



U.S. DEPARTMENT OF ENERGY

Environmental Management West Valley Demonstration Project (WVDP) Cleanup Vision

**U.S. Department of Energy
Bryan Bower
March 2011**



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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 the nation and positions our Sites for future missions and use
- ✓ 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
- ✓ Time is not on our side – costs and risks increase over time




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Key Slides from EM Budget Briefing



U.S. DEPARTMENT OF
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**EM FY 2012
Presidential Budget Request**



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Key Slides from EM Budget Briefing

Leveraging strategic investments to meet compliance and maintain cleanup momentum

EM's Cleanup Vision: Journey To Excellence

Building on the ARRA momentum, the EM team will:

➤ Complete the three major tank waste construction projects:

- Sodium Bearing Waste Facility by 2011 (operational 2012)
- Salt Waste Processing Facility by 2014 (operational 2014)
- Waste Treatment Plant by 2016 (operational 2018)

➤ Reduce the life-cycle costs:

- Recovery Act investments - \$7 billion in cost savings and cost avoidances
- Transformational Tank Waste Technology - \$19 billion reduction
- High Priority Groundwater Remediation - \$10 billion reduction

➤ Disposition 90% of legacy TRU waste by 2015

- All EM cleanup waste to WIPP by 2020, except for Hanford
- 40,000 m³ TRU remaining to be disposed to accomplish 2015 goal. 78,000 m³ of the 118,000m³ total goal have already been disposed.

➤ Shrink the EM legacy footprint 90% by 2015

- In 1999, legacy cleanup footprint was 3,120 sq miles. At the start of ARRA cleanup in 2009, it was 931 sq miles. By the end of FY 2011, 559 sq miles will remain. By 2015, it will be reduced to 93 sq miles
- All Material Access Areas eliminated
- 2036 facilities complete
- 7745 remediations complete

➤ By 2020, EM legacy cleanup will be virtually completed. Hanford will be the only large site remaining. Minor cleanup will remain at Savannah River, Portsmouth, and Oak Ridge.



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Key Slides from EM Budget Briefing

Leveraging strategic investments to meet compliance and maintain cleanup momentum



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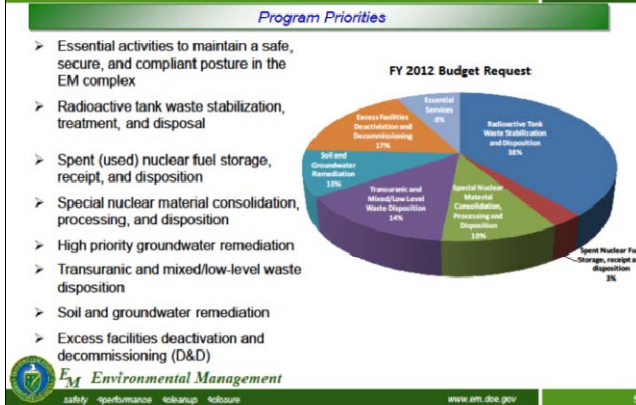
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Key Slides from EM Budget Briefing

Leveraging strategic investments to meet compliance and maintain cleanup momentum



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Key Slides from EM Budget Briefing

Leveraging strategic investments to meet compliance and maintain cleanup momentum

Funding by State (FY 2012 Congressional Request)



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WVDP's Cleanup Vision

How does the WVDP Vision align with the EM Vision?



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WVDP 2020 Cleanup Vision

Complete WVDP Cleanup Vision by 2020

Building on the ARRA momentum, the WVDP team will:

- ✓ Complete HLW activities at the WVDP
 - Relocate 275 HLW canisters to a new on-site dry cask storage facility
 - Maintain the waste tanks in a dry and stable condition pending future decision making
- ✓ Ship and dispose all Low Level and Transuranic Waste
- ✓ Complete demolition of Main Plant Process Building, Vitrification Facility, and Remote Handled Waste Facility
- ✓ Disposition and demolish all remaining surplus facilities (43 facilities)
- ✓ Protect the groundwater: Ensure the on-going performance of the Permeable Treatment Wall
- ✓ Remove and dispose of all contaminated soils from Waste Management Areas (WMA) #1 & #2
- ✓ Complete Phase 1 Decommissioning per Record of Decision by 2020



