Environmental Management: A National Responsibility

- We reduce risks and protect our workers, our communities and the environment through cleanup.

- Our work is urgent and essential to the health and safety of our communities and the nation.

- Our mission is not discretionary – it is a Federal obligation to address the Cold War environmental legacy cleanup and honor our regulatory commitments.

- We have demonstrated value for the American taxpayer by delivering significant progress in the past several years in reducing risks and the overall liability – but our work is not done.

- The Environmental Management portfolio is one of our nation’s largest liabilities – we have a responsibility to relieve future generations of this environmental and financial liability.

- Costs and risks increase over time.
Retrieve, immobilize and dispose of radioactive and chemical tank waste and close Hanford’s Tank Farms

Tri-Party Agreement (TPA)/Consent Decree

Tank Farms
- 177 underground storage tanks
  - 149 Single Shell Tanks (SST)
  - 28 Double Shell Tanks (DST)
- 53 million gallons radioactive and chemical waste
- 176 million curies radioactivity
- 151,000 tons complex chemicals
- Tank Closure and Waste Management Environmental Impact Statement (TC&WM EIS)

Waste Treatment Plant (WTP)
- Design/build
- Operational 2019
- Treat and immobilize in glass radioactive and chemical tank waste

Key River Protection Project TPA/Consent Decree Milestones:
- Retrieve C Farm SST Waste
- WTP Hot Operations
- Retrieve All SST Waste
- Treat All Tank Waste
- Complete Mission

Office of River Protection Overview
WTP Operational Start-Up Basis

**Line Item**

- 2013: Design Complete
- 2016: Construction Complete
- 2019: End Date
- 2022: Throughput

**Range of Melter Operational Ramp Up to Design Capacity**

- WTP: 70% Average
- WVDP
- DWPF

Opportunity to capture, gain three years head start on operations.
Integration Into One System
Transition from a waste storage to a waste treatment and immobilization mission of Hanford’s 53 million gallons of tank waste by 2016

✓ Deliver on regulatory commitments to the State of Washington and protect the Columbia River:
  ✓ Complete construction of the Waste Treatment Plant: Complete the construction of the Waste Treatment Plant project and pivot the project from design/construction to commissioning/operations
  ✓ Empty all 16 Single-Shell Tanks in C-Farm
  ✓ Prepare Hanford’s tank farm feed/delivery systems: Transfer waste feed to the Waste Treatment Plant when it becomes operational

✓ Turnover and commission 16 of 18 Waste Treatment Plant facilities: Commission the Laboratory, Low Activity Waste Facility, and Balance of Facilities to accelerate the treatment and immobilization of Hanford tank waste by 3 years

✓ Develop and deploy transformational technologies for supplemental treatment, secondary waste, retrievals and waste delivery
Office of River Protection Cleanup Vision by 2020

✓ 100% of Waste Treatment Plant facilities commissioned, turned-over and operational:
  ✓ Producing both high-level and low-activity waste glass
  ✓ Focused on meeting 2022 Consent Decree for initial plant operations
  ✓ Focused on completing 30-year waste treatment mission

✓ Facilities or modifications to existing facilities for storing glass waste completed

✓ Retrieval of 27 single-shell tanks complete providing 4.14 million gallons of feed staged to go to the Waste Treatment Plant
### ORP Profile

*** $ in 000’s throughout presentation ***

<table>
<thead>
<tr>
<th>PBS</th>
<th>PBS Title</th>
<th>FY2011 President's Budget</th>
<th>FY2012 President's Budget</th>
<th>FY2013 Request Allocation</th>
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<td>ORP-0014</td>
<td>Radioactive Liquid Tank Waste Stabilization and Disposition</td>
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<td>Major Construction Waste Treatment Plant</td>
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## River Protection Five Year Request Profile

### Total Requirements

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<td>$1,656,300</td>
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**Note:** All amounts are in Thousands.
FY 2013 Planned Tank Farm Accomplishments

**Base Operations - $287M**

- DST/SST operations, surveillance, monitoring and maintenance
- 222-S Laboratory operations and upgrades
- Conduct 242-A Evaporator campaign and upgrades
- Conduct 5 DST to DST transfers
- Continue to perform SST Integrity evaluations and implement expert panel recommendations (i.e., SST structural analysis)
- Complete construction of S Farm Interim Barrier
- Continue removal of 7 Hose-in Hose Transfer Line
- Wiped Film Evaporator
- Vadose Zone
- Facility Management, Business and Site Services
- WTP Electricity
- Pension
FY 2013 Planned Tank Farm Accomplishments

Retrievals - $90M
- Procure/construct/complete Bulk Retrieval of C-102
- Begin Hard Heel design/construct in C-101
- Design/procure/construct phase 2, begin MARS retrieval ops in C-105
- Complete Hard Heel design/construct/retrieval from C-111
- Complete Hard Heel design/construct/retrieval from C-112
- Complete Installation of 244-CR Vault Retrieval System

Projects - $67M
- Complete Preliminary Design for Secondary Waste Treatment
- Submit CD-2/3A for Secondary Waste Treatment
- Complete Preliminary Design for Interim Hanford Storage
- Submit CD-2/3A Interim Hanford Storage
- CD-2 for Supplemental Treatment
WTP – Waste Feed Preparation and Operations Support- $75M

• Continue AW and AZ Farm Feed Delivery System design and procurement
• Continue AY/AZ Ventilation Upgrade Design, Procurement, Construction, Startup & Readiness
• Complete SY 102 Feed Delivery System Design
• Continue Immobilized Low-Activity Waste Form Testing
• WTP Support
FY 2013 Planned WTP Accomplishments

**WTP Construction - $970M**

- Engineering and Design Complete
- Turn over of several facilities
  - Non-Dangerous, Non-Radioactive Effluent Facility
  - Fire Water Pump House
  - Glass Former Storage Facility
  - Fuel Oil Facility
  - Chiller-Compressor Plant
  - Water Treatment Building
  - Balance of Facilities Switchgear Building
  - Cooling Tower Facility
  - Anhydrous Ammonia Facility
  - Standby Diesel Generator Facility
- Consent Decree Milestones Due
  - Analytical Laboratory Construction Substantially Complete (A-5)
  - Steam Plant Facility Construction Complete (A-12)
  - Complete Construction of Structural Steel to Elevation 37’ in HLW Facility (A-21)
Hanford is the largest environmental liability in the EM clean-up program.

The risk is in the tank waste – ORP’s mission is to eliminate this risk.

Committed to absolute worker and public safety.

Protecting the Columbia River is vital, urgent and our obligation to the people of the Pacific Northwest.

Collaborating with Regulators on Hanford Cleanup vision and strategy, general support from Tribal Nations, and stakeholders.