



State of the Hanford Site

Richland – Seattle – Portland
March 16 March 29 March 31

Department of Energy

Richland Operations Office

Office of River Protection



U.S. DEPARTMENT OF
ENERGY

Richland
Operations Office

Office of River Protection



Hanford Site Cleanup

Office of 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 economic vitality of our communities and our nation, and positions our sites for future missions and use
- Our mission is not discretionary - it is a Federal obligation to address cleanup of the Cold War environmental legacy and honor our regulatory commitments
- Time is not on our side - costs and risks increase over time
- 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



the RL 2015 Vision

Hanford Site Cleanup

Hanford Site
Total Footprint
586 Sq. Mi.



Hanford Reach
National Monument
(~ 290 Sq. Mi.)

By 2011



River Corridor
(~ 220 Sq. Mi.)

By 2015

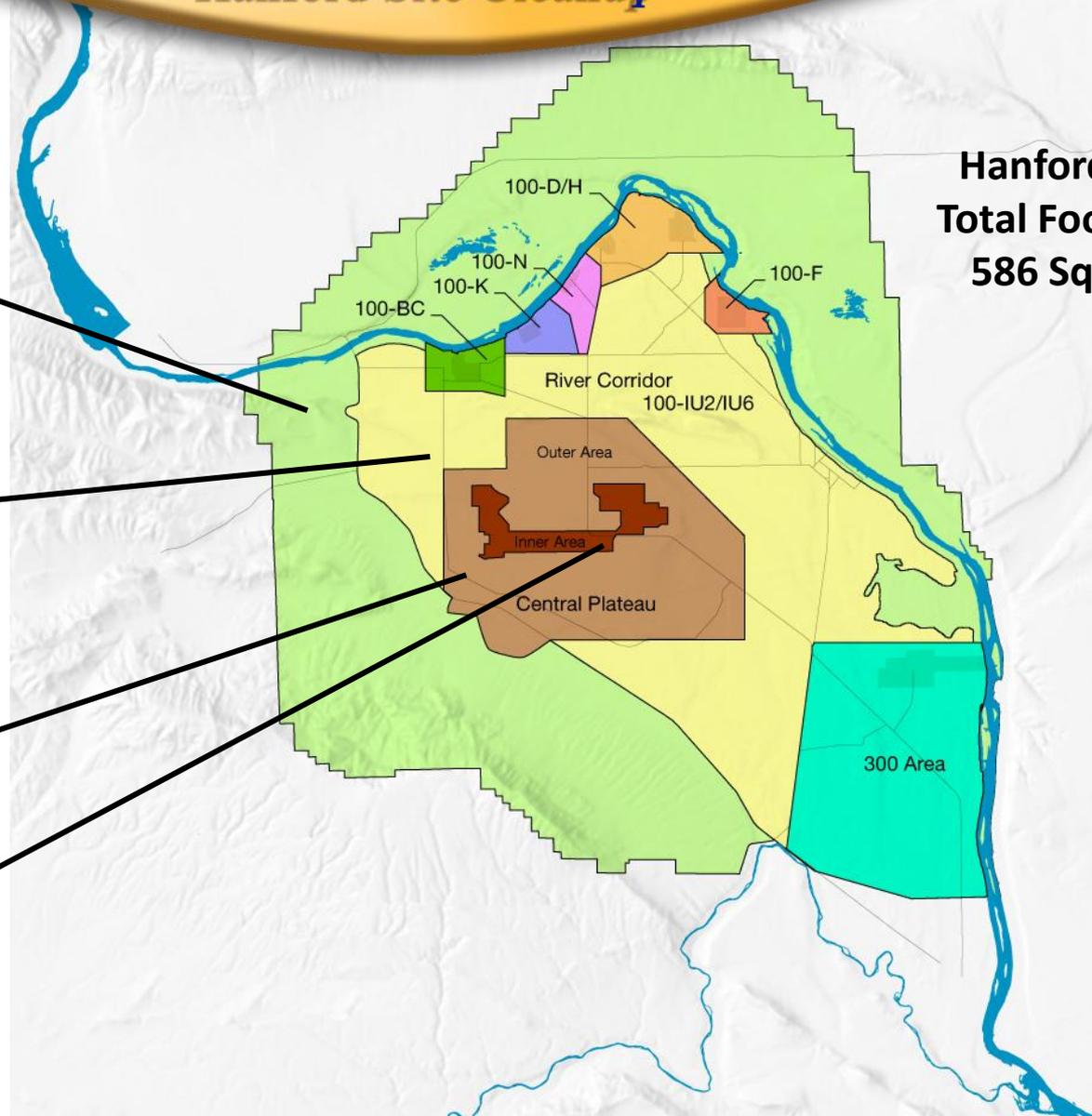


Central Plateau
Outer Area
(~ 65 Sq. Mi.)

By 2020



Central Plateau
Inner Area