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Return on American Taxpayers' Investment at WVDP - Key Cleanup Accomplishments

Cleanup Scope	Accomplishments To Date	Accomplishments By FY 2020
Liquid HLW Solidified	All 600,000 gallons of liquid HLW solidified into 275 canisters	By 2015, all 275 HLW canister placed into interim dry storage awaiting permanent disposal decision
TRU Waste Disposed	1,650 of 2,280 cubic meters TRU waste disposal ready	All TRU waste disposed (2,280 m ³)
HLW Tanks Stable	98% of curies removed, Tank & Vault Drying System installed	HLW tanks dry and stable awaiting Phase 2 Decision
Groundwater Plume Remediated	Permeable Treatment Wall (PTW) installed	Plume being remediated by PTW
Main Plant Process Building and Vitrification Facility	MPPB Decontamination 70% complete	Main Plant Process Building and Vitrification Facility Demolition Complete
Remote Handled Waste Facility	RHWF in use for remote waste processing	Remote Handled Waste Facility Demolition Complete
WMA 1 & WMA 2	Active WMAs	All Soil Remediation Complete
Balance of Site Facilities Removal	18 of 61 Facilities Removed	All 61 Facilities Removed
NRC-Licensed and State-Licensed Disposal Areas (NDA & SDA)	Both Disposal Areas (NDA and SDA) under interim caps*	Capped and stable awaiting Phase 2 Decision

* SDA capped by New York State prior to Consent Decree



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Economic Benefits at West Valley

- ✓ Received \$63M in Recovery Act funds
- ✓ 84 jobs created and 19 jobs saved with Recovery Act funds
- ✓ \$45M of Recovery Act funding paid to date
- ✓ \$19M in Recovery Act prime and subcontracts awarded to small business
- ✓ \$13M of \$60M in Base prime and subcontracts awarded to small businesses in FY 2010

Report reflects jobs and small business reporting through the end of FY 2010



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Recovery Act Performance Metrics at West Valley

Measure	Actuals to Date	Targets to Date	Total Target	
CH TRU Waste Processed (Certification Ready) Cubic meters	213	181	181	

Graphic reflects key performance metrics through December 2010

Note: Key Recovery Act TRU waste metrics at West Valley have been completed, but Recovery Act work at the site is on-going in the facility demolition preparation.



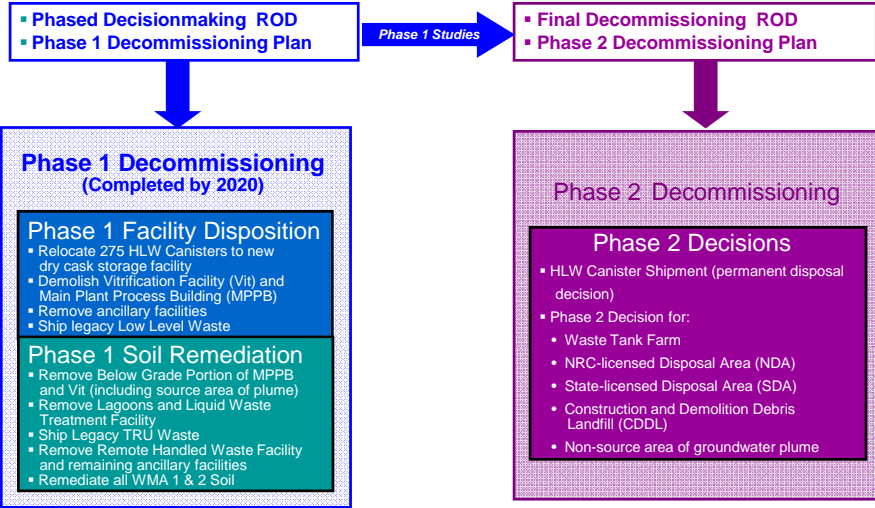
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Phased Decisionmaking



