Issue 63

River Corridor Closure Project

Recovery Act Weekly Report

For the week ending December 3, 2010

Contract DE-AC06-05RL14655

Protecting the Columbia River

E0908027

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.

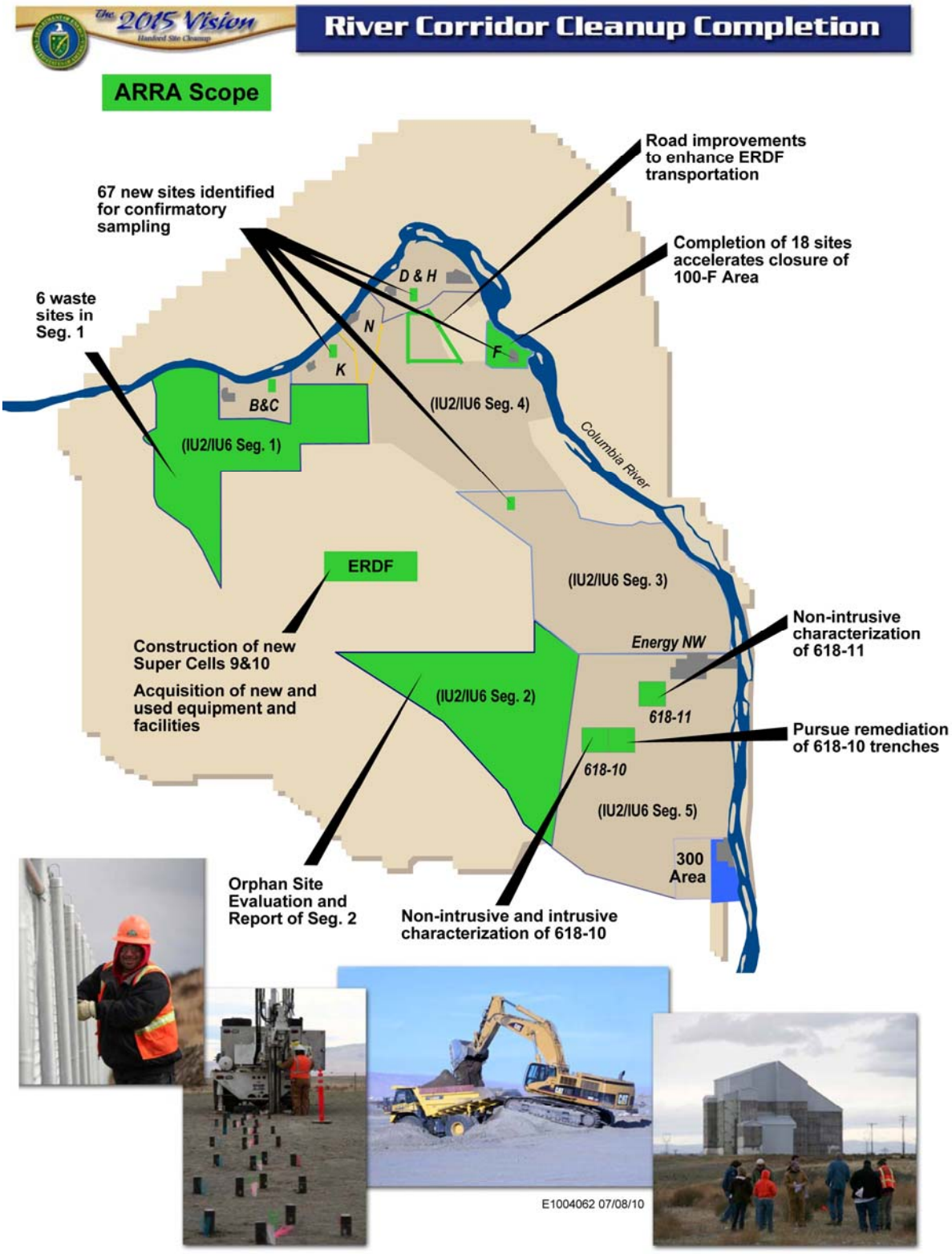
E. Confirmatory Sampling of other new sites

   WCH is proposing to complete the early sampling process of 67 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 November 21, 2010, WCH and its subcontractors have worked 320,239 hours of ARRA scope with no safety incidents.

