

Update on CERCLA* Waste Disposal Capacity for the Oak Ridge Reservation

Presentation to the
Oak Ridge Site Specific Advisory Board



May 11, 2016

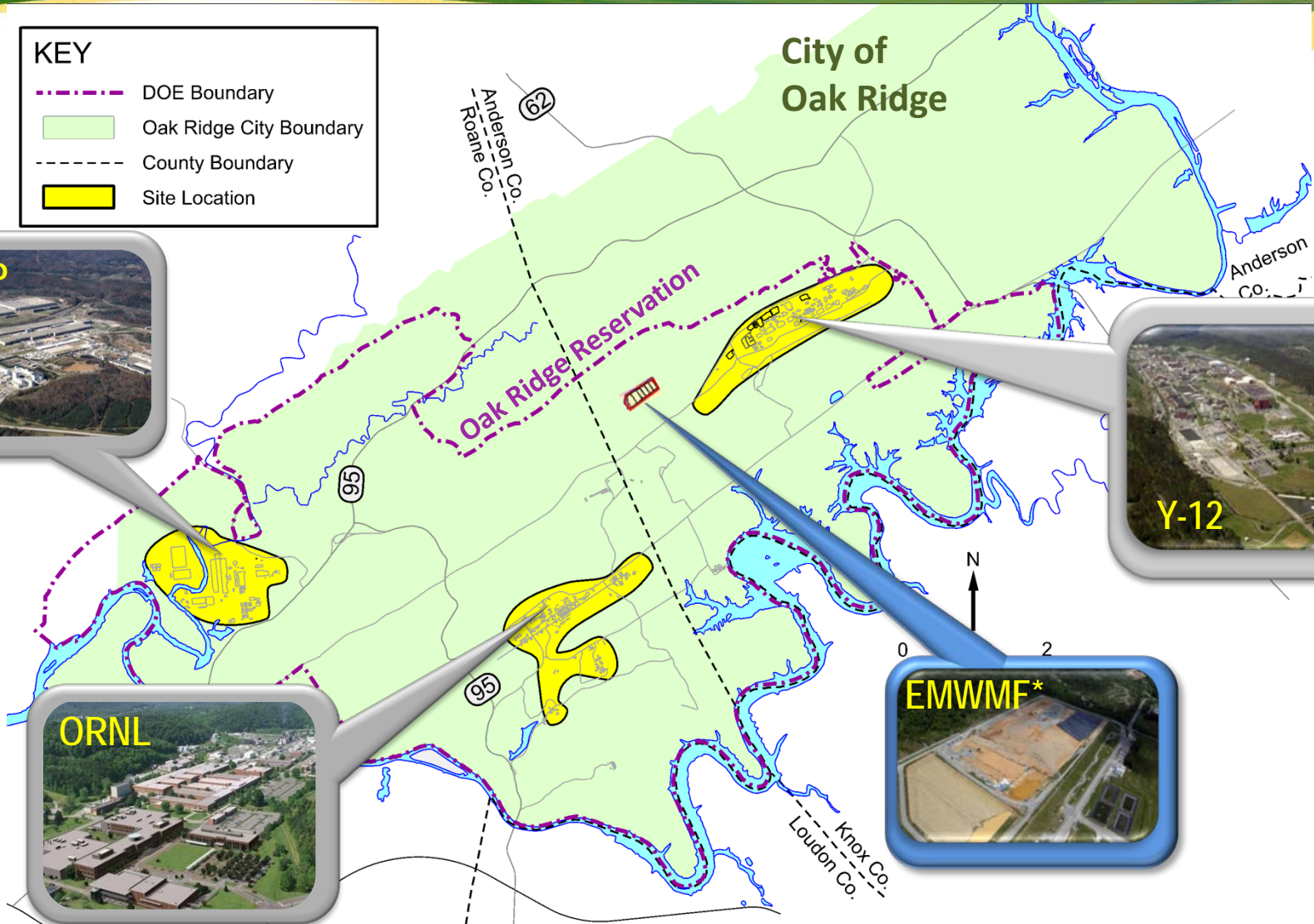
Brian Henry
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Oak Ridge Office of Environmental Management

