U.S. DEPARTMENT OF ENERGY | OFFICE OF ENVIRONMENTAL MANAGEMENT

Los Alamos National Laboratory

Environmental Management Legacy Cleanup

ENVIRONMENTAL MANAGEMENT
SAFETY ❖ PERFORMANCE ❖ CLEANUP ❖ CLOSURE

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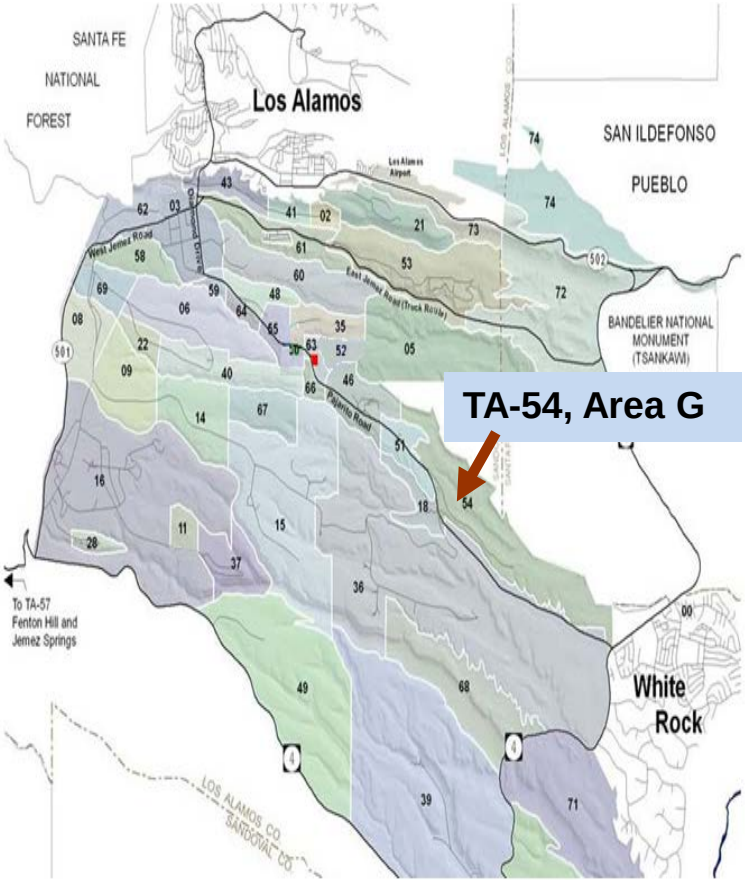
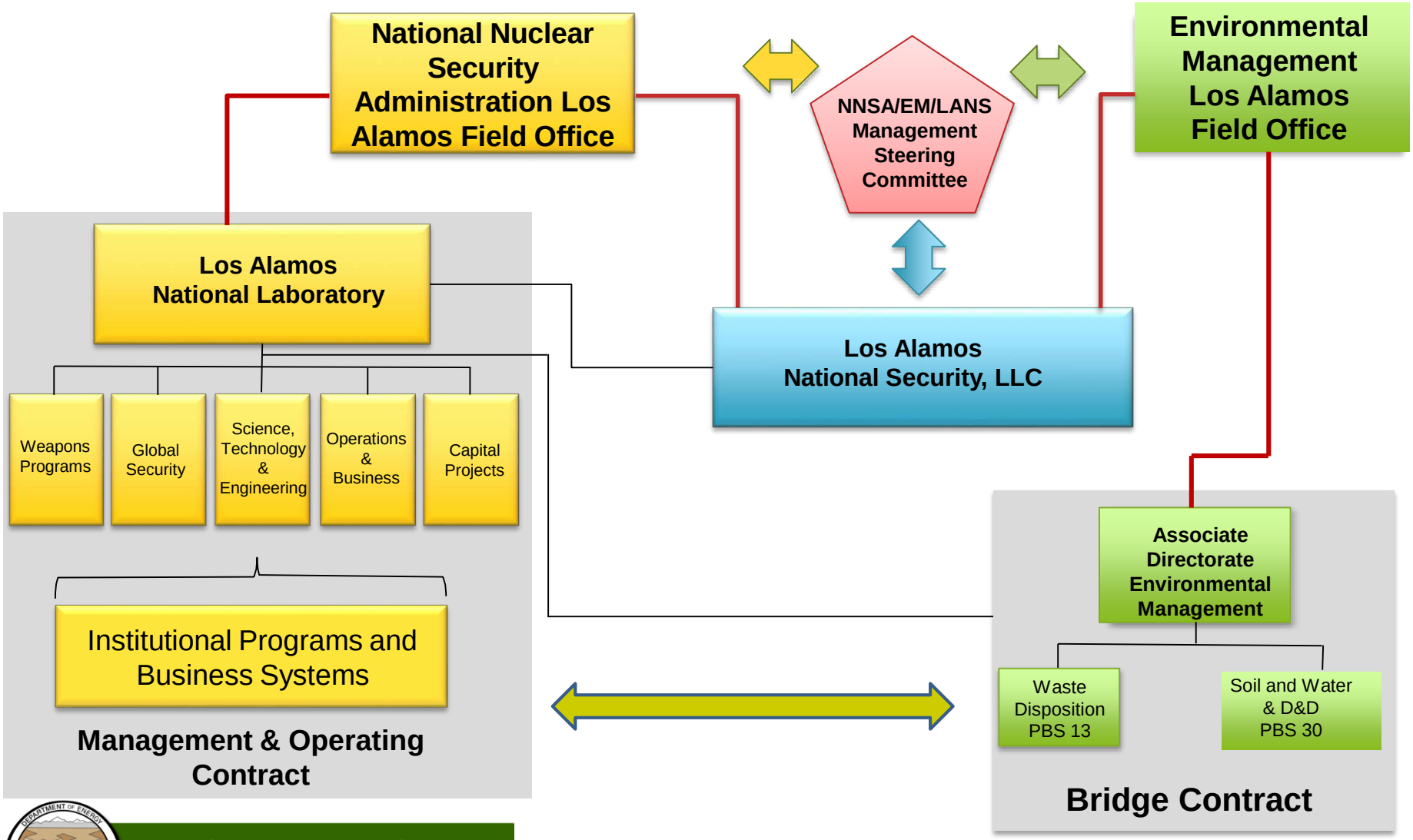
Environmental Management Mission at LANL

