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Revision 0

The Positive Impacts of American Reinvestment and Recovery Act (ARRA) Funding to the Waste Management Program on Hanford's Plateau Remediation Project

Prepared for the U.S. Department of Energy
Assistant Secretary for Environmental Management

Contractor for the U.S. Department of Energy
under Contract DE-AC06-08RL14788

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Plateau Remediation Company

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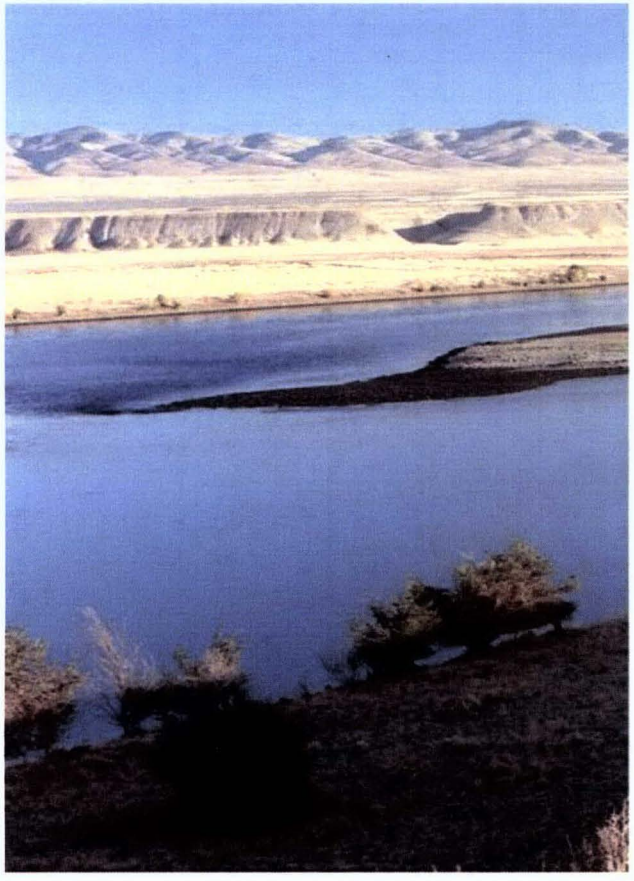

The Positive Impacts of American Reinvestment and Recovery Act (ARRA) Funding to the Waste Management Program on Hanford's Plateau Remediation Project

Presented to: WM2010

Presented by: Ty Blackford, CH2M HILL Plateau Remediation Company (CHPRC), Vice-President, Waste and Fuels Management Project

U.S. DEPARTMENT OF ENERGY

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2015 Vision

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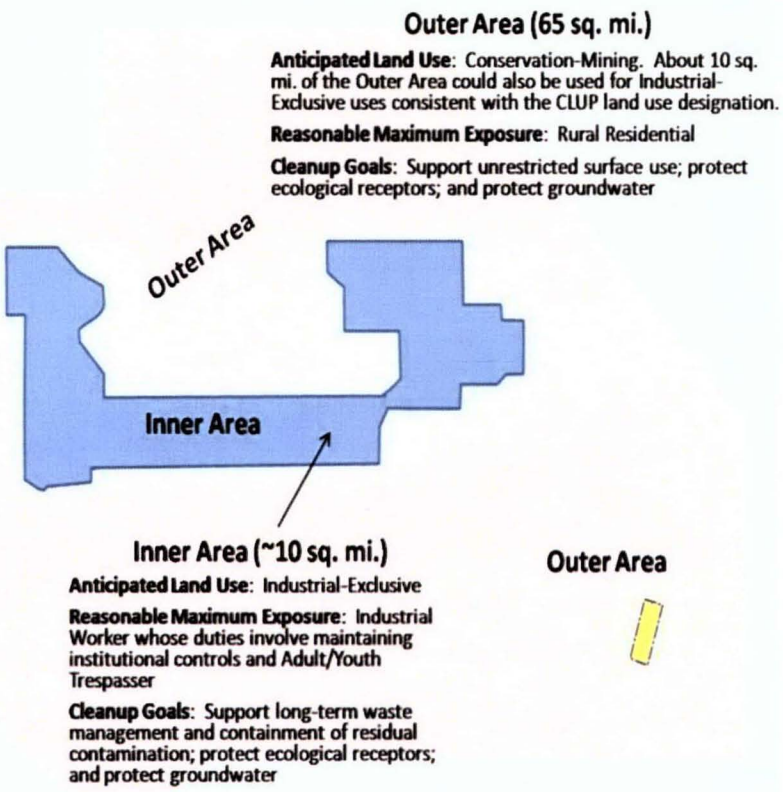
2015 Vision (continued)



