



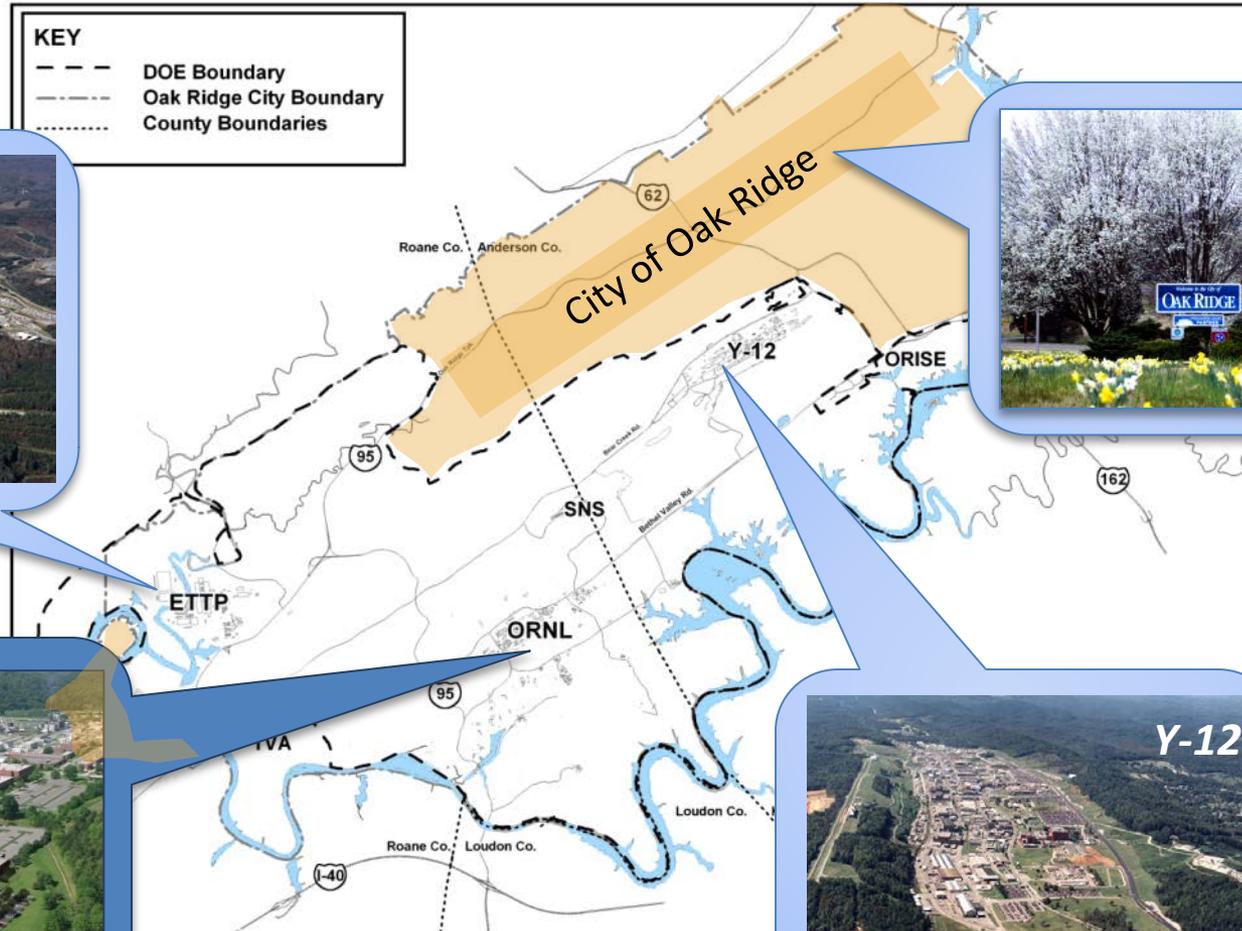
Status and Future Plans for ORNL Cleanup

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**Oak Ridge Site Specific Advisory Board (ORSSAB)
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Oak Ridge Reservation



ETPP



ORNL



Y-12



Oak Ridge National Laboratory



ORNL encompasses 58 square miles and is managed for the DOE by UT-Battelle, LLC.

- ORNL is the largest science and energy national laboratory in the DOE system.
- The laboratory is home to several of the world's top supercomputers and is a leading neutron science and nuclear energy research facility.
- The laboratory's ongoing mission is vital to our nation.

