



*River Corridor Closure Project*

# **Recovery Act Weekly Report**

For the week ending February 21, 2010

Contract DE-AC06-05RL14655

*Protecting the Columbia River*

## Overview

Background Summary of Projects that Washington Closure Hanford (WCH) will accomplish using ARRA funds (pending definitization of scope and contract modifications).

### A. The Environmental Restoration Disposal Facility (ERDF)

ERDF is the hub of the WCH scope of work and supports a major portion of other Hanford contractor (OHC) waste disposal. Wastes collected from sites around the Hanford complex are brought to ERDF for treatment and disposal. WCH operates the ERDF and is currently using ARRA funds to upgrade and expand its capabilities to meet the needs of Hanford's accelerating mission.

### B. The 618-10 Burial Grounds

The trenches at 618-10 have long been regarded as some of Hanford's worst waste sites. Using ARRA funds, WCH will characterize the site. Intrusive and non-intrusive techniques will be used, and the subsequent analysis of data will enable the project to pursue remediation of the site safely and effectively.

### C. The 618-11 Burial Grounds

Along with 618-10, the 618-11 Burial Grounds are among the biggest challenges faced by WCH using ARRA funds. The 618-11 characterization work will require special care because of its proximity to the Energy Northwest Generating Facility, north of the 300 Area.

### D. Waste Site Remediation

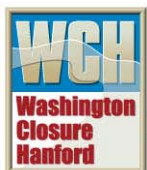
WCH is employing ARRA funds to clean up many failed waste sites not originally part of its contract. Sites in the 100-F and IU 2&6 segments 1&2 are proposed for waste site remediation in the two year period starting in October 2009.

### E. Confirmatory Sampling of other new sites

WCH is proposing to complete the early sampling process of 66 potential waste sites using ARRA funds. Confirmatory sampling is performed for sites that require additional information for determining if the site requires remediation.

This weekly report will provide evidence of these activities as they occur in support of ARRA.

The following figure illustrates the overall scope of WCH's ARRA projects.

