

Project Operating Plan – Richland - Hanford Site - Groundwater Remediation

**Attachment B:
Richland - Hanford Site – Groundwater Remediation
Project Operating Plan**

BACKGROUND

Recovery Act Project: Richland - Hanford Site - Groundwater Remediation
TAFS: 89-09/10-0253
Project Identification Code: 2002141
Recovery Act Bill Reference: PL 111-5, Title IV – Energy and Water Development, Defense Environmental Cleanup (H.R. 1-26)
Project Cost: \$145,780,000
Budget Authority: 06049, FD.02.20.00.0 - \$145,780,000
Program Office: Environmental Management (EM)
Recovery Program Plan: EM - Defense
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LEADS

Implementation: Richland – Hanford Site
Breakthrough: NA
Laboratory: NA

I. SUMMARY & OBJECTIVES

Summary:

This American Recovery and Reinvestment Act (ARRA) Project supports the mission of DOE and the Office of Environmental Management (EM) by 1) Completing construction of the final remedy - Pump and Treatment Facilities and Bioremediation deployment for groundwater operable units located in the 100 and 300 areas, and 2) Completion of characterization to determine the extent of contamination in the operable units.

By the end of Fiscal year 2011, we will complete installation of groundwater remedies in the River Corridor and Central Plateau and decommissioning of the groundwater wells in the Central Plateau outer zone. The required funding for this work is \$145.7M.

This Recovery Act work ties to the following DOE and EM Strategic Goals and Themes:

- DOE Strategic Goal/Theme 4 –Environmental Responsibility – Protecting the environment by providing a responsible resolution to the environmental legacy of nuclear weapons production.

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- DOE Strategic Goal/Theme 5 – Management Excellence – Enabling the Department’s mission through sound management and business practices.
- EM Goals – To safely disposition large volumes of nuclear waste; safeguard materials that could be used in nuclear weapons; deactivate and decommission thousands of contaminated facilities no longer needed by the Department to carry on its current mission; EM is fulfilling its commitments to reduce overall risk and complete cleanup across all sites for generations to come.

The original scope and purpose of the existing contract will not change with the addition of the Recovery Act (RA) funding. The overall goal is to accomplish the mission of DOE-RL by eliminating environmental threats to the Columbia River and reducing the overall footprint of the Hanford Site through remediation of groundwater.

Public Benefits:

Numerous on-site jobs will be created and/or retained by implementing this project, bolstering the local economy. In Washington, the unemployment rate is 8.4 percent. Major types of workers required for this work include construction labor, engineer, heavy equipment operator, field technician, truck driver, and administrative support worker. The large number of workers trained by completing this project will be available for future missions. Personnel brought in for this initiative could also provide a critical source of employees to support completion of the EM mission at the site necessitated by the current aging Hanford workforce and attrition associated with the expanding nuclear industry. Surrounding area businesses will also experience a job creation benefit from this work scope initiative. Additional off-site jobs will likely be created in the surrounding communities due to the in flux of new workers.

This project will accelerate clean up of groundwater contaminants, avoid future groundwater contamination, and prevent groundwater contaminants from migrating to the Columbia River. This project will also return groundwater to beneficial use, where possible, or at least prevent further degradation. This project will accelerate reuse of the Hanford infrastructure for other energy missions and community reuse.

Recovery Act Project Impacts:

Investment in this project will contribute to the prevention of groundwater contaminants from migrating to the Columbia River and the return of groundwater to beneficial use or prevent further degradation. This project will provide a rough order of magnitude (ROM) savings of \$20M and will enable reuse of EM infrastructure for other energy missions or community reuse.