- Provides a consistent, comprehensive, and transparent process for cleanup of the Hanford Site
- Protects ecological resources, human health, and the groundwater
- Strengthens Hanford's position to both ***retain*** and ***obtain*** cleanup funding

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2015 Vision (continued)

Inner Area

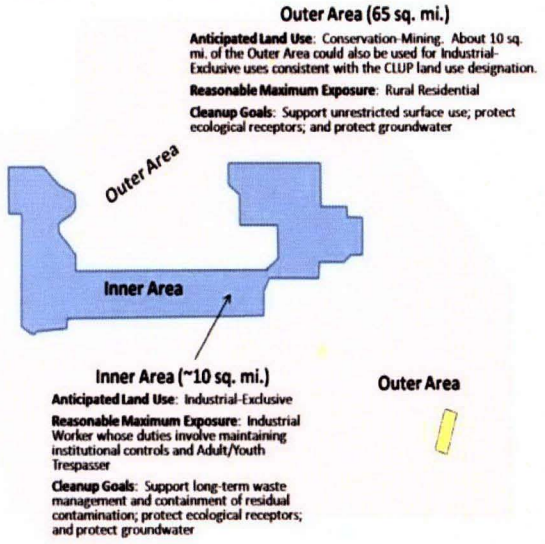
- Smallest practicable final cleanup footprint
- < 2% of original Hanford Site area
- Area for waste management and containment of residual contamination

Outer Area

- Cleanup objectives similar to River Corridor
- Available for approved surface uses
- ARRA supporting accelerated cleanup

Groundwater

- Contain and remediate key groundwater constituents
- Objective to return groundwater to beneficial use



Inner and Outer Areas are Key to Strategy

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ARRA Scope: Supporting 2015 Goals

- Complete D&D of 50 facilities, including nuclear, radiological, and industrial facilities totaling 297,344 ft^2
- De-inventory 860,906 ft^2 of facilities
- Reduce footprint by 20,973 acres
- Install 344 groundwater wells/boreholes
- Remediate 64 waste sites
- Treat 1,900 m^3 of mixed low level waste
- Retrieve 2,500 m^3 of suspect TRU waste retrieved from storage

1st Round of ARRA Graduates

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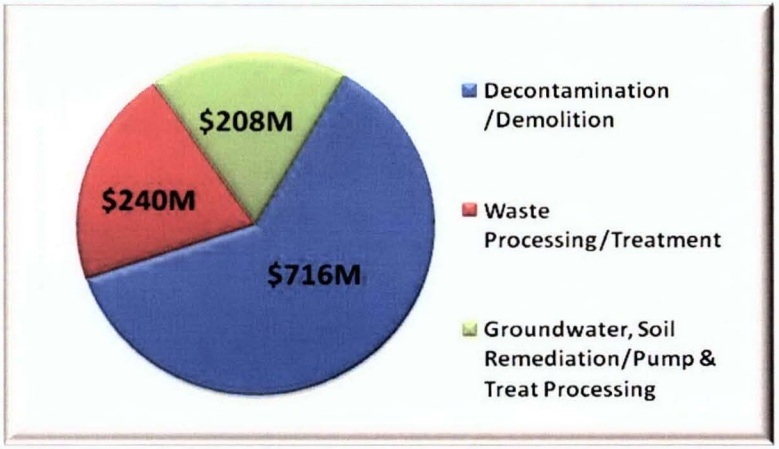
ARRA Scope: Supporting 2015 Goals (continued)

- Repackage 860 m^3 of WIPP-certifiable TRU waste
- Decommission 350 groundwater wells/boreholes
- Process 2,000 m^3 of CH-TRU waste
- Prepare Plutonium Finishing Plant (PFP) for D&D (Remove 174 glove boxes, 650 m^3 of low level waste and 405 m^3 of TRU waste)
- Prepare U Plant canyon for demolition



