience. **Caldwell** asked what would happen if the baseline is re-worked and then the priorities change for some reason. **Woodard** indicated that DOE would go back to the regulators and explain the change in priorities and why.

Peterson asked how the waste cell affects the re-baselining of the site. **Woodard** indicated that it was not affecting it very much because DOE needed to get the buildings into a safe configuration and parallel with everything going on with the burial grounds.

The meeting adjourned at 7:25 pm.



U.S. DEPARTMENT OF
ENERGY

Paducah Gaseous Diffusion Plant

Scoping Education Session

Jennifer Woodard

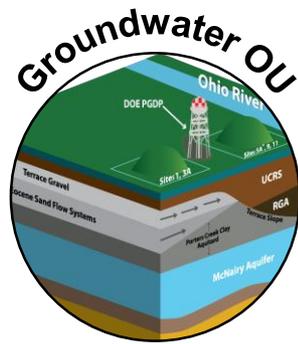
Paducah Site Lead

June 25, 2015

Pre-GDP Shutdown Scope



The Surface Water Operable Unit (OU) encompasses ~6 miles of contaminated creeks on and near DOE property



The Groundwater OU addresses off-site contamination risk and has removed ~6,500 gallons of TCE to date with as much as ~7,000 gallons remaining



The Soils OU addresses the remediation of 66 areas totaling ~110 acres sitewide



The Decontamination & Decommissioning (D&D) OU consists of inactive facilities to be scheduled for demolition



The Burial Grounds OU focuses on 10 areas spanning ~66 acres, some of which date back to the beginning of the plant

History of PGDP

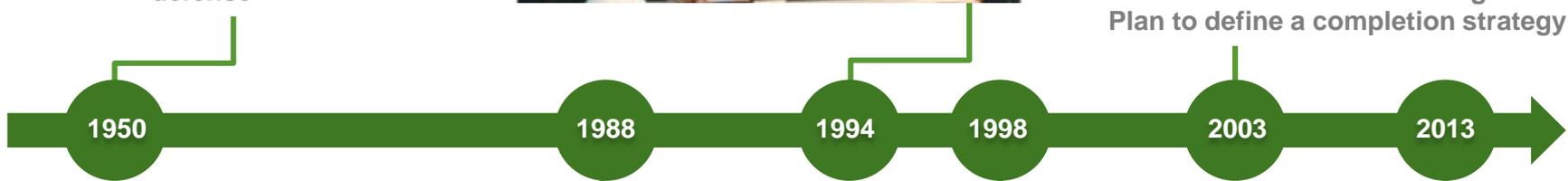


Paducah selected for second of three enrichment plants for defense

PGDP placed on National Priorities List in 1994



The FFA parties renegotiated milestones for the Site Management Plan to define a completion strategy



Discovery of groundwater contamination starting environmental cleanup program and establishing water policy for plant neighbors



DOE, US EPA, and Kentucky enter into FFA for PGDP



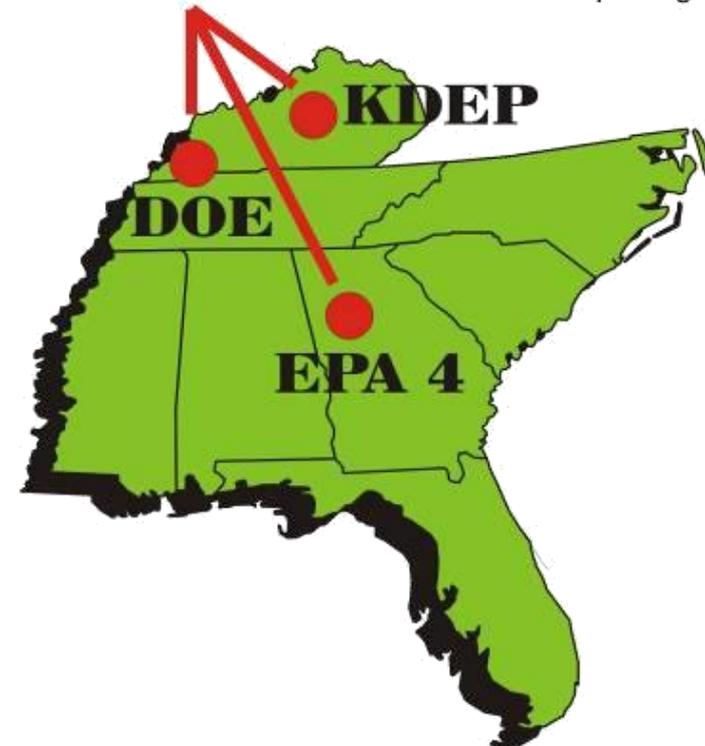
Enrichment ends and DOE cleanup mission expands



