



SOIL AND GROUNDWATER

East Tennessee Technology Park | Oak Ridge, TN



**The Final Chapter
of Cleanup at the
East Tennessee
Technology Park**

January 2024

The Final Chapter



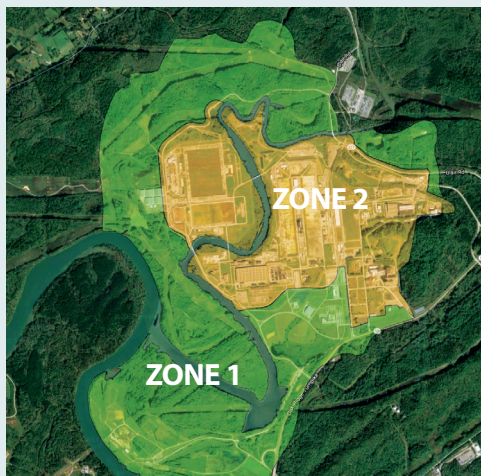
■ – Building demolished

The completion of major cleanup at the East Tennessee Technology Park (a.k.a. Vision 2020) marked a monumental environmental stewardship achievement for the Oak Ridge Reservation.

With all major facilities demolished, ETTP's final chapter begins.

As remaining contaminated soils are removed and remedies to protect groundwater are solidified, the Department of Energy's vision for the site comes into focus.

After decades of national service, ETTP's restored footprint is being returned to the community—emerging as new businesses, clean energy generation, greenspaces, and the 409th National Historical Park.



The cleanup footprint is divided into two main areas.

- Zone 1 encompasses 1,400 acres bordering the site center
- Zone 2 includes an 800-acre footprint in the center of the site that housed the large uranium enrichment process buildings

To effectively manage and execute soil cleanup, zones are further divided into Exposure Units (EUs).

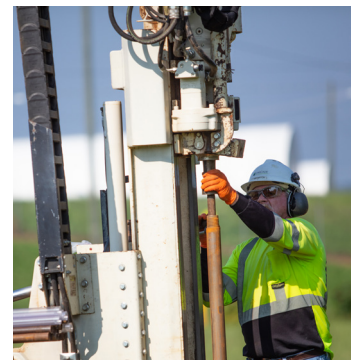


Soils

For final soil cleanup at ETPP, crews characterized the soil to identify contaminants, and are excavating the contaminated soil and replacing it with clean fill.

In Summer 2021, DOE and its cleanup contractor, UCOR, completed removal of all contaminated soils in Zone 1 per the Zone 1 Interim Record of Decision (ROD). The Zone 1 Final ROD will address the K-770 Fly Ash Pile (coal ash from power generation) and is the only area/action included in this ROD.

In Zone 2, work is nearing completion. In the remaining EUs, remedial actions are ongoing and will wrap up in 2024. Primary contaminants of concern are radionuclides from uranium processing and chemical solvents used in industrial processes.



Power of Partnerships

Working together, Federal Facility Agreement partners—the Department of Energy, the Environmental Protection Agency, and the Tennessee Department of Environment and Conservation—will achieve final cleanup of the East Tennessee Technology Park. Through a Regulatory Partnership Framework, FFA partners, along with cleanup contractor, UCOR, meet regularly to discuss issues impacting cleanup and courses of action to resolutions. This collaborative effort to restore ETPP protects people and the environment and makes land available for beneficial reuse.

Groundwater

While final remedies for the protection of groundwater at ETPP have not been determined, several early actions have been proposed. These priorities allow cleanup to progress while final decisions are being determined.

Main Plant Area

The Proposed Plan for an Interim Record of Decision for Groundwater in the Main Plant Area at the East Tennessee Technology Park, Oak Ridge, Tennessee identifies enhanced in situ bioremediation (EISB) as DOE's preferred alternative to remediate six specific areas of groundwater in the Main Plant Area of the East Tennessee Technology Park. EISB is a method that involves using microorganisms to reduce contamination levels in these specific areas of groundwater. For these six areas, workers have excavated, or will excavate, the primary sources of contamination, as specified in the Record of Decision for Soil, Buried Waste, and Subsurface Structure Actions in Zone 2, East

Tennessee Technology Park, Oak Ridge, Tennessee (DOE/OR/01-2161&D2). The Proposed Plan proposes to follow that soil excavation work with active treatment of the residual contamination that remains below the groundwater table. Land use controls described in the East Tennessee Technology Park Administrative Watershed Remedial Action Report Comprehensive Monitoring Plan, Oak Ridge, Tennessee (DOE/OR/01-2477&D4) will continue under the Interim Record of Decision for Groundwater in the Main Plant Area at the East Tennessee Technology Park, Oak Ridge, Tennessee (DOE/OR/01-2949).

K-31/K-33 Area

The Proposed Plan for the Record of Decision for Groundwater in the K-31/K-33 Area at the East Tennessee Technology Park, Oak Ridge, Tennessee identifies monitored natural attenuation and land use controls as DOE's preferred alternative to remediate contaminated groundwater in the K-31/K-33 Area of the East Tennessee Technology Park. Monitored natural attenuation is a groundwater remediation approach that relies on natural processes to reduce the concentrations of contaminants in groundwater.

It was the method selected to address groundwater contaminated with metals, primarily chromium and nickel, detected in concentrations above drinking water standards. Overall contaminant concentrations have been trending downward since the late 1980s, and there are no current exposure pathways that affect human health or the environment. Land use controls will be implemented to prohibit groundwater use and notify future landowners concerning the presence of contaminated groundwater.