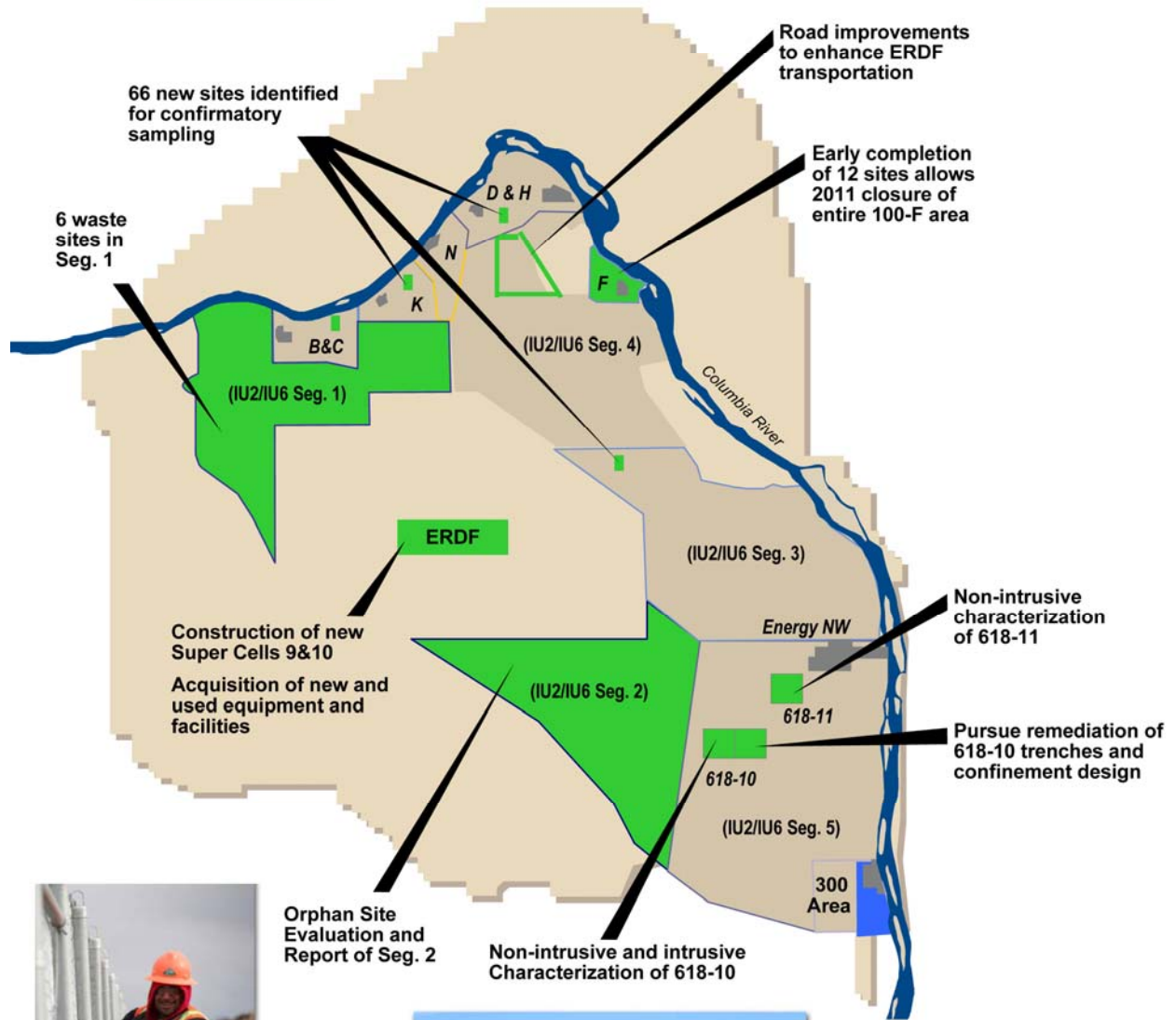


# Overview (Continued)



## River Corridor Cleanup Completion

### ARRA Scope



# Safety

## Safety Accomplishments

As of January 24, 2010, WCH and its subcontractors have worked more than 135,000 hours of ARRA scope with no safety incidents.

## Hazard Reductions

WCH conducted a mid-point assessment, which was highlighted during a “Presidents Day Refocus.” The assessment confirmed that improvements are in place and identified areas that still need improvement to continue to implement new fall protection and work control processes.

## What the assessment team found

- A positive culture exists.
- Single work control packages are being used.
- An increase of field supervision to address questions in on-going work and better use of critical resources.
- Implementation of the fall hazard prevention analysis.
- Changes to scaffolding, fall protection, ladders, and elevating platforms procedures have been completed or are in development.
- Improved effective training for users, competent, and qualified persons.
- A willingness to stop work.

## Opportunities for improvement

- Improve procedural adherence in work control and fall protection.
- Inclusion of the Fall Hazard Prevention Analysis form into the work package.
- While there is an increase in field supervision, critical resources were not being advertised as such during Pre-Evolution briefings.

## Working toward our goal

- Improvements in the “Stop Work” terminology and recognition in stop work type activities will improve knowledge and acceptance of the use of stop work.
- Hazards and controls that are identified during field walk downs need to be evaluated for how they fit in the work scope and incorporated into craft work packages.
- Conduct awareness briefings for field personnel.
- A process for identifying critical resources has been incorporated into the Pre-Evolution briefing.



## Safety (Continued)

### Conclusion

- WCH continues to improve the level of performance desired through:
  - Finalizing all corrective actions
  - Additional briefings of employees
  - Increased focus on the coaching, mentoring, and oversight in working toward goals.