$1.36B – ARRA Funding Allocations on the PRC

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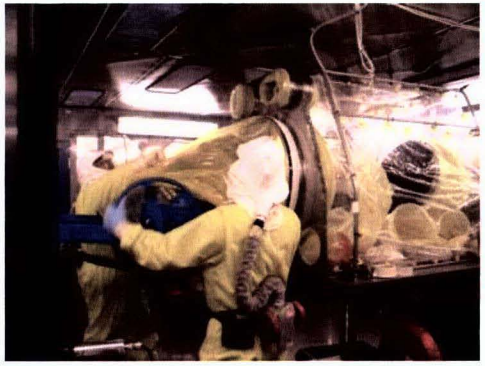
Planning for the ARRA Scope

- Hiring, training, and fielding the ARRA workforce
- Expanding on-site processing and disposal capabilities
  - Added ARRA-dedicated ramp at the Environmental Restoration Disposal Facility (ERDF)
  - Added TRU repack process lines at T Plant
- Identifying off-site capabilities for treatment
  - Increased waste quantities
  - Higher activity wastes
  - Broad range of constituents



TRU Repack Processing Line at T Plant

Environmental Restoration Disposal Facility

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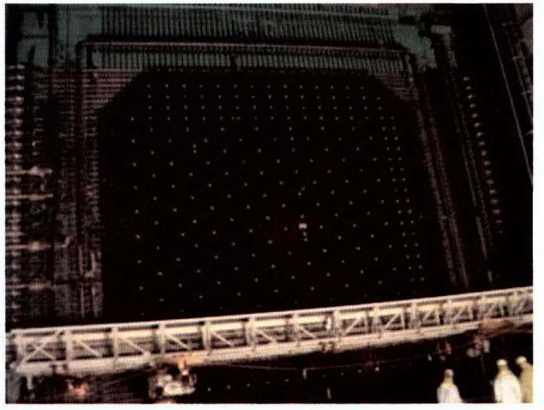
Moving Forward – Priorities under ARRA

- Incorporate 2000+ new employees
- Shrink the footprint: 2015 Vision
  - Get off the river: Sludge and the K area
  - Balance of Site: Ecology reserve: BC Area: Building D&D: Non-radioactive waste fill area
- Reduce risk and mortgage costs
  - PFP cleaned out and ready to demolish
  - K East Reactor plans for D&D
  - Increase pump-and-treat capability faster
  - Ready for canyon demolition



K East Reactor core removal walk down

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Moving Forward – Priorities under ARRA (continued)

- Manage the waste
  - Safely, compliantly, efficiently
  - Solve RH/Large container risks and cost
  - Integrate national needs and goals for TRU
- Be of value to retain funding post ARRA
  - Spend wisely and get results quickly
  - Compile defensible metrics that prove it

IXC monolith to ERDF

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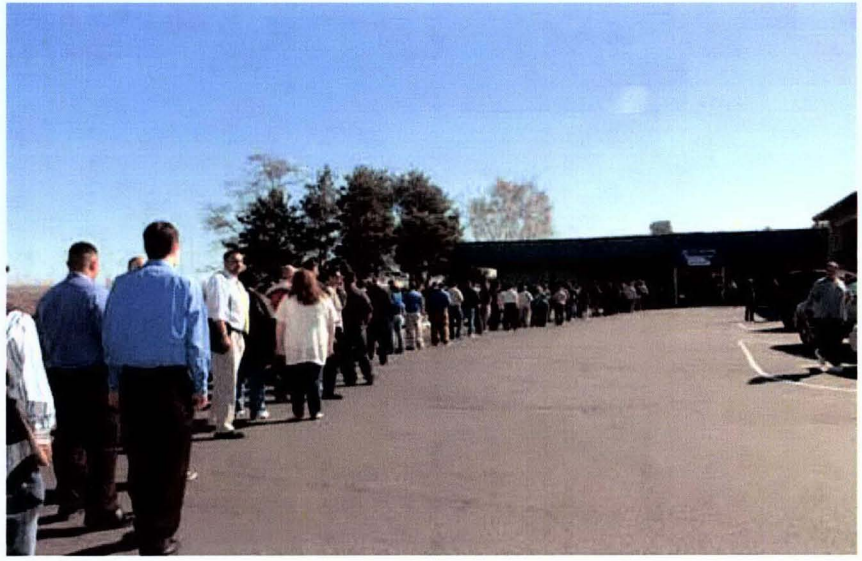
Staffing for ARRA