(~ 10 Sq. Mi.)





Hanford Reach National Monument Cleanup

- National Monument square miles remediated

Completed: **143** Goal: **290**





Hanford Reach National Monument ALE Vehicle Removal

- National Monument square miles remediated

Completed: **143** Goal: **290**





Hanford Reach National Monument ALE Tower Removal

- National Monument square miles remediated
Completed: **143** Goal: **290** 

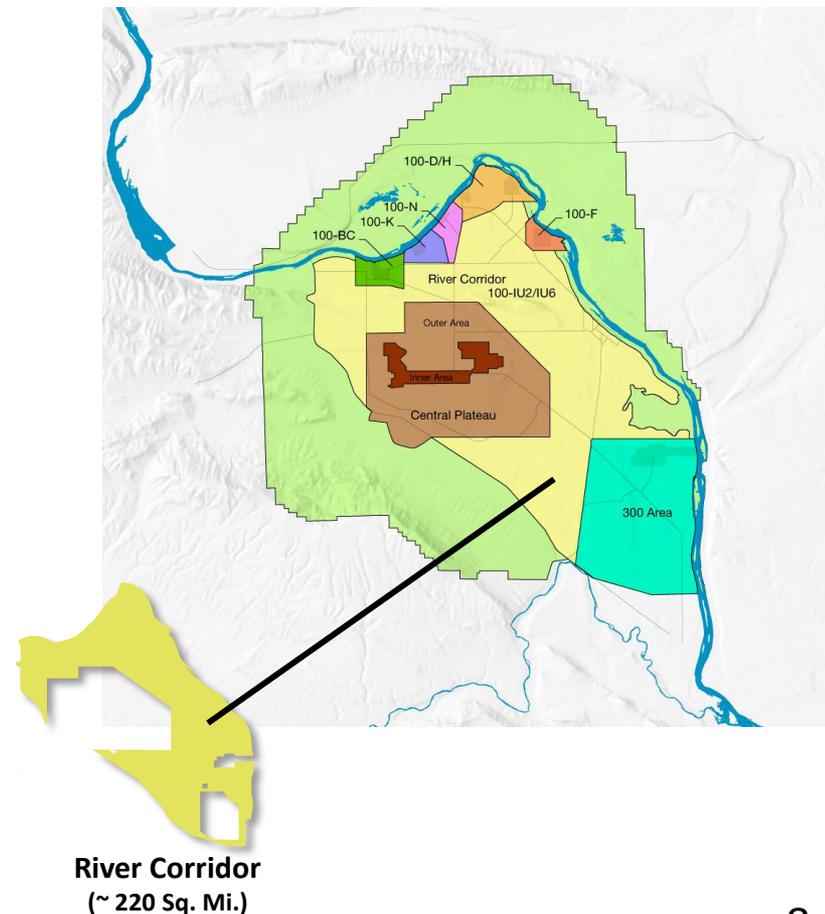




Hanford Site Cleanup River Corridor

River Corridor Cleanup Scope

- Reactors demolished, cocooned or dispositioned
Completed: **6** Goal: **10** 
- Number of Hazard Category 2/3 nuclear facilities or waste sites demolished or remediated
Completed: **8** Goal: **20** 
- Facilities demolished
Completed: **221** Goal: **522** 
- Number of (highly contaminated) hot cells dispositioned
Completed: **9** Goal: **18** 
- Waste sites remediated
Completed: **509** Goal: **798** 
- Tons of waste removed, treated and disposed at ERDF
Completed: **10.3 M** Goal: **16.8 M** 

