



Status and Future Plans for Y-12 Clean-up

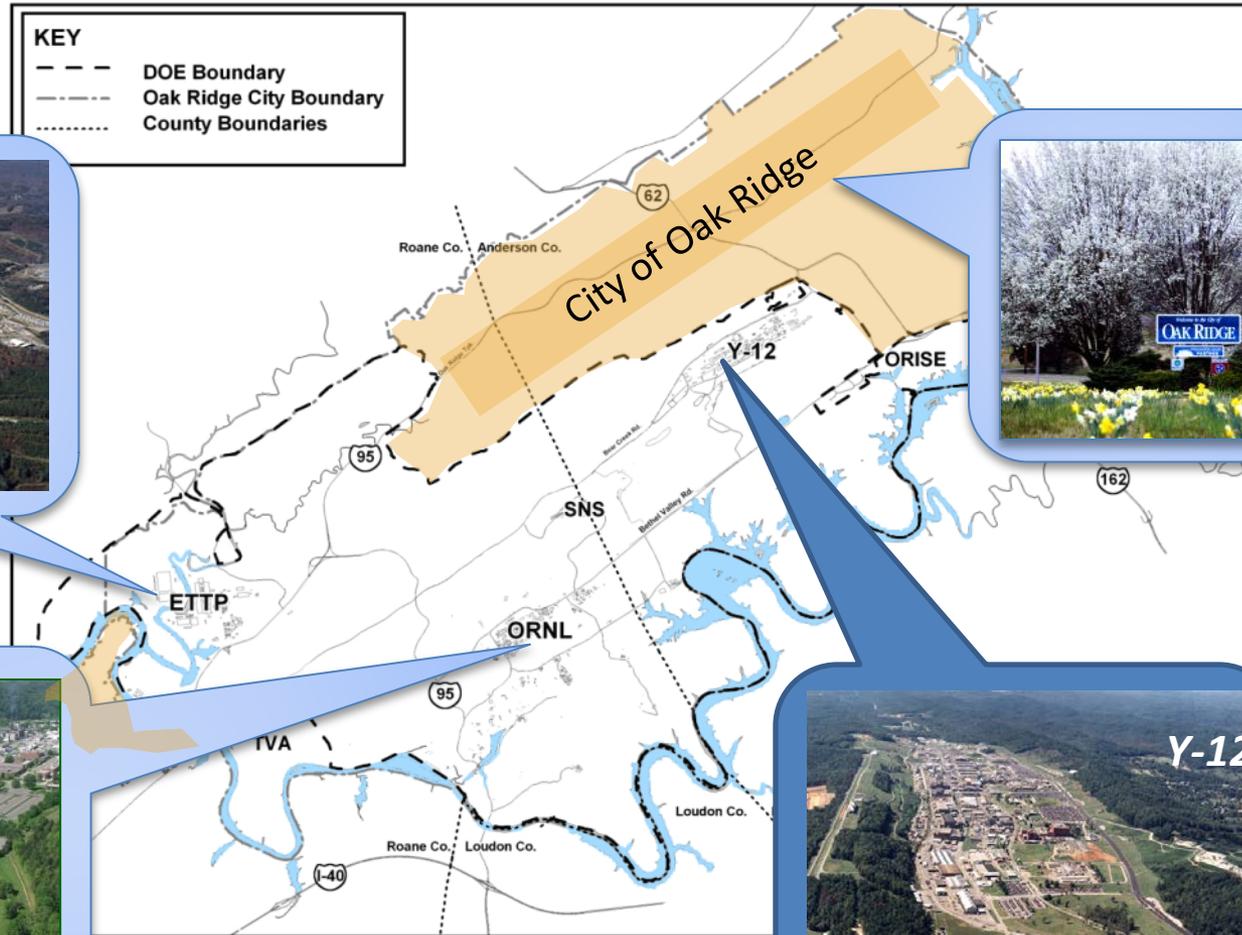
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Oak Ridge Site Specific Advisory Board (ORSSAB)