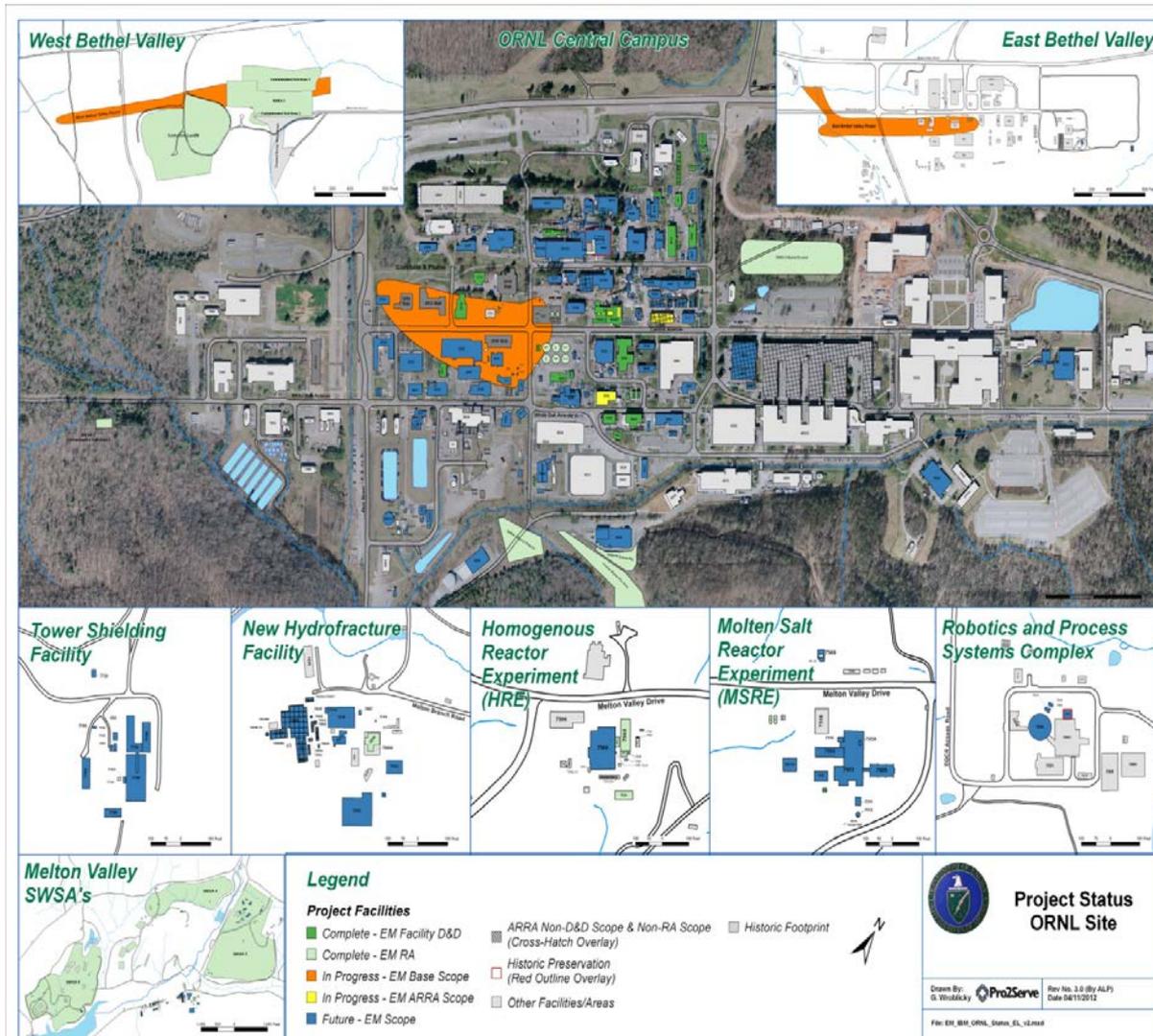


The 80-acre Spallation Neutron Source Site on the east end of ORNL

ORNL Central Campus



ORNL Cleanup will be Challenging



Future Cleanup Scope:

- 269 excess facilities
- 108 remedial action sites
- Groundwater

Challenges:

- Deteriorating facilities
- Nuclear/RAD Risk - Over 26 million curies are currently stored along side billions of dollars of Science investment
- Executing cleanup work in close proximity to ongoing science and energy missions

ORNL Cleanup Priorities

- Address accessible sources of contamination to surface and groundwater
- Remove excess nuclear/radiological materials
- D&D facilities to access contaminated soil and to eliminate risks to site population and vital science and energy missions
- Remove obsolete Gaseous Waste Ventilation System from service to eliminate risks of on-site contamination release
- Surveillance and Maintenance to ensure protection of the public, the workers, and the environment
- LGWO System operation and maintenance to accept, treat, store and/or dispose of liquid and gaseous waste produced by ongoing research and development, environmental restoration, and other programs at ORNL



3039 Stack

Recent Accomplishments

- Remediated Tank W-1A, the most significant source of groundwater contamination in Central Campus



Removal and shipment of Tank W-1A

Recent Accomplishments (cont.)

