



River Corridor Closure Project

Recovery Act Weekly Report

For the week ending January 31, 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

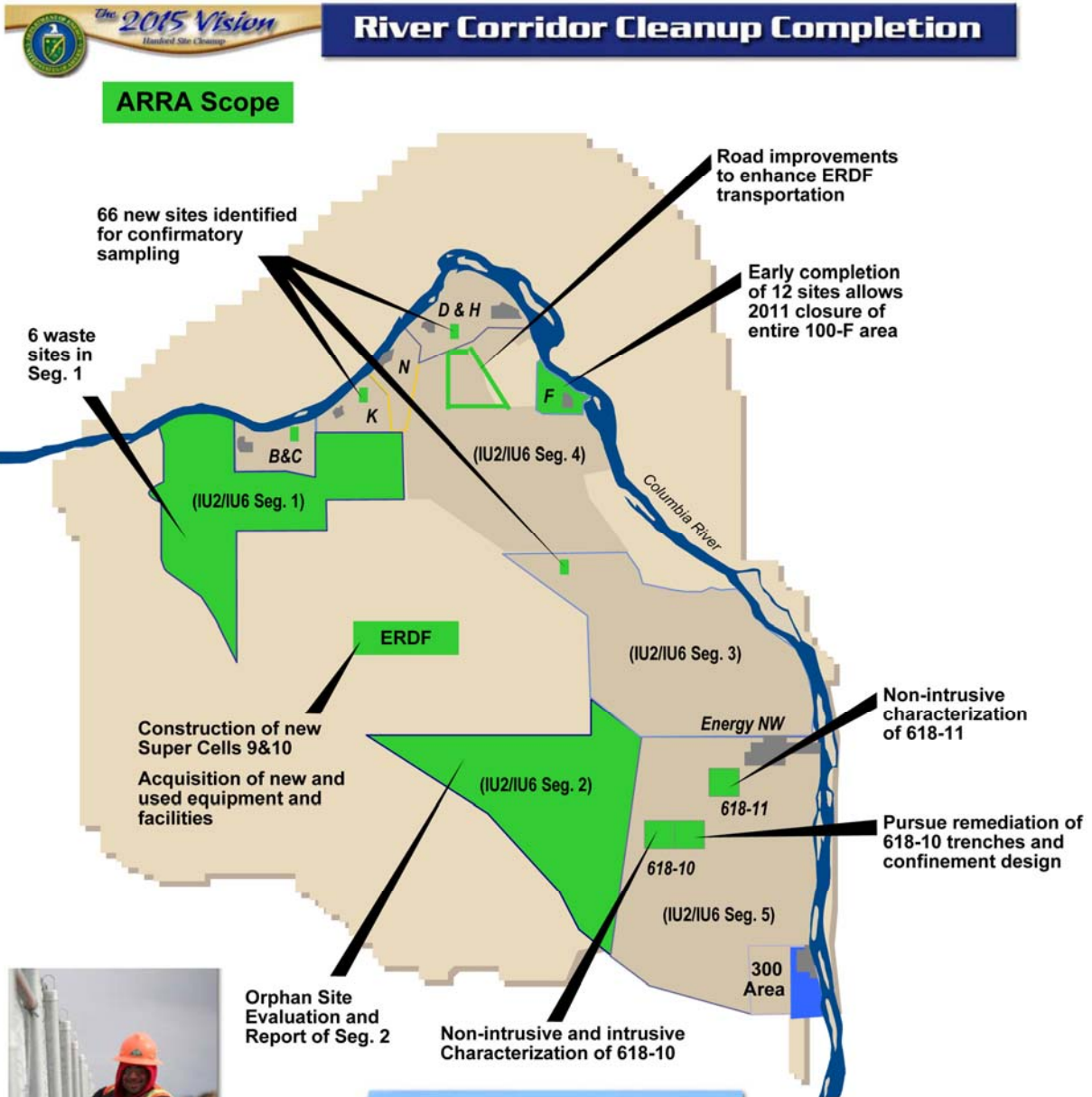
WCH is proposing to complete the early sampling process of 66 potential waste sites using ARRA funds. Confirmatory sampling is performed for sites that require additional information for determining if the site requires remediation.

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)



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

The River Corridor Closure Project weekly safety topic focused on wind hazards. A stiff wind, especially when coupled with chilly or frigid winter temperatures, increases the misery factor sometimes associated with working outdoors.

But the wind can be much more than an annoyance. It can actually have life-threatening consequences, ranging from an increased risk for hypothermia and frostbite to the possibility of being blown off a roof while working at heights.