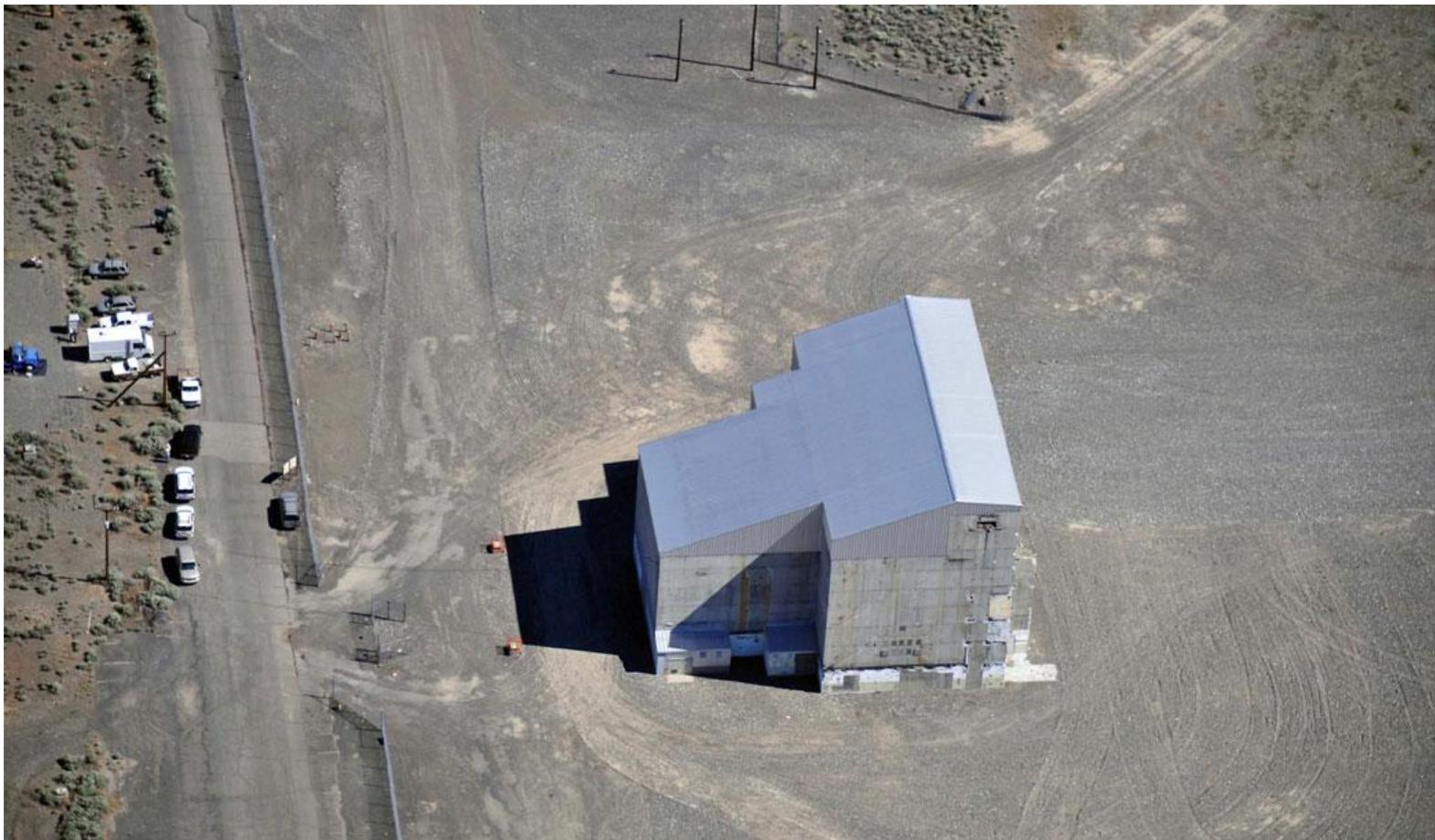




River Corridor Cocooned C Reactor

- Reactors demolished, cocooned or dispositioned

Completed: 6 Goal: 10





River Corridor N Reactor Demolition

- Reactors demolished, cocooned or dispositioned

Completed: 6 Goal: 10





River Corridor 118-K Trench Remediation

- Waste sites remediated
Completed: **509** Goal: **798**





River Corridor – 100 C Area Soil Waste Sites Remediated

- Waste sites remediated
Completed: **509** Goal: **798**





River Corridor 100-H Area

- Waste sites remediated
Completed: **509** Goal: **798**





River Corridor K-Reactor Area Aerial View of KE/KW

✓ Tons of spent nuclear fuel treated and transported

Completed: **2,300** Goal: **2,300** 





River Corridor K-Reactor Area K-East Basin Removal

✓ Square feet of K-East Basin demolished

Completed: **8,400** Goal: **8,400**





River Corridor K-Reactor Area Sludge Sampling

✓ Number of sludge engineered containers sampled and analyzed

Completed: 5 Goal: 5





River Corridor

300 Area

- River Corridor square miles remediated
Completed: **60** Goal: **220**





River Corridor – 300 Area 337 Building Demolition

- Facilities demolished

Completed: **221** Goal: **522**





River Corridor – 300 Area 337 Building Demolition

- Facilities demolished

Completed: **221** Goal: **522**





River Corridor – 300 Area

327 Building Demolition and Hot Cell Removal

- Number of (highly contaminated) hot cells dispositioned

Completed: **9** Goal: **18**





River Corridor – 300 Area 327 Hot Cell Removal

- Number of (highly contaminated) hot cells dispositioned

Completed: **9** Goal: **18**





the RL 2015 Vision

Hanford Site Cleanup

River Corridor Groundwater Cleanup

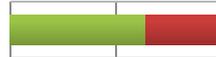
- River Corridor Treatment System capacity
Completed: **1,600 gpm** Goal: **2,500 gpm** 
- River Corridor gallons of groundwater treated
Completed: **3.49 billion gallons**





River Corridor Groundwater Cleanup DX Pump and Treat Facility

- River Corridor Treatment System capacity
Completed: **1,600 gpm** Goal: **2,500 gpm**





River Corridor Groundwater Cleanup DX Pump and Treat Facility

- River Corridor Treatment System capacity
Completed: **1,600 gpm** Goal: **2,500 gpm**