*Comprehensive Environmental Response, Compensation, and Liability Act of 1980

Oak Ridge Reservation

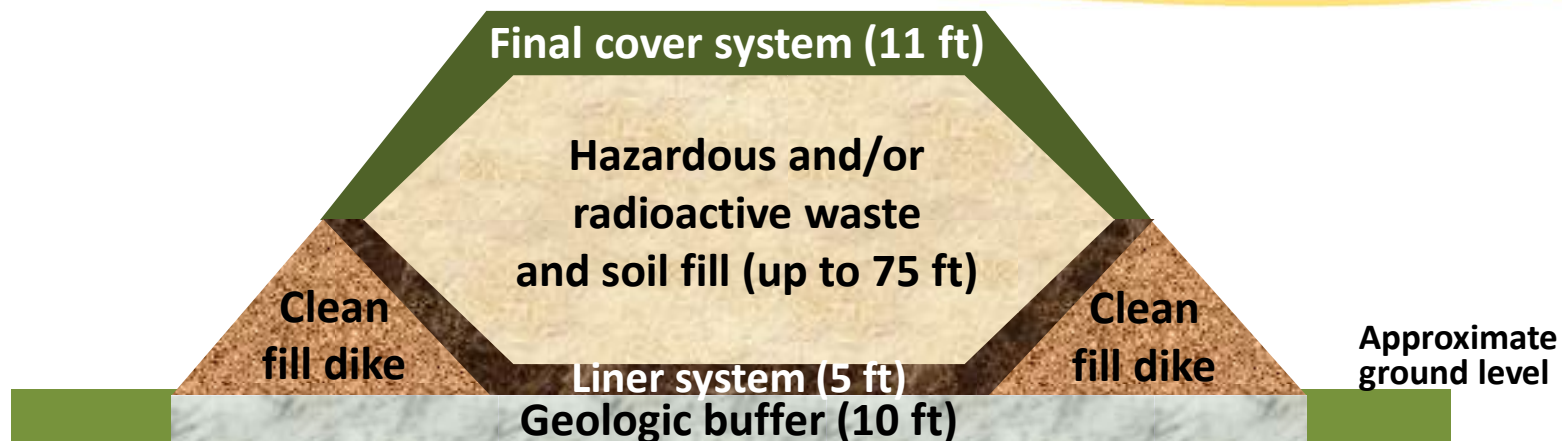
KEY

- DOE Boundary
- Oak Ridge City Boundary
- - - County Boundary
- Site Location



* Environmental Management Waste Management Facility

Onsite disposal facility



- Engineered disposal facility with six cells; 43 acre footprint under final cover; 2.18 million cubic yards capacity
- Operational since 2002, 70% full, disposal facility nearing capacity
- Need for future CERCLA waste disposal identified based on waste projections for ORNL and Y-12 cleanup
- Evaluation of future disposal alternatives underway

