

# EMDF allows DOE to address Oak Ridge's existing risks

- The new facility allows DOE to address and remove existing hazards at the Y-12 National Security Complex and Oak Ridge National Laboratory—reducing risks to residents and workers in Oak Ridge
- Currently, Oak Ridge has far more high risk excess, contaminated facilities than any other site in the Department of Energy
- Cleanup enables important research and national security missions to continue



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# A proven history of safe operations

- DOE has operated the current on-site disposal facility, the Environmental Management Waste Management Facility, safely for 20 years
- DOE will take all of the lessons learned and best practices from these years of operation and apply them to the new, engineered facility
- DOE will continue to ship most of the waste on the private Haul Road to avoid public highways



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# Next steps for EMDF Project

**The EMDF project has multiple focus areas.**

## **FOCUS AREA 1**

### **Early Site Preparation**

This effort involves rerouting utilities, the Haul Road, and Bear Creek Road. It also involves constructing a support area for future work crews.

#### **STATUS**

Subcontract award and field work is expected in Summer 2023.

## **FOCUS AREA 2**

### **Groundwater Field Demonstration**

This effort involves understanding how groundwater levels adjust when construction begins. The study will span two wet seasons to capture data that will help inform and finalize EMDF's design.

#### **STATUS**

Final design for the Groundwater Field Demonstration project is targeted for Spring 2023, and field work is scheduled to begin in late 2023.

## **FOCUS AREA 3**

### **Balance of Construction**

This effort includes completing the final design, constructing the first two waste disposal cells, and building support facilities (wastewater treatment, tanks, piping, etc.).

#### **STATUS**

Preliminary design is ready for DOE review, and final design can begin once data comes in from Groundwater Field Demonstration project.

NOTE: Each activity involves extensive coordination, reviews, and approvals from DOE's regulators.



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# EMDF project milestones and outreach

- ☑ Develop a Proposed Plan with EPA and TDEC
- ☑ Release Proposed Plan for public comment (September 2018–January 2019)
- ☑ Host information sessions and public meeting to discuss Proposed Plan (September 2018–January 2019)
- ☑ Respond to all public comments in draft Record of Decision
- ☑ Host public meeting to discuss new project details (May 2022)
- ☑ Open additional public comment period on new project details (May–June 2022)
- ☑ Respond to all additional public comments and sign final Record of Decision with EPA and TDEC (September 2022)
- Continue public outreach about EMDF project
- Begin early site preparations
- Conduct Groundwater Field Demonstration Project
- Complete reviews and final design for EMDF
- Start construction

NOTE: Each activity involves extensive coordination, reviews, and approvals from DOE's regulators.



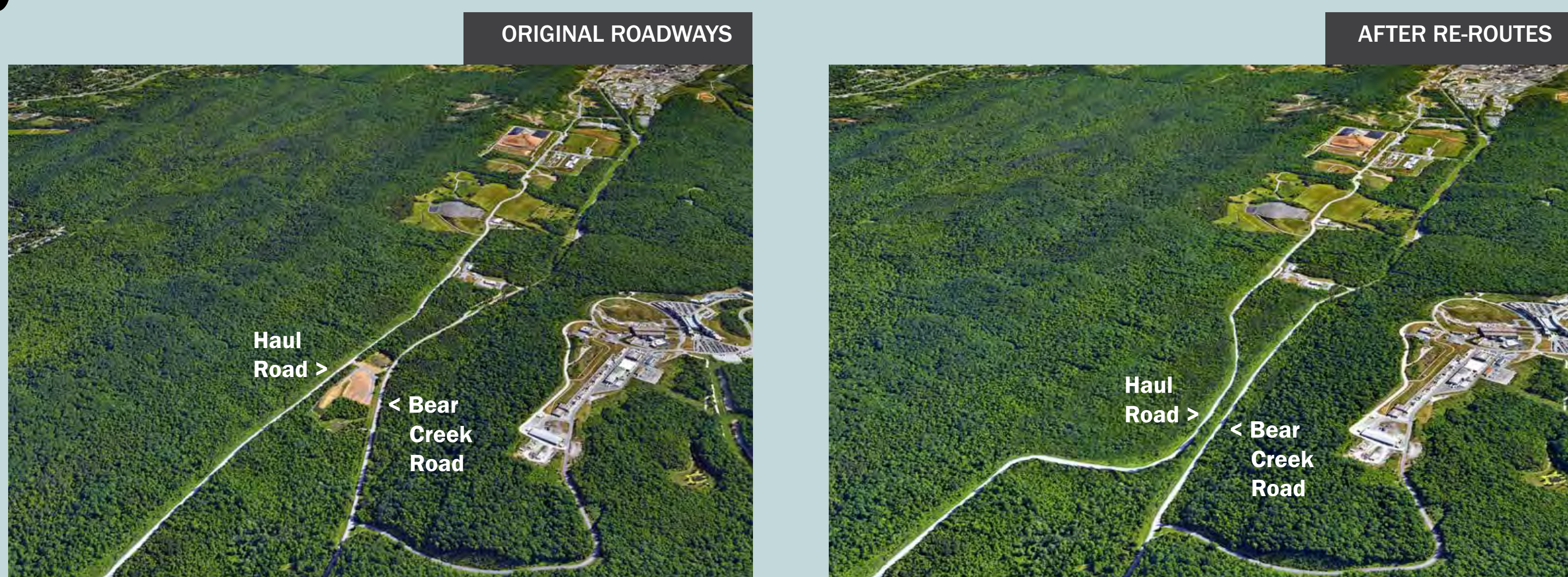
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# Early Site Preparation activities