the RL 2015 Vision

Hanford Site Cleanup



**Hanford Reach
National Monument**
(~ 290 Sq. Mi.)



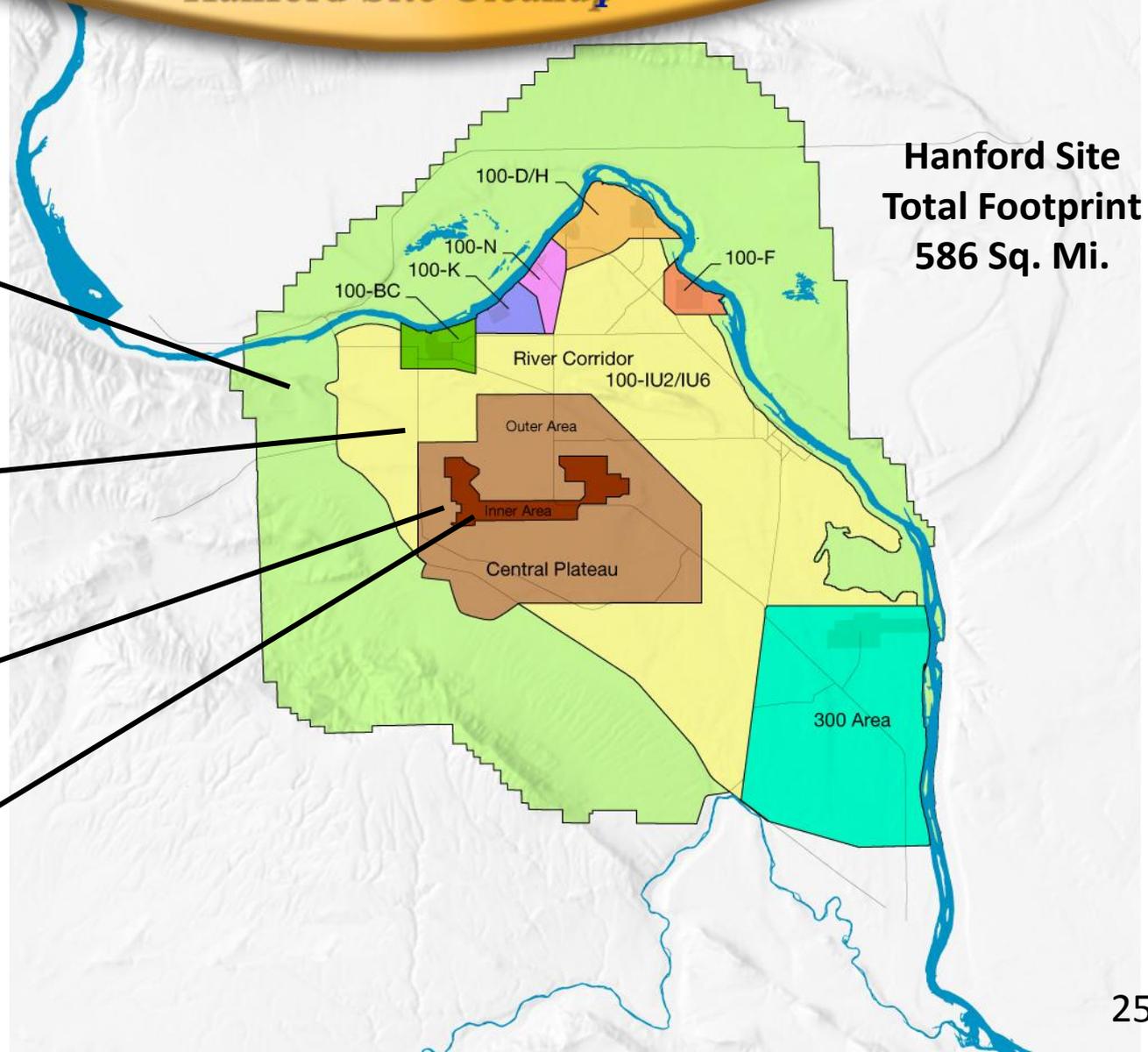
River Corridor
(~ 220 Sq. Mi.)