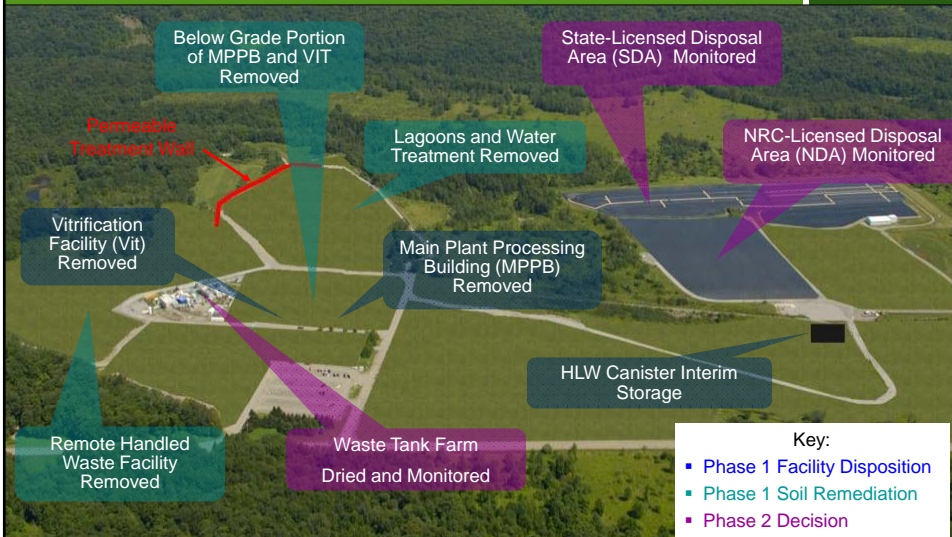
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Phase 1 Decommissioning



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Investing Our Talents in Our Future

West Valley Demonstration Project is a Sound Investment

- ✓ Overall alignment with New York State and our regulators on Phase 1 Decommissioning, and general support from our stakeholders
- ✓ Additional \$20M annually (2012 – 2016) allows WVDP to complete its cleanup vision by 2020 saving \$120M LCC and reducing completion date by 4 years
- ✓ All the waste packaged and ready to go, awaiting decision on a future disposal site for TRU waste
- ✓ Every taxpayer dollar invested in this project (both Federal and state) is precious, and provides significant economic benefit to the region with an emphasis on small business
- ✓ As demonstrated by our outstanding safety and environmental record, we are committed to worker and public safety, and protection of the environment



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Back up Information



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WVDP's Accomplishments by Year

Cleanup Scope	Accomplished prior to 2011	2011	2012	2013 - 2015	2016 - 2020	Status
Liquid HLW Solidification	Preliminary Planning	Preliminary Planning	Complete Eng & Design of Containers	Relocate all HLW Canister to new On-site Storage System	-	HLW Canister Project completed
TRU Waste Disposed	WVES Packaging & Shipping	WVES Packaging & Shipping	Resume Legacy LLW Waste Shipping	Ship all legacy waste with a pathway for disposal (3,700 m ³)	Resolve all orphan waste issues (GTCC EIS ROD) Complete TRU and GTCC Waste Shipping (2,280 m ³)	All Legacy Waste removed from WVVP
Main Plant Process Building and Vitrification Facility	Phase I D&D	Phase I D&D	Begin Pre Demo Characterization	Demolition Prep Complete	Complete MPPB and Vit Demolition Building (21,000 m ³)	MPPB and Vit Facility Demolition Complete
Remote Handled Waste Facility Last Major Structure To be Demolished & Removed)	RHWF in use for sorting, segregating and packaging RH waste	-	-	-	Complete RHWF Demolition (3,000 m ³) LLW Waste	RHWF Demolition Complete
WMA 1 & WMA 2	-	-	-	-	Complete WMA #1 and #2 Soil Removal (60,000 m ³)	WMA#1 & #2 Soil Removal Complete
Balance of Site Facilities Removal	18 Facilities Removed/ Demolished	-	-	30 Facilities Removed	13 Facilities Removed	All remaining 43 Balance of Site Facilities Removed

