# ONSITE DISPOSAL









Waste Disposal on the Oak Ridge Reservation

EMWMF

# ORR Waste Disposal

The DOE Oak Ridge Environmental Management (OREM) program's primary mission is to clean up legacy environmental waste at the East Tennessee Technology Park, Y-12 National Security Complex, and Oak Ridge National Laboratory. Together, these sites house hundreds of facilities once used to support the Nation's nuclear energy and defense programs. Cleanup of these deteriorating and contaminated facilities and associated environmental media generates a large amount of waste and contaminated debris.

OREM operates four permitted landfills on the Oak Ridge Reservation (ORR) to safely, compliantly, and cost-efficiently dispose of remediation, demolition, and sanitary waste. Each landfill uses a waste acceptance criteria to determine what is allowable for disposal.



# Noteworthy EMWMF Accomplishments

### **Cost Savings**

Avoided ~**\$1** billion in offsite waste transportation costs

### **Safe Performance**

Zero lost workday injuries over the 15-year life of the project

## **Compliant Operations**

Monitoring demonstrates compliance
- No Notices of Violation
during active operations

Designated Haul Road provides additional protection by eliminating truck traffic on public highways

### ORRLF

The ORR Landfill (ORRLF) receives sanitary, sensitive, and construction debris waste

Landfill IV: 4-acre permitted, industrial landfill. Receives sensitive, sanitary waste requiring additional security controls.

Landfill V: 26-acre permitted, industrial landfill. Receives office trash, cafeteria waste, and other sanitary waste. Also may receive friable asbestos, beryllium, and/or > 50 ppm polychlorinated biphenyl (PCB)-contaminated materials with TDEC approval.

Landfill VII: 30-acre permitted construction/demolition landfill. Receives clean construction debris from building construction and demolition.

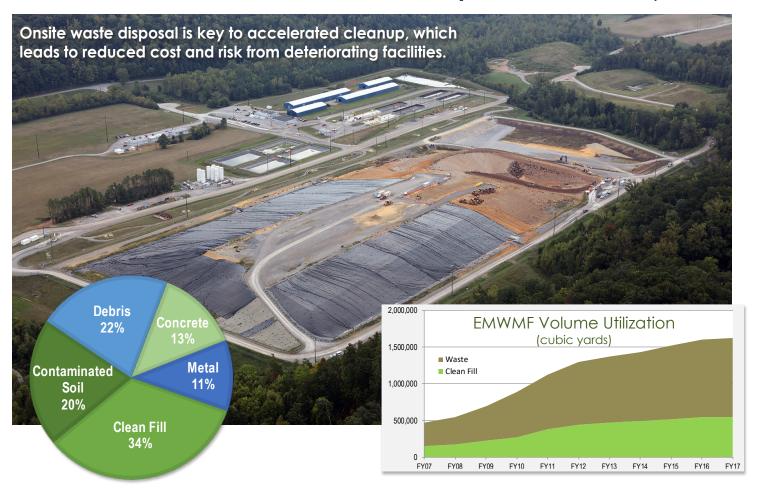
### **EMWMF**

The Environmental Management Waste Management Facility, or EMWMF, is a 28-acre CERCLA disposal facility designed to receive low-level (radioactive), hazardous, chemical, and mixed wastes from demolition and remediation activities.





# EMWMF - 15 Years of **Safe and Compliant** Waste Disposal



~1.6 million

cubic yards

disposed at

EMWMF

Onsite disposal reduces risk of transporting waste on public roads and leads to significant cost savings

~10%
waste volume
shipped off the site

—20%
waste volume
disposed on the site



With significant cleanup remaining on the ORR, **EMWMF will reach capacity in the mid-2020s**, prompting the need for additional onsite waste disposal.

### Additional Onsite Disposal

The Environmental Management Disposal Facility (EMDF) is a critical component for future environmental cleanup, risk and cost reduction on the ORR and mission growth.

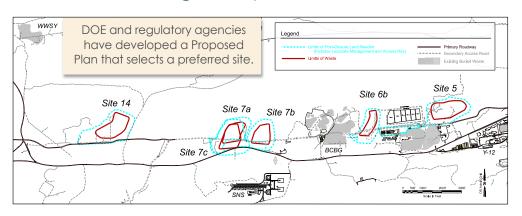


Additional onsite disposal capacity will accommodate waste resulting from cleanup activities at Y-12 National Security Complex and Oak Ridge National Laboratory and must be in place before major demolition can begin at those sites.

### **EMDF** Conceptual Design

The robust EMDF conceptual design will use the latest technologies to prevent infiltration of water into the waste and restrict migration of contamination into the groundwater.

### Selecting the Optimum Location



### **EMDF** Conceptual Design