**Central Plateau
Outer Area**
(~ 65 Sq. Mi.)



**Central Plateau
Inner Area**
(~ 10 Sq. Mi.)

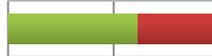




Central Plateau EDRF Super Cells

- Tons of waste removed, treated and disposed at ERDF

Completed: **10.3 M** Goal: **16.8 M**

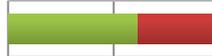




Central Plateau ERDF Waste Disposal

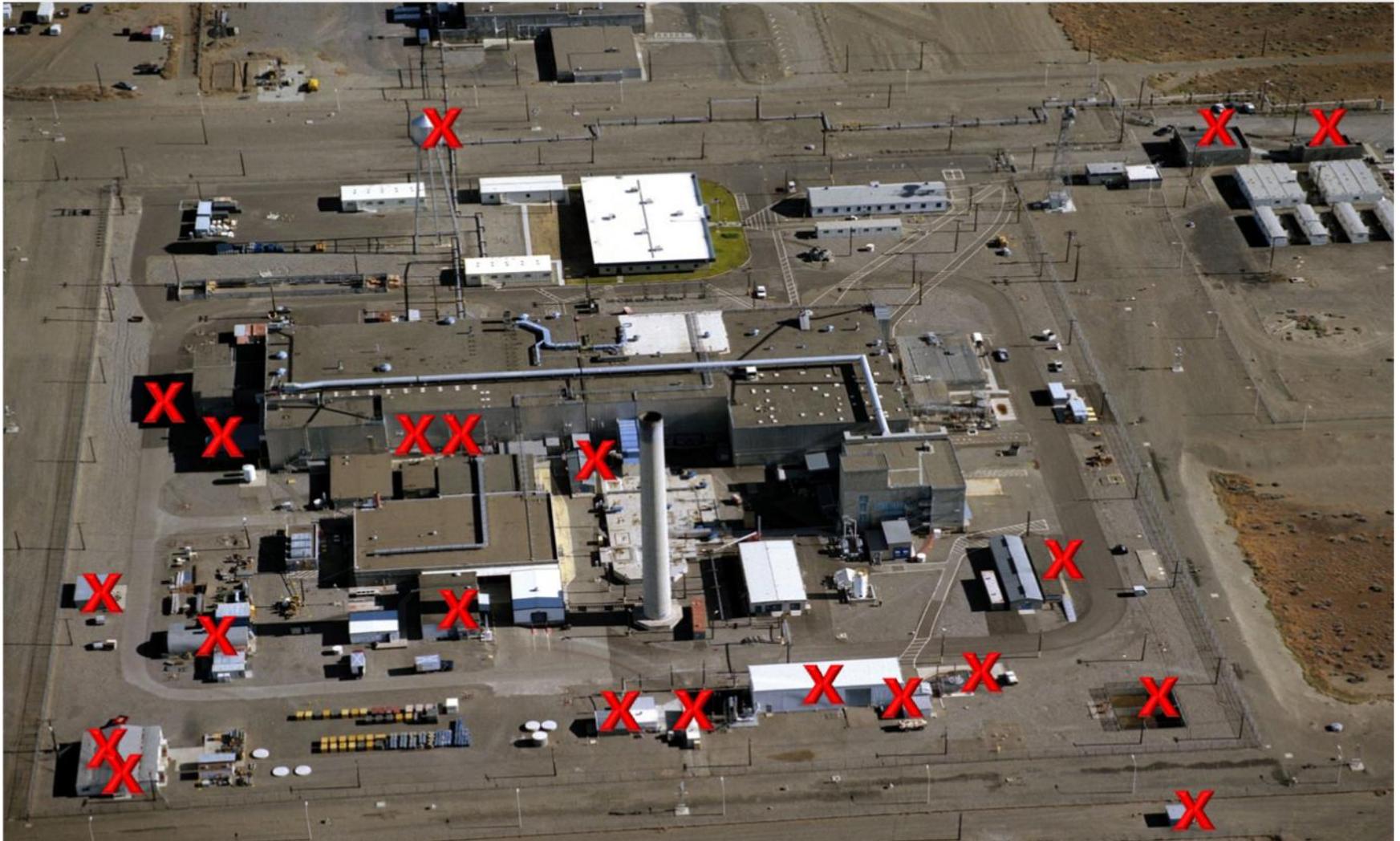
- Tons of waste removed, treated and disposed at ERDF

Completed: **10.3 M** Goal: **16.8 M**





Central Plateau Plutonium Finishing Plant





Central Plateau

Plutonium Finishing Plant

Glove Box Loaded for Disposal

- Number of glove boxes dispositioned

Completed: **110** Goal: **238**





Central Plateau

Plutonium Finishing Plant

Glove Box Loaded for Disposal

- Number of glove boxes dispositioned

Completed: **110** Goal: **238**





Central Plateau

Plutonium Finishing Plant

Glove Box Loaded for Disposal

- Number of glove boxes dispositioned

Completed: **110** Goal: **238**





Central Plateau

Plutonium Finishing Plant

Asbestos Piping Removal

- Feet of asbestos piping removed
Completed: **12,293** Goal: **24,000**





Central Plateau

Plutonium Finishing Plant

Vacuum Piping Removal

- Feet of process vacuum piping removed

Completed: **546** Goal: **5,500**





the RL 2015 Vision

Hanford Site Cleanup

Central Plateau Groundwater Cleanup

- Central Plateau Treatment System capacity
Completed: **400 gpm** Goal: **2,500 gpm** 
- Central Plateau gallons of groundwater treated
Completed: **1.56 billion gallons**





