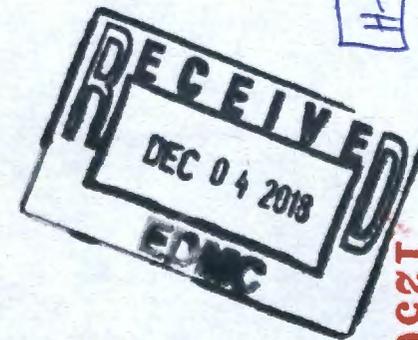




OFFICE OF
RIVER PROTECTION
United States Department of Energy

Budget Briefing

FY 2018 Accomplishments FY 2019 Appropriation



Presented by: **Joni Grindstaff**, Mission Integration Office Director

November 14, 2018





- Safe operations
- Direct Feed Low-Activity Waste (DFLAW) Low Activity Waste (LAW) Facility, Effluent Management Facility (EMF), Balance of Facilities (BOF), Analytical Laboratory (Lab) – referred to collectively as LBL
 - Tank Farms upgrades to support DFLAW
 - LAW pretreatment
 - Tank Side Cesium Removal (TSCR) design & equipment
- Continued progress on tank waste retrieval and closure





(\$ in Thousands)

PBS	Project Baseline Summary (PBS) Title	FY 2018 Omnibus	FY 2019 Omnibus
ORP-0014	Radioactive Liquid Tank Waste Stabilization and Disposition	\$719,000	\$771,947
ORP-0014	15-D-409, Low-Activity Waste Pretreatment System	\$93,000	\$56,053
Subtotal	Radioactive Liquid Tank Waste Stabilization and Disposition	\$812,000	\$828,000
ORP-0060	WTP-LBL	\$630,000	\$655,000
ORP-0060	High Level Waste Facility	\$75,000	\$60,000
ORP-0060	WTP – Subproject E	\$35,000	\$15,000
Subtotal	Major construction – Waste Treatment and Immobilization Plant (WTP)	\$740,000	\$730,000
ORP-0070	WTP Commissioning	\$8,000	\$15,000
Total – ORP	Office of River Protection Funding	\$1,560,000	\$1,573,000





Fiscal Year 2018 Accomplishments

- Safely maintained Tank Farms
- Certified C-105 retrieval completion on June 28, 2018.
- Completed construction of SX Farm interim barrier
- Conducted single-shell tank (SST) and double-shell tank (DST) integrity assessments
- Continued progress on Tank Vapor Assessment Report recommendations
- Completed two campaigns of the 242-A Evaporator, creating 525,000 gallons of DST storage space
- Completed three campaigns at the Effluent Treatment Facility/Liquid Effluent Retention Facility (ETF/LERF) for a total reduction of 3 million gallons of effluent



Completed cover replacement for LERF basin 42





Planned Activities for Fiscal Year 2019 (\$772M)

- Safely maintain Tank Farms
- Continue 242-A and ETF upgrades
- Continue 222-S Laboratory operations and sustainment upgrades
- Conduct three ETF/LERF waste volume reduction campaigns
- Continue SST and DST integrity activities
- Continue construction in AX Farm to support SST retrievals
- Initiate AX-102 retrieval operations
- Continue Comprehensive Vapor Action Plan implementation
- Complete 222-S Cold Standards Laboratory design
- Installation of SX Farm Expansion barrier and design TX barrier



Asphalt placement at SX Farm south



Asphalt paving completed for north section SX Farm barrier





Fiscal Year 2018 Accomplishments

- LAWPS Permanent Cesium Removal Facility
 - 45% Design Review
- Tank-Side Cesium Removal
 - Critical Decision-3A Approval
 - Awarded Design Contract
 - 30% Design Review
 - Safety Design Strategy Approval
- Continued upgrades to DST AP-107 to support waste delivery to LAW Facility





Planned Activities for Fiscal Year 2019 (\$56M)

- Initiate construction of TSCR system to support DFLAW
 - 60% Design Review
 - 90% Design Review
 - Factory acceptance testing
- Continue DST upgrades in AP farm to support DFLAW activities
 - 30% Design Reviews
 - 60% Design Reviews
 - Critical Decision-3B



TSCR layout





Fiscal Year 2018 Accomplishments

- **LAW – Construction completed**
 - ORP approved the LAW Documented Safety Analysis (DSA)
 - LBL physical plant completed
 - Received Ecology approval of permit modification for environmental permit demonstration test
 - Completed turnover of 42 of 86 systems from construction to startup, and handover of 4 systems from startup to plant management
- **BOF**
 - Cooling tower, chiller compressor plant, steam plant, and glass former facilities turned over to startup and commissioning
 - Completed turnover of 50 of 57 systems from construction to startup, and handover of 27 systems from startup to plant management
- **Analytical Laboratory**
 - Completed turnover of 27 of 35 systems from construction to startup, and handover of 5 systems from startup to plant management
- **EMF**
 - Permitting approved for balance of equipment installation
 - Completed major structural concrete placements
- **PT**
 - Completed full-scale pulse-jet mixer and control testing (T-4) and standard high-solid vessel conceptual report (T-6), supporting technical issue resolution



LAW – Plant chilled water system testing



EMF – Structural concrete placement



Planned Activities for Fiscal Year 2019 (\$730M)