- The Field Remediation team working on the 100-F Area project successfully completed its 90-day safety campaign by mobilizing and beginning field work without any first-aid or recordable accidents. The project has implemented a strong safety culture. Each employee has been trained to value safe work practices, maintain a questioning attitude, and embrace all the principles that encompass U.S. Department of Energy's Integrated Environmental, Safety and Health Management System.

Hazard Reductions

Washington Closure Hanford's Safety, Health and Quality organization provided company managers with a "Post-Thanksgiving Safety Refocus" to share with employees during staff meetings. The Refocus highlighted the following areas:

Safety

- Perform safety checks and refamiliarize yourself with your surroundings after a long weekend.
- Winterization Vehicle Checklist and otherwise.
- Make sure you have proper personal protection equipment.

Quality

- Make sure to review work packages.
- If we see a concern or see an on the job hazard report concerns to a supervisor.
- Do a thorough job and don't take short cuts.

Schedule

- Being on schedule is important…And being safe is the priority.
- Everyone shares the responsibility to stop work when safety is in doubt.
- Be aware of other work packages on your site and how they may affect the job you are performing.

Cost

- Cost doesn't drive safety. We want you to be safe no matter what the cost.
- Do it right the first time. Short cuts cause mistakes, which cause injuries and money.
- Make sure your personal protection equipment is in optimal working condition.

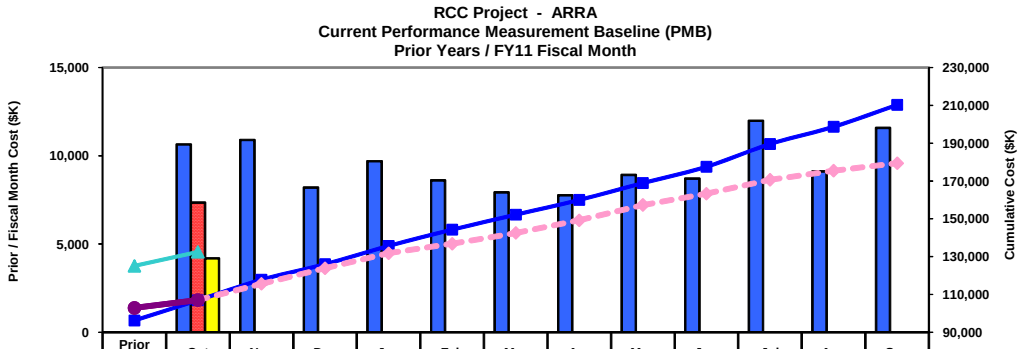
Recap

- A safe and healthy workforce is our top priority.
- Safety protects people.
- Quality is a core value.
- Quality protects jobs.
- Schedule and Cost are goals, but not drivers for safety.

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; Phase 2 Scope	$253.6	$123.8
174	2/22/10	ERDF Cell Expansion & Upgrades; 618-10 NIC; Phase 2 Scope	$248.2	$123.8
182	3/25/10	ERDF Cell Expansion & Upgrades; 618-10 NIC; Phase 2 Scope	$248.2	$155.8
185	4/19/10	Phase 1 and Phase 2 Scope	$248.2	$178.0
192	4/27/10	Phase 1 and Phase 2 Scope	$253.6	$178.0
205	5/26/10	Reallocate Funds for Equipment and GPPs	$253.6	$178.0
210	6/23/10	Funding deobligation	$229.3	$178.0
217	8/4/10	Funding re-obligation	$233.6	$178.0

River Corridor Closure Project - ARRA



	Prior Yrs	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
BCWS	96,215	10,643	10,897	8,201	9,698	8,609	7,929	7,768	8,924	8,715	11,985	9,120	11,582
BCWP	125,109	7,350											
ACWP	102,862	4,189											
ETC			8,563	8,259	7,894	5,064	5,697	6,733	8,030	6,004	7,343	4,817	3,985
CUM BCWS	96,215	106,858	117,755	125,956	135,654	144,263	152,192	159,960	168,884	177,599	189,584	198,704	210,286
CUM BCWP	125,109	132,459											
CUM ACWP	102,862	107,051											
EAC	102,862	107,051	115,614	123,873	131,767	136,831	142,528	149,261	157,291	163,295	170,638	175,455	179,440