DOE is evaluating future waste disposal alternatives

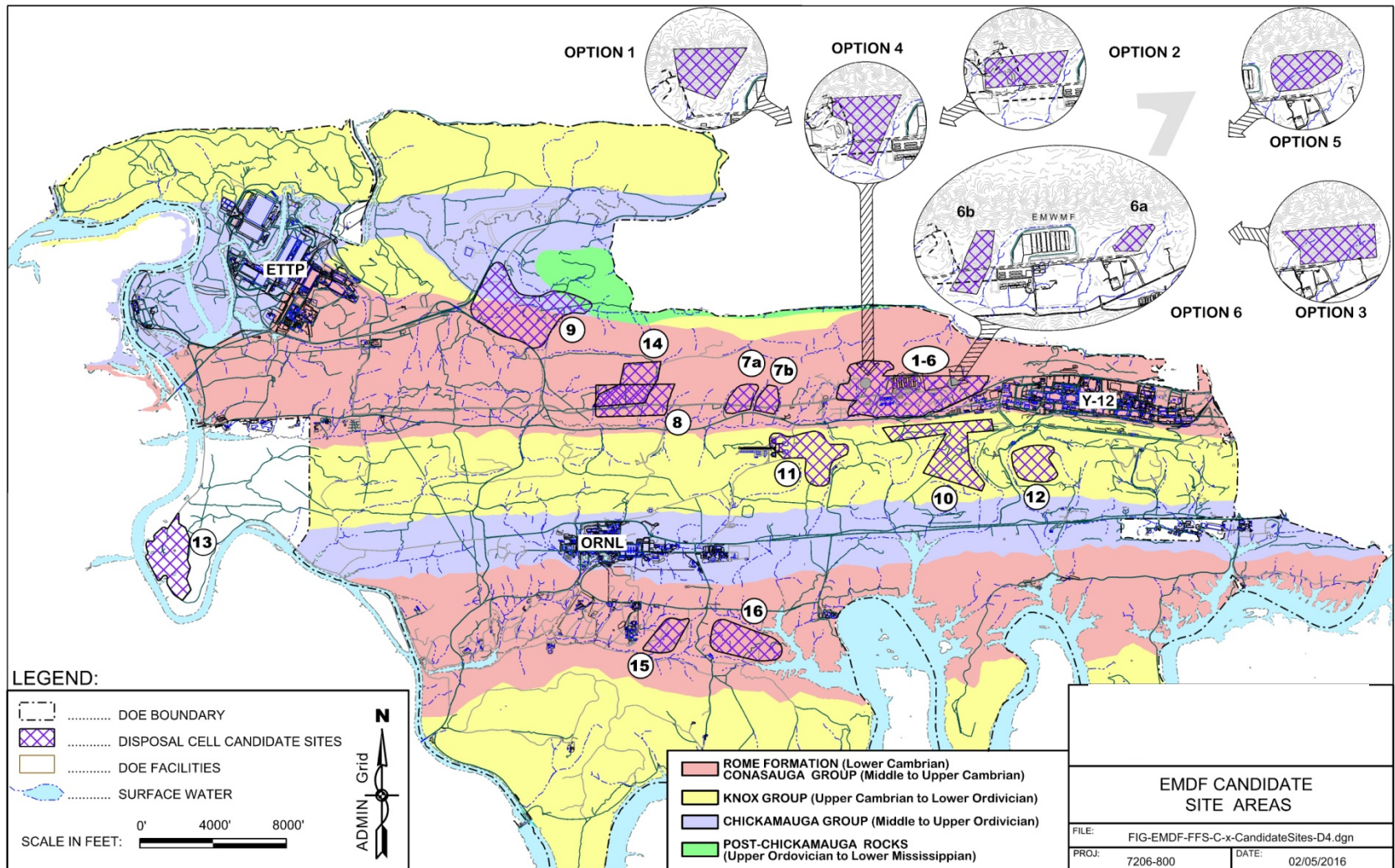
- No Action Alternative (no coordinated disposal strategy)
- Onsite Disposal Alternatives (three options being considered)*
- Offsite Disposal Alternative
- Hybrid Disposal Alternative (combination of small onsite facility and offsite disposal)