Tasks to be covered by a single construction subcontract managed by UCOR:



- Road re-routes

  - Haul Road

  - Bear Creek Road

- Utility extensions

  - Electrical

  - Water line

- Construction Support and Borrow Area development

- Field work on these activities is expected to begin Summer 2023.



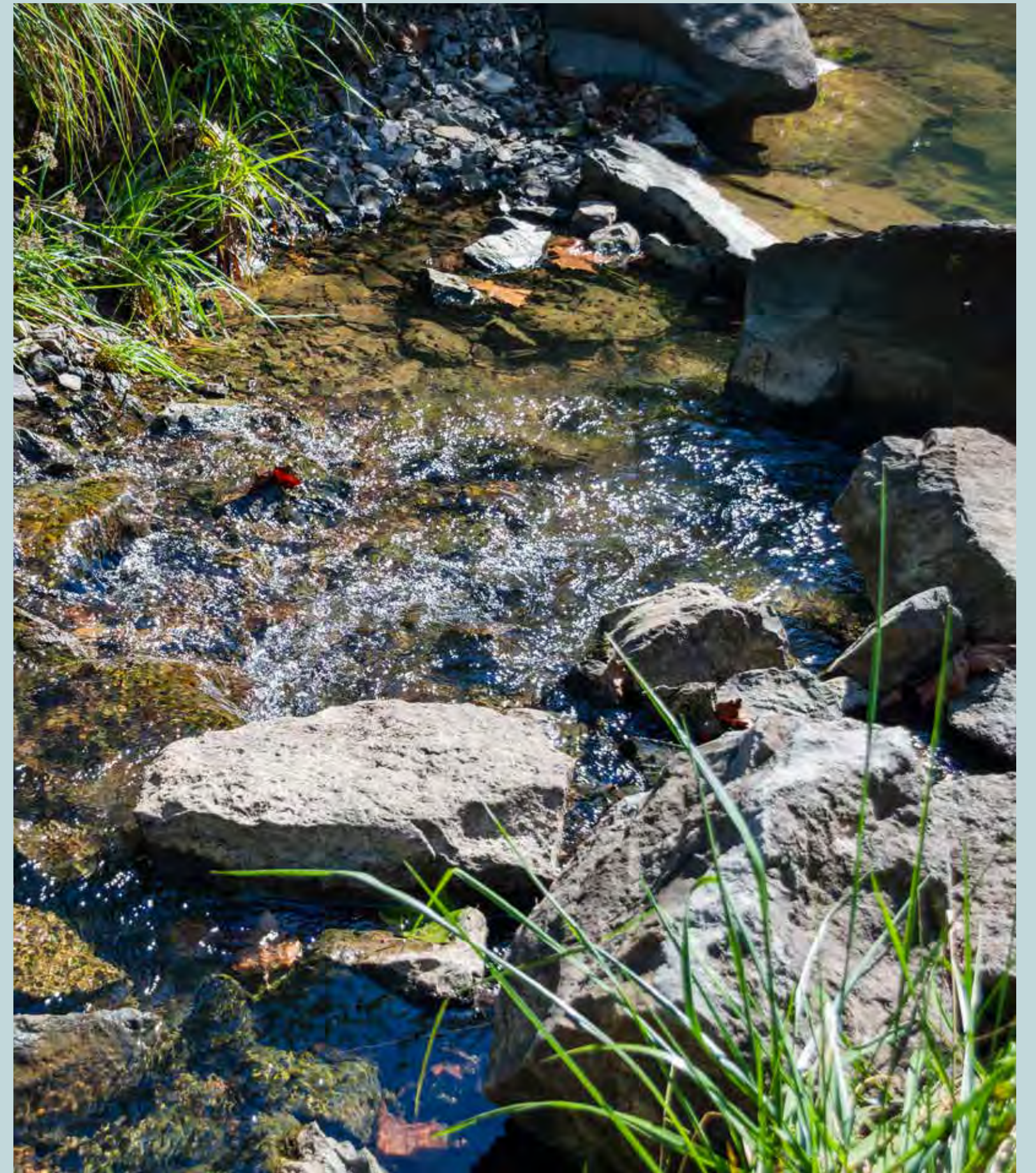
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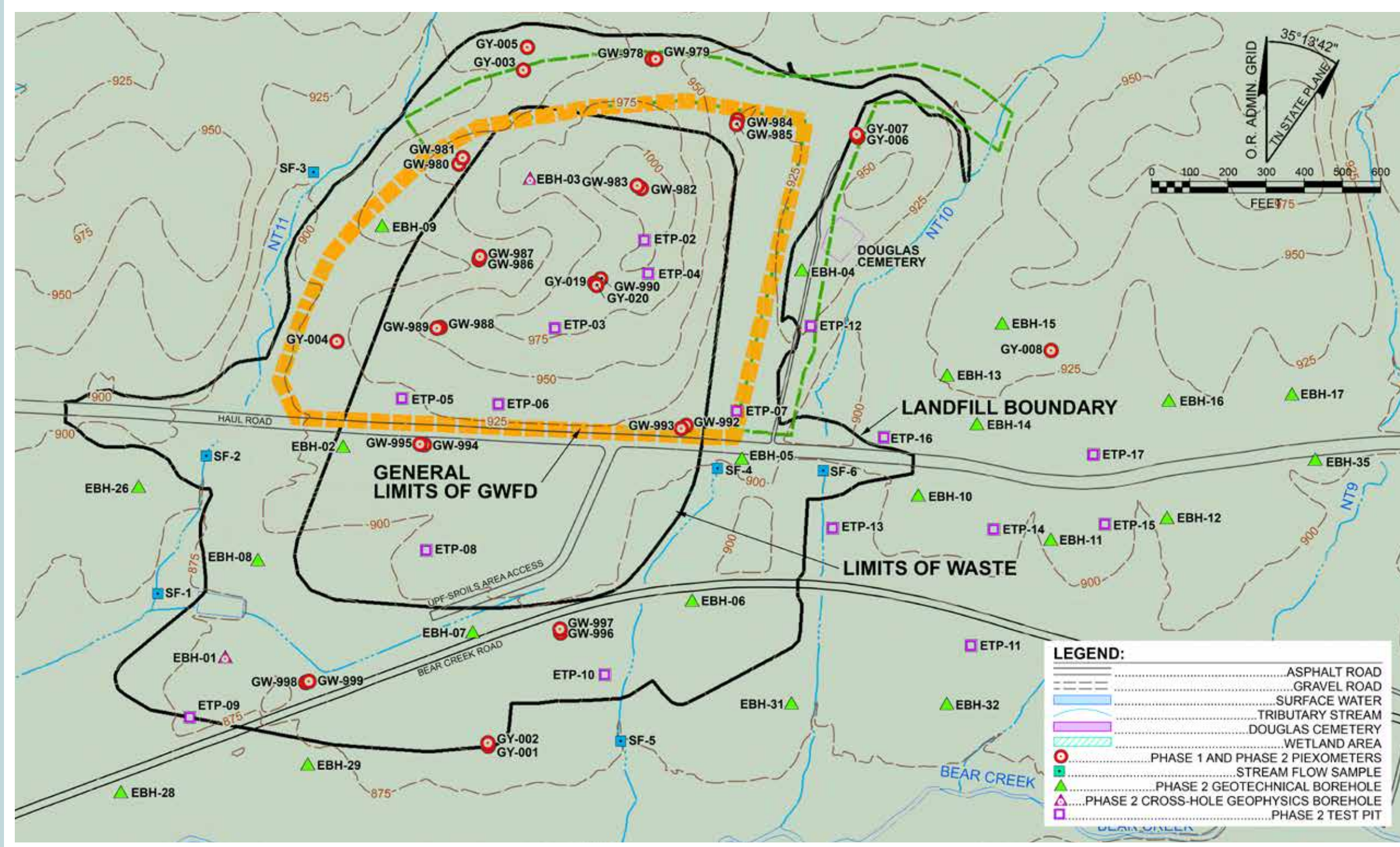
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# Information about the Groundwater Field Demonstration



