



OFFICE OF
RIVER PROTECTION
United States Department of Energy

Budget Priorities Overview

FY 2018 Appropriation
FY 2019 President's Request

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Presented by: U.S. Department of Energy – Office of River Protection

April 23, 2018



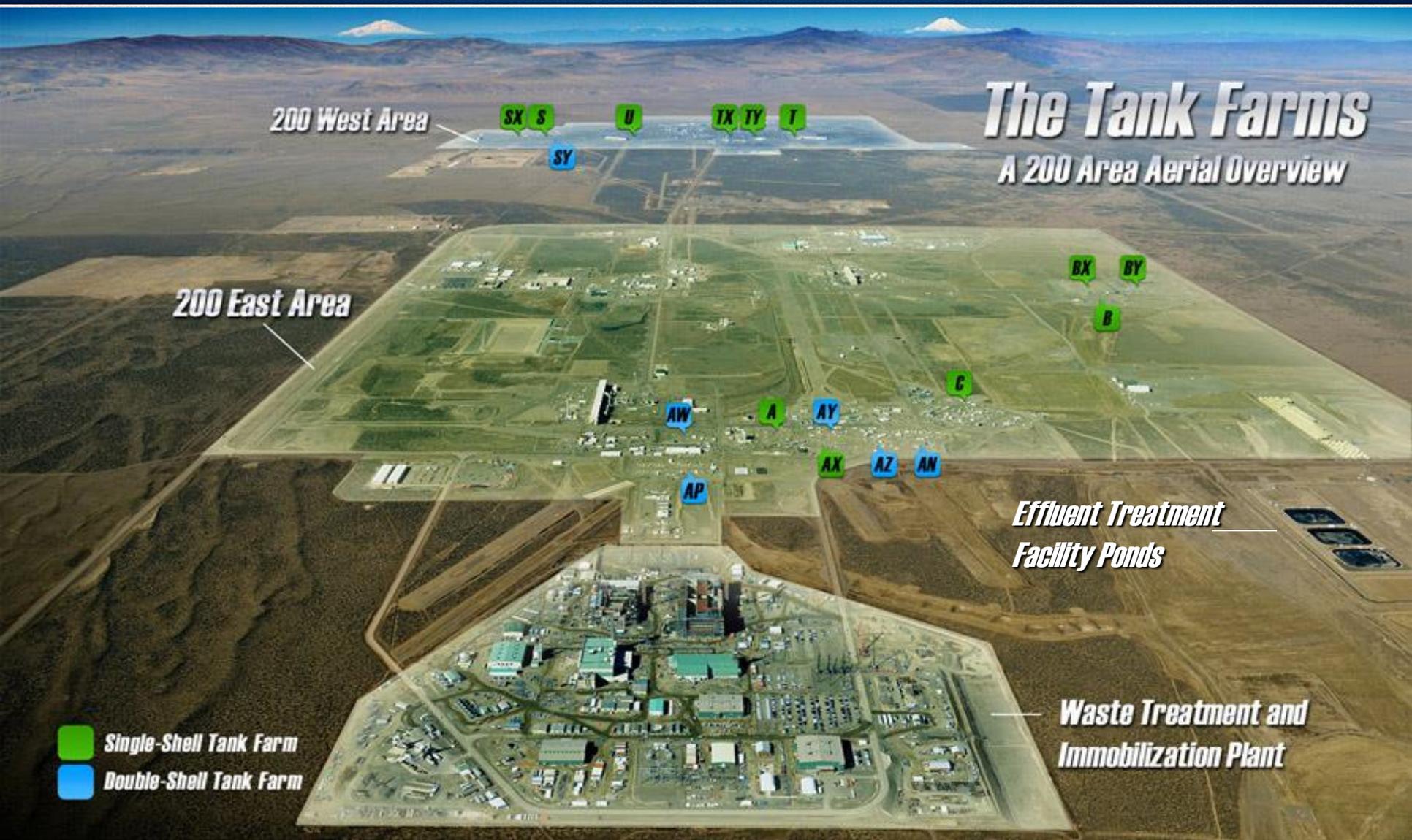
Mission

To safely manage the waste in Hanford's underground tanks while delivering the waste treatment capability needed for waste immobilization and final disposition.

Vision

To be a high-performing and innovative organization that is safety conscious, employee-focused, and committed to successfully achieving our environmental mission safely and efficiently.





