

Ensuring Sufficient Waste Disposal Capacity for the Oak Ridge Site

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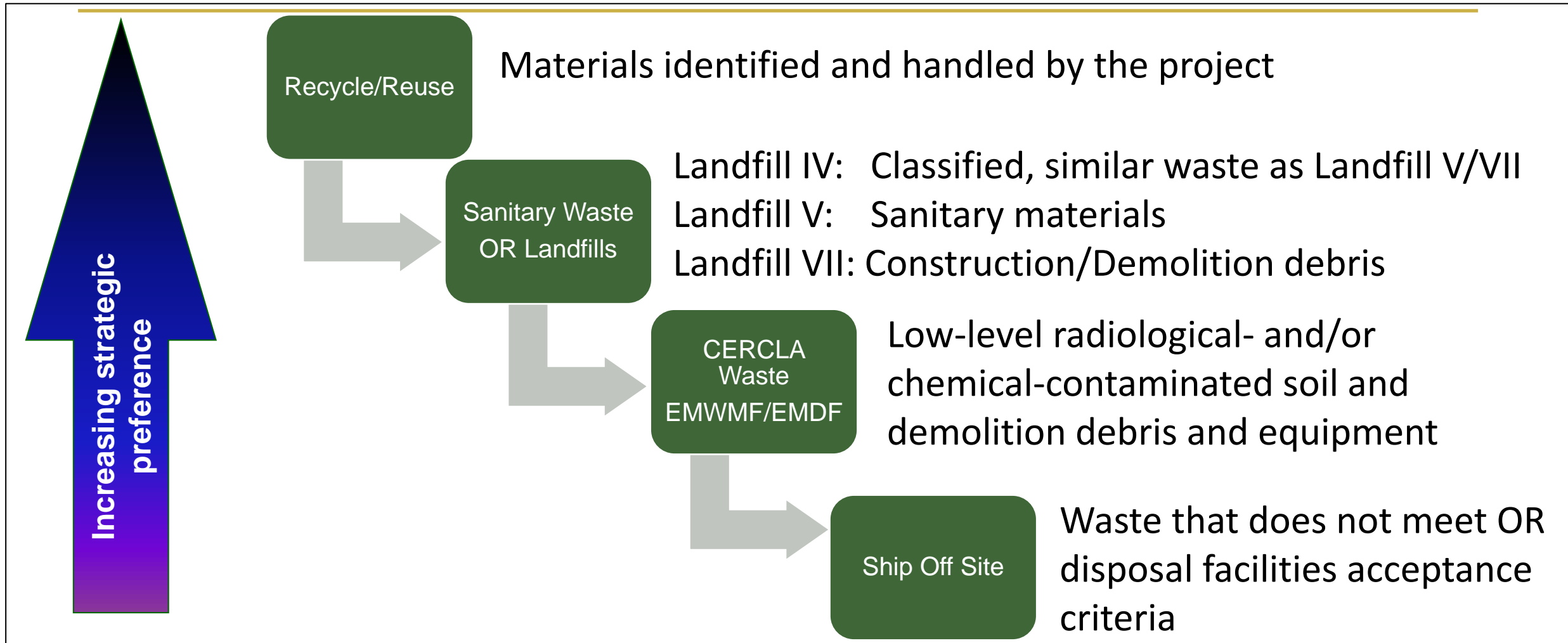
U.S. DEPARTMENT OF
ENERGY

OFFICE OF
**ENVIRONMENTAL
MANAGEMENT**

Current and planned disposal capacity is sufficient to meet needs

- DOE operates several engineered landfills for safe and compliant disposal of Oak Ridge site (OR) remediation, demolition, and sanitary waste
 - Landfills IV, V, and VII are permitted by Tennessee Division of Solid Waste Management
 - The Environmental Management Waste Management Facility (EMWWMF) and planned Environmental Management Disposal Facility (EMDF) fall under the regulatory requirements of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)
- Each landfill/waste disposal facility has established waste acceptance criteria to determine whether waste is acceptable for disposal