Central Plateau Groundwater Cleanup 200W Pump and Treat Facility

- Central Plateau Treatment System capacity
Completed: **400 gpm** Goal: **2,500 gpm**





Central Plateau Groundwater Cleanup 200W Pump and Treat Facility

- Central Plateau Treatment System capacity

Completed: **400 gpm** Goal: **2,500 gpm**





Central Plateau Groundwater Cleanup 200W Pump and Treat Facility

- Central Plateau Treatment System capacity
Completed: **400 gpm** Goal: **2,500 gpm**



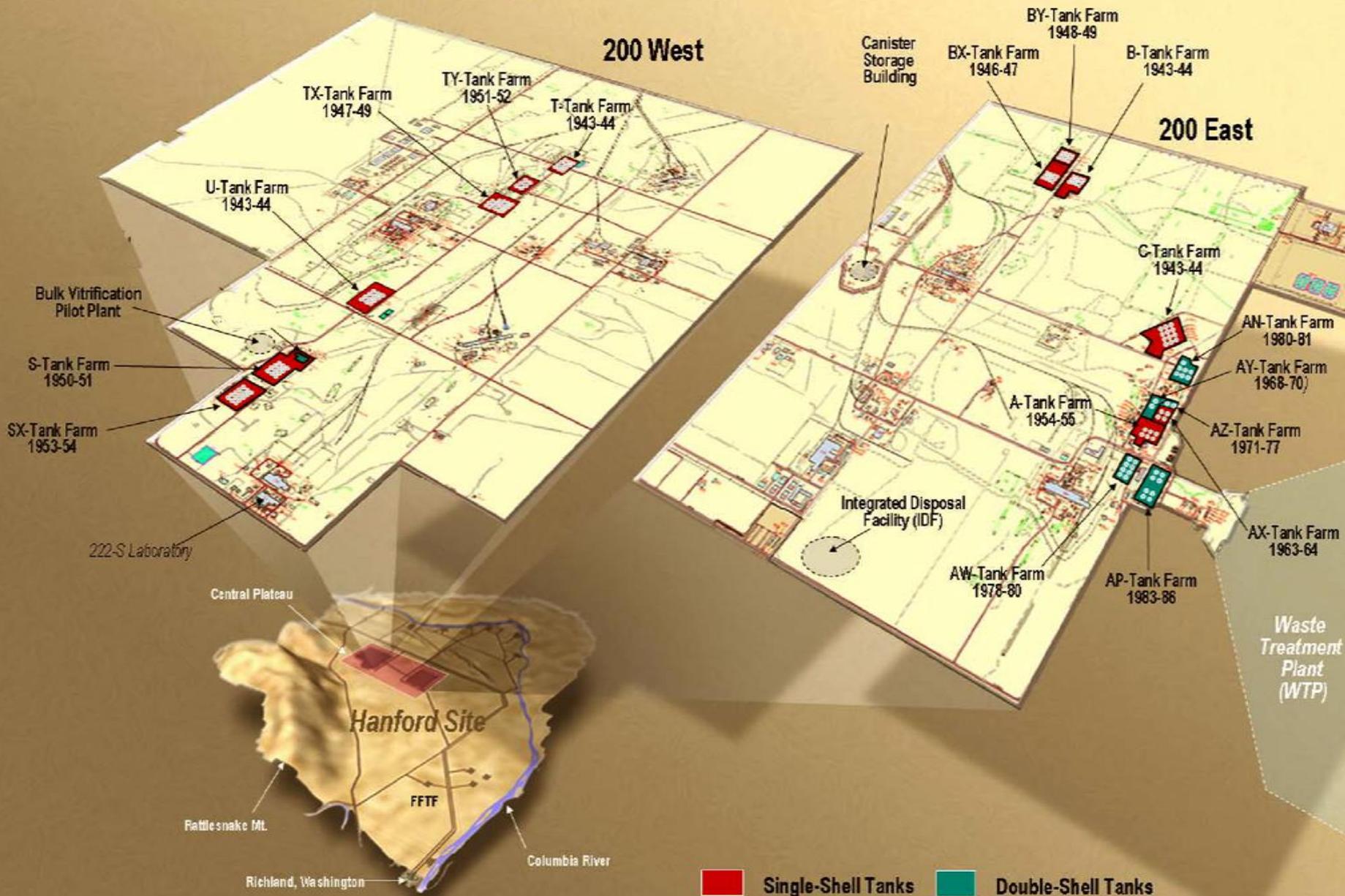


Office of River Protection Cleanup Vision

Department of Energy
Office of River Protection

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Hanford Site Tank Farms





the ORP 2016 Vision

Hanford Site Cleanup

- ✓ Deliver on regulatory commitments to the State of Washington and protect the Columbia River





the ORP 2016 Vision

Hanford Site Cleanup

- ✓ Turnover and commission 16 of 18 Waste Treatment Plant facilities Commission the Laboratory, Low-Activity Waste Facility, and Balance of Facilities





the ORP 2016 Vision

Hanford Site Cleanup

Waste Retrieval Progress

- Six tanks currently in progress at varying stages from design to retrieval—most ever at one time
- Cut 55-inch diameter hole (largest ever) in the top of single-shell tank C-107 to deploy new retrieval system designed and developed by WRPS
- Empty all 16 single-shell tanks in C-Farm by 2014





the ORP 2016 Vision

Hanford Site Cleanup

- ✓ Develop and deploy transformational technologies for supplemental treatment, secondary waste, retrievals and waste delivery





the ORP 2016 Vision

Hanford Site Cleanup

ORP is Critical to the Hanford Mission

- 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
- We are demonstrating visible progress; improving trends in project, operations, and safety
- Committed to absolute worker and public safety
- Protecting the Columbia River is vital, urgent and our obligation to the people of the Pacific Northwest
- Continued integration is key to successful tank waste cleanup