Top 10 wind hazard safety tips:

1. Look up! Never loiter below an unstable wall, stack of material (such as lumber), or anything that could blow over onto you.
2. Don't stand between the edge of an elevated surface and an object being carried.
3. Wear fall protection and whatever specific safety gear is designed to protect workers in your field.
4. Anticipate strong winds when stepping out of a protected area into an open one (on a boat, for instance).
5. Make sure all structures you stand on or use (such as wooden steps, scaffolding, and ladders) can withstand strong winds.
6. Tie down any objects that can become airborne including sheets of plywood and plaster board.
7. Ensure elevated surfaces such as catwalks and platforms have railings and toe boards to protect workers from falling.
8. Examine structures covered with tarps to ensure they will remain standing in a storm. The wind can fill a tarp and cause it to pull down an unstable structure.
9. Ask for help carrying objects that could be caught and sent airborne by the wind, such as sheets of plywood.
10. Wear eye protection to prevent dust and debris from blowing into your eyes.

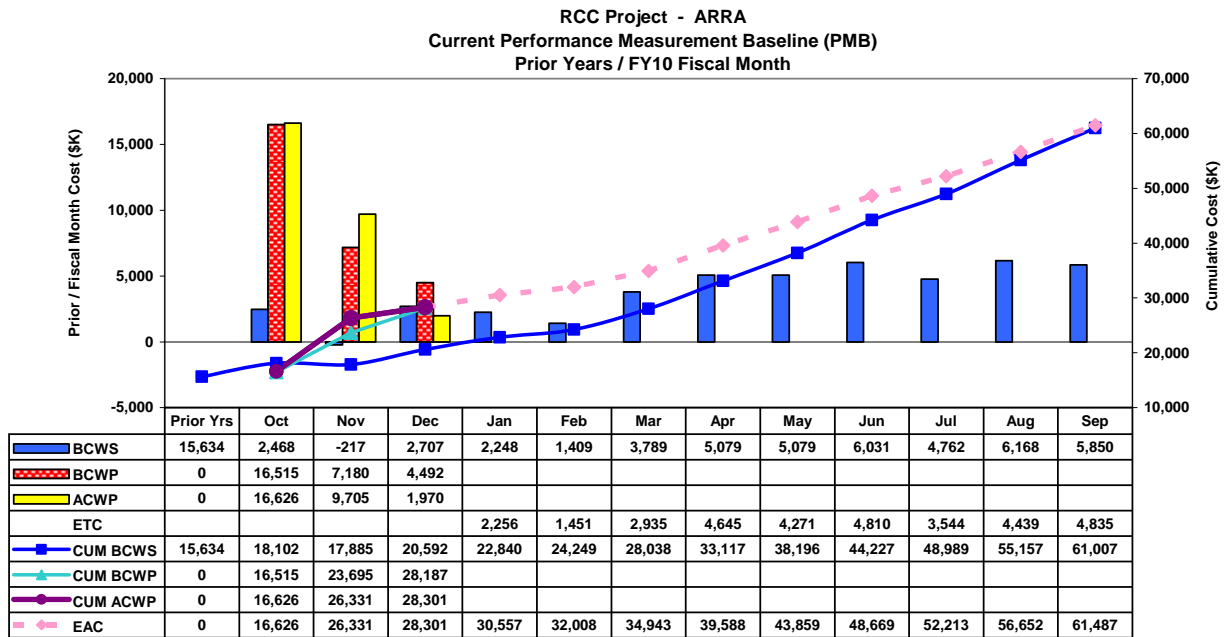
Supervisors also need to guard workers against frostbite and hypothermia, a potentially fatal drop in the body's internal temperature. The risk for hypothermia and frostbite increases under windy conditions.



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.



ARRA Actuals (includes PMB and Proposal 2)

Apportionment Number	Apportionment Title	PMB or Balance *	Dec 2009	Inception To Date	NTE Amount
RL-0041.R1.2	ERDF Cell Expansion	PMB	696	21,922	
		Balance	475	2,083	12,000
RL-0041.R2	River Corridor Soil & Groundwater (618-10)	PMB	1,274	6,380	
		Balance	50	183	5,000
Sub Total		PMB	1,970	28,301	
		Balance	526	2,265	17,000
Fee			204	1,840	
Total			2,700	32,407	

* PMB is the Phase 1 Performance Measurement Baseline. Balance is Proposal 2



ERDF

Super Cells 9 and 10 Construction

WCH has awarded a subcontract worth up to \$30 million to Trade Winds Inc. to add two new super cells at the Environmental Restoration Disposal Facility (ERDF). Trade Winds is a veteran-owned small business based in Richland, Washington.

Super cells are twice as big as existing cells. Trade Winds will excavate super cell 10 and construct the liner and leachate collection system for super cells 9 and 10.

Designed to be expanded as needed, the first two cells went online when the facility opened in 1996. Built two cells at a time, the facility has been expanded three times since it opened – in 1999, 2003, and 2008. Each cell measures 500 feet square by 70 feet deep.

