



River Corridor Closure Project

Recovery Act Weekly Report

For the week ending March 21, 2010

Contract DE-AC06-05RL14655

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.

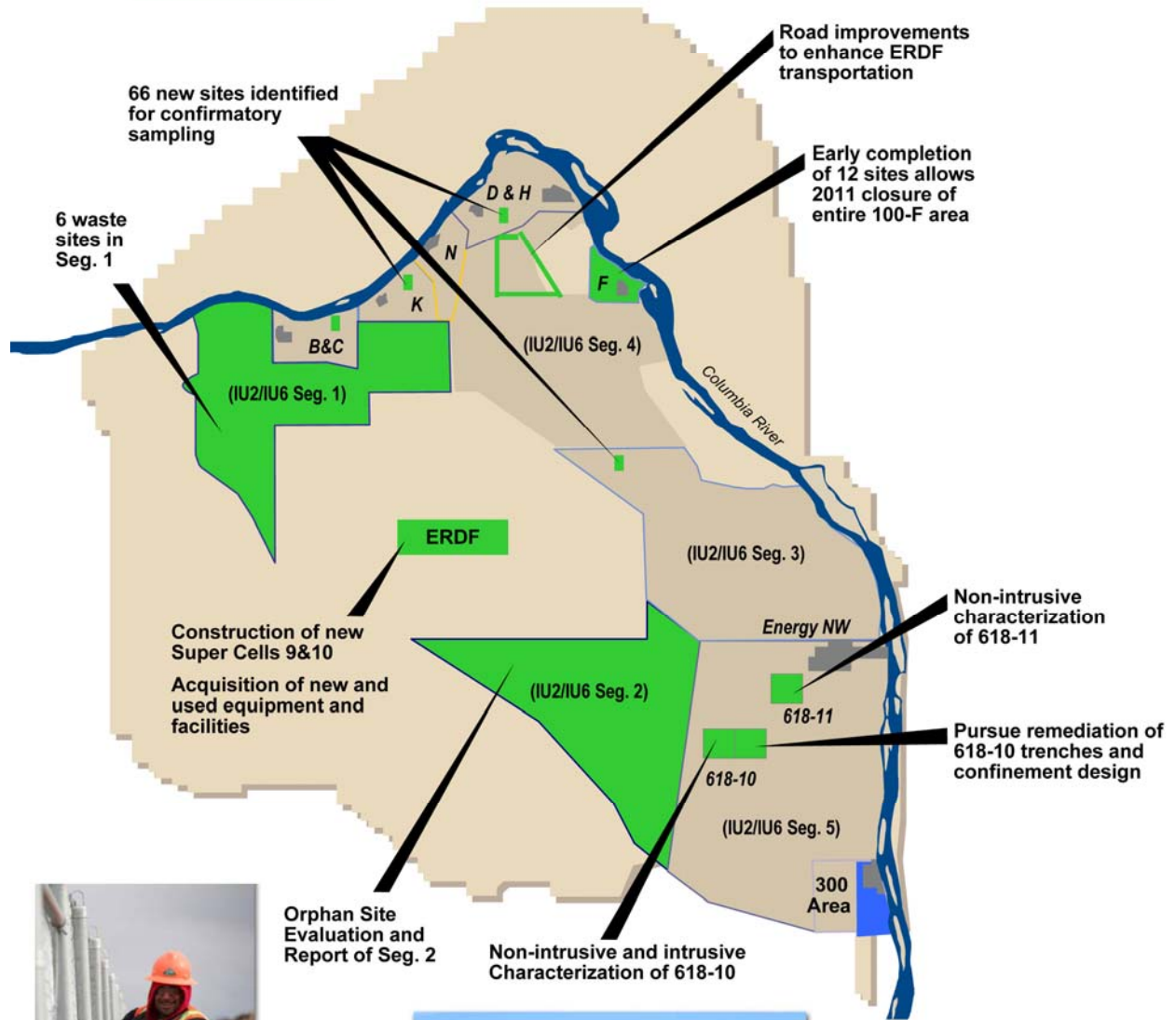


Overview (Continued)



River Corridor Cleanup Completion

ARRA Scope



Safety

Safety Accomplishments

As of February 24, 2010, WCH and its subcontractors have worked 152,000 hours of ARRA scope with no safety incidents.

