



River Corridor Closure Project

Recovery Act Weekly Report

For the week ending January 21, 2011

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

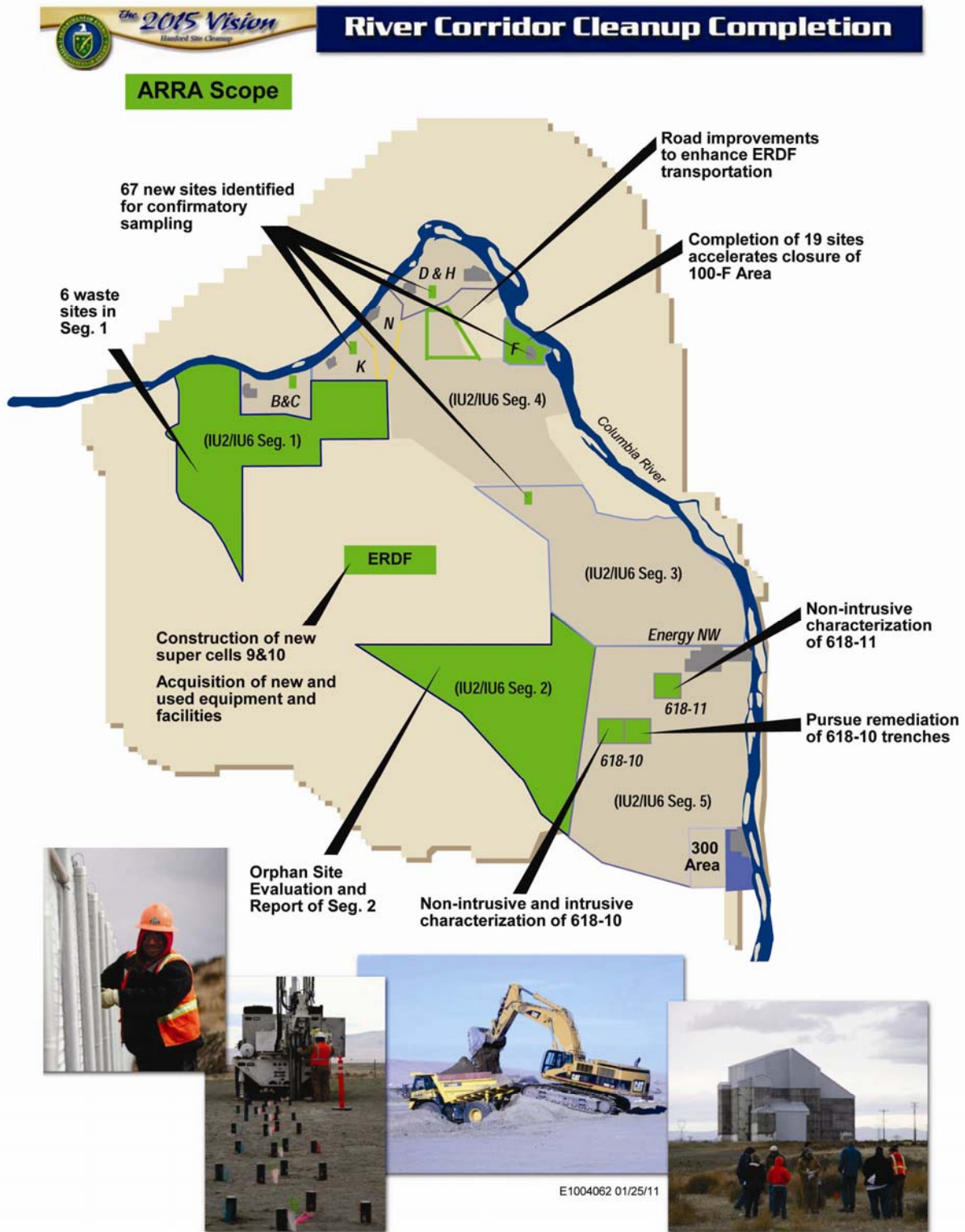
WCH is proposing to complete the early sampling process of 67 potential waste sites using ARRA funds. Confirmatory sampling is performed for sites that require additional information for determining if the site requires remediation.

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 December 20, 2010, WCH and its subcontractors have worked 338,914 hours of ARRA scope with no safety incidents.

Hazard Reductions

The River Corridor Closure Project uses several tools, including “Hot Topics,” to share safety information with all employees. A recent edition featured a topic titled “Lockout/Tagout – Block the Shock” that highlighted some important points.

Awareness and Planning

- If you are in charge, think through the entire procedure.
- Identify all parts of any systems that need to be shut down.
- Determine what switches, equipment, and workers will be involved.
- Carefully plan how equipment will be restarted when maintenance or repairs are completed.