- Complete BNI implementation of ISMS Phase 1
- LAW
 - Complete delivery of remaining critical equipment
 - Submit the certified RCRA operations permit
- BOF/Analytical Lab
 - Complete turnover of all systems to startup
 - Complete laboratory ventilation startup testing
 - DOE approval of laboratory hazardous analysis report
- EMF
 - Complete enclosure of EMF building
 - Complete installation and turnover of EMF powerhouse
- HLW
 - Ramp-up of design engineering
- PT

Complete resolution and documentation of the remaining technical issues:

 - T-4: PJM vessel mixing and control
 - T-5: Erosion and corrosion



LAW – Plant wash system startup testing



Plant service air system





Fiscal Year 2018 Accomplishments

- Completed LAW melter acceleration limit calculations and mock haul demonstration.
- Established a spare parts advisory group to prioritize purchases of WTP operating spares.
- Developed procurement packages to purchase long lead consumables and equipment to support WTP operations.





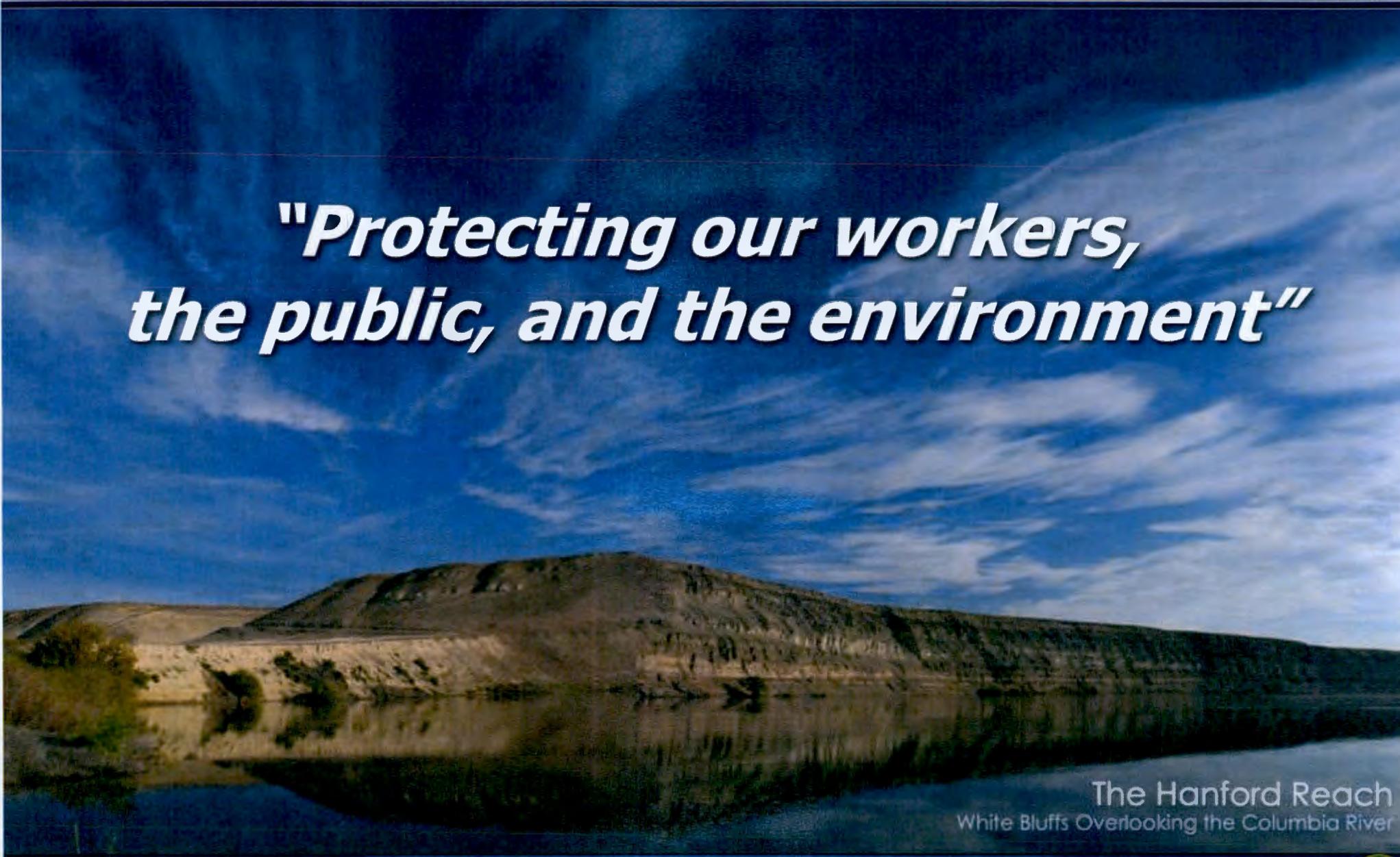
Planned Activities for Fiscal Year 2019 (\$15M)

- Continue commissioning activities
- Continue procurement of long lead consumables and spare parts
 - Initiate procurement of bubbler
 - Initiate procurement of melter No. 4 refractory
- Perform cost reduction analysis and design optimization study to reduce consumable costs





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



The Hanford Reach
White Bluffs Overlooking the Columbia River