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Oak Ridge Reservation



The Y-12 National Security Complex



Y-12 is Undergoing a Major Modernization Effort

- **Legacy Facilities**



- **New Facilities**



Y-12 Clean Up will be Challenging and Complex

Excess Facilities at Y-12 by Program



EM SC NE NNSA PREVIOUSLY DEMOLISHED

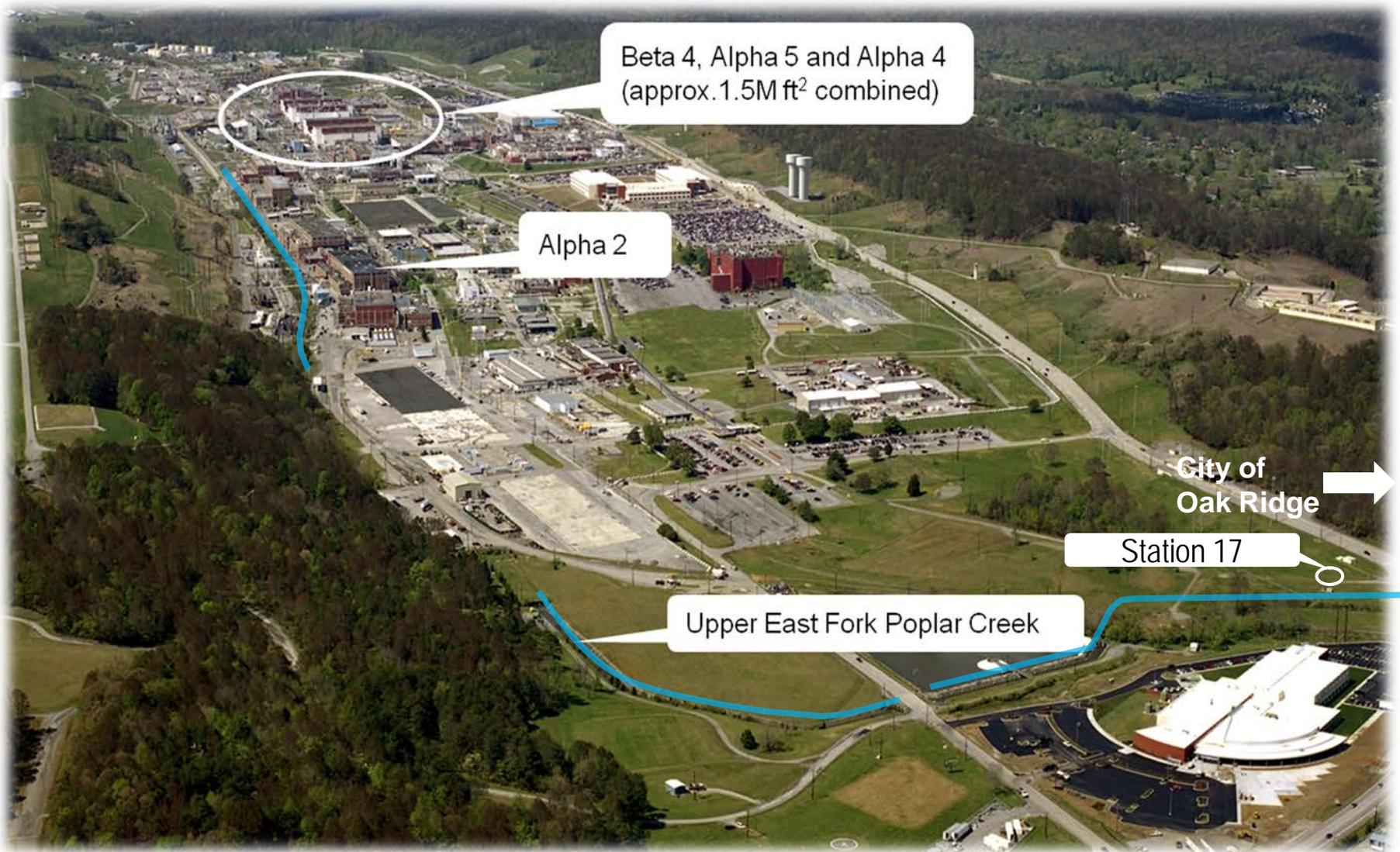
Future Clean-up Scope:

- 106 excess facilities
- Soil and groundwater

Challenges:

- Mercury contamination in soil and groundwater
- Deteriorating facilities
- Executing cleanup work in close proximity of ongoing missions

Mercury Contamination at Y-12 is a High Priority for EM



Significant Remedial Actions have been Implemented To Address Mercury

Year(s)	Action
1986 - 1987	Storm drain lining
1993 – 1995	Pipe rerouting
1996	Central Mercury Treatment System
1996 – 1997	LEFPC floodplain soil removal
2001	Bank stabilization
2005 – 2006	Big Spring Water Treatment System at Alpha 2
2010 – 2011	ARRA – WEMA Storm Sewers, OSY Soils, Legacy Material Removal

Bank Stabilization



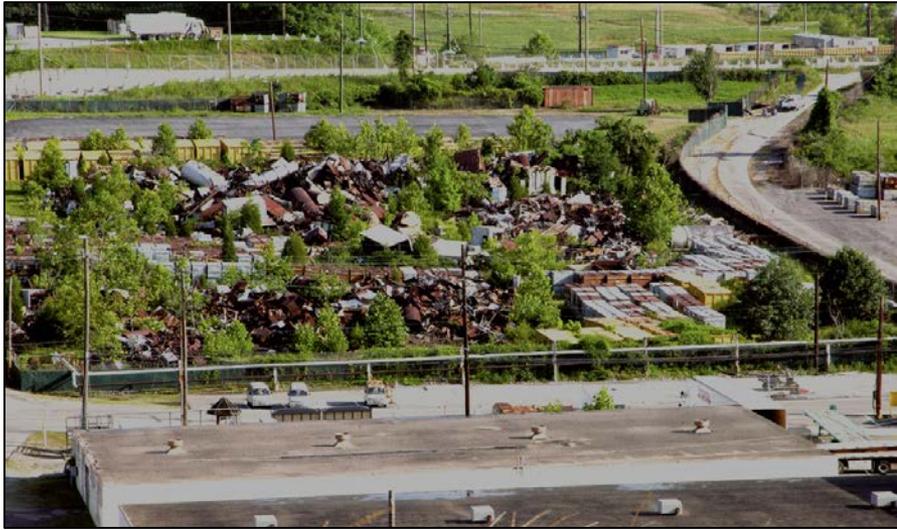
Big Springs



WEMA Storm Drain Effort



Recent Accomplishments



Old Salvage Yard Scrap Removal Before and After

Recent Accomplishments (cont.)