DOE EM Cleanup Strategy Federal Facility Agreement

- PGDP placed on CERCLA NPL in 1994
- Entered into Federal Facility Agreement (FFA) in 1998 which serves as the Primary Regulatory Driver
- Coordinates and Integrates Cleanup Requirements of RCRA & CERCLA
 - ✓ Establishes Enforceable Milestones
 - ✓ Regulator review/approval
 - ✓ Site Management Plan (SMP)
- SMP updated annually and serves as the primary cleanup strategy for implementing the FFA

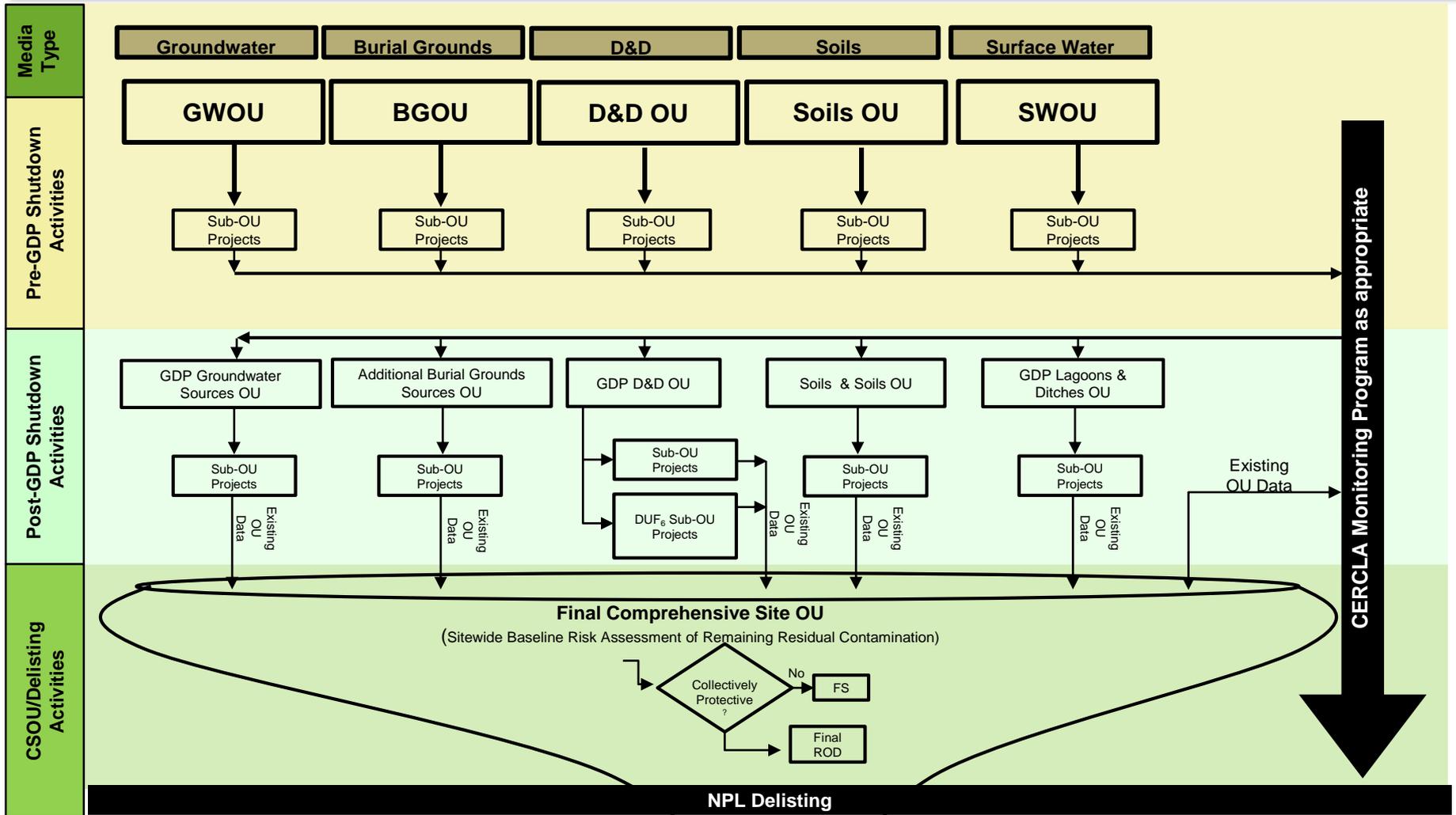
Federal Facility Agreement:
Tri-Party Agreement coordinates
RCRA and CERCLA Cleanup Programs