Hazard Reductions

The River Corridor Closure Project's weekly safety roundup focused on bee and insect stings. Recently, the Hanford Site has had an increased number of bee and insect stings. To help avoid this type of interaction, the following tips are provided:

- Avoid scents and colors that attract bees.
- Stay away from blooming flowers and ripe fruit.
- Avoid eating sweet foods outside.
- Don't use perfume, cologne, scented soap, or other strong-smelling personal products.
- Wear light-colored clothes and avoid bright patterns.

Minimize your exposure:

- Wear a long-sleeved shirt, gloves, and a hat.
- When driving, keep your windows rolled up. Pull off the road if you need to remove an insect from your vehicle.
- Use insect repellent.
- Use insect netting (very fine netting that keeps insects from entering while still letting air through). Netting is mostly used for tents, but it can be found in an alternative form inside the ventilation vents of pants and other clothing.
- Bees will often attack when trapped or agitated. Close any opening in your clothes that could trap bees between your skin and your clothing.

Know what to do when you're exposed to bees:

- If bees are flying around you, stay calm. Swatting at an insect may cause it to sting.
- If a bee stings you, quickly leave the area. When it stings, a bee releases a chemical that attracts other bees.

If you get stung:

- Have someone stay with the victim to be sure they do not experience an allergic reaction.
- Wash the site with soap and water.
- Remove the stinger using a 4-inch-by-4-inch gauze wiping over the area or by scraping a fingernail or credit card over the area.



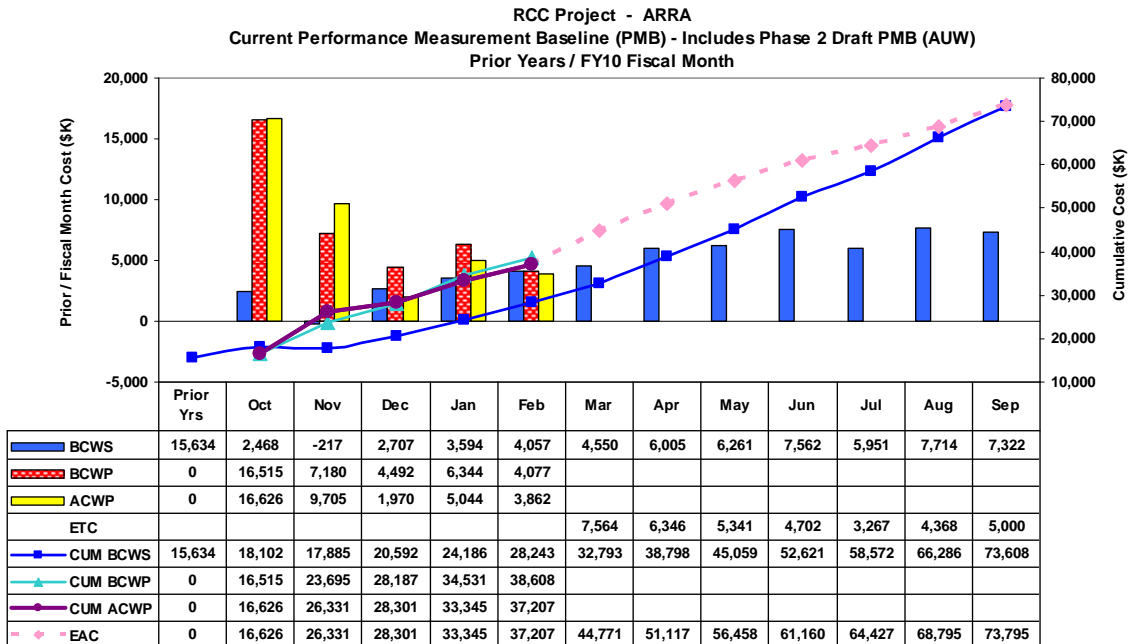
Safety (Continued)

- Never use tweezers or squeeze the stinger. This causes more venom to inject in the skin.
- Apply ice to reduce pain and swelling.
- Do not scratch the stung area. This will cause the site to swell and increase itching as well as the chance of infection.