Sample Locations at EMDF



## Key Design Features:

- Durable, low maintenance cover system to prevent rainfall infiltration
- Monitoring locations accessible via graveled roadways on cover system
- Demonstration period is 2 wet seasons from completion of cover
- Final design starts after the end of the first year
- Ditches and detention ponds sized for fully built-out landfill
- Seismic design requirements same as landfill



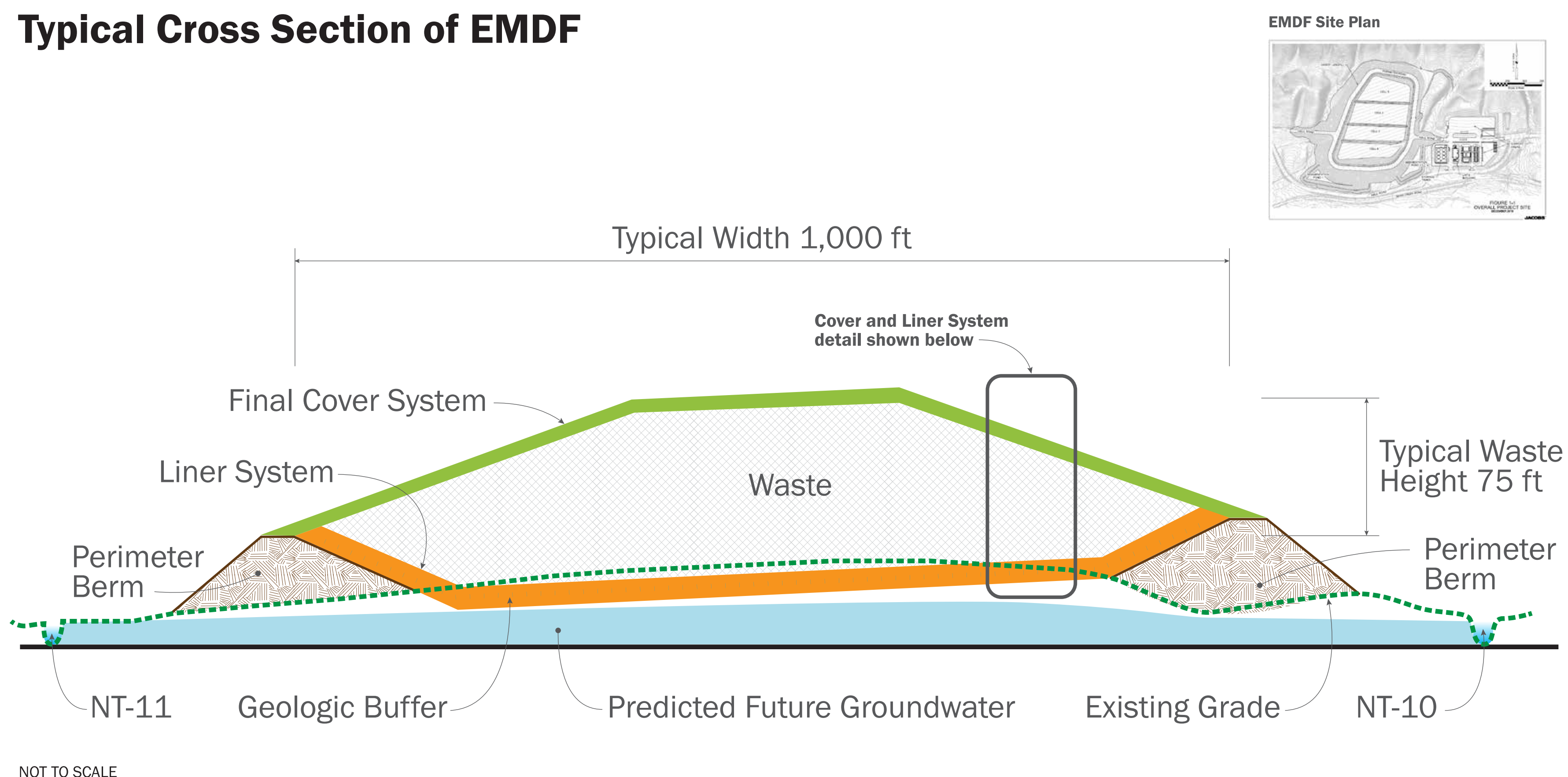
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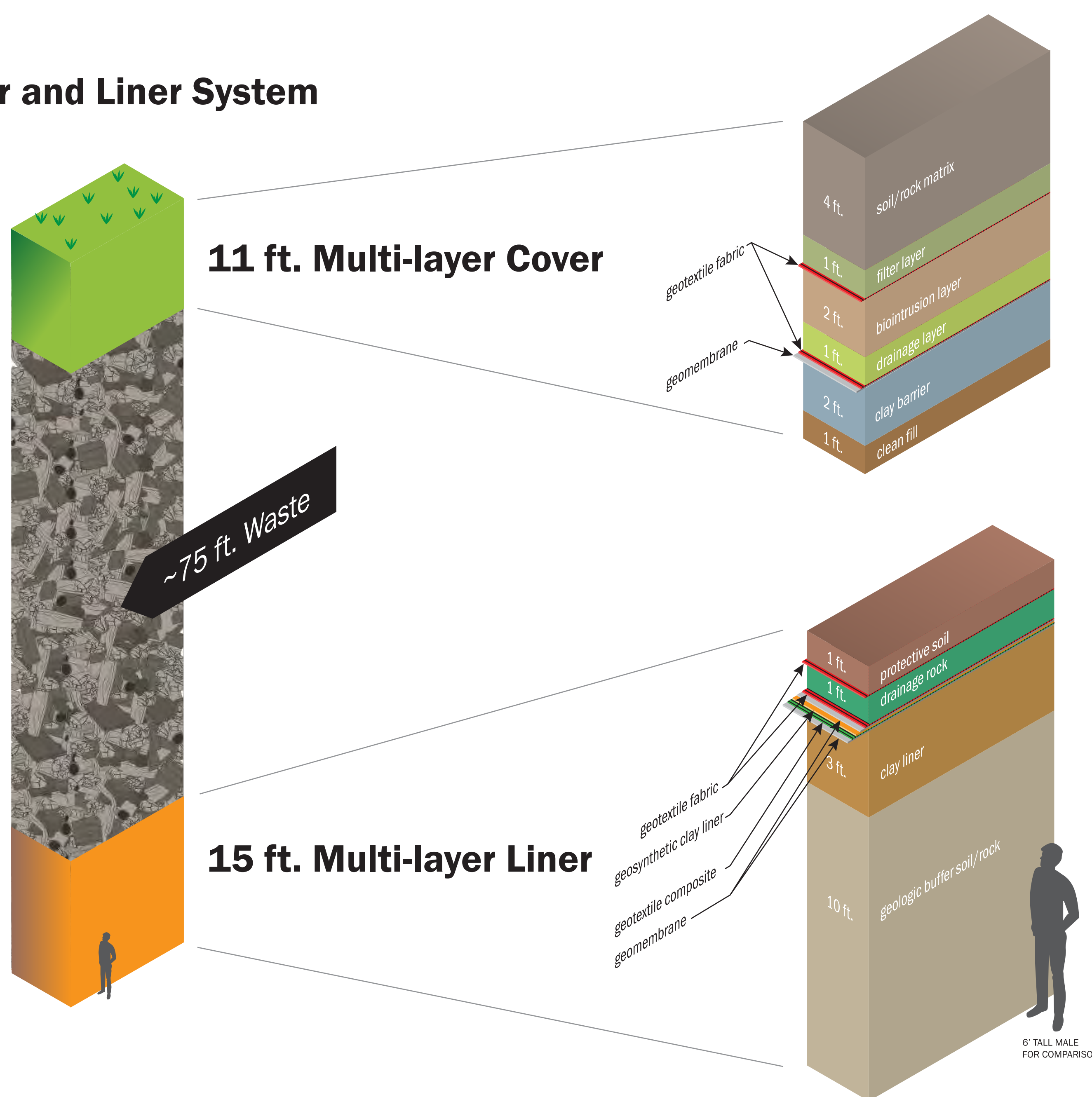