* Note: all onsite disposal includes offsite disposal of high activity waste

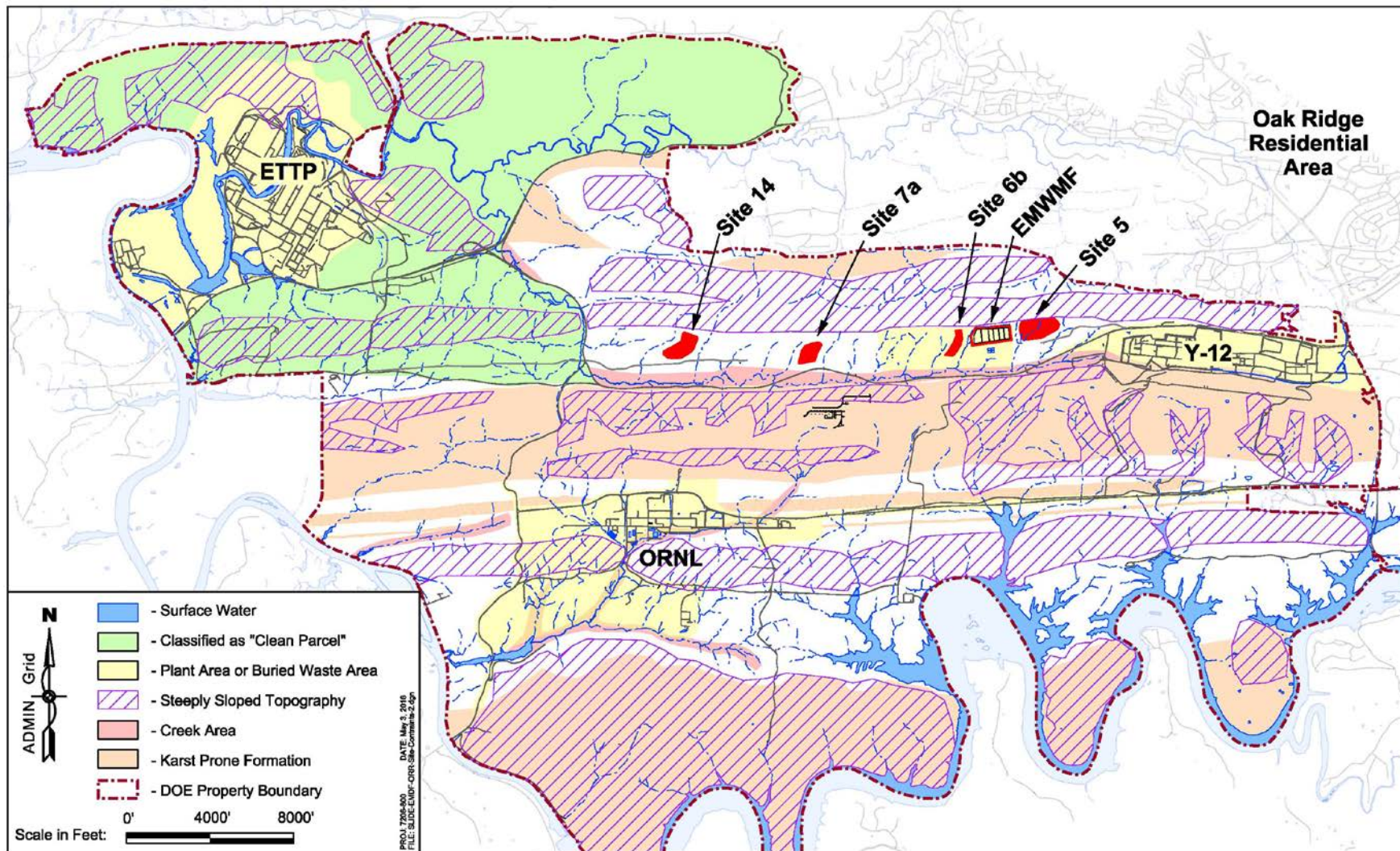
Sixteen sites evaluated as part of initial screening for onsite disposal

Siting considerations: topography and hydrology, available capacity, future land use