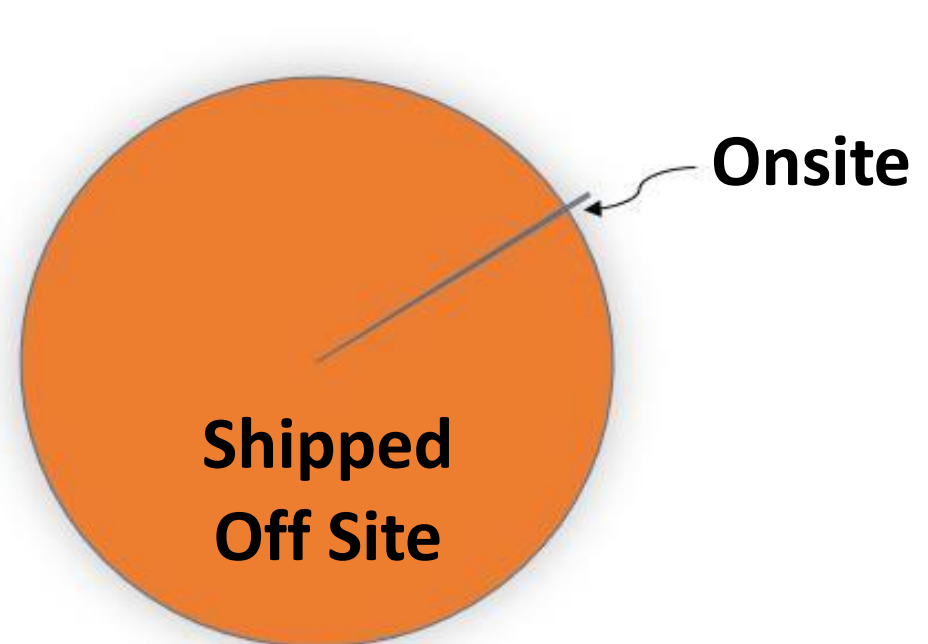
DOE waste disposal decisions follow waste hierarchy