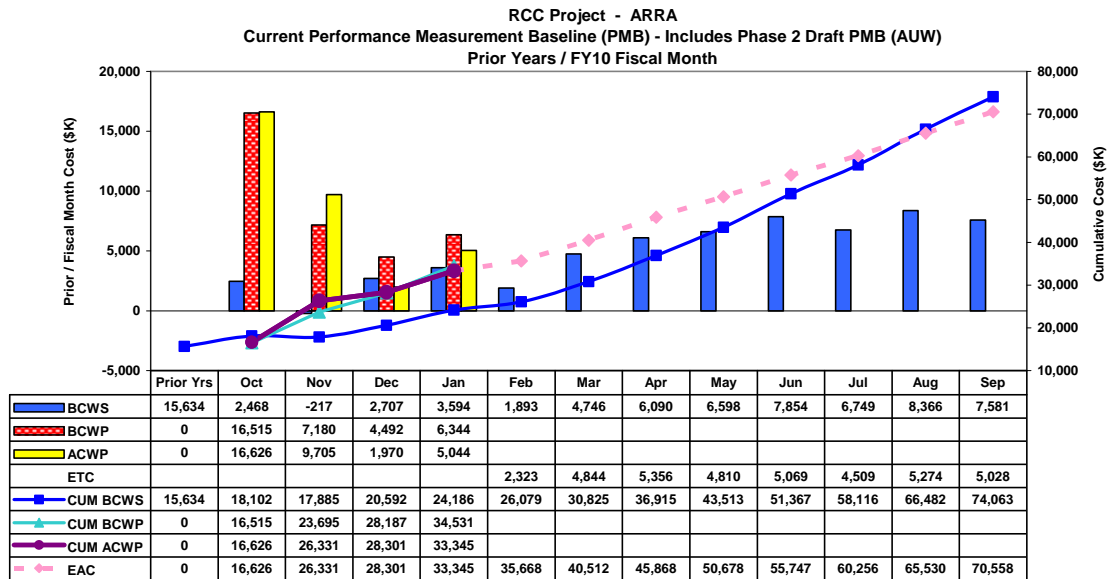
*Most corrective actions have been completed and have had a significant positive impact resulting in safe performance of our work.*



# Cost/Contract Status

Contract Mod #	Date	Scope	Obligated (\$M) (Inception to Date)	Not to Exceed (\$M) (Inception to Date)
099	4/9/09	ERDF Cell Expansion & Upgrades; 618-10 NIC	\$203.0	\$28.0
105	4/30/09	ERDF Cell Expansion & Upgrades; 618-10 NIC	\$203.0	\$44.5
126	7/23/09	H.37 Clause - Reporting Requirements	N/A	N/A
139	9/3/09	ERDF Cell Expansion & Upgrades; 618-10 NIC	\$253.6	\$44.5
142	9/30/09	ERDF Cell Expansion & Upgrades; 618-10 NIC; Road Upgrades; Remediation of Orphan Sites	\$253.6	\$123.8

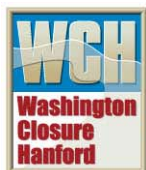
Contract Modification #142 is the definition of the Phase 1 scope of work and was incorporated into the Integrated Project Baseline (IPB) (Performance Measurement Baseline) beginning with October 2009 reporting. A \$5.4M de-obligation and re-obligation of equal value are in process.



ARRA Actuals (includes PMB and Proposal 2)

Apportionment Number	Apportionment Title	PMB or Balance *	Jan 2010	Inception To Date	NTE Amount
RL-0041.R1.2	ERDF Cell Expansion	PMB	1,094	23,016	
		Balance	(127)	1,955	12,000
RL-0041.R2	River Corridor Soil & Groundwater (618-10)	PMB	1,665	7,500	
		Balance	147	874	5,000
<b>Sub Total</b>		PMB	<b>2,759</b>	<b>30,516</b>	
		Balance	<b>20</b>	<b>2,829</b>	<b>17,000</b>
<b>Fee</b>			<b>204</b>	<b>2,045</b>	
<b>Total</b>			<b>2,983</b>	<b>35,389</b>	

\* PMB is the Phase 1 Performance Measurement Baseline. Balance is Proposal 2 Not to Exceed draft PM (AUW)



## ERDF

### Super Cells 9 and 10 Construction

TradeWind Services and its prime subcontractor, DelHur Industries, continue excavation of super cell 10. Crews work to remove the eolian layer and form the embankment on the north end of the super cell.

An estimated 1.6 million cubic yards of soil will be removed to create the super cell, which will measure 500 feet by 1,000 feet by 70 feet deep.

Excavation of super cell 10 will continue through August 2010. Construction of the liner and leachate collection system for super cells 9 and 10 will begin in April 2010. All work is to be completed by September 30, 2011.



*Trade Wind Services/DelHur Industries personnel are in the beginning stages of super cell 10 excavation at the Environmental Restoration Disposal Facility.*

## ERDF (Continued)

### Facility and Equipment Upgrades

Sage Tec, a Richland, Washington-based company, has submitted 30% of the design for the new fueling station. WCH will review the design work next week.