ARRA Proposals 1, 2 and 3 Actuals ($K)

Apportionment Number	Apportionment Title		October 2010	Inception To Date	Cost Authority
RL-0041.R1.2	ERDF Cell Expansion	PMB	2,964	77,567	139,072
RL-0041.R2	River Corridor Soil & Groundwater (618-10)	PMB	1,225	29,484	38,907
Sub Total		PMB	4,189	107,051	177,979
Fee			495	11,128	
Total			4,684	118,179	

*** PMB = Performance Measurement Baseline.**

ERDF

Super Cells 9 and 10 Construction
WCH and subcontractor TradeWind Services completed installation of the liner system for super cells 9 and 10. The liner system consists of a 3-foot layer of admix, two layers of high-density polyethylene (HDPE), a 1-foot layer of gravel with a 12-inch perforated leachate collection pipe, a geocomposite layer, and two geotextile layers. An operations layer (3 feet of soil) also was placed to cover the liner system.

Washington Closure subcontractor TradeWind Services completed placement of the operations layers in super cells 9 and 10 at the Environmental Restoration Disposal Facility. (Photo 1)

The super cells' acceptance test with the U.S. Environmental Protection Agency (EPA) and the leak detection test for the leachate transmission line are scheduled for mid-December. Electrical work continues in the crest pad buildings associated with the super cells crest pad 10. Instrument calibration remains in 9 and 10.

WCH continues with construction of two new leachate storage tanks (Nos. 3 and 4) that will replace the facility's two original storage tanks (Nos. 1 and 2). The secondary liner has been installed in both new storage tanks, work will now focus on the primary liners. Removal of tank No. 1 was completed in September, and tank No. 2 will be removed when the replacement

ERDF (Continued)

tanks are in service. Each of the original tanks measured 80 feet in diameter and had a capacity of 275,000 gallons. Each replacement tank will measure 100 feet in diameter with a 425,000-gallon capacity.

Facility and Equipment Upgrades
WCH subcontractor Fowler General Construction continued to make significant progress with construction of ERDF's new maintenance facilities. The project team completed construction of the steel skeleton of the container maintenance facility and is installing the siding and roofing. The project team also continues to install the underground utilities for the equipment maintenance facility/operations center.

The container maintenance facility will include a large container repair line, a maintenance shop, and a weld area. The equipment maintenance facility will include two service lines, an operational storage facility, a large concrete pad, and an exterior awning over a smaller concrete pad. The new operations center will help alleviate severe overcrowding of personnel and also accommodate new employees hired to handle the increasing waste volumes.

ELRFowler, a joint venture between local companies ELR Consulting and Fowler General Construction, also will construct an upgraded transportation truck maintenance facility. The facility will include two additional truck bays, a large concrete pad, an exterior awning that will cover two smaller concrete pads, and a conference room.

ERDF (Continued)

Washington Closure Hanford subcontractor Fowler General Construction erected the container maintenance facility's steel skeleton at the Environmental Restoration Disposal Facility. (Photo 2)

ERDF (Continued)

Fowler General Construction workers install the sidewalls at ERDF's container maintenance facility. (Photo 3)

Pacific Northwest National Laboratory (PNNL) continues to develop the hardware and software for a new waste container tracking system for ERDF. The system will accurately track waste shipments and equipment, and generate real-time reports.

ERDF (Continued)

WCH subcontractor DelHur Industries completed assembly of ERDF's new batch plant and is installing the electrical. The batch plant was purchased from the Erie Strayer Company in Erie, Pennsylvania. It will produce "flow fill" concrete used to mix with debris, ensuring no void space during disposal operations. In support of the batch plant, WCH purchased two concrete mixer trucks and a pump truck from Peters and Keatts Equipment Inc. Peters and Keatts is based in Lewiston, Idaho.

Assembly of the Environmental Restoration Disposal Facility's onsite batch plant is complete. The batch plant will be used to produce "flow fill." (Photo 4)

ELRFowler began trench work for the installation of septic transmission lines. ERDF's new septic system was designed by Columbia Engineers and Constructors, a small business based in Richland, Washington.