Alpha-5 Legacy Material Removal Before and After

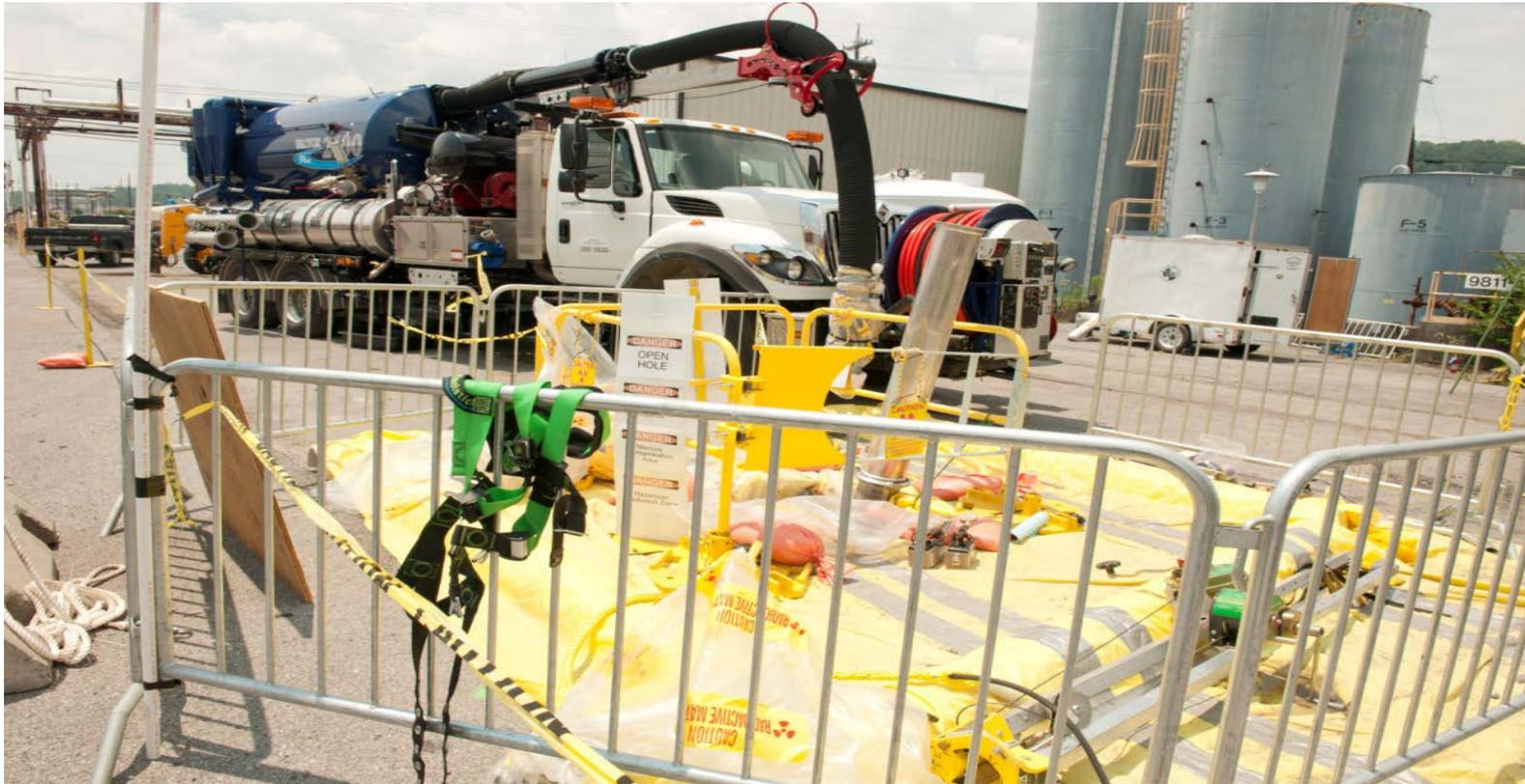


Alpha-5 Characterization



Beta-4 Legacy Material Removal Before and After

Recent Accomplishments (cont.)



WEMA Storm Drain Effort

Recent Accomplishments (cont.)



Building 9206 Filter House



Building 9211 Before, During, and After Demolition

Recent Accomplishments (cont.)

- Expansions of Environmental Management Waste Management Facility (EMWMF) bring total facility disposal capacity to 2.18 M yd³
- Capacity expansion and upgrades of Oak Ridge Reservation Landfills