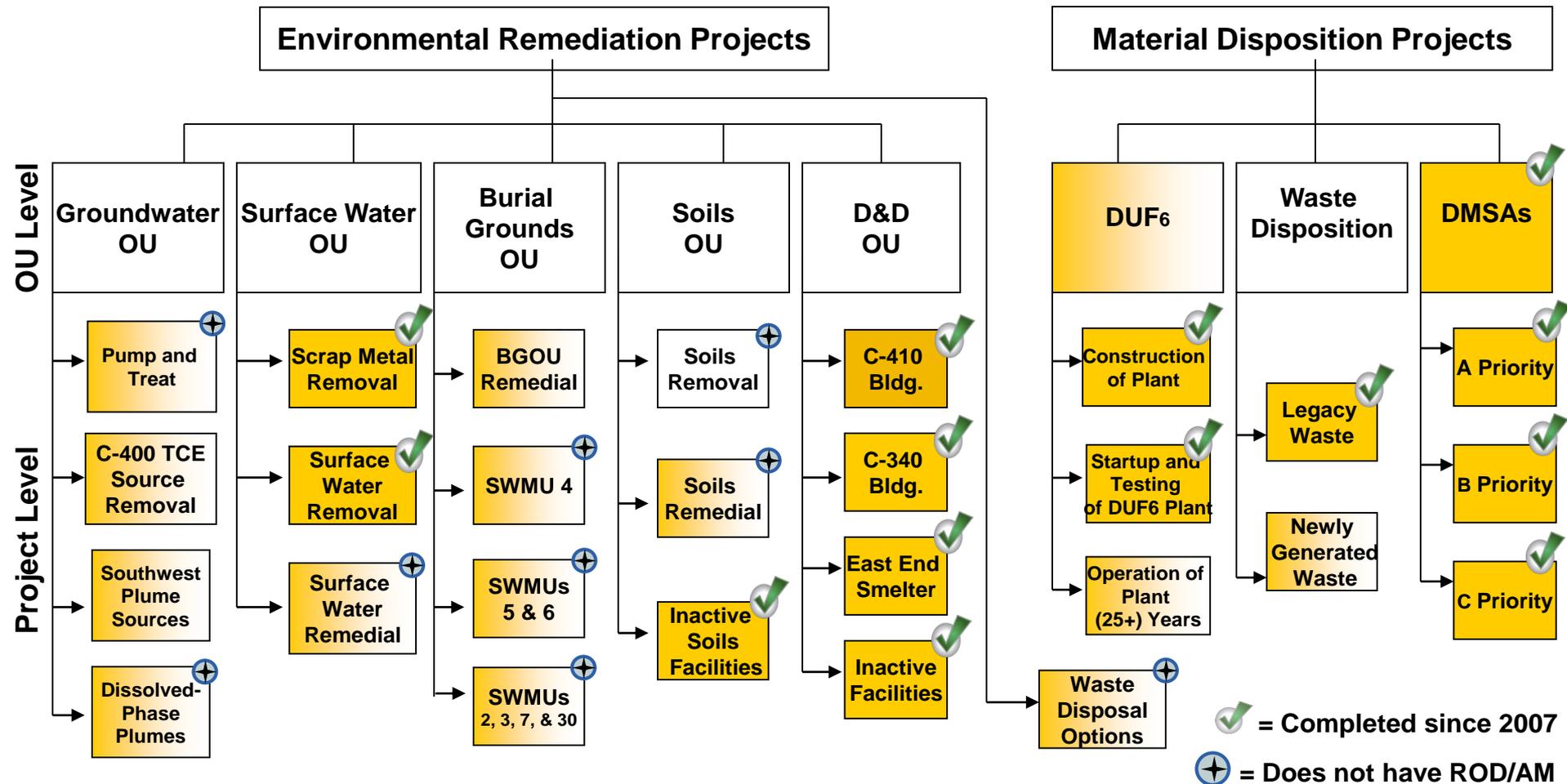
Risk Prioritization Criteria

- Mitigate immediate threats, both on- and off-site
- Reduce further migration of off-site contamination
- Address sources contributing to off-site contamination
- Address remaining sources contributing to on-site contamination
- Perform D&D of the GDP and DUF₆ Plant once they cease operations
- Address post-GDP OUs
- Evaluate the final Comprehensive Site OU