- Capped Bethel Valley Burial Grounds (SWSA 1 and SWSA 3) to reduce risk



Wrapping contaminated pipe found in underground trench.



Installation of gas venting layer



SWSA 3, looking east, after remediation

Recent Accomplishments (cont.)

- Demolished 43 excess facilities
- Removed legacy material from over 35,000 ft² of facility space



The 2000 Complex before, during, and after demolition

2061 Stack demolition



3038 before and after legacy material removal

Recent Accomplishments (cont.)

- Remediated contaminated slab and soil areas and process waste lines accessed by Facility D&D



The 2000 Complex slab/soil area before, during, and after remediation

Recent Accomplishments (cont.)

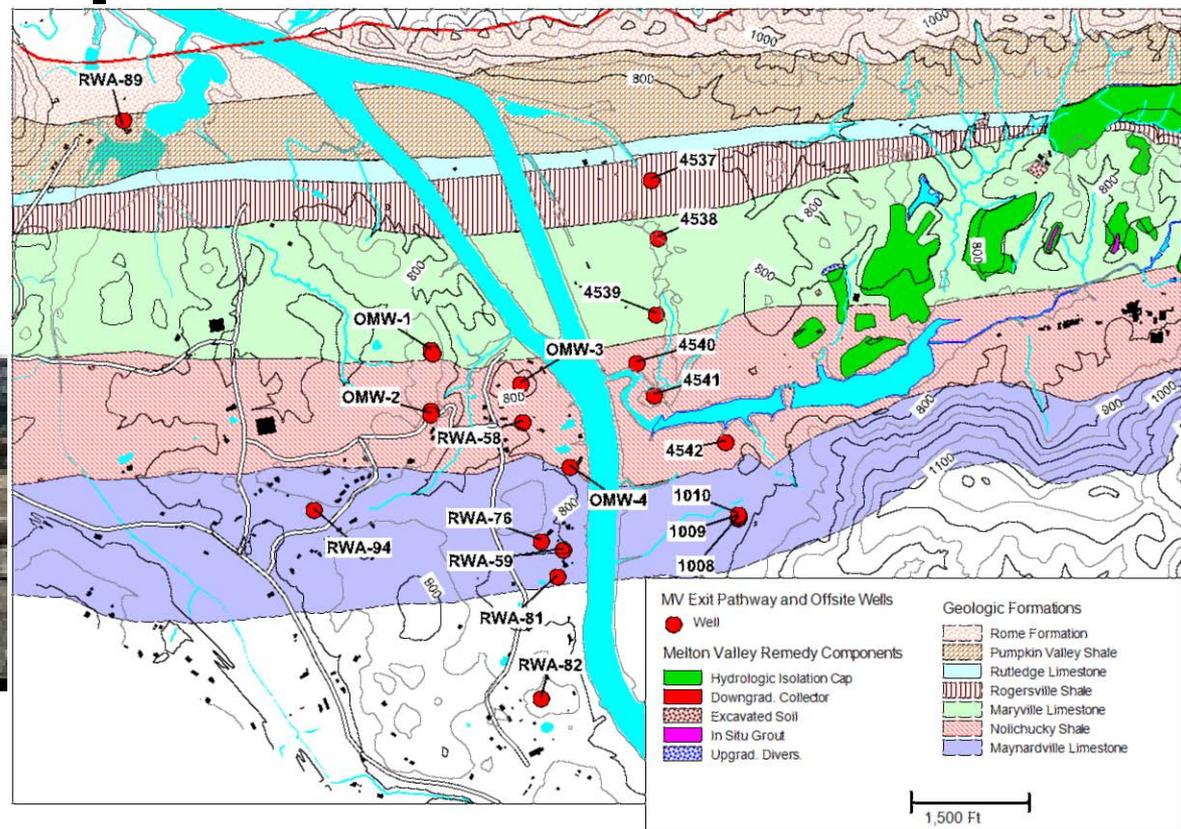
- **Upgraded Corehole 8 Intercept Extraction System to improve reliability of the system to capture and treat the Corehole 8 plume**



Corehole 8 Extraction Well Drilling

Recent Accomplishments (cont.)