The super cells measure 500 feet by 1,000 feet by 70 feet deep. ERDF's current capacity is 11 million tons of contaminated material. Nearly nine million tons have been disposed to date. With the addition of super cells 9 and 10, ERDF's capacity will be more than 16 million tons.

Trade Winds selected DelHur Industries, a company based in Port Angeles, Washington, to be its prime subcontractor. DelHur built the first, second, and fourth pair of cells at ERDF, and most recently excavated nearly 1.8 million cubic yards of soil for super cell 9.

Excavation of super cell 10 is scheduled to begin in mid-February.



ERDF (Continued)



This aerial photo of the Environmental Restoration Disposal Facility was taken January 14. Excavation of super cell 9 is complete.

ERDF (Continued)



This aerial photo of cells 5 and 6 and cells 7 and 8 at the Environmental Restoration Disposal Facility was taken January 14.

Facility and Equipment Upgrades

WCH awarded the subcontract for the design of a new refueling station. Sage Tec of Kennewick, Washington, will team with WHPacific on the project. WHPacific is based in Anchorage, Alaska, with a regional office in Richland, Washington.

WCH has requested additional information from companies that returned prequalification questionnaires for the expansion of the truck maintenance facility, and the construction of the new equipment and container maintenance facilities. A request for proposals (RFP) is scheduled to be sent out the first week in February.

ERDF designers and engineers continue to work with Pacific National Laboratory (PNNL) personnel on a new container tracking system. WCH is planning to adapt a system originally designed by PNNL for Army cargo containers to meet ERDF's needs. PNNL is developing a demonstration of the system. The system would allow for ERDF operations personnel to identify how many full and empty containers are available at the generator sites as well as ERDF.

ERDF (Continued)

Work continues on the wireless communication system at the new scale and reader board on the back road to the facility. Waste shipments will be entered real-time into the Waste Management Information System (WMIS). The scale is expected to be operational the first week in February.



The new scale is on the back road to the Environmental Restoration Disposal Facility. Work on the scale is almost complete. The road, which will accommodate traffic from other Hanford contractors, will be paved this spring.

The purchase of a new front-end loader and a new heavy duty forklift has been authorized.

Planning is underway to clear out 7 acres for a transportation yard at the facility. The lighted yard will be used for truck and pups.

ERDF (Continued)



Seven acres will be cleared for the transportation yard at the Environmental Restoration Disposal Facility. The truck maintenance facility, which will undergo expansion, is at the right.

Upcoming Activities

- Continue to develop RFP for design and construction of truck maintenance facility, container maintenance facility, and equipment maintenance facility.

Video

[**Proposed Maintenance Facility Upgrades
at the Environmental Restoration Disposal Facility**](#)

618-10 Burial Ground

618-10 Non-Intrusive Characterization/Trench Remediation Project

Last week, activities at 618-10 were temporarily suspended when a Radiological Control Technician (RCT) detected contamination on a survey probe that was inserted into a cone penetrometer. As a result, the task methodology was revisited with an in-process ALARA review conducted by the project team, along with a cold mock-up of the revised work instructions, a revised Job Hazard Analysis, and a senior management review of the revised work process.

The findings and recommendations were incorporated into a revision of procedures and the next step is a dry run in the burial ground. Upon successful completion of the dry run, characterization activities will resume.

The survey probe is used to determine if contamination is present prior to inserting instrumentation into the cone penetrometer. Cone penetrometers are narrow steel cylinders that were installed around buried, vertical pipes containing radioactive materials. The vertical pipe units (VPUs) are five bottomless 55-gallon drums welded together to form a pipe. From 1954 to 1963, highly radioactive waste generated from Hanford's 300 Area was dumped into the VPUs.

WCH is characterizing VPUs using a multi-detector probe (MDP), which is inserted into the cone penetrometers to measure radiation sources. The information gathered will help identify the type and location of radioactive materials within the VPUs. As the MDPs are withdrawn from the cone penetrometers, measurements are taken each foot with a 3-minute count time.

The 618-10 Burial Ground is the most complex burial grounds WCH has tackled to date. Information on the burial ground is limited, so work is proceeding extremely cautiously. Available records indicate the buried wastes included radiologically contaminated laboratory instruments, bottles, boxes, filters, aluminum cuttings, irradiated fuel element samples, metallurgical samples, electrical equipment lighting fixtures, barrels, laboratory equipment and hoods, and high-dose-rate wastes in shielded drums.

Upcoming Activities

- Conduct characterization dry-run using revised MDP field operations procedure
- Resume VPU radiological characterization activities
- Initiate trench radiological characterization activities
- Continue soil sampling project startup review activities
- Continue confinement design criteria development activities



Profile

Not long ago, Josh Green was a part of a U.S. Army combat patrol team, searching Iraq for roadside bombs and high-profile al-Qaida. So you can bet Green takes safety very seriously, and that makes him a perfect fit to work at the challenging and highly hazardous 618-10 Burial Ground.