EMWMF with Cells 5 and 6 Expansions

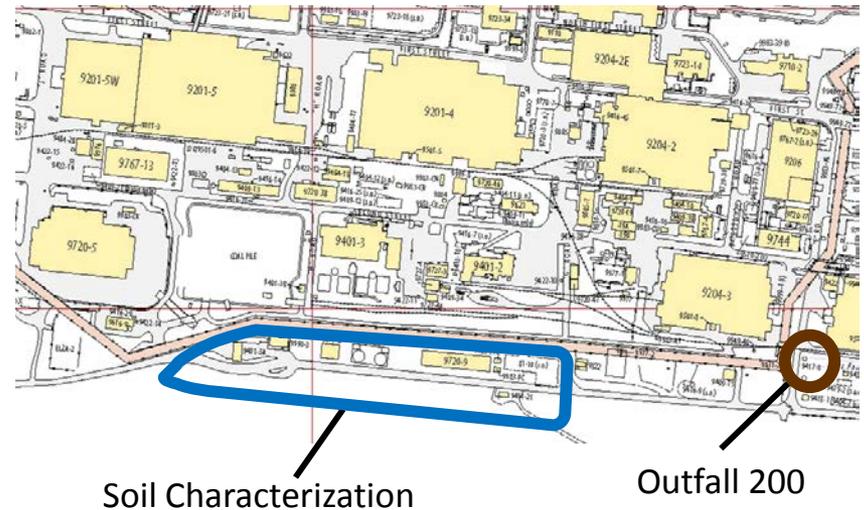


Oak Ridge Reservation Landfills

Work in Progress – Recovery Act

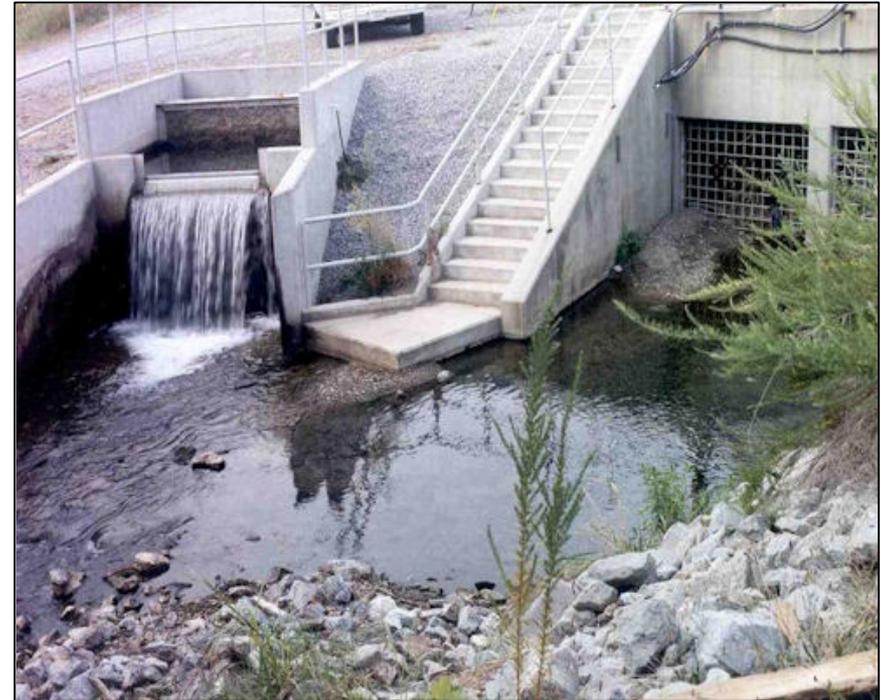
High priority projects underway include:

- Characterization of a former mercury recovery area
- Conceptual design of a water treatment unit at Outfall 200
- Installation of mercury traps in storm sewers and enhanced elemental mercury recovery operations
- Mercury facility secondary pathway isolation
- Mercury contaminated soils treatability study
- Alpha-4 exterior colex equipment removal
- Disposal of legacy tanks



Near Term Plans for Mercury

- **Reduce mercury flux**
 - Complete ARRA “Buy Back” Scope
 - Treat storm sewer outfall discharges
 - Remediate hot spots
- **Characterize and plan for remediation and waste disposal**
- **Prepare facilities for D&D**



Outfall 200 at Y-12

Long Term Plans

- Sources of contamination must be removed or stabilized
- Address the sources in a “West to East Approach”



Long Term Plans

Additional Disposal Capacity will Be Needed

- EMWMF capacity - 2.18 M yd³
 - Over half full through the end of FY 2011
 - Projected to be full from FY 2016-2019
- Need lead time of 4+ years to obtain regulatory approvals, procure, design, construct, and start-up new disposal



EM End State - Long Term Plans

- DOE Legacy cleanup complete
- High Security footprint reduced
- Modernized Y-12 incorporating new facilities