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II. COST & SCHEDULE

Budget

Table 1a: Budget Implementation 12 Week Obligations (\$M)

	Week of ARRA Activities (Beginning Week of March 9)											
	1	2	3	4	5	6	7	8	9	10	11	12
Hanford – 1000 Soil & Groundwater												

Table 1b: Budget Implementation 12 Week Expenditures (\$M)

	Week of ARRA Activities (Beginning Week of March 9)											
	1	2	3	4	5	6	7	8	9	10	11	12
Hanford – 1000 Soil & Groundwater												

Table 2a: Budget Implementation Monthly & Yearly Obligations (\$M)

	FY 2009 Q3			FY 2009 Q4			FY 2010 Q1			
	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	
Hanford – 1000 Soil & Groundwater	FY 2010 Q2			FY 2010 Q3			FY 2010 Q4			
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	
	FY 2011 Q1			FY 2011 Q2			FY 2011 Q3 & Q4			
	Oct	Nov	Dec	Jan	Feb	Mar	Apr – Sept			
	FY 2012			FY 2013			FY 2014			FY 2015

Table 2b: Budget Implementation Monthly & Yearly Expenditures (\$M)

	FY 2009 Q3			FY 2009 Q4			FY 2010 Q1			
	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	
Hanford – 1000 Soil & Groundwater	FY 2010 Q2			FY 2010 Q3			FY 2010 Q4			
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	
	FY 2011 Q1			FY 2011 Q2			FY 2011 Q3 & Q4			
	Oct	Nov	Dec	Jan	Feb	Mar	Apr – Sept			
	FY 2012			FY 2013			FY 2014			FY 2015

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Funds Returned and Offsetting Collections

NOTE: No returned funds or any offsetting collections are expected to be received as a result of carrying out any Recovery Act projects.

Table 3: Funds Returned and Offsetting Collections (\$M)

	FY 09	FY 10	FY 11	FY 12	FY 13	FY 14	FY 15
[Provide description and amounts for Funds Returned and Offsetting Collections]							

Indirect Costs

This work will be performed by facility management contractors either utilizing an approved indirect rate structure or billed as a direct cost. All Hanford contractor indirect rates are subject to an annual audit review by the Defense Contract Audit Agency (DCAA) and require final approval by the Contracting Officer.

The Plateau Remediation Contract (PRC) has a General and Administrative (G&A) rate of 15.6% (currently under DCAA review). G&A functions include Finance, Human Resources, Legal, Internal Audit, Procurement, Information technology, organizational administration, dosimeter and usage based services supporting overhead activities. Because G&A is distributed on a total cost base for the Plateau Remediation Contract (PRC), ARRA funds will also be assessed G&A. Since the ARRA funds represent a significant increase in contract funding it is likely the G&A rate will decrease in the out-years.

Changes to Baseline Budget

Table 4: Changes to Baseline Budgets (\$M)

Changes to Baseline Budget	Increase/Decrease	FY 09	FY 10	FY 11	FY 12	FY 13	FY 14	FY 15
Program Direction After FY 2010	Increase							
Continuation of New Programs	Increase							
Project Acceleration	Increase							

NOTES: The RL Recovery Act projects involve accelerating existing projects. This will result in changes to the baseline budgets in the long term. Potential out-year savings include accelerating installation of final groundwater remedies originally scheduled to take place in 2016 and beyond to be completed during FY 2009-2011 through utilization of Recovery Act funds.

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Milestones

The milestones and performance measures provided in Table 6 are based on the best available information about ARRA requirements and pre-work authorization project definitions. Rough order of magnitude (ROM) estimates have been developed to date for costs and associated end-state and interim milestones and performance measures. These assumed ARRA funding availability in the second quarter FY09. It is expected that as the detailed estimates and resource-loaded schedules (using Primavera 6.2) are developed, there will be some change to cost estimates, milestones and performance measures.

As this scope will be integrated into the RL baseline, but tracked and reported separately and uniquely, the internal DOE approved change control process will be applied to all ARRA scope. It is assumed that there will also be a future DOE-HQ change control process associated with costs, milestones and performance measures that have been reported to date and included in this plan.

Table 5: Delivery Schedule for Capital Asset Projects N/A (until OECM and EM agree on the 413.3A graded approach)

Program/OECM Milestone	Delivery (End) Date	Comments
Develop capital asset projects Integrated Project List	N/A	N/A
Develop Parametric Performance Baseline (Individual Projects)	N/A	N/A
If < \$100 M Perform IPR, > \$100 M Perform EIR (Individual Projects)	N/A	N/A
Approve Performance Baseline	N/A	N/A
Approve Start of Construction	N/A	N/A
Approve Project Completion	N/A	N/A

NOTES: RL has no Capital Asset Projects that will be funded by Recovery Act funds.