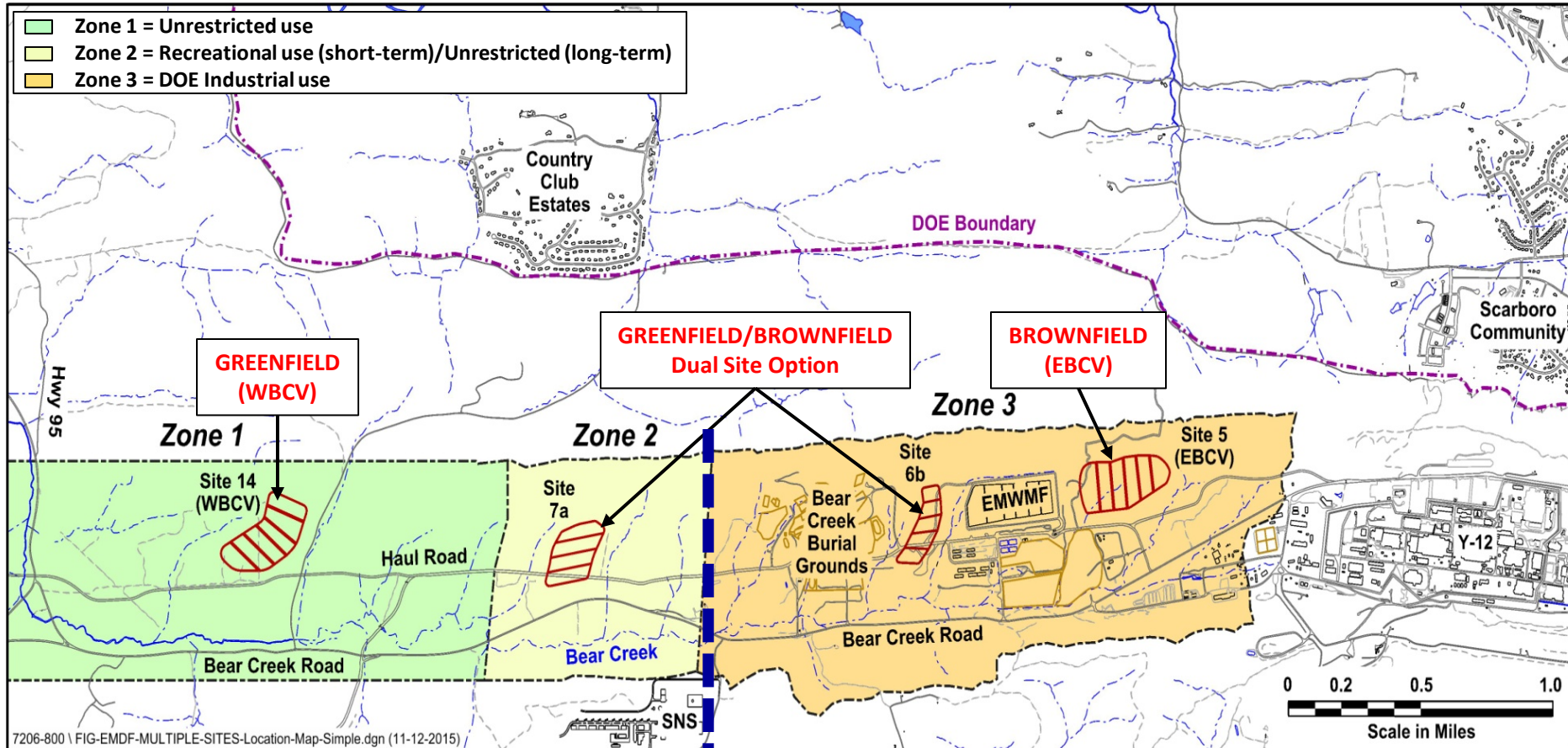


Focus of site evaluation narrowed to Bear Creek Valley

Previous conclusions about Bear Creek Valley hold true for future siting



Three siting options identified for Onsite Disposal Alternative



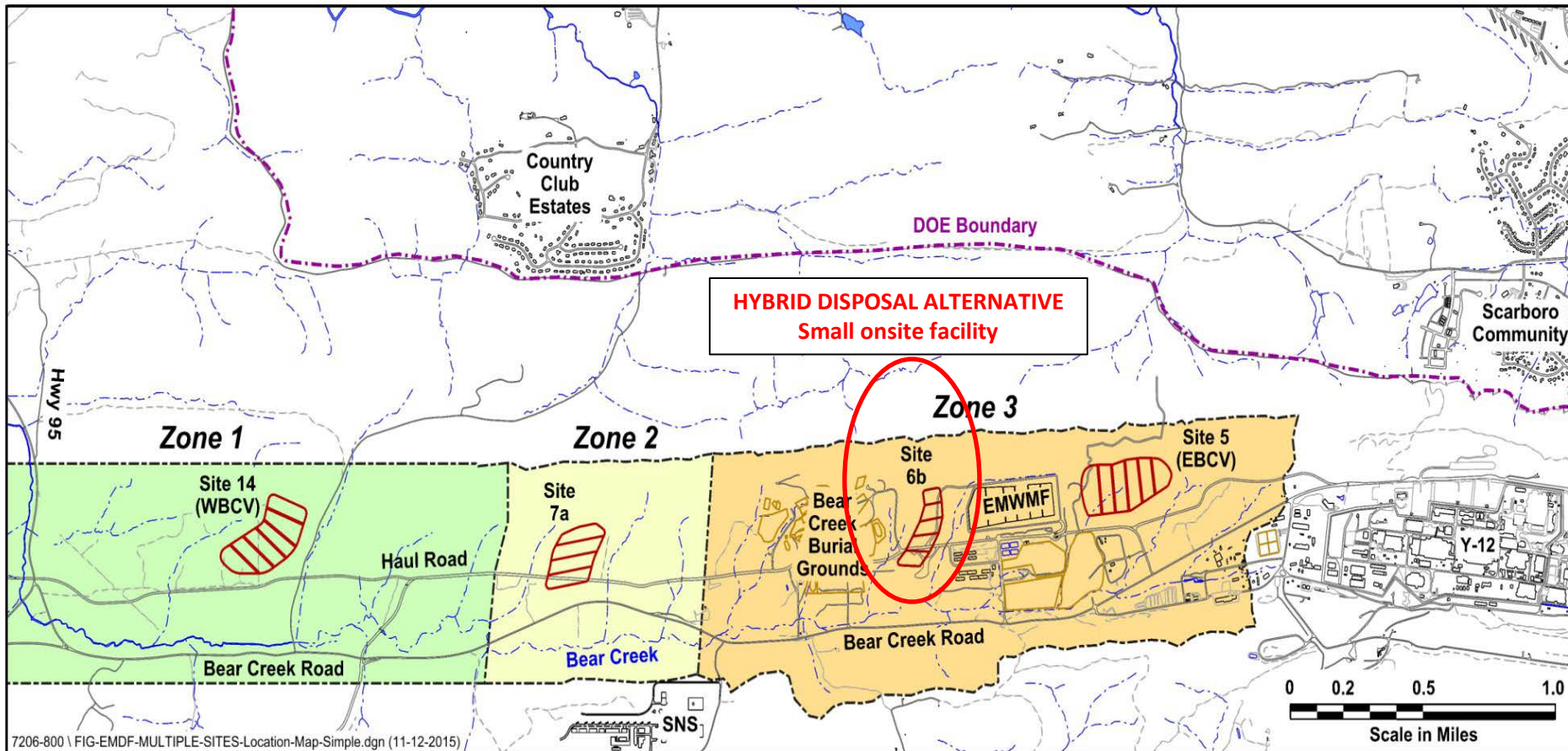
WEST BEAR CREEK VALLEY (WBCV)

EAST BEAR CREEK VALLEY (EBCV)

Hybrid Disposal Alternative

One small onsite facility combined with offsite disposal

- Hybrid site selected based on being least effected by hydrological features and ability to use existing support infrastructure
- Site offers 0.85 million cubic yards capacity
- Remainder of waste to be disposed offsite (64%)