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 *	Feb 2010	Inception To Date	NTE Amount
RL-0041.R1.2	ERDF Cell Expansion	PMB	2,190	25,205	
		Balance	482	2,438	12,000
RL-0041.R2	River Corridor Soil & Groundwater (618-10)	PMB	926	8,050	
		Balance	265	1,515	5,000
Sub Total		PMB	3,116	33,255	
		Balance	747	3,953	17,000
Fee			204	2,249	
Total			4,067	39,457	

* 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 preparatory work on super cell 10. An estimated 1.675 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. To date, 543,706 cubic yards of soil have been removed.



Work continues with the preparatory work of super cell 10 at the Environmental Restoration Disposal Facility.

DelHur began to set up the pug mill at the facility. The pug mill is used to make the compacted admix (clay mixture) layer of the liner and leachate collection system for super cells 9 and 10. The liner system will consist of the admix layer, two 1-foot thick gravel drainage layers, and two high-density polyethylene (HDPE) liners with associated geotextile and geomembrane layers.

ERDF (Continued)

The collection system collects and removes liquid, or leachate, as it drains through the waste materials. Liquids may not be disposed in the facility; however, water from dust suppression and rain and snow will eventually seep through the buried waste and make its way to the leachate collection system.



DelHur Industries prepares the pug mill site at the Environmental Restoration Disposal Facility.

Facility and Equipment Upgrades

WCH subcontractor Inland Asphalt Co. of Richland, Washington, finished paving the back road to the disposal facility. Striping and installing signage is scheduled for next week. The road will help accommodate the traffic caused by an increased amount of waste material generated by WCH and other Hanford contractors. The new scale on the road was completed last month. The wireless communication system at the new scale and reader board will allow waste shipments to be entered real-time into the Waste Management Information System (WMIS).

ERDF (Continued)



Inland Asphalt Company completed paving the back road to the Environmental Restoration Disposal Facility. The new scale is operational.

Hanford subcontractor Inland Asphalt Co. paved several Hanford Site roads used to transport waste to ERDF for disposal. Two inches of asphalt was laid over a three-quarter-mile stretch of broken-up asphalt on Route 1. Several smaller problem areas on Route 1 and Federal Avenue also were paved.

ERDF (Continued)



Workers from Inland Asphalt Company pave a problem area on Route 1 at the Hanford Site.

WCH is reviewing proposals for the design and expansion of the truck maintenance facility, and the design and build of new equipment and container maintenance facilities.

Upgrades to the transportation truck maintenance facility includes two additional truck bays, a large concrete pad, an exterior awning that will cover two smaller concrete pads, and a conference room. Upgrades to the container maintenance facility include a large container repair line, a maintenance shop, a weld area, a lunch area, and an exterior awning over a concrete pad. Upgrades to the equipment maintenance facility include two service lines, an operational storage facility, a large concrete pad, and an exterior awning over a smaller concrete pad.

Sage Tec continues to work on the design of the new fueling station. The Richland, Washington-based company is scheduled to submit its 90% design March 22.

WCH is reviewing the 30% design by Columbia Engineers and Constructors for ERDF's new septic system. Columbia Engineers and Constructors is a small Richland-based company.

ERDF (Continued)

TradeWind and DelHur continue work to expand and upgrade the disposal facility's transportation yard. DelHur has spread gravel and next will lay 3 inches of top courses. The transportation yard will be used for transportation equipment including truck-and-pups.

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 would allow for operations personnel to identify how many full and empty containers are available at ERDF and the generator sites. WCH also issued an expression of interest to other companies for the container tracking system.