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III. PERFORMANCE

Performance Measures

The project will regularly report on all aspects of project cost including schedule, performance, results and impacts. Reporting of the estimation of jobs created and retained will also be made.

Within 120 days after the effective date of the contract modification, the contractor shall propose to the Contracting Officer a Contract Performance Baseline to accommodate the Recovery Act Project scope.

The period of performance for the Recovery Act work begins April 2009 through September 30, 2011.

The following reporting procedure will apply to the submission of monthly cost reports for Recovery Act work specified in the accelerated work scope baseline.

- (a) DOE will conduct a review of the contractor’s proposed EVMS for compliance with ANSI/EIA-748 according pursuant to DOE Order 413.3A.
- (b) The contractor shall certify in each monthly report that the costs included in the report for Recovery Act work were incurred only to accomplish the Recovery Act work in accordance with the accelerated work scope.

Table 6: Project Performance Targets

NOTE: The Project Performance Targets table will be populated starting at the beginning of the 4th quarter FY2009.

Recovery Act Project Identification Code	2002141
Linkage To S-1 Priorities	National Security and Legacy - Accelerate decommissioning of nuclear facilities and contaminated areas in the Central Plateau area of Hanford.
Linkage to Current Program Goal (if applicable)	DOE Strategic Goal 4 – Environmental Responsibility – Protecting the environment by providing a responsible resolution to the environmental legacy of nuclear weapons production. EM Goals – To safely disposition large volumes of nuclear waste; safeguard materials that could be used in nuclear weapons; deactivate and decommission thousands of contaminated facilities no longer needed by the Department to carry on its current mission; EM is fulfilling its commitments to reduce overall risk and complete cleanup across all sites for generations to come.
Two-Year Outcome-Oriented Performance	By the end of Fiscal year 2011, complete installation of final groundwater remedies in the River Corridor and Central

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Measure	Plateau
First Year Performance Target (2009)	Initiate procurement activities to Groundwater Remediation.
Q3 - Project-Level Quarterly Performance Milestone(s)	<ul style="list-style-type: none"> • Provide Contractor with Notice to Proceed
Q4 - Project-Level Quarterly Performance Milestone(s)	<ul style="list-style-type: none"> • Complete Contract Modification for definitized ARRA workscope. • Initiate installation of wells for the 100 Area KR-4 operable unit groundwater remediation system
Second Year Performance Target (2010)	Achieve progress in groundwater remediation.
Q1 - Project-Level Quarterly Performance Milestone(s)	<ul style="list-style-type: none"> • Initiate construction of pump and treat system for 100 D/H Areas
Q2 - Project-Level Quarterly Performance Milestone(s)	<ul style="list-style-type: none"> • Initiate construction of pump and treat system for 200 West Area operable units.
Third Year Performance Target	Achieve completion of final remedies for groundwater remediation
Q4 - Project-Level Quarterly Performance Milestone(s)	<ul style="list-style-type: none"> • Complete construction of final remedies for groundwater remediation in the River Corridor and Central Plateau

National Strategic Benefits

This project provides for protection of the Columbia River and therefore has significant benefit to the Pacific Northwest. It does not directly provide national strategic benefit such as reduction of carbon emissions or oil consumption.

Table 7: National Strategic Benefits

Accelerating the treatment of contaminated groundwater reduces the overall site risk to the workers, public and the environment.

IV. MANAGEMENT

Secretarial-level Items

Intended Results and Linkage to Secretary’s Priorities

The initiatives outlined in this plan support the following Secretary of Energy’s priorities:

- Economic Prosperity
- National Security and Legacy

Table 8: Secretary's Priorities

Secretary’s Priorities	Project Impacts (Qualitative)	Project Impacts (Quantitative)
Science and Discovery		
Clean, Secure Energy		
Economic Prosperity	<ul style="list-style-type: none"> • Create new jobs. • Retain existing jobs. 	The number of new jobs created (TBD)
National Security and Legacy	<ul style="list-style-type: none"> • Eliminate environmental threats to Columbia River. • Remediation of groundwater. 	Estimated gallons of contaminated groundwater to be treated (TBD)
Climate Change		

Collaboration and Coordination

Upon the completion of this project, there will be new and additional expertise within DOE on groundwater remediation and control of contaminants. This knowledge and expertise can be used on a global scale to assist other countries dealing with contaminated groundwater and therefore reduce risks to the world.