# EMDF's design will ensure waste is safely disposed

## Typical Cross Section of EMDF



## EMDF Cover and Liner System



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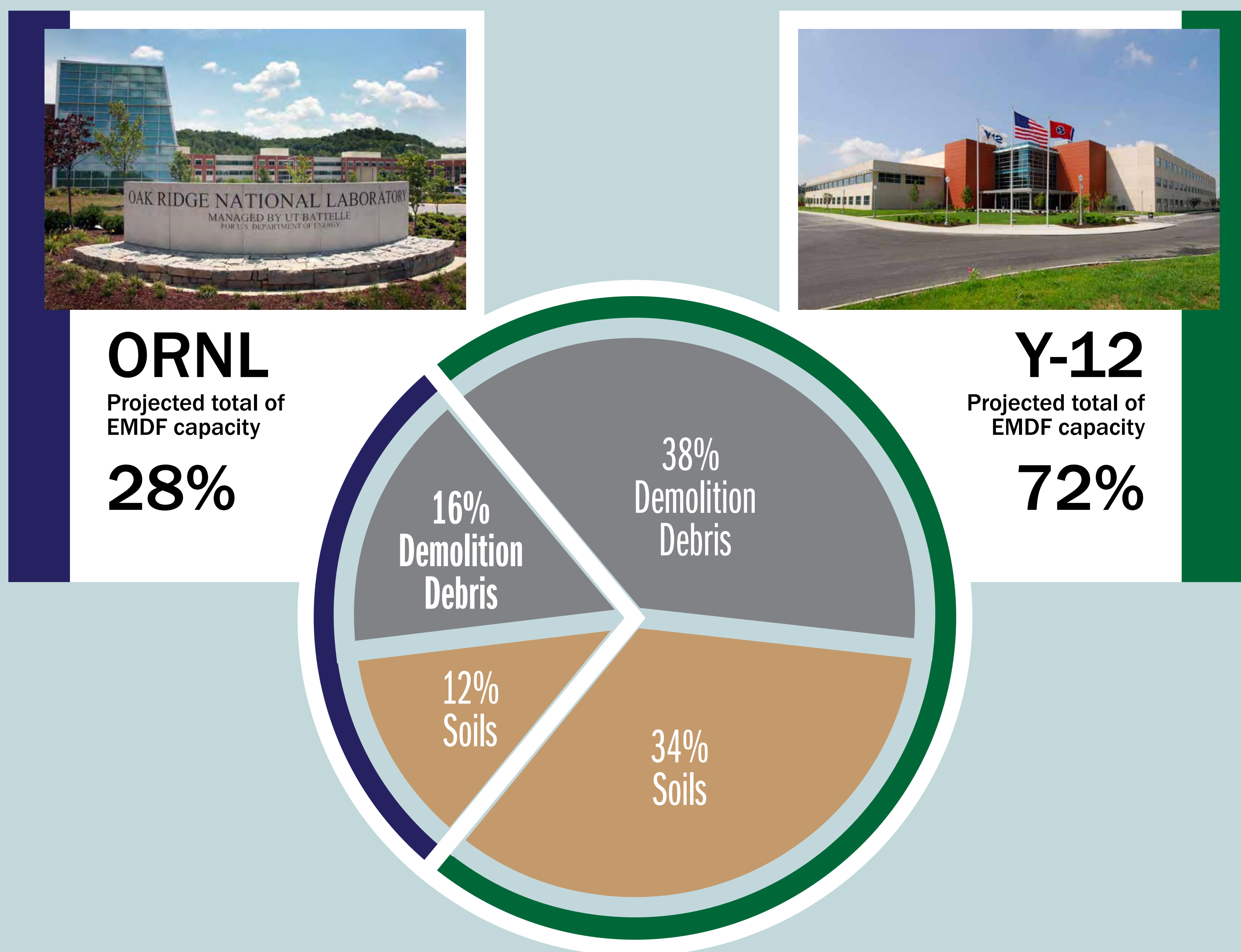


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# Waste management strategy

■ DOE estimates **1.6 million cubic yard waste volume** at EMDF



- Off-site disposal is and will remain a key element of our cleanup approach
- EMDF will have strict waste acceptance criteria to ensure no prohibited waste is disposed
- DOE will conduct additional outreach as it works to finalize waste acceptance with its regulators.



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# Projects in progress and end states resulting from DOE cleanup activities

## ORNL

PROJECTS IN PROGRESS



EXPECTED END STATE



- To be addressed
- EM Operational Responsibility
- Deactivation
- Demolished

## Y-12

PROJECTS IN PROGRESS



EXPECTED END STATE



- To be addressed
- Deactivation
- Demolished



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