The high-hazard radioactive waste is disposed off site by DOE

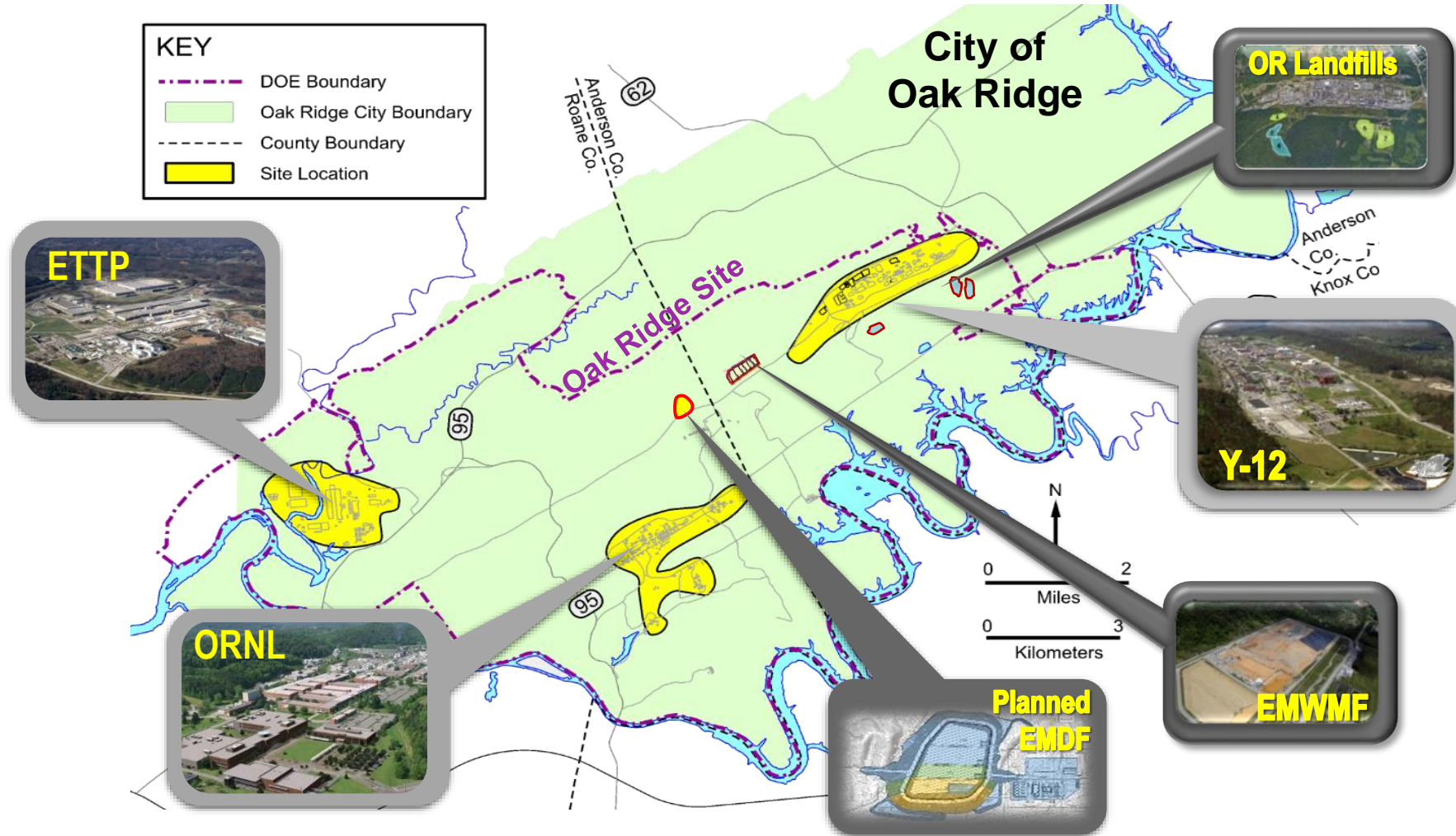


By Volume

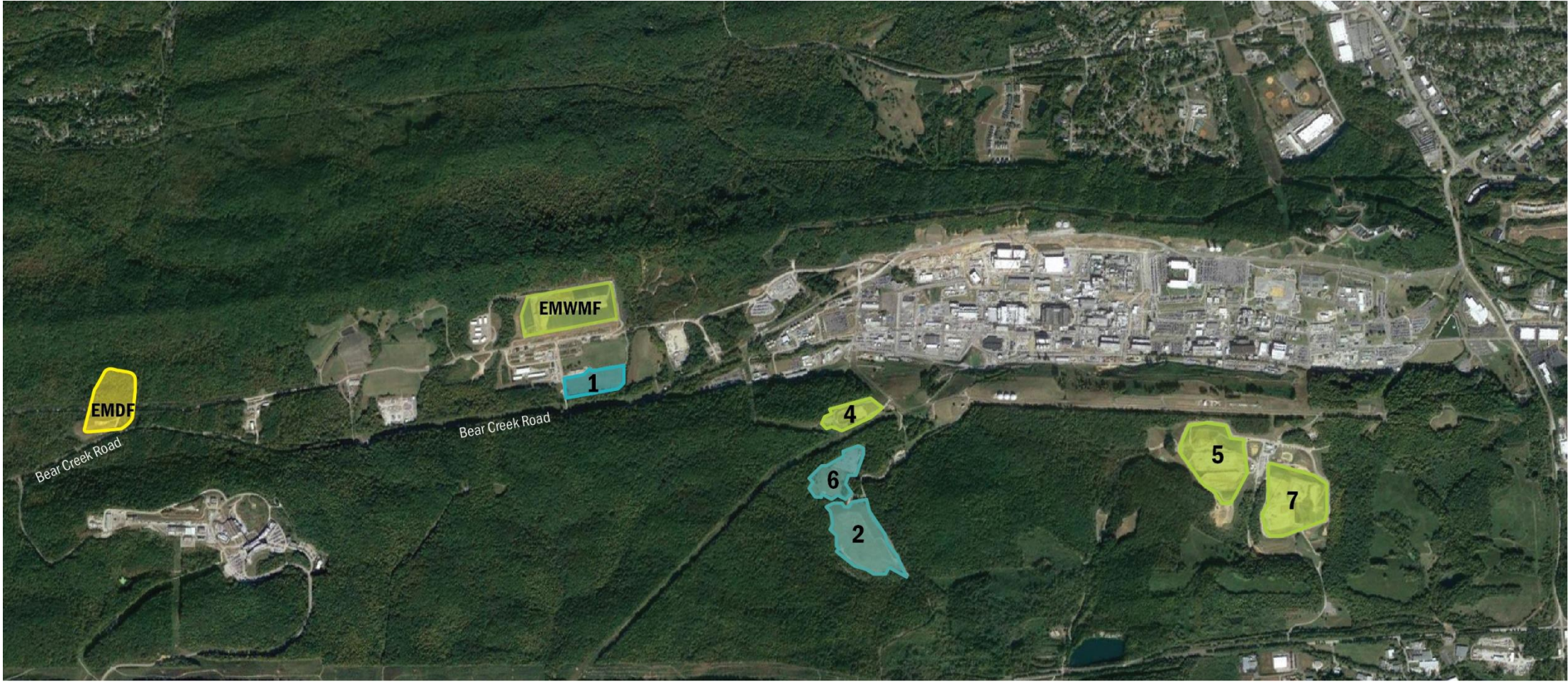


By Radiological Activity

DOE uses multiple onsite disposal facilities to support cleanup operations



Landfills/EMWMF are located within DOE-controlled areas