The DOE Nevada Test Site, EnergySolutions in Utah, and other commercially-operated waste treatment/ storage/disposal Facilities will be needed to support treatment and disposal of waste generated during the Recovery Act Project. Coordination with these interfaces already exists however will be enhanced throughout this project. Maintaining continuity of available disposal capacity for Class A and Greater-Than Class A Mixed Low Level Radioactive Waste is important to the project.

The DOE-RL Procurement Division will continue to work closely with DOE-EM and DOE-MA to insure timely business clearance approval for procurement actions that exceed local authority.

Training programs and/or courses will be established and provided at the HAMMER Training Center for identified positions which may require additional training outside of standard site training courses. This training will continue to be used throughout other federal and state agencies, as well as private organizations further preparing individuals to resolve similar challenges throughout the world.

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There are many external interfaces associated with the normal operations at Hanford. These include:

- **Regulatory** Environmental Protection Agency, Washington Department of Ecology, Department of Transportation, and Defense Nuclear Facilities Safety Board
- **Community** Hanford Advisory Board, Benton and Franklin Counties, Surrounding States, Nevada, and Utah
- **Industry** Environmental Engineering/Remediation, Waste Management, Construction, Cement, Container, Transportation, Housing, Utilities, etc.
- **Other** Other RL Contractors, Labor Unions, Parent Companies, Local Universities/Colleges

Federal Infrastructure Investments

N/A

Line Management

DOE-RL intends to use existing EM site systems and practices to effectively monitor and report on the Recovery Act Project activities, including:

- Fully implement all Recovery Act transparency and reporting requirements through modifications to the contract that will fund this Recovery Act Project.
- Continue applying project management principles to Recovery Act Project execution, including reviewing and validating EM project cost and schedule baselines consistent with DOE Order 413.3 and identifying project risks and strategies for managing them.
- Continue use of industry standard Earned Value Management System (EVMS) to compare actual project scope, cost, and schedule performance against planned performance as depicted in the baseline.
- Continue monitoring of the contractors' EVMS reports to ensure the Recovery Act Project is on track and, if not or if trends are in a negative direction, to develop and implement corrective actions.
- Hold monthly management reviews to provide updates on the Recovery Act Project to EM's senior-most executives.
- Secure support service contractors to provide limited augmentation of federal procurement, budget and finance, project controls, and technical oversight capabilities for the Recovery Act Project.
- Assign appropriately qualified staff to the Recovery Act Project to provide technical and programmatic oversight of the contractors performing the work and be the day-to-day governmental interface and manager for the project.

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- Use an Integrated Project Team (IPT) of Federal and contractor staff with project knowledge and subject matter expertise essential to the successful planning and execution of the project – including safety, risk management, engineering, quality assurance, contracts administration, and project controls.
- Develop detailed risk management plans for the Recovery Act Project to identify and mitigate risks, and assign roles and responsibilities for managing the risks.

Needs from Staff Offices

1) Human Capital

DOE-RL intends to use and support service contractors to provide limited augmentation to federal staff in the areas of procurement, budget and finance, project controls, and technical oversight. DOE-RL is nearly staffed to the DOE Environmental Management program’s "Best-In-Class" federal staffing levels for both acquisition and project controls. In addition, DOE-RL will be required to hire additional federal Accountants and Contract Specialist staff.

NOTE: DOE-RL has developed an integrated incremental staffing profile to perform ARRA work. This staffing profile is wholly contained in Central Plateau D & D Project Operating Plan (2002140).

Table 9: Information on Hiring Under the Recovery Act

# & Type of Positions (Title, Series and Grade)	Location (HQ or Field – w/location)	Federal or Contractor	Timeframe (1-6mos; 6+mos; other; specify date needed if possible)
<i>Refer to NOTE above.</i>			