Green was hired in July by Eberline Services Hanford, a Washington Closure subcontractor, as a Radiological Control Technician (RCT). After spending about six months working at D Area, he was assigned to 618-10 as nonintrusive radiological characterization activities began. Work at 618-10 is funded by the American Recovery and Reinvestment Act.

“This is by far the best job I’ve ever had,” said Green, a Richland native who worked at Perma-Fix Northwest before joining Washington Closure. “The people I’ve worked with at Eberline and Washington Closure really know their stuff, and everybody is committed to safety. We don’t take any chances.”



Josh Green was hired by Eberline Services Hanford in July as a Radiological Control Technician. In January, he was assigned to the 618-10 Burial Ground.

Profile (Continued)

Green is part of a team that is characterizing 94 vertical pipe units, or VPUs, which contain highly radioactive and chemical waste generated from the 300 Area during the 1950s and early 1960s.

To begin characterization, Green removes the cap of a cone penetrometer and checks it for contamination – this is a long, narrow steel tube that allows the instrumentation to be lowered in to the area surrounding the VPU – and takes a count. He then attaches smear pads to a survey probe that is lowered to the full depth of the tubing (about 22 feet). As the probe is retrieved, Green performs a direct survey, wipes the cable with a large area wipe and takes the counts. Once the probe reaches the surface, he performs a contamination check of the large area wipe.

If no contamination is found, a multi-detector probe (MDP), specifically designed for use at the 618-10 and 618-11 burial grounds, is deployed. Measurements are taken at 1-foot increments until the MDP reaches the surface. Green takes a swipe at each increment and performs a contamination check of the probe when it reaches the surface.

As a new technician, Green is also learning more complex tasks such as air sample analysis for personnel- and general-area air monitoring. Each member of his team must be cross-qualified to perform all the vital functions for ensuring workers are provided with the radiation and contamination protection needed to keep all employees in a safe environment.

“It might not sound too exciting, but it’s very important work,” Green said. “I’m helping determine the best way to clean up the burial ground while keeping everybody safe.”

Green joined the National Guard in 1999 and was activated in October 2003. He spent one year training at Fort Lewis, Washington; Fort Irwin, California; and Kuwait before being deployed to Iraq. For the next year, Green was part of the infantry combat patrol team. Green later served a second tour in Iraq and returned home in 2008.



100-F Area

The internal design is underway and the air monitoring plan is being developed for the remediation of the remaining F Area waste sites.

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 piping, 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 ACM debris.

IU 2 & 6 Segment 1

A global positioning environmental radiological survey (GPERS) was performed at the 600-342 site indicating no additional remediation necessary. Multiple radiologically contaminated coveralls were identified at the 600-342 site during the 2008 orphan site evaluation. The area was posted as a radiologically contaminated area and the coveralls were removed during the orphan evaluation. Based on the recent GPERS, the site is proceeding with closeout.

A change notice that authorizes the existing remedial action subcontractor based at 100-H Area to conduct field work at IU 2 & 6 segment 1 was completed.

A project startup review (PSR) process continues and is expected to be completed next week. The PSR process is used to ensure that the project is ready to be safely implemented. Early in the PSR process, the project develops a review checklist of items to be verified before project startup. Typical checklist items fall into the categories of site, buildings, equipment and materials, personnel, regulatory paperwork, and authorization basis and other safety documents. Upon completion of PSR checklist verification and documentation, a PSR review and approval meeting will be conducted.



Confirmatory Sampling

The team is still in the process of drafting sampling instructions for waste sites at the 100-D, 100-K, and 100-IU 2/6 areas. This includes 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.

Planning for 100-D Area pipeline waste sites also continues. These sites consist of many pipe segments that are frequently not related to one another. Therefore, pipeline sites are usually broken into smaller, more manageable subsites based on usage, location, and relationship to other waste sites. The team drafted sampling instructions for each subsite, as appropriate, and is meeting with DOE and Ecology to brief them ahead of document reviews.

Work also continues on developing procurement documentation. In February, WCH will issue an RFP for a company to provide excavation and sampling support for all 66 sites. 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 this spring.



General

Mentoring/Training

No significant events this week.

Media, Visits, Press Releases

- A report on the how stimulus money is being used at the Hanford Site aired on CNN. Reporter Patrick Oppmann visited several Hanford sites including the Environmental Restoration Disposal Facility. To view the CNN report link to <http://www.cnn.com/video/#/video/us/2010/01/27/oppmann.nuclear.stimulus.cnn?iref=allsearch>

Contracting Actions

- Awarded Construction Quality Assurance contract for super cells 9 and 10.
- Issued ERDF super cell 9 and 10 construction subcontract.
- Received bid for 618-10 Intrusive Characterization.