Indian Eyes, a Pasco, Washington-based company, is scheduled to deliver a front-end loader to ERDF on April 5. WCH is reviewing proposals for a heavy-duty forklift.

Upcoming Activities

- Continue excavation of super cell 10.
- Continue set up of pug mill for construction of liner and leachate collection system.
- Review proposals for new maintenance facilities.

Video

[*Paving Work Continues at Route 1 and Federal Avenue*](#)



618-10 Burial Ground

618-10 Non-Intrusive Characterization/Trench Remediation Project

Nonintrusive characterization activities continue in the trench area at the 618-10 Burial Ground. Data has been collected for 36 cone penetrometers in the trench area and 148 in the vertical pipe unit (VPU) area.

The 618-10 Burial Ground consists of 23 trenches and 94 VPUs, which were constructed by welding five bottomless drums together and buried vertically about 10 feet apart. The site operated from 1954 to 1963 and received low- and high-level radioactive waste from 300 Area laboratories and fuel development facilities.

WCH is obtaining 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 is inserted into the cone penetrometers to measure radiation sources.

Progress continues in planning for intrusive characterization. Intrusive characterization will provide information on the actual form, level of contamination, and the condition of various waste types.

The Project Startup Review (PSR) was completed and heavy equipment is beginning to be delivered to the site. The PSR is conducted to make sure all required training, safety requirements, and documentation necessary to conduct the planned activities are in place. The PSR also is to ensure compliance with applicable regulatory, contract, and environmental requirements.

An Emergency Preparedness Drill was conducted at the 618-10 Burial Ground. The purpose of the operational drill is to ensure that WCH and subcontractor personnel working at the burial ground are prepared to respond safely, promptly, and efficiently during an emergency.

Upcoming Activities

- Continue trench radiological characterization activities.
- Continue soil sampling project startup review activities.
- Continue work on the procurement packages for trench remediation.



Profile

In the spring of 1978, Benson Krull was feeling adventurous. So he and one of his buddies loaded up a 1975 Ford Grand Torino and left their hometown of Kansas City, Missouri, and headed down to Mexico. Then they made their way back north through Las Vegas, the Grand Canyon, California, and the Pacific Northwest. Eight weeks later, they reached their destination of Anchorage, Alaska.

Krull spent about a year in Anchorage taking his adventure one step further. He landed a job as an expediter in the Arctic Eskimo villages.

“You could say I got into the construction business by accident,” said Krull, who holds a degree in finance and insurance from Northwest Missouri State University.

More than 30 years later, Krull is still in the construction business. He is now the manager for construction and remediation projects for North Wind Inc., a Washington Closure subcontractor performing nonintrusive characterization activities at the 618-10 Burial Ground. Work at the burial ground is funded by the American Recovery and Reinvestment Act.



Benson Krull is the Project Manager for Washington Closure Hanford subcontractor North Wind Inc. at the 618-10 Burial Ground.

Profile (Continued)

Krull said his role as a project manager is to make sure North Wind meets or exceeds project objectives and scope. His responsibilities include managing costs and schedules, maintaining project quality, and most importantly ensuring client satisfaction.

The 618-10 Burial Ground is the most hazardous burial ground Washington Closure has confronted. From 1954 to 1963, the site received low- and high-activity radioactive waste from 300 Area laboratories and fuel development facilities. Waste was dumped into 23 trenches and 94 vertical pipe units, or VPUs, which were constructed by welding five bottomless drums together and buried upright.

A detailed search of Hanford records yielded valuable information about the burial ground, but specific documentation of waste disposal activities was limited. Because more information on the burial grounds' contents is needed for safe and efficient cleanup, a new method for characterization was developed. Nonintrusive characterization is being used to provide data and information for intrusive characterization and remediation strategies.