- The EM-LA mission is to safely, efficiently, and with full transparency complete the cleanup of legacy contamination and waste (pre-1999) resulting from nuclear weapons development and government-sponsored nuclear research at the Los Alamos National Laboratory.
  - Environmental restoration across LANL conducted in accordance with 2016 Consent Order
  - Legacy waste is primarily located in Area G at Technical Area 54 (TA-54)



Los Alamos National Laboratory

Los Alamos National Laboratory Organizational Structure



LCE Integrated 2016 Consent Order

➢ 2016 Consent Order, Section VIII: Campaign Approach

❑ Subsection A:

- "[…] the Parties agree to use a structure called the "campaign approach." […] Corrective action activities required by this Consent Order will be organized into campaigns, generally based upon a risk-based approach to grouping, prioritizing, and accomplishing corrective action activities at SWMUs and AOCs."
- "A campaign may consist of one or more projects; campaigns and projects consist of one or more tasks and deliverables. Campaigns, projects, tasks, and deliverables may be subject to two types of deadlines: milestones, which are enforceable; or targets, which are not enforceable."

❑ Subsection B:

- "The Parties agree that DOE's project plans and tools will be used to identify proposed milestones and targets. These project plans and tools will also be used to evaluate changes to milestones and targets."
- "The Parties further agree to identify and utilize a list of other submittals that are associated with the milestones listed in Appendix B and facilitate implementation of the campaigns by enabling the Parties to allocate resources."

➢ 17 Campaigns Identified in the 2016 Consent Order

Consent Order Campaigns List

Soil & Groundwater (PBS-0030)					
Item #	Campaign Title	*SWMUs/AOCs	Estimated Year Completion Range	Estimated Cost (M) Range	Status
1	Chromium Interim Measure	1	2020 – 2022	$38.9 - $50.6	
2	Historic Properties Completion	84	2019 – 2020	$5.3 - $6.4	
3	Royal Demolition Explosives (RDX) Characterization	2	2022 – 2024	$1.6 - $2.1	
4	Supplemental Investigations Reports	222	2019 – 2019	$0 - $1.0	
5	TA-21 D&D and Cleanup	41	2020 – 2022	$45.8 - $54.9	
6	RDX Remedy	0	2024 – 2025	$22.3 - $26.8	
7	Known Cleanup Sites	20	2027 - 2028	$34.8 - $41.8	
8	Material Disposal Area (MDAs) A & T Remedy	30	2028 – 2031	$92.1 - $124.3	
9	Chromium Final Remedy	0	2026 – 2028	$100.3 - $130.0	
10	Southern External Boundary	60	2025 – 2026	$10.0 - $12.0	
11	MDA C Remedy	1	2024 – 2026	$34.6 - $48.7	
12	Sandia Canyon Watershed	49	2024 – 2025	$6.3 - $7.6	
13	Pajarito Watershed	167	2028 – 2030	$20.7 - $24.9	
14	Upper Water Watershed	253	2030 – 2031	$33.5 - $40.2	
15	MDA AB Remedy	12	2027 – 2030	$41.8 - $50.2	
16	MDA H Remedy	1	2029 – 2030	$15.3 - $18.3	
17	MDA G & L Remedy / D&D	12	2035 – 2040	$237.9 - $356.9	

Status Legend:

Complete - **In-Process/Starting in FY18 -** **Future -**

Waste Management Campaign List

Solid Waste Stabilization and Disposition (PBS-0013)				
Item #	**Activity Title**	**Estimated Year Completion Range**	**Estimated Cost (M) Range**	**Status**
1	A. Hot Cell Liners B. TRU with Tritium Packages C. 17th Remote Handled (RH) Canister	2022 – 2024	$4.8 - 7.2	
2	Corrugated Metal Pipes	2022 – 2023	$7.3 - 9.5	
3	Pit 9	2025 – 2027	$25.8 - 33.5	
4	Trenches A-D	2025 – 2029	$17.8 - 26.7	
5	33 Shafts	2028 – 2033	$48.2 - 144.6	
6	Waste Processing and Shipping	2018 – 2033	$553.0 - 745.6	

Status Legend:

Complete - **In-Process/Starting in FY18 -** **Future -**

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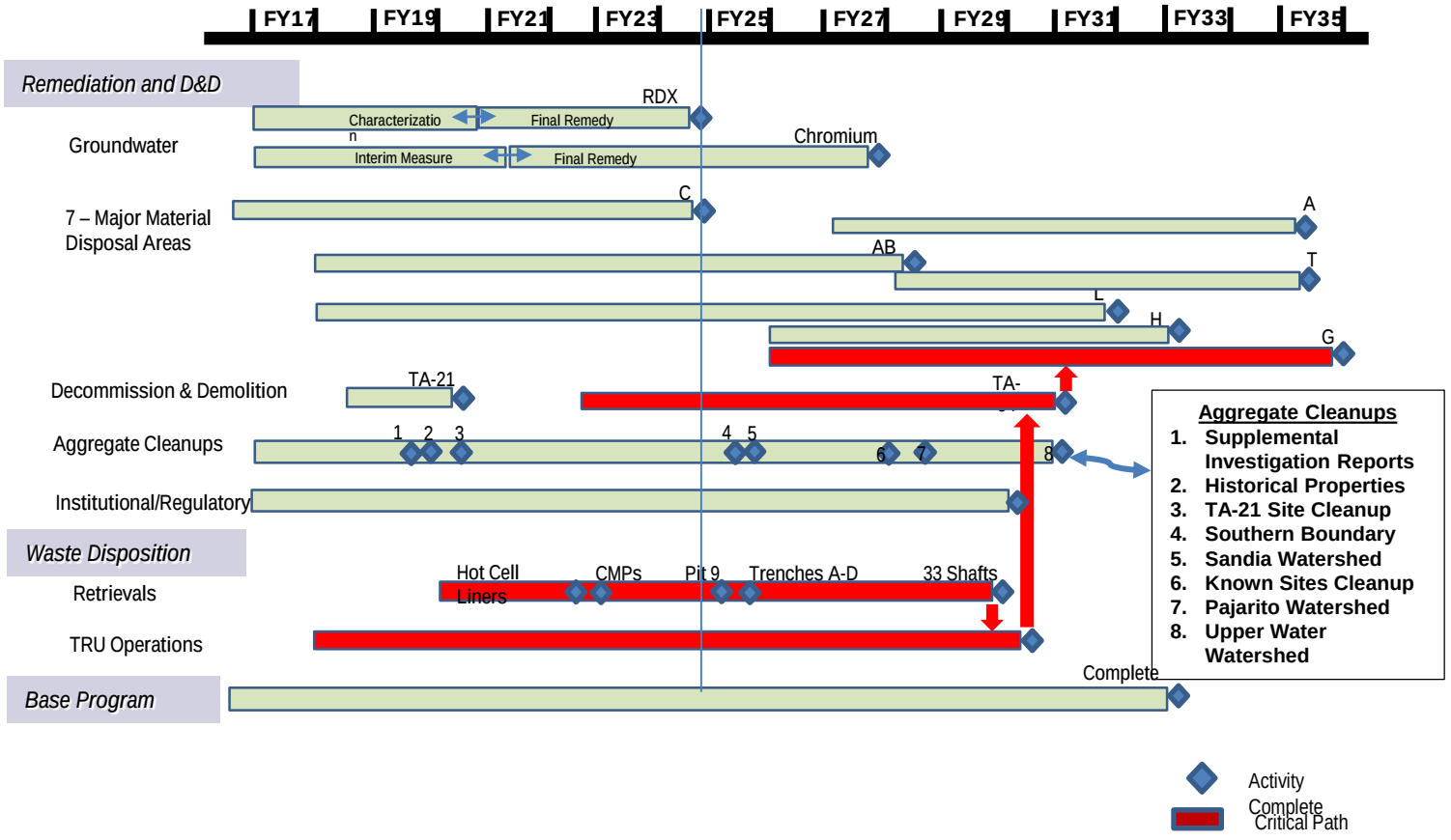
Lifecycle Schedule for Legacy Cleanup at LANL



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Conclusion

- **Campaign approach to legacy cleanup and waste management**
  - **As one campaign completes, the next scheduled campaign commences**
  - **Multiple campaigns underway simultaneously**
- **Safe, efficient and transparent execution**