Communicate

- Notify all those who need to know that a lockout/tagout procedure is taking place.
- Identify all appropriate power sources, whether near or far from the jobsite.
- Include electrical circuits, hydraulic and pneumatic systems, spring energy, and gravity systems.

Neutralize all Appropriate Power at the Source

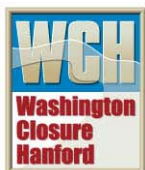
- Disconnect electricity.
- Block movable parts.
- Release or block spring energy.
- Drain or bleed hydraulic and pneumatic lines.
- Lower suspended parts to rest positions.

Lockout all Power Sources

- Use a lock designed only for this purpose.
- Each worker should have a personal lock.

Tagout all Power Sources and Machines

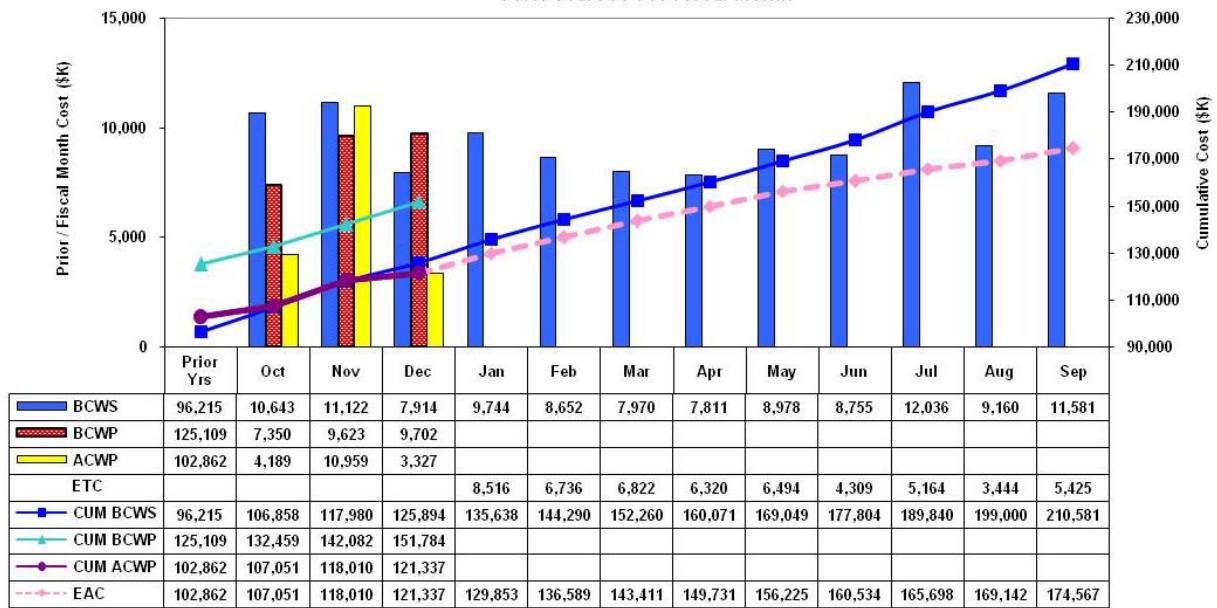
- Tag machine controls, pressure lines, starter switches, and suspended parts.
- Tags should include your name, department, how to reach you, the date and time of tagging, and the reason for the lockout.



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
230	9/24/10	Phase 3 Definitization	\$233.6	\$178.0
241	11/22/10	Reallocate Funds for Equipment	\$233.6	\$178.0
242	12/1/10	Increase the Cost Authority on RL-0041.R2	\$233.6	\$196.6
247	12/16/10	Reallocate Funds for Capital Expenditures	\$233.6	\$196.6

RCC Project - ARRA
Current Performance Measurement Baseline (PMB)
Prior Years / FY11 Fiscal Month



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

Apportionment Number	Apportionment Title		December 2010	Inception To Date	Cost Authority
RL-0041.R1	ERDF Cell Expansion	PMB	799	87,268	139,072
RL-0041.R2	River Corridor Soil & Groundwater (618-10)	PMB	2,527	34,069	57,566
Sub Total		PMB	3,326	121,337	196,638
Fee			480	12,193	
Total			3,806	133,530	

* PMB = Performance Measurement Baseline.



ERDF

Super Cells 9 and 10 Construction

The Final Report Construction Quality Assurance (CQA) Environmental Restoration Disposal Facility Super Cell 9 will be submitted this week to the U.S. Department of Energy (DOE) and the U.S. Environmental Protection Agency (EPA) for approval to introduce waste into the super cell. In conjunction with the report, the project team is performing a Project Start-Up Review to ensure operational readiness.

WCH subcontractor TradeWind Services resumed installation of the primary liner in Leachate Storage Tank (LST) No. 3 at ERDF. When construction is complete an acceptance test will be conducted with DOE and EPA. Earlier this month, TradeWind conducted the acceptance test for LST No. 4. Assembly of the dome cover for LST No. 4 is scheduled to begin next week.