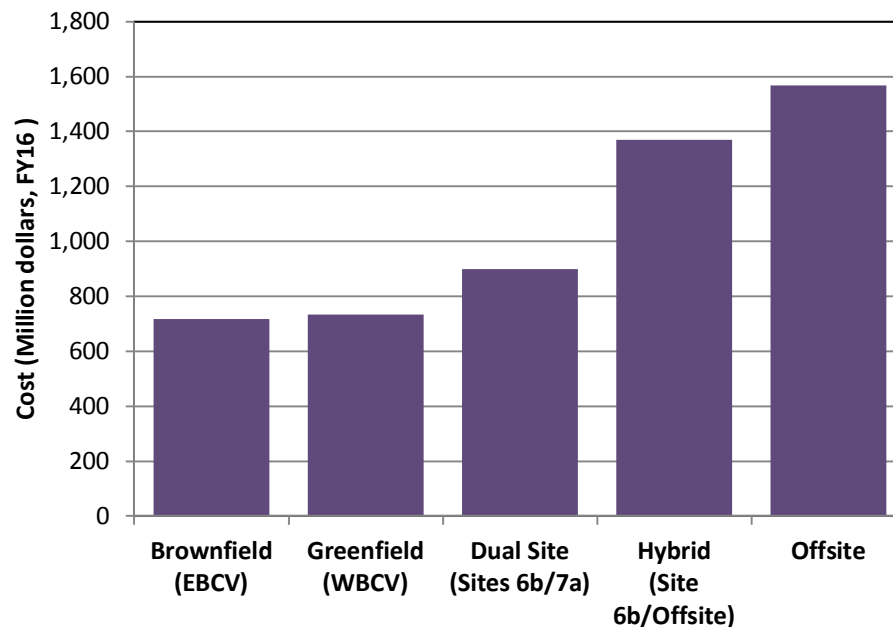
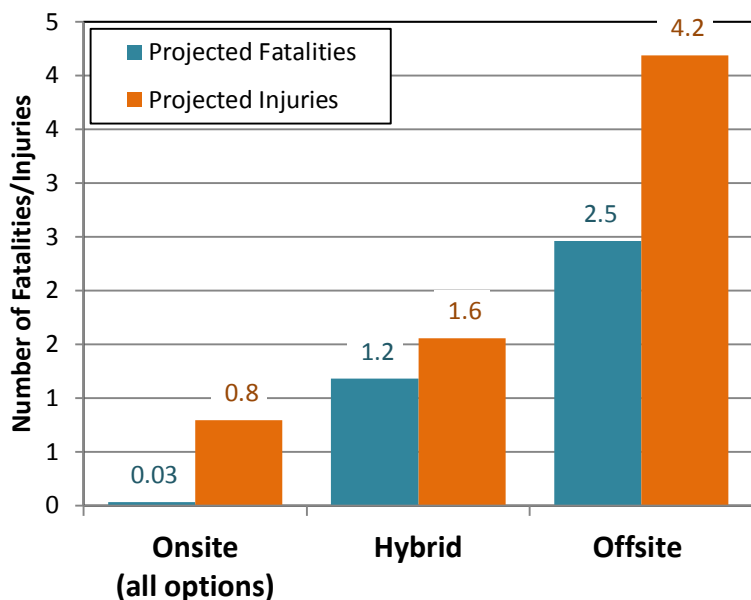