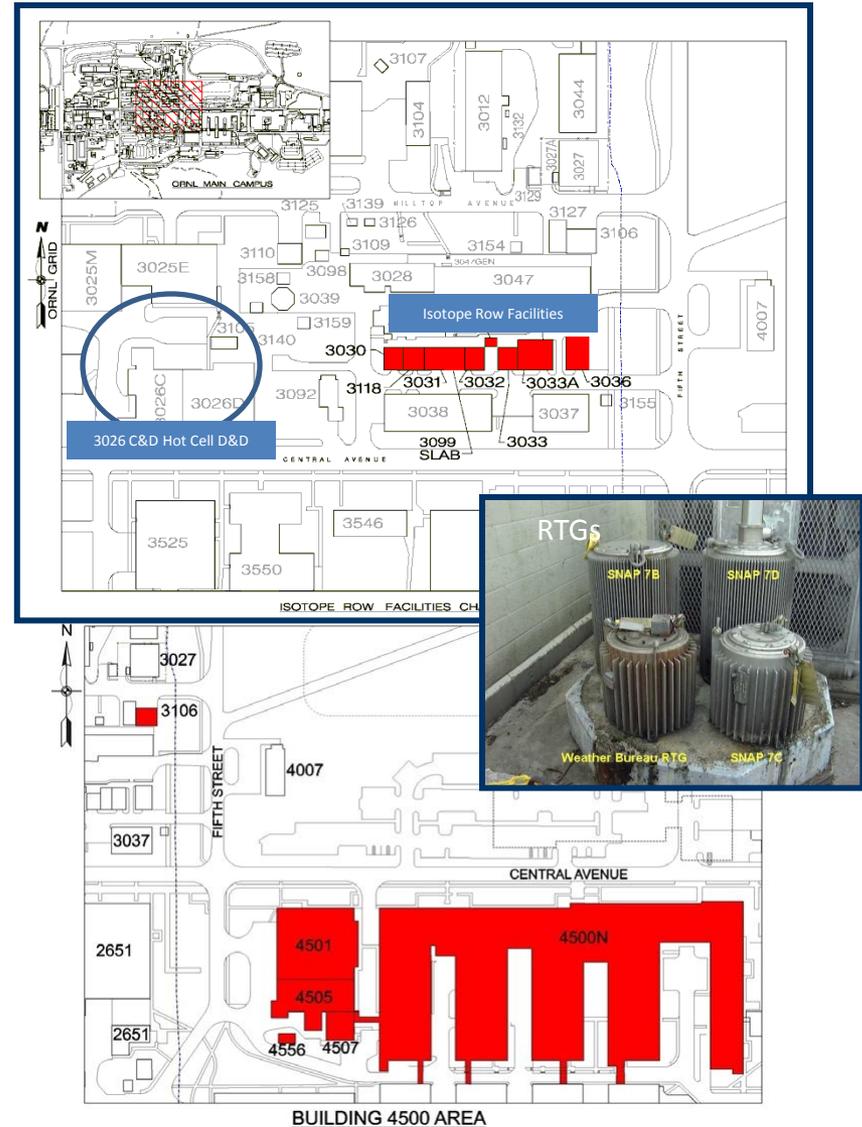
- Installed Off-site Monitoring Wells



Work in Progress – Recovery Act

High priority projects underway include:

- Demolition of Building 3026 C&D hot cell structures
- Disposition of six Radioisotope thermoelectric generators (RTGs)
- Isotope Row Facility characterization and legacy material removal
- Isolation of 4500 Area buildings from the 3039 stack
- Verification of qualifying acreage to be removed from the NPL Site Boundary



Work in Progress – Recovery Act (cont.)

- **Demolition of Building 3026 C&D hot cell structures**



3026 C-Side before demolition



3026 C-Side after demolition



3026 D-Side before and during preparation for demolition

Work in Progress – Recovery Act (cont.)

- Disposition of six RTGs.
- Isotope Facilities characterization and legacy material removal



Preparing for RTG disposition



Isotope facility characterization



*Exterior of Facility 3028
- before and after
legacy material removal*



Work in Progress – Recovery Act (cont.)