PGDP Operable Units



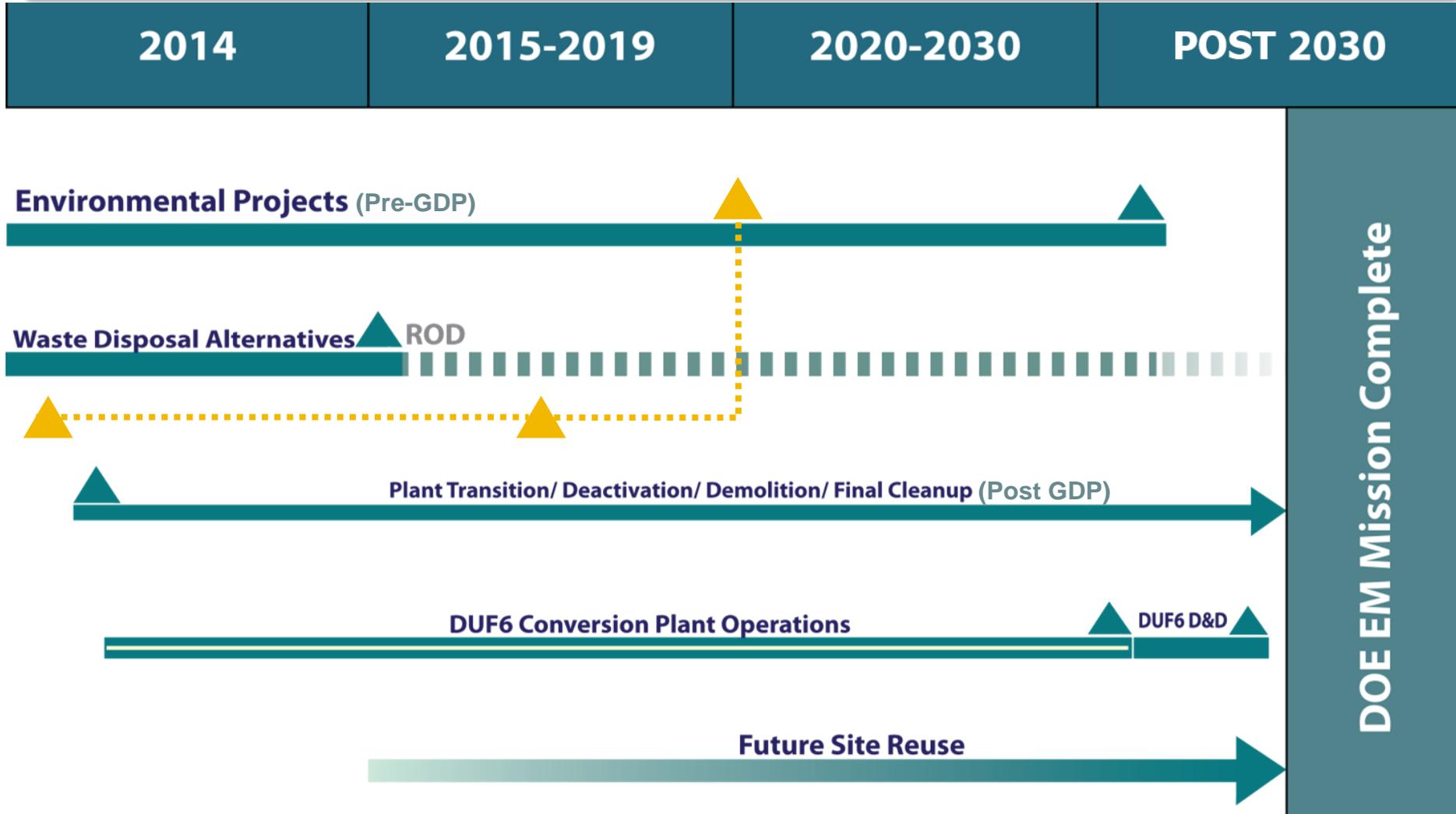
Status of Pre-PGDP Operable Units



Pre-Shutdown Scope

NOTE: Each environmental project is expected to have a corresponding CERCLA decision document (i.e., ROD, AM)

Timeline for Achieving End State Vision



DOE EM Mission Complete

Current Cleanup Scope

Long-term facilities removal

- >500 structures with a footprint of nearly 200 acres to be razed

Soils and Slab

- Remediation of slab and underlying soils associated with building to be investigated.