Onsite disposal availability has been key to the successful cleanup of ETPP



ETPP Before Cleanup



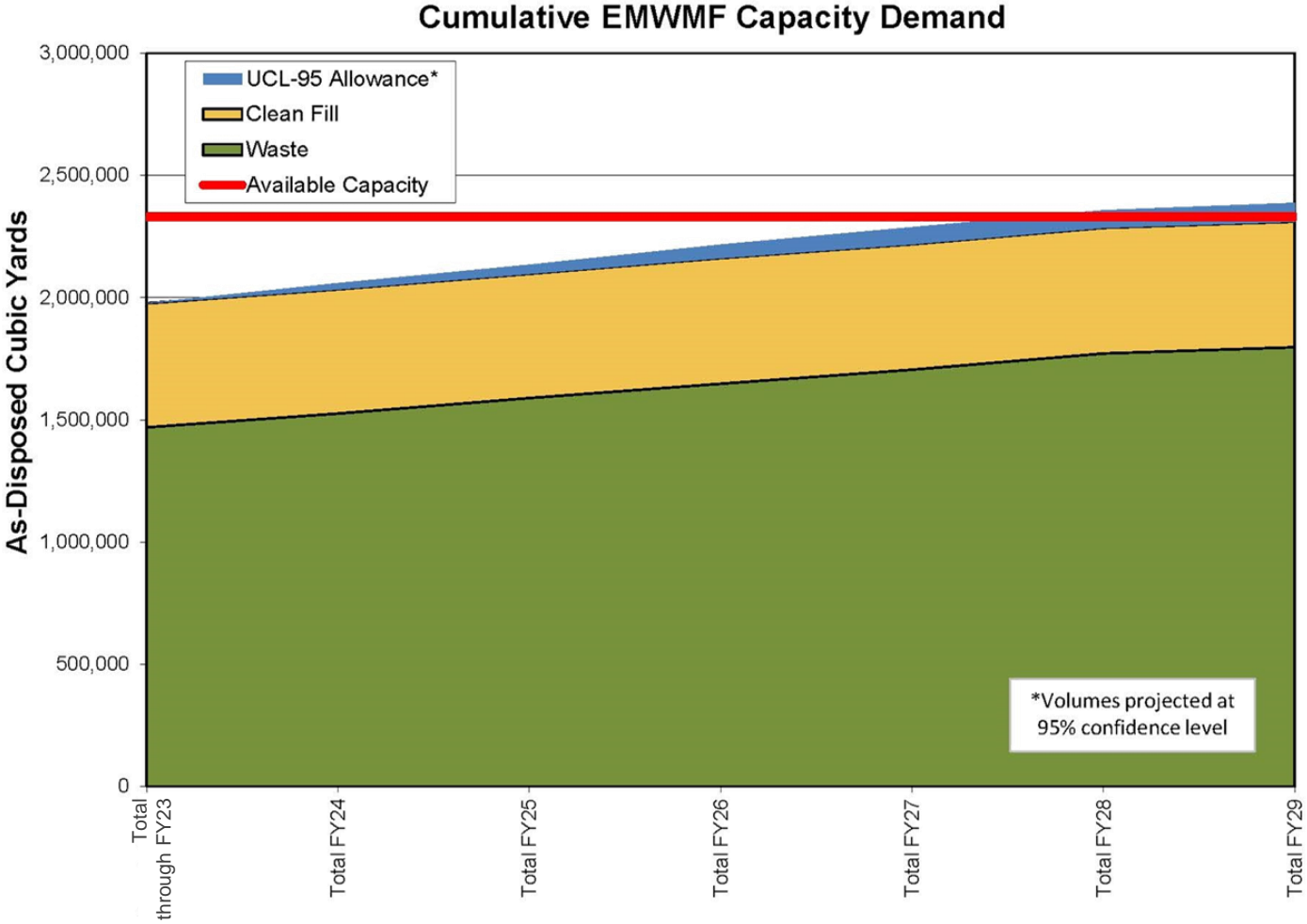
ETPP After Cleanup

EMWMF remaining capacity supports completion of East Tennessee Technology Park cleanup

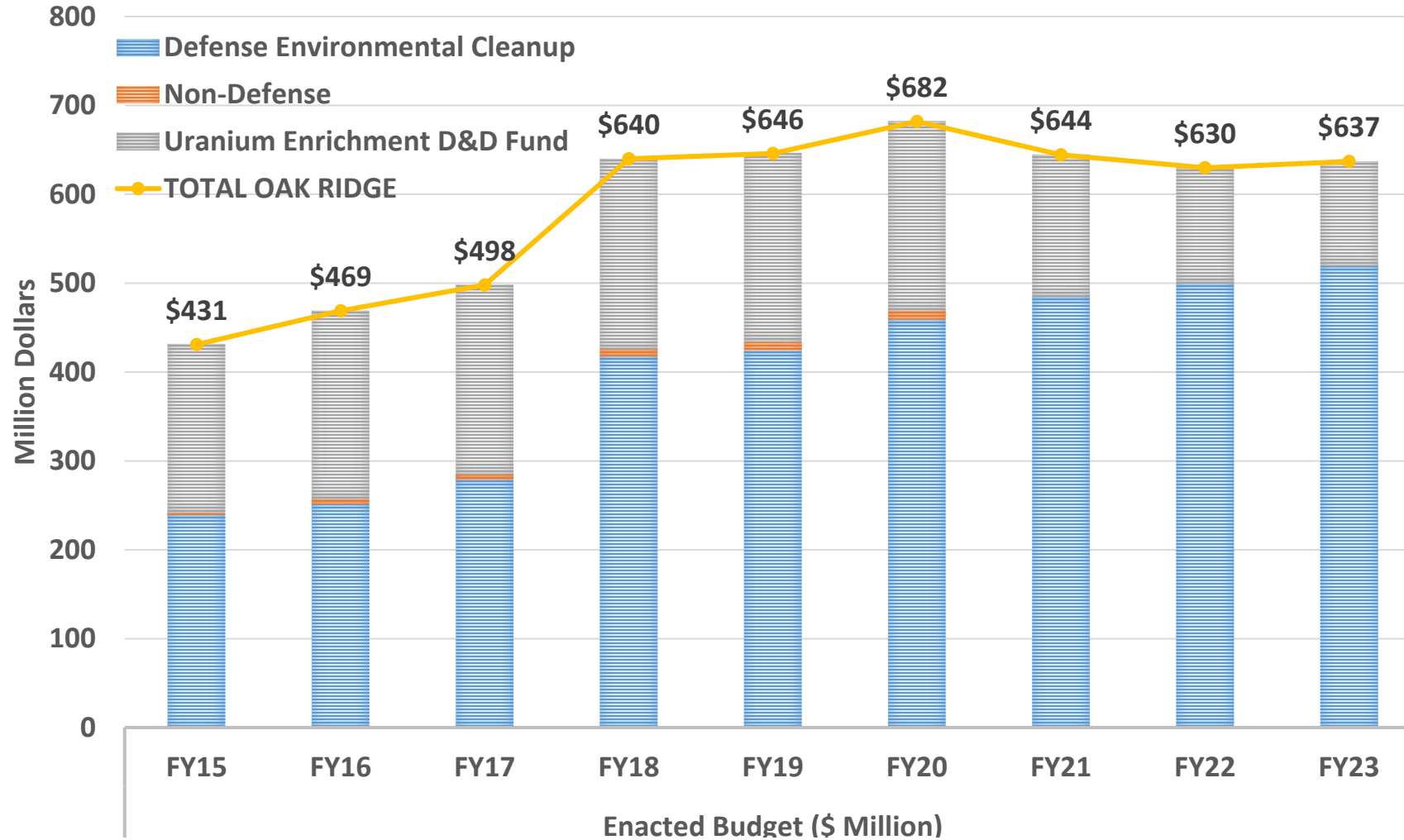
- 28-acre waste disposal footprint, opened in 2002
- Lined disposal cells receive low-level radiological and chemical waste from CERCLA cleanup of Oak Ridge site
- Approximate total capacity of 2.3 million cubic yards
 - Currently about 85% full
 - Projected to be full in late 2020s