- Achieving risk reduction by deactivating the 4500 Area segment of the 3039 Stack



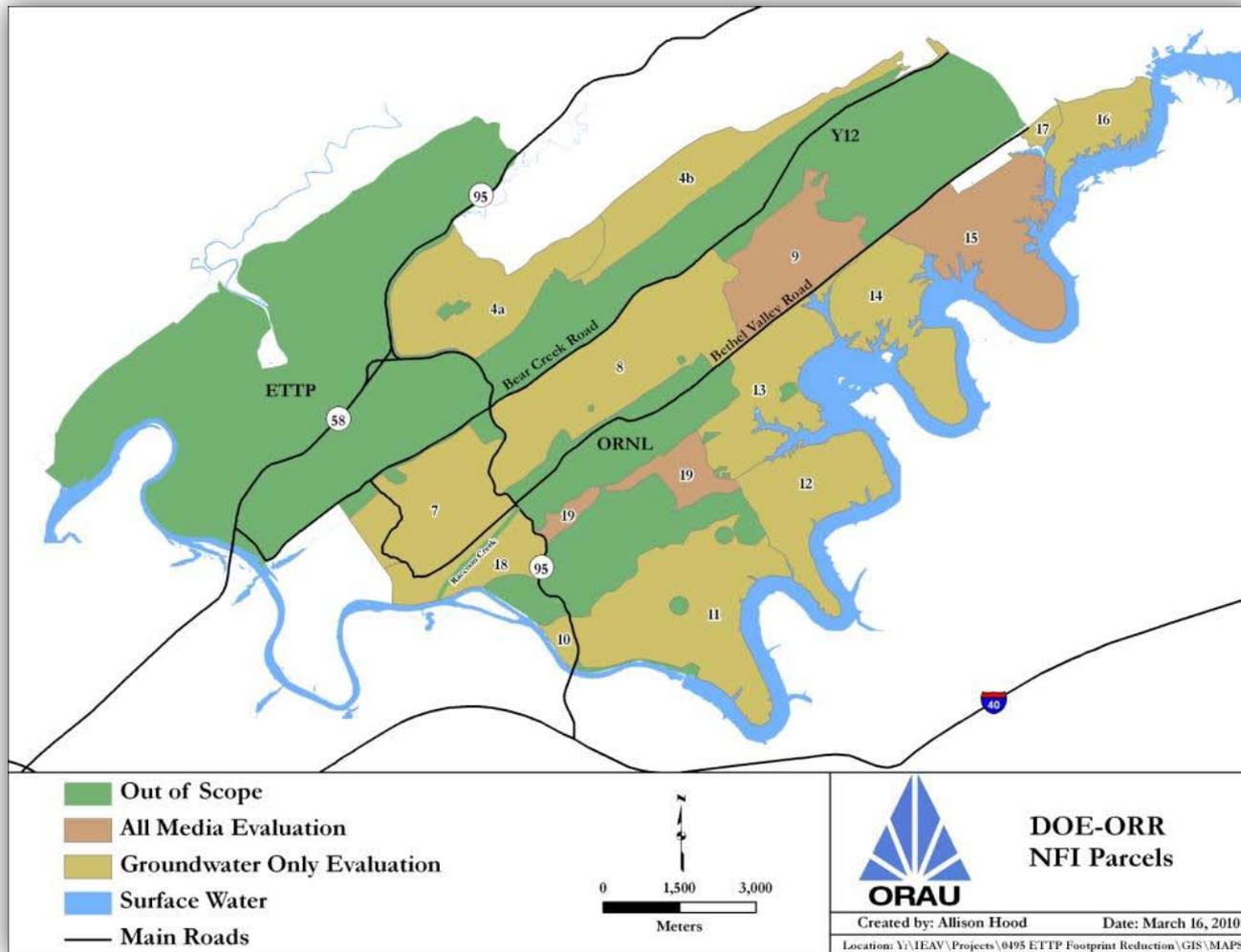
Installing stack for replacement local ventilation system



Stabilizing 4507 Hot Cells and connecting to local ventilation duct

Work in Progress – Recovery Act (cont.)

- **National Priority List Boundary Investigations**



Near-term Plans

- Continue removing excess nuclear/radiological materials (e.g. U-233)
- Continue Surveillance and Maintenance of excess facilities to ensure protection of the public, the workers, and the environment
- Maintain systems to address surface and groundwater contamination
- Continue Liquid and Gaseous Waste Operations



3039 Central Stack

Long-term Plans

- Complete removal of excess nuclear/radiological materials
- D&D facilities to access contaminated soil and eliminate risks
- Remove obsolete Central Gaseous Waste System from service
- Select and implement final groundwater remedies



EM End State - Long-term Plans