WCH has received questions from potential subcontractors regarding the design and expansion of the truck maintenance facility, and the design and build of the new equipment and container maintenance facilities. WCH will begin to address the questions next week.

Columbia Engineers and Constructors, a Richland, Washington-based company, continues work on the design of a new septic system. The existing system is near its capacity and unable to handle the additional demands of the proposed facility upgrades. The new system will service the existing and proposed facilities.

Pacific Northwest National Laboratory (PNNL) scientists and engineers continue to prepare for a proof-of-concept demonstration of a new container tracking system to be used at ERDF. The onsite demonstration is scheduled for April 7. The system was originally designed by PNNL for the Army to track containers. The new system would allow for operations personnel to identify how many full and empty containers are available at ERDF and the generator sites.

WCH is reviewing a proposal by TradeWind Services/DelHur Industries for the facility's new transportation yard. The 7-acre site will be lighted and used for truck-and-pups.

A subcontract was awarded for the purchase of a new front-end loader. A statement of work and specifications was completed for a new heavy duty forklift and has been submitted to Procurement.

### Upcoming Activities

- Continue excavation of super cell 10.
- Review 30% design submittal of new fueling station.
- Review proposal for the new transportation yard.





## Profile

Jeff Hertzel takes pride in the fact that his company, TradeWind Services, does not have a market niche. He believes that a successful company is one that can wear many hard hats, so to speak.

Hertzel is a disabled veteran with more than 22 years of managerial experience on the Hanford Site. In 2005, he established his Richland-based business to provide clients with a broad range of engineering and technical support to solve project management, operations, and environmental challenges.

“I like to be involved in all aspects of a project from start to finish,” said Hertzel, whose company employees a staff of 50. “I don’t want to be a company that is known for just one thing. I don’t want to be a gear in the machine; I want to be the whole machine.”



*Jeff Hertzel established TradeWind Services in 2005. The Richland, Washington-based company is working to help expand the Environmental Restoration Disposal Facility by 50 percent.*

TradeWind’s latest project is big, as in 1.6 million cubic yards of soil big. Earlier this month, TradeWind was awarded a subcontract worth up to \$30 million by Washington Closure to

## Profile (Continued)

expand the Environmental Restoration Disposal Facility by 50 percent. The work is funded by the American Recovery and Reinvestment Act.

The ERDF expansion includes the addition of two new super cells, or waste disposal areas, which are twice the size of the existing cells. TradeWind will excavate super cell 10 and construct the liner and leachate collection system for super cells 9 and 10. TradeWind's prime subcontractor on the project is DelHur Industries. DelHur constructed six cells and most recently completed excavation of super cell 9.

"I expect everything will go smoothly," Hertzell said. "We've completed all the necessary up-front work and we've put together a dream team. From the guys putting up the fence to the guys digging the hole to the guys constructing the liner, we've got the very best."

Hertzell has been the engineering manager for the Plutonium Finishing Plant, U-Plant, T-Plant, S-Plant, UO<sub>3</sub>, and PUREX. He has worked at the Hanford Tank Farms and supported the development of single-shell tank retrieval and leak detection monitoring and mitigation development for the Hanford Tank Farms. He was also the manager of the Hanford Tri-Party Agreement Integration organization and was responsible for the successful outcome of more than 50 major Tri-Party Agreement negotiations.

Hertzell is a native of Cleveland, Ohio. He joined the Navy at 17, spent six years in the nuclear navy, and graduated from the University of Washington with a degree in mechanical engineering

TradeWind also has worked with Washington Closure on other projects. It provided engineering support for trench remediation planning at the highly contaminated 618-10 Burial Ground and for several D4/interim safe storage projects.



## 618-10 Burial Ground

### 618-10 Non-Intrusive Characterization/Trench Remediation Project

Nonintrusive characterization activities continue at the 618-10 Burial Ground. To date, 95 cone penetrometers in the vertical pipe unit (VPU) area and three cone penetrometers in the trenches have been characterized.

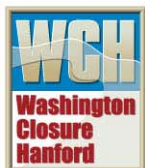
The burial ground contains 94 VPUs, which are five bottomless 55-gallon drums welded together end to end and buried vertically, and 23 trenches. From 1954 to 1963, Hanford workers used the burial ground to dispose of low- and high-level radioactive waste from 300 Area laboratories and fuel development facilities.