Hanford Site Cleanup Get Involved

- Our work is urgent and essential to the health and economic vitality of our communities and the nation – our mission is a Federal obligation and is not discretionary
- We need your support to sustain cleanup progress at Hanford and welcome your involvement

www.hanford.gov

- Hanford Site Cleanup documents, latest news on cleanup progress and challenges
- Hanford Advisory Board
- Hanford Events Calendar - opportunities to comment on proposed cleanup decisions
- Hanford Site/B Reactor National Historic Landmark tours, Hanford Speaker's Bureau requests

The screenshot displays the Hanford.gov website interface. At the top, there is a search bar and navigation links for 'Site Index', 'Feedback', and 'What's New'. The main header features the Department of Energy logo and the text 'DEPARTMENT OF ENERGY HANFORD'. Below the header, there are navigation tabs for 'ABOUT US', 'PROJECTS & FACILITIES', 'NEWSROOM', 'HANFORD CONTRACTORS', 'OFFICIAL DOCUMENTS', and 'CONTACT US'. The main content area is titled 'HANFORD SITE' and includes a 'Hanford Overview' section with a large green banner that says 'HANFORD OVERVIEW' and 'LEARN ABOUT THE HANFORD MISSION'. Below this is a 'Hanford Blog' section with several articles, including 'New Groundwater Facility Begins Operations' and 'Hanford Waste Treatment Plant sets massive protective shield door in Pretreatment Facility'. There is also a 'Hanford Events Calendar' section. On the right side, there are 'Quick Links' and 'Abbreviations & Acronyms' sections. The 'Quick Links' section includes links for 'Hanford Tours', 'Freedom of Information and Privacy', '2015 Vision', 'Tri-Party Agreement', 'Hanford Advisory Board', 'Hanford Photo Gallery', 'Employment', and 'Natural Resource Trustee Council'. The 'Abbreviations & Acronyms' section has a search bar and a list of letters for navigation. The 'Hanford Definitions' section also has a search bar and a list of letters for navigation. The footer of the page shows the date 'Monday, February 7, 2011 | 8:04:08 AM PST'.