EMWMF projected capacity nears zero at end of 2020s



OREM Budget



Additional waste disposal capacity allows OREM to continue progress and achieve its mission at ORNL and Y-12



Excess Facilities at Y-12



Excess Facilities at ORNL

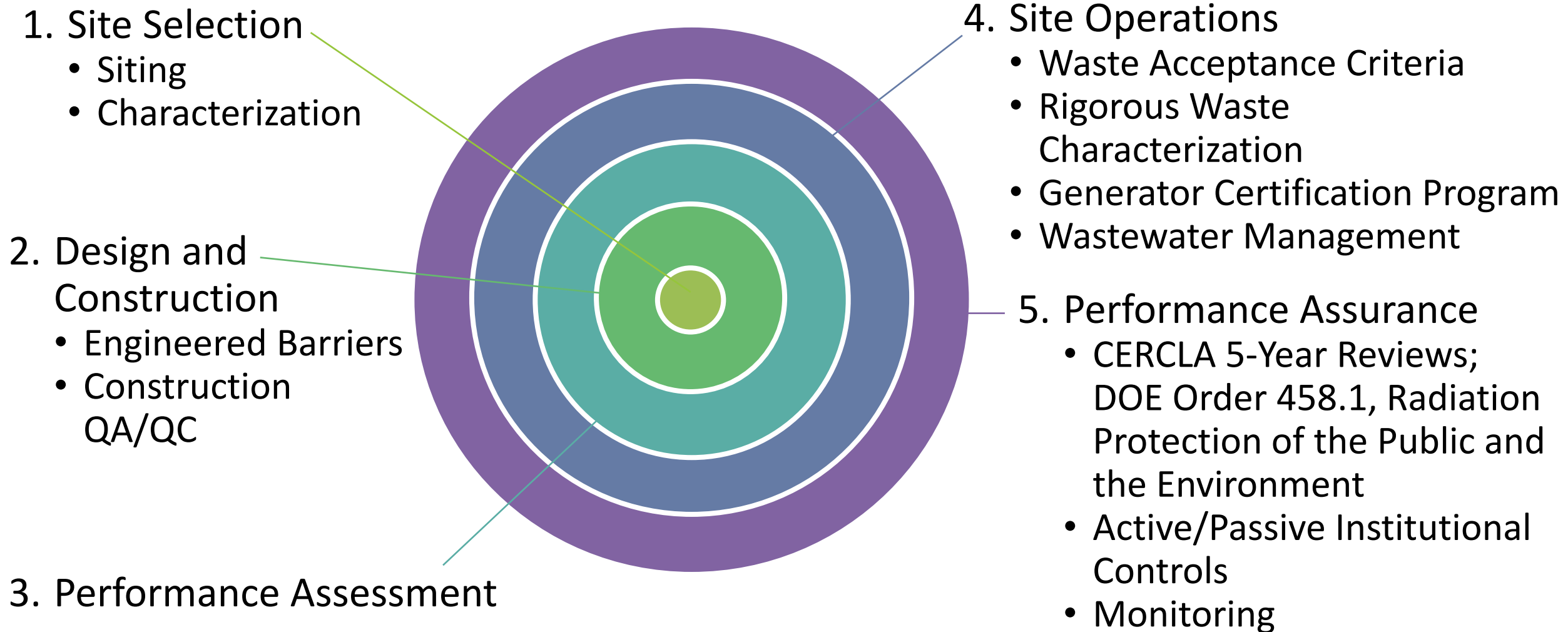
- Over 200 buildings to be demolished at Y-12 and ORNL
- Oak Ridge contains DOE's largest inventory of high-risk facilities
- Wide range of physical, chemical, and nuclear hazards that present risk to critical ongoing research and national security missions