WCH is obtaining in situ radiological characterization data of the VPUs and trenches using a multi-detector probe (MDP), designed for measuring a wide range of radiation sources. The MDP contains two gamma-ray detectors used as spectrometers, two neutron detectors, and a gross gamma detector. The MDP is inserted into the cone penetrometers to measure radiation sources. Four cone penetrometers were inserted around each VPU.

The 618-10 Burial Ground is the most challenging burial ground WCH has addressed to date. While an extensive search of Hanford records yielded some valuable information about the burial ground contents, many unknowns still exist. Information collected during nonintrusive characterization activities will help determine how best to clean up the burial ground and what protective measures to employ during cleanup.

### Upcoming Activities

- Resume trench radiological characterization activities.
- Continue VPU radiological characterization activities.
- Continue soil sampling project startup review activities.
- Conduct confinement workshop for trench intrusive characterization and trench remediation.



## 100-F Area

Work continues in preparing a request for proposal (RFP) for remediation of the remaining 100-F Area waste sites. The RFP is expected to be issued in early spring.

Remediation will involve the excavation of radioactive and hazardous soil and debris, and the packaging of the material to be shipped to ERDF. A wide range of contaminated soil, miscellaneous debris, buried equipment, and structural materials may be encountered during remedial activities.

The remediation sites are: 100-F-26:4 pipeline, 100-F-26:7 pipeline, 100-F-44:8 pipeline, 100-F-44:9 pipeline, 100-F-45 riverbank pipeline, 100-F-47 substation, 100-F-48 coal pit debris, 100-F-49 maintenance garage, 100-F-51 fish lab, 100-F-55 ash layer, 100-F-56 scattered surface debris, 100-F-57 pump house pipe cradle debris, and 100-F-58 scattered asbestos containing material debris.

## IU 2 & 6 Segment 1

Remediation is complete at three of the six waste sites discovered at IU 2&6 Segment 1 during the 2008 orphan site evaluation. Remediation of sites 600-345 and 600-346 was completed this week. Remediation of a third site, 600-343, was completed last week.

Some remediation work also was completed at site 600-341, which consists of four areas. Remediation work of site 344 will proceed after a historical and cultural review.

Last month, a global positioning environmental radiological survey indicated that site 600-342 did not require additional remediation.

The sites are relatively small and contain mostly surface debris. Site 600-343 consisted of residual ash from burned material and dumped asphalt in an excavated trench, site 600-345 was a stained area with oil filters, and site 600-346 consisted of four small fly ash dump areas with metal debris. Site 600-341 consists of four areas that contain dry cell battery remnants and/or battery debris.



## IU 2 & 6 Segment 1 (Continued)



*Remediation work was conducted at site 600-345, a stained area that contained oil filters.*

## IU 2 & 6 Segment 1 (Continued)



*A WCH employee in full protective clothing shovels soil containing battery debris into a drum during remediation of site 600-341 SG 1-306. The waste will be sent offsite for treatment and disposal because cadmium was detected.*

### Video

[Remediation of IU 2 and 6 Segment 1 Waste Sites](#)

## Confirmatory Sampling

The team continues to develop sampling instructions for waste sites at the 100-D, 100-K, and 100-IU 2/6 Areas. Efforts include conducting historical research and consulting regulatory documents, developing a list of contaminants of potential concern to be sampled, and determining potential sample locations for review by DOE and Hanford Site regulators.

The team has also begun development of the Remove, Treat, and Dispose (RTD) memos for sites that have been determined to require waste site remediation. The memos provide a basis for developing the remediation design.

Work also continues on developing procurement documentation. Later this month, WCH will issue a request for proposal for a company to support implementation of the sampling work instructions (e.g., excavation and sampling). Sites that pass the confirmatory sampling process will be closed out and no further action will be required under the existing interim record of decision. Those that fail will be recommended for cleanup to meet regulatory standards.

Sampling of the sites is expected to begin in late spring.



## General

### **Mentoring/Training**

No significant activities this week.

### **Media, Visits, Press Releases**

No significant activities this week.

### **Contracting Actions**

- Posted request for proposal on WCH secure website for 618-10 Non-destructive Examination/Real-Time Radiography.