WCH relocated construction trailers to make room for the container transfer area (CTA) expansion. The existing CTA will be expanded 600 feet, providing additional storage for about 300 waste containers. The wireless system also was installed and is operational.

ERDF (Continued)

WCH completed review of Vista Engineering's final design of weather enclosures for crest pad buildings 1 and 2 and DelHur Industries has submitted a proposal for construction. Vista Engineering is a local company and subcontractor of DelHur.

Upcoming Activities

- Continue construction of leachate storage tanks Nos. 3 and 4.
- Continue construction of container maintenance facility.
- Continue construction of equipment/operations center.
- Begin demolition activities for renovation of transportation maintenance facility.

618-10 Burial Ground

Trench Remediation Project
WCH and subcontractor White Shield/Apollo continued to install water, electricity, roads, office trailers, and a waste container transfer area for remediation at the 618-10 Burial Ground. The infrastructure work is scheduled to be completed in February, with full-scale remediation of the burial ground trenches scheduled to begin in March.

Washington Closure Hanford subcontractor White Shield/Apollo constructs roads at the 618-10 Burial Ground. The infrastructure work is scheduled to be completed in February. (Photo 5)

Intrusive characterization field operations at the burial ground were completed in early September. Test pits were dug through a subset of disposal trenches and unearthing a limited number of drums to verify the condition and types of wastes that were disposed.

Several drums containing radioactive waste, a shipping cask, and miscellaneous waste were discovered during the intrusive trench characterization activities. The drums contained depleted uranium and uranium oxide. In addition, “concreted” 55-gallon drums that contained liquid radioactive waste were also discovered.

618-10 Burial Ground (Continued)

Based on the records research and the finds during intrusive characterization, the number of drums the burial ground may contain is estimated to be as many as 4,000. That includes an estimated 800 concreted drums that were used to dispose of highly radioactive waste nested inside a pipe surrounded by concrete. The pipe contains the waste and the concrete provides radiation shielding for its contents. Workers also found a cask with unknown contents, bollards, bottles, metal pieces, and other miscellaneous debris.

Nonintrusive characterization field activities were completed in May. The scope of activities carried out as part of nonintrusive characterization included geophysical delineation, in situ characterization using a multi-detector probe, and soil sampling from below a selection of 10 VPUs. During in situ characterization, measurements were collected for 100 cone penetrometers in the trench area and 375 cone penetrometers in the VPU area.

WCH is using the information obtained during intrusive characterization and nonintrusive characterization to help determine the safest and most efficient way to clean up the burial ground including how to safely dispose of the high-dose-rate waste in the concreted drums.

The 618-10 Burial Ground operated from 1954 to 1963, receiving low- and high-level radioactive waste from 300 Area laboratories and fuel development facilities. Low-activity wastes were primarily disposed in 23 trenches, while the moderate- and high-activity wastes were disposed in 94 VPUs. The VPUs were constructed by welding five bottomless drums together and buried vertically about 10 feet apart.

Upcoming Activities

- Continue procurement process for various subcontracts.
- Continue with construction of site upgrades.

Video

Click here to view a video of infrastructure work at the 618-10 Burial Ground.

100-F Area

WCH and subcontractor Ojeda Business Ventures continued remediation activities at 19 waste sites in 100-F Area. Excavation and loadout continue at 100-F-47 (electrical substation foundation) and 100-F-48 (coal pit debris), and waste is being stockpiled at 100-F-44:9 while the waste profile is completed.

Workers brush off snow from waste containers at 100-F Area. Excavation and loadout activities continued at sites 100-F-47 and 100-F-48. (Photo 6)

In June, WCH awarded Ojeda a subcontract worth $3.8 million to remediate the 100-F Area waste sites. Ojeda is a small disadvantaged business based in Richland, Washington, that specializes in construction, renovation, and construction management of federal government projects. Remediation of the wastes sites is scheduled to be completed by spring 2011.

F Reactor operated from 1945 to 1965 as one of Hanford's nine surplus plutonium production reactors for the nation's nuclear weapons program. The reactor was cocooned in 2003. During reactor construction and operations, waste was disposed in unlined pits and trenches throughout the site.