- Human capital intensive
  - 2,000+ new-hires on the PRC
  - 300+ personnel on the Waste and Fuels Management Project (W&FMP)
- Huge strain on recruiting and training resources



More than 2,500 people attended a two-day job fair April 3-4, 2009 – 13,000 applications were received

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Challenges Attracting Workers

- **Relocation of potential new hires**
  - Inability to sell homes in current market
  - Cost of living differential
  - Location, location, location
- **Unreasonable salary demands**
  - Nation-wide competition for skilled personnel creates a "sellers" market

200 West Area

200 East Area

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Managing the New Workforce

- Provide competitive compensation package that is fair to new hires and current workforce
  - Benchmark market to remain competitive
- Ensure new hire orientation program provides welcoming environment Day 1
- Manage stressors on current workforce
  - Increased workload
  - Additional mentoring responsibilities
- Provide concise job descriptions and expectations followed by 90-day review

New hires meet the leadership team at orientation

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Managing the New Workforce (continued)

- Maximize one-on-one interfaces with Human Resources, Benefits, and others
- Provide strong mentoring program
- Identify career path and opportunities for individual growth and team building
- Foster integration with team/coworkers
- Ensure infrastructure is in place and functioning to support increased personnel

One-on-one assistance during orientation ensured workers received desired benefits

More than 140 mobile modular trailers were brought in to house ARRA workers

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Training the New Workforce

- Competition for training resources among all Hanford contractors
  - 2,500+ new hires site-wide
  - Crowded classes
  - Understaffed training group
- Core qualification/training requirements differ for each employee category
  - Classes needed may not be offered in a timely fashion

Volpentest HAMMER Training and Education Center

Hands-on HAMMER training

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Training the New Workforce (continued)

- Developed a comprehensive safety and field work training program to expedite training and indoctrination
  - "Block" training programs
  - General training
  - Facility-specific training
  - Hands on mentoring processes
  - On-the-job training
  - Gradual, focused integration with workforce

T Plant "Mock-Up" repackaging lines

ARRA D&D Workers Field Training

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Innovations Enhance Safety and Accelerate Cleanup

- Glovebox decontamination processes
  - Reduce the need for size reduction prior to disposition
  - Minimize TRU waste generation (All 45 glove boxes removed to date have been classified as LLW)

Proprietary RADPRO® chemical decontamination minimizes TRU generation

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Innovations Enhance Safety and Accelerate Cleanup (continued)

- **Point of Generation (POG) Waste Management – "Handle once" – wastes have clearly identified disposition path before it is generated**
  - **Minimize multiple handling of wastes to enhance safety, compliance, efficiency**
  - **Bigger, faster, efficient waste transport: Anything but airplanes**
  - **Better/faster characterization tools: Rad Copter 1**
  - **Better sampling and building of characterization tools**

The IXC Monolith was managed directly to disposal using POG, "Handle Once" approach

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Innovations Enhance Safety and Accelerate Cleanup (continued)

- Enhanced tools for Waste Management
  - "Super Dump" Trucks for transporting large volumes of waste to disposal
  - Modified "Beer Can" express and "Super A" transport packages for rail transport of large, remote-handled equipment to off-site facilities

The "super dump" truck transports large volumes of ARRA waste to disposal.

"Beer Can" Express

Video

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Summary

- Up-front planning well in advance of ARRA funding releases ensured DOE/CHPRC an achievable and sustainable approach
- Clear commitment between DOE-RL and prime contractors to set ambitious goals and monitor results to meet expectations
- Early inclusion of Stakeholders in the planning process – regulatory, community, and Tribal leadership
- Continual and open communications between all affected organizations and employees

Summary (continued)

- Dedicated commitment to recruiting, training, deploying , and mentoring personnel
- Increased focus on personnel safety, assuming inexperience of new workforce
- Willingness to incorporate of new approaches at the Site to safely and efficiently expedite cleanup activities

Questions/Answers

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