Onsite disposal location options



Benefits of onsite waste disposal

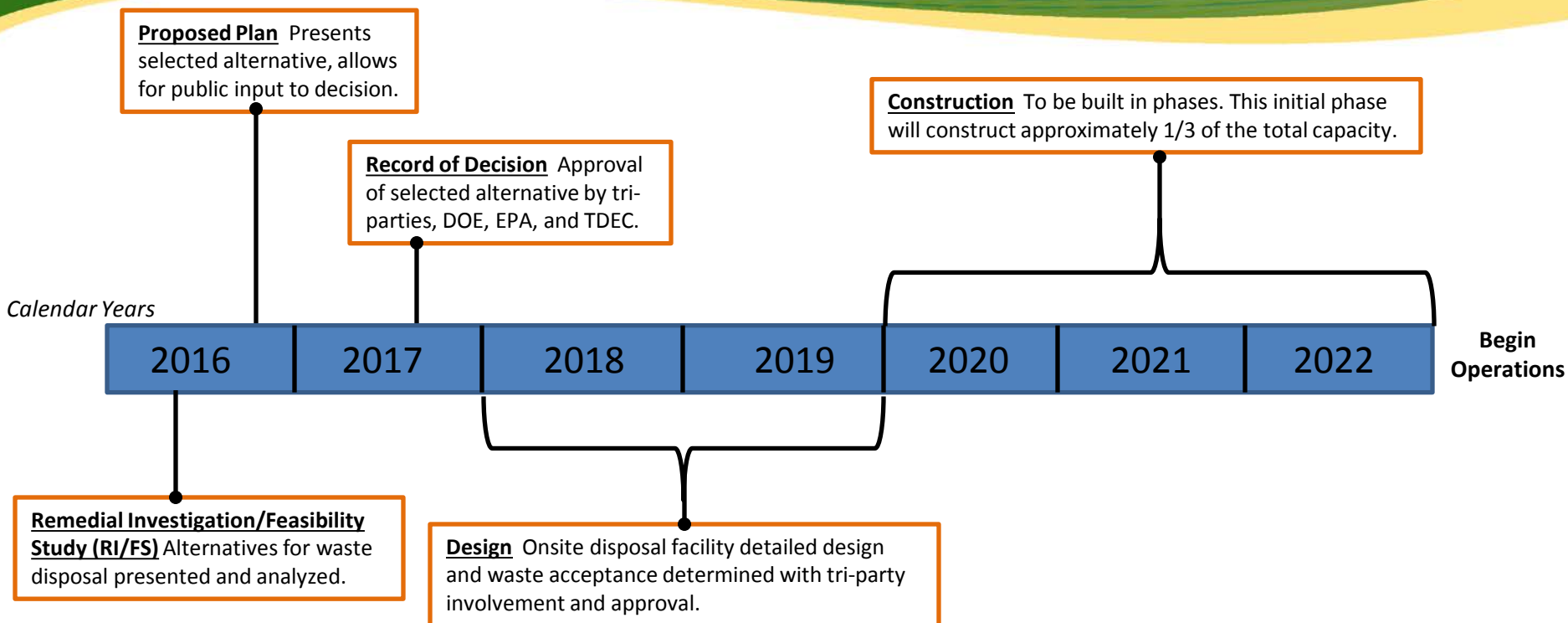
- Approximately \$800M in savings versus offsite disposal over lifecycle
- Allows more funds to be directed to cleanup which accelerates efforts
- Reduces transportation risks and carbon emissions
- Local control of waste disposal reduces program risk
- Economic benefits of cleanup mission in Oak Ridge are substantial



Comparison of site options

Option	Potential capacity (million yd ³)	Cost (million \$)	Proximity to existing disposal facility	Proximity to nearest resident	Features for hydrology management	Proximity to waste disposal activities / Future land use
Brownfield (EBCV)	Up to 2.5	\$ 717	Shares some infrastructure	0.84 mi	Major underdrain system	Surrounded by waste disposal or industrial activities and Brownfield areas
Dual Site	Up to 0.85	\$ 900	Shares most infrastructure	1.14 mi	Very minor underdrain system	Surrounded by waste disposal activities and Brownfield areas
Site 6b	----- Up to 1.4 (2.25 total)		Requires new infrastructure	0.79 mi	Minor underdrain system	In Greenfield area
Site 7a						
Greenfield (WBCV)	Up to 2.8	\$ 733	Requires new infrastructure	1.10 mi	Moderate underdrain system	In Greenfield area; no nearby waste disposal or industrial activities

Proposed schedule for onsite disposal



- Submitted latest RI/FS to EPA/TDEC March 16; EPA/TDEC have 60 days to review/approve
- Submit draft Proposed Plan to EPA/TDEC targeted for summer 2016 with issue for public comment fall 2016
- Goal is to make ourselves available to inform and respond to questions starting now – prior to release of Proposed Plan
- DOE also has internal regulatory process which will parallel CERCLA

- Onsite disposal has allowed the Oak Ridge Cleanup work to proceed safely and efficiently over the last decade
- Additional capacity will be needed to support future cleanup activities
- Onsite disposal is safer and more cost effective than offsite disposal
- Many potential locations for a new disposal facility being considered
- Possible locations are in Bear Creek Valley; options include Greenfield and Brownfield sites, combinations including offsite disposal
- Regulatory decision by end of FY 2017 to allow optimization of cleanup schedule and risk minimization
- Public and stakeholder involvement and consultation will continue to be a key part of the process