100-F Area (Continued)

The 100-F Area also was the home of the experimental animal farm (EAF), which from 1945 to 1976 operated adjacent to the reactor site. The EAF used animals for studying the potential effects of ionizing radiation exposure to humans in the occupational setting. Reactor and EAF sites in the 100-F Area contributed to the discharge of contaminated cooling water, other liquids, and solid wastes.

WCH completed cleanup of 53 waste sites at F Area in 2008, loading out more than 408,000 tons of waste. However, during the course of cleanup, 19 additional waste sites were discovered. The 19 sites that require remediation are:

- 100-F-26:4 (process sewer pipeline section)
- 100-F-26:7 (sodium dichromate and sodium silicate pipelines)
- 100-F-44:8 (fuel oil pipelines)
- 100-F-44:9 (process sewer pipeline)
- 100-F-45 (buried riverbank effluent pipeline)
- 100-F-47 (electrical substation foundation)
- 100-F-48 (coal-pit debris)
- 100-F-49 (maintenance garage lube pit foundation, pipelines, drywells)
- 100-F-51 (fish laboratory footprint, pipelines)
- 100-F-55 (contaminated ash layer)
- 100-F-56 (scattered surface debris, stains)
- 100-F-57 (buried pipeline cradle debris)
- 100-F-58 (asbestos-containing surface debris)
- 100-F-60 (pipeline)
- 100-F-61 (stained soil site)
- 100-F-8 (French drains)
- 100-F-62 (animal farm septic lines)
- 100-F-63 (animal farm radioactive effluent lines)
- 600-351 (stained oil areas).

Upcoming Activities

- Continue excavation and loadout from 100-F-48.
- Continue excavation and loadout from 100-F-47.
- Continue stockpiling waste at 100-F-26:4 until waste profile is completed.
- Begin overburden removal at 100-F-61.

IU 2 & 6 Segment 1

Waste Site Reclassification Forms for all of the IU 2 & 6 Segment 1 sites have been signed by the U.S. Department of Energy (DOE), Richland Operations Office and EPA. WCH also completed revegetation of the sites disturbed by cleanup activities. All areas are replanted with native vegetation.

Remediation of the IU 2 & 6 Segment 1 waste sites discovered during the 2008 orphan site evaluation was completed in April. The remediation sites are as follows:

- 600-341 (four areas that contained dry cell battery remnants and/or battery debris)
- 600-343 (residual ash from burned material and dumped asphalt in excavation trench)
- 600-344 (stained area)
- 600-345 (stained area with oil filters)
- 600-346 (four small fly-ash dump areas with metal debris).

Earlier this year a global positioning environmental radiological survey indicated that an additional site, 600-342, did not require additional remediation.

IU 2 & 6 Segment 1 encompasses about 23 square miles of the northwestern portion of the Hanford Site, away from the nine surplus plutonium production reactor areas. Segment 1 sites were unique because they were primarily used for housing and support areas.

IU 2 & 6 Segment 1 (Continued)

Workers revegetate Segment 1 site 600-341, which contained dry cell battery remnants and battery debris. (Photo 7)

IU 2 & 6 Segment 1 (Continued)

Workers revegetate Segment 1 site 600-346, one of four small fly-ash dump areas with metal debris. (Photo 8)

Confirmatory Sampling

WCH completed confirmatory sampling at 40 of the 41 sites. Sampling was performed by WCH subcontractor TerranearPMC (TPMC) in accordance with the regulator approved work instructions that were completed earlier this year. TPMC is a small disadvantaged business with an office in Richland, Washington.

Remove, treat, and dispose reports and closeout documentation are being prepared for the sites that were sampled at 100-D, 100-K, and 100-F Areas. The documents will be submitted to DOE and the regulatory agencies for review and approval. Sites where the sample results show contamination below the clean-up standards are being recommended for closeout with no further action.

General

Media, Visits, Press Releases

- Dave Brockman, manager for DOE's Office of River Protection, escorted a group of math and science instructors on a tour of the Hanford Site. The group visited ERDF, where its members were briefed on the disposal facility's operations and procedures by ERDF's ARRA Project Manager.

Contracting Actions

- Work is complete for design/build of left-hand turn lane onto North Landfill Road.