The Tank Farms A 200 Area Aerial Overview

200 West Area

200 East Area

Effluent Treatment
Facility Ponds

Waste Treatment and
Immobilization Plant

- Single-Shell Tank Farm
- Double-Shell Tank Farm





- Safe nuclear operations and base operations
- Direct Feed Low-Activity Waste (DFLAW) project delivery
 - Low Activity Waste (LAW) Facility, Effluent Management Facility (EMF), Balance of Facilities (BOF), Analytical Laboratory
 - Tank Farms upgrades to support DFLAW
 - LAW pretreatment capability
 - Tank Side Cesium Removal (TSCR) design & equipment
- Tank waste retrieval and closure progress





(\$ in Thousands)

PBS	Project Baseline Summary (PBS) Title	FY 2017 Appropriation	FY 2018 Omnibus	FY 2019 President's Budget
ORP-0014	Radioactive Liquid Tank Waste Stabilization and Disposition	\$733,965	\$719,000	\$677,460
ORP-0014	15-D-409, Low Activity Waste Pretreatment System	\$73,000	\$93,000	\$56,053
Subtotal	Radioactive Liquid Tank Waste Stabilization and Disposition	\$806,965	\$812,000	\$733,513
ORP-0060	WTP-LBL (FY2018 omnibus)		\$630,000	
ORP-0060	High Level Waste Facility (FY2018 omnibus)*		\$75,000	
ORP-0060	WTP – Subprojects A-D (FY17 omnibus/FY19 President's Request)	\$593,000		\$675,000
ORP-0060	WTP – Subproject E	\$97,000	\$35,000	\$15,000
Subtotal	Major construction – Waste Treatment and Immobilization Plant (WTP)	\$690,000	\$740,000	\$690,000
ORP-0070	WTP Commissioning	\$3,000	\$8,000	\$15,000

*The FY2018 omnibus included a separate control point for the High-Level Waste Facility, which is not reflected in the FY2017 omnibus or FY2019 President's Request, where funding for HLW is included in WTP–Subprojects A-D





FY 2018 Planned Accomplishments





Fiscal Year 2018 Planned Activities (\$719M)

- Maintain Tank Farms in a safe manner
- Continue 222-S Laboratory operations and sustainment upgrades
- Conduct two 242-A Evaporator campaigns
- Continue SST and DST integrity activities
- Continue DST upgrades in AP farm to support DFLAW activities
- Continue construction activities in AX single-shell tank farm to support tank waste retrievals
- Continue Effluent Treatment Facility (ETF) operations and complete cover replacement for Liquid Effluent Retention Facility (LERF) Basin 42
- Continue Vapor Mitigation Strategies
- Complete installation of two interim surface barriers in SX Tank Farm
- Initiate design and permitting activities for TSCR



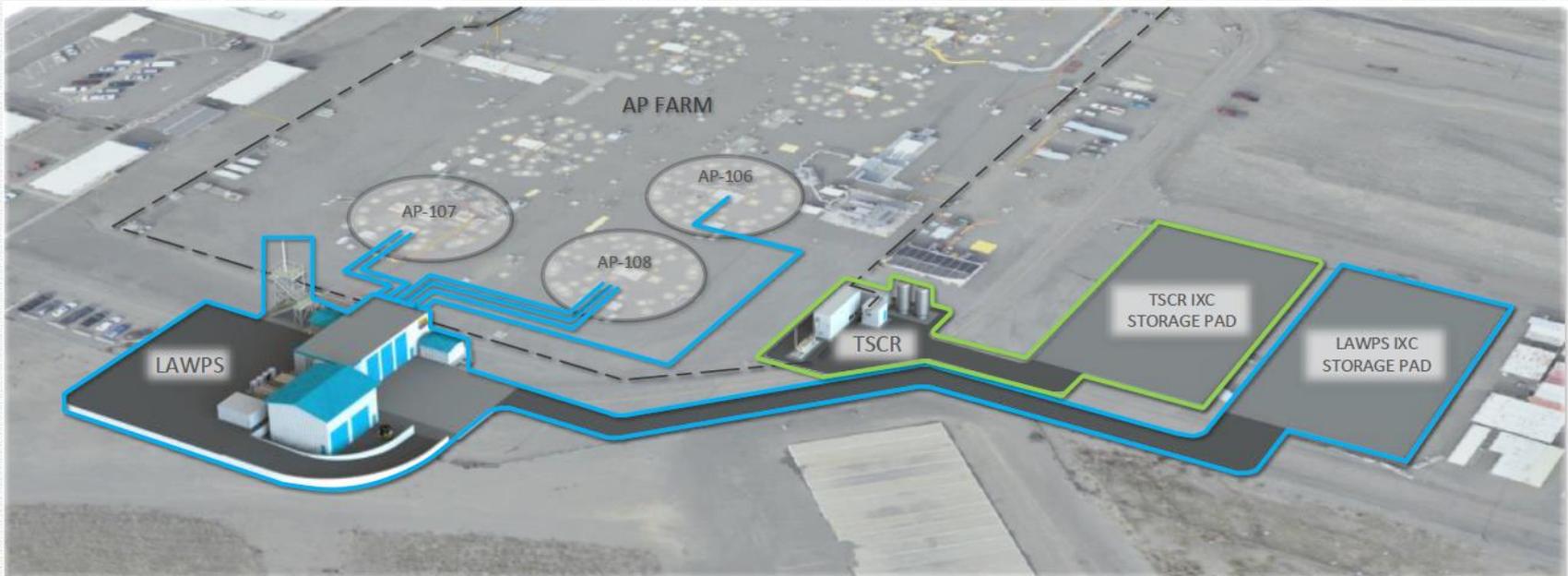
LERF Basin 43 cover was replaced in FY17. Work to replace the cover for Basin 42 is expected to be done by the end of FY18.