“Nonintrusive” means that the burial ground contents will not be opened or exposed. Nonintrusive characterization activities include geophysical delineation, radiological characterization, and soil sampling. North Wind is obtaining 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, designed by North Wind, contains two gamma-ray detectors used as spectrometers, two neutron detectors, and a gross gamma detector. The MDP is inserted into cone penetrometers to measure radiation sources. Four cone penetrometers were installed around each VPU.

“The exciting part of the project is how we are using innovative technology like the MDP to help figure out what we’re dealing with at the burial ground,” Krull said. “This technology allows us to do that while keeping everybody safe.”

Krull spent eight years working in the Eskimo villages, and two years building man camps and administrative facilities on Endicott Island, an artificial island built in the Beaufort Sea used for oil drilling. He also spent about eight years working for SCI (Stephenson Construction International) Engineers and Constructors Inc., of Calgary, Alberta. His projects included the Seattle Metro Bus Tunnel and the The Cassiar Connector, a highway traffic tunnel on the Trans-Canada Highway in Vancouver, British Columbia.

Krull moved to the Tri-Cities in 1996, when he took a position with RCI Environmental at Hanford working in transportation. He joined North Wind in 2007.

“I really enjoy working at North Wind,” Krull said. “The company is made up of intelligent, innovative, energetic, down-to earth people. The people at Washington Closure are the same way. We’ve got a great team out here at 618-10.”



100-F Area

Final preparations are being made on the request for proposal (RFP) for remediation of the 13 remaining 100-F Area waste sites. The RFP is expected to be issued in late March. Work also continues to obtain an excavation permit for the sites.

Remediation will involve the excavation of radioactive and hazardous soil and debris and the packaging of this material into shipping containers. Miscellaneous waste such as drums, bottles, tanks, or vessels may require repackaging and special handling prior to shipping. Oversized debris may require size reduction to facilitate waste loading.

IU 2 & 6 Segment 1

WCH continues with the closeout process for three of the six waste sites discovered at IU 2 & 6 Segment 1 during orphan site evaluations. Remediation was completed last month at sites 600-343, 600-345, and 600-346. Remediation also was completed for portions of site 600-341.

Earlier this year, a global positioning environmental radiological survey indicated that site 600-342 did not require additional remediation. Remediation work of site 600-344 and remaining areas of 600-341 will proceed after a historical and cultural review is completed.

Historical research generally focuses on identifying specific items or features that are typically associated with a waste site. The most common features associated with a waste site in reactor areas include drains, cribs, drywells/french drains, burial grounds, pipelines, above- and below ground storage tanks, septic systems, drain fields, burn pits, trenches, ditches, pits, spills, sumps, vaults, ash pits, disposal areas, pumps, and buildings and facilities that contain chemicals and radiological contaminants. However, the IU 2 & 6 Segment 1 sites are unique in the fact that they were not reactor/operational areas and were used primarily for housing and support areas. Therefore, the historical review focused on features associated with those types of areas.

Information obtained and used in the historical review includes maps, construction and operations drawings, technical and operations documents, construction and operations photographs, aerial photographs, geophysical survey results, and personal interviews.

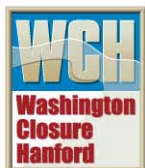


Confirmatory Sampling

The team continues to develop sampling instructions for waste sites at the 100-D, 100-K, and 100-IU 2 & 6 Areas. Its 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. To date, approximately 25% of the confirmatory work instructions have been issued, which includes DOE and regulator approval.

The team is also developing remove, treat, and dispose (RTD) memos for 22 sites that have been determined to require waste site remediation. The memos provide a basis for developing the design for waste site cleanup. By March 30, 2010, RTD memos addressing nine sites will be issued.

WCH will issue an RFP for a company to support implementation of the sampling work instructions (e.g., excavation and sampling) in late March. 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 remediation to meet regulatory standards.



General

Mentoring/Training

No significant mentoring/training events this week.

Media, Visits, Press Releases

No significant media events this week.

Contracting Actions

- Awarded purchase of Cat 988 Loader for ERDF to Indian Eyes.
- Requested bids for two weather enclosures for 618-10 project.