Additional capacity is needed for Y-12 and ORNL CERCLA cleanup

- Permitted Oak Ridge Landfills
 - Constructed in phases to reach buildout of permitted capacity
 - Additional area at OR Landfill V constructed in 2023
- EMDF (Low-Level CERCLA Cleanup Waste)
 - Chosen site is located at Central Bear Creek Valley
 - Projected disposal capacity is 2.2 M yd³
 - Record of Decision (ROD) was signed September 30, 2022
 - Projected to be operational by late 2020s

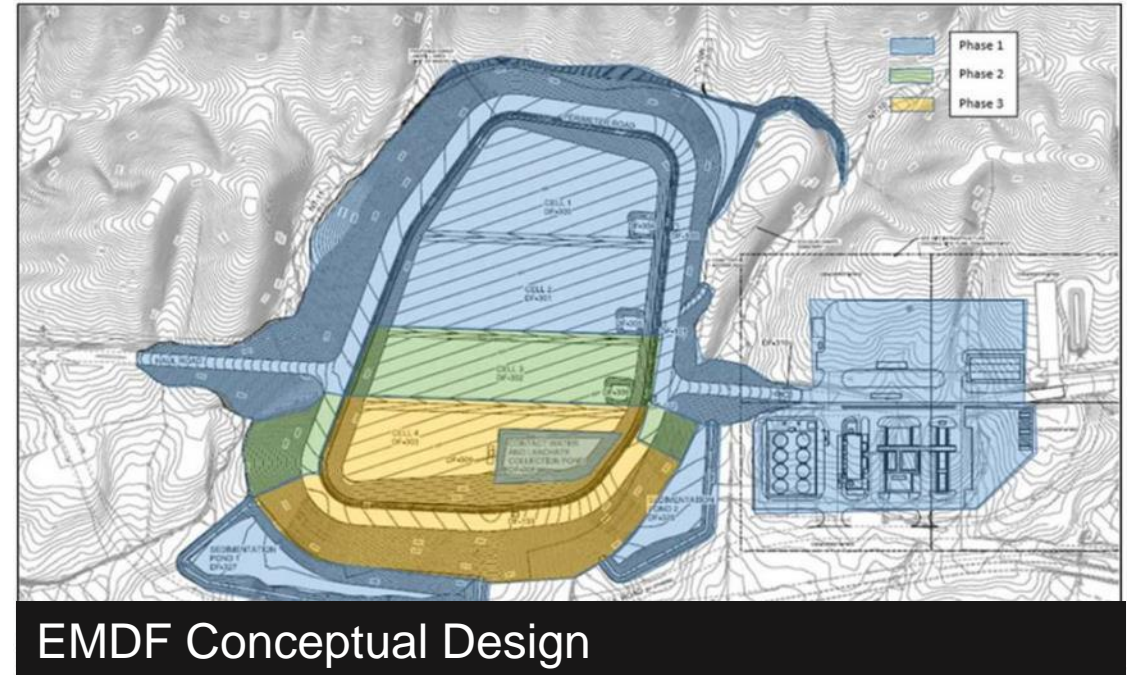


Systems Approach to waste disposal provides multiple layers of protection



Several steps remain before Balance of Construction can begin and waste disposal start

- DOE Regulatory Approval
 - Disposal Authorization Statements approval prior to waste disposal
- CERCLA Approval Process
 - Early Site Preparation: Remedial Design (RDWP)/Remedial Action Work Plan (RAWP) approved April 2023
 - Groundwater Field Demonstration RDWP/RAWP approved October 2023
 - Balance of Construction:
 - Landfill Remedial RDWP anticipated approval end of 2024
 - Landfill Remedial Design Report/RAWP to be submitted by September 2026



OREM is committed to continued outreach

- Meetings with members of the public began in 2015
- OREM offered an initial 120-day public comment period
 - Included public info sessions in Fall 2018
 - Formal public meeting in November 2018
 - Outreach with local government
- OREM offered a 30-day public comment period in Spring/Summer of 2022 that addressed:
 - Water quality protection
 - Site groundwater characterization
 - Waste acceptance criteria
- OREM will continue hosting events to update the public on progress



OREM hosted its latest poster session
November 9, 2023



QUESTIONS?