Fiscal Year 2018 Planned Activities (\$93M)

- Implement recommendations from the LAWPS External Review
- Complete 45% Design Review
- Complete Safety Design Strategy
- Issue Technology Maturation Plan

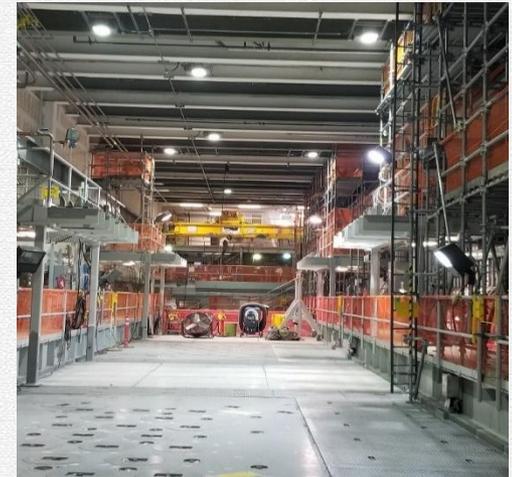


Potential locations for LAW waste feed delivery capabilities



Fiscal Year 2018 Planned Activities (\$740M)

- LAW – “LBL Physical Plant Complete” interim contract milestone (per Mod 409) and initiate startup testing for LAW systems
- LAW – Completed bulk cable install to EL +48’ (Oct 2017)
- EMF – Receive evaporator, vessels, and process cell equipment
- EMF – Complete permit package submittals for construction
- BOF – Complete functional testing of the water treatment building
- PT – Complete resolution and documentation for the remaining technical issues:
 - T-4: PJM vessel mixing and control
 - T-5: Erosion and corrosion
 - T-6: Conceptual design study
 - T-7: Vessel and equipment structural integrity
 - T-8: Facility Ventilation/Process Off-gas Treatment
- HLW – Resumption of engineering design



LAW – Lighting energized, +22’
Melter Gallery



DFLAW – Evaporator Reboiler
fabrication



Fiscal Year 2018 Planned Activities (\$8M)

- Complete determination of spare parts required following hot commissioning
- Continue planning for WTP facility transition to operations
- Initiate activities to procure long lead items required for WTP facility operations





FY 2019 President's Budget Request





Fiscal Year 2019 Planned Activities (\$677.4M)

- Maintain Tank Farms in a safe manner
- Continue 222-S Laboratory operations and sustainment upgrades
- Conduct 242-A Evaporator campaigns
- Continue SST and DST integrity activities
- Continue DST upgrades in AP farm to support DFLAW activities
- Continue construction activities in AX single-shell tank farm to support retrievals
- Continue operations for ETF and complete cover replacement for LERF Basin 44
- Continue Vapor Mitigation Strategies
- Initiate construction of TSCR system to support DFLAW



Conceptual layout for the TSCR





Fiscal Year 2019 Planned Activities (\$56M)

- Complete 60% and 90% design
- Complete and DOE approve Preliminary Documented Safety Analysis
- Complete integrated scale testing
- Complete waste transfer lines design
- Complete ion exchange pad design
- Initiate installation of temporary power for LAWPS construction site





Fiscal Year 2019 Planned Activities (\$690M)

- LAW – Continue startup testing of major systems
- LAW – Complete startup testing for the Plant Service Air and Demineralized Water systems
- BOF – Complete startup testing for support facilities
- EMF – Complete installation of vessels and process equipment
- EMF – Continue construction and begin startup testing for components and systems
- HLW – Continue engineering design



Construction workers place concrete inside formwork and around reinforcing steel during structural concrete wall placements for the Effluent Management Facility.





Fiscal Year 2019 Planned Activities (\$15M)

- Continue commissioning activities
- Continue procurement of long lead consumables and spare parts
- Initiate WTP facility transition plan





- The Office of River Protection is committed to maintaining worker and public safety and protecting the environment
- We are committed to continued progress
- We appreciate and welcome your continued input





***"Protecting our workers,
the public, and the environment"***

The Hanford Reach
White Bluffs Overlooking the Columbia River