Surface Water

- Remediation of ~6 miles of contaminated creeks, ditches, etc.

Burial grounds

- 10 burial grounds, ~100 acres
- Some contain radioactive, pyrophoric and RCRA waste

Major TCE source

- Primary source of off-site contamination
- Heavy concentrations present; >500,000 ppb of TCE in groundwater

Depleted uranium

- About 46,000 cylinders

Contaminated soils

- PCBs and uranium
- 66 areas totaling ~ 115 acres

Tc-99 plume

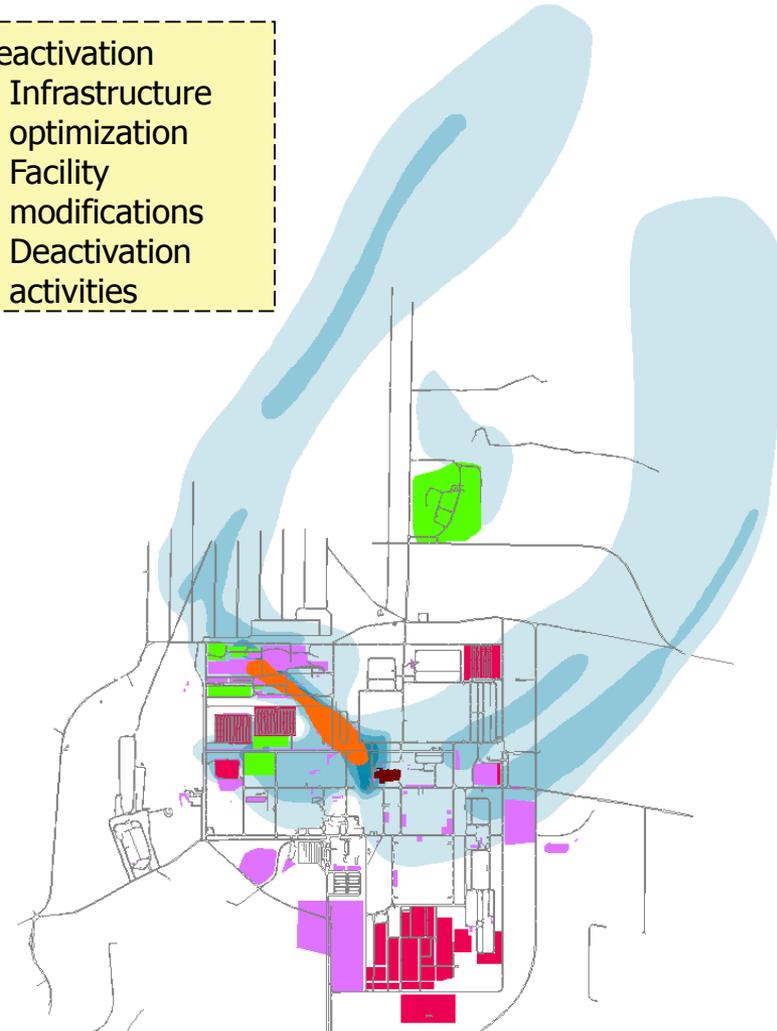
- Radionuclide releases have migrated off-site, but not above Drinking Water Standards.

Inactive facilities

- 32 of 32 facilities removed

Deactivation

- Infrastructure optimization
- Facility modifications
- Deactivation activities



Current Risk Prioritization Criteria

- ✓ Mitigate immediate threats, both on- and off-site
- ✓ Reduce further migration of off-site contamination
- ✓ Address sources contributing to off-site contamination
 - Address remaining sources contributing to on-site contamination
 - Perform D&D of the GDP and DUF₆ Plant once they cease operations
 - ~~• Address post-GDP OUs~~
 - Evaluate the final Comprehensive Site OU

Other considerations?