Removal of one of the two original leachate storage tanks was completed in September; the second will be removed when the replacement 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.

Last month, TradeWind conducted the acceptance test for super cell 9 with DOE Richland Operations Office and the EPA. The acceptance test for super cell 10 is scheduled for later this month.

Facility and Equipment Upgrades

WCH subcontractor ELRFowler continues to make significant progress with construction of ERDF's new maintenance facilities. The project team is installing insulation and constructing the interior walls of the container maintenance facility. At the equipment maintenance facility/operations center, the project team is building the door and window frames and will begin installing siding and roofing materials next week.

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 also is constructing 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)



An employee with Washington Closure Hanford subcontractor ELRFowler installs insulation in the walls of the container maintenance facility at ERDF. (Photo 1)

ERDF (Continued)



*An ELRFowler employee constructs window frames at the equipment facility/operations center at ERDF.
(Photo 2)*

ERDF (Continued)



ELRFowler has completed erection of the structural steel of the equipment facility/operations center at ERDF. Work is under way to construct the window and door frames. (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.

WCH subcontractor DelHur Industries continues to work on the electrical installation for ERDF's new batch plant. The batch plant 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.

DelHur continued to install transmission lines for ERDF's new septic system. The project team is expected to install the tank next week, followed by the pumps and controls. ERDF's new septic system was designed by Columbia Engineers and Constructors, a small business based in Richland, Washington.

ERDF (Continued)



Washington Closure subcontractor DelHur Industries digs a hole for a new septic tank at ERDF. (Photo 4)

The lights have been installed at the expanded container transfer area (CTA). The CTA was enlarged 600 feet, which will provide additional storage for about 300 waste containers.

WCH has issued a notice to proceed to DelHur for construction of weather enclosures for crest pad buildings 1 and 2. The enclosures have been ordered and are expected to arrive on site next month. The enclosures were designed by Vista Engineering, a local company.

Upcoming Activities

- Continue construction of the container maintenance facility.
- Continue construction of the equipment maintenance facility/operations center.
- Continue work on liner system for Leachate Storage Tank No. 3.

618-10 Burial Ground

Trench Remediation Project

WCH subcontractor White Shield/Apollo continues to install utilities to prepare the 618-10 Burial Ground for remediation. The project team is making significant progress with electrical installation, erecting power poles, and building site roads. Infrastructure work is scheduled to be completed in February, with full-scale remediation of the burial ground trenches to begin in March.

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, which contained liquid radioactive waste, also were discovered.

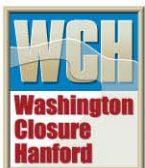
Based on the records research and the finds during intrusive characterization, the number of drums the burial ground may contain is estimated to be as many as 4,000. That includes an estimated 800 concreted drums that were used to dispose of highly radioactive waste nested inside a pipe surrounded by 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.

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 with construction site upgrades.
- Continue mobilization of heavy equipment to site.
- Continue with mobilization for mockups.



Profile

Jessica Morales discovered two things at an early age: She was not afraid of a little dirty work, and she liked working for herself.



Jessica Morales is the project manager for Washington Closure subcontractor White Shield/Apollo at the 618-10 Burial Ground. White Shield/Apollo is installing utilities in preparation of full-scale remediation. (Photo 5)

Profile (Continued)

So when Morales was 13-years old she began picking up house-cleaning and landscaping jobs in her hometown of Finley, Washington, about 30 miles from the Hanford Site.

“My grandfather was always building something, and I got hooked,” Morales said. “One of the most important things I learned from him was that you can achieve a lot in life through hard work.”

That attitude led to bigger and better things for Morales, who has spent the past 15 years working in the construction field. Today, she is the president of Acquisition Business Consultants (ABC), a small disadvantaged, minority-, woman-owned HUBZone business that specializes in construction services and project management.

Morales currently is serving as the project manager for White Shield/Apollo, a joint venture between two local companies working on a \$3.7 million project to install water, electricity, roads, office trailers, and a waste container transfer area at the 618-10 Burial Ground. The work is funded by the American Recovery and Reinvestment Act (ARRA).

The 618-10 Burial Ground is one of the most hazardous and complex burial grounds on the Hanford Site. It contains low- and high-activity radioactive waste from Hanford’s reactor fuel development and manufacturing facilities.

“I’m glad to be a part of the team working to provide Washington Closure the services to safely clean up the burial ground,” Morales said. “We’ve got a lot of great, dedicated people working hard in some tough weather conditions to make sure we get these utilities in.”

White Shield/Apollo is scheduled to complete the infrastructure work in February, paving the way for full-scale remediation of the burial ground to begin in March.

While Morales grew up close to Hanford, she moved to Anchorage, Alaska, soon after high school. She and her husband then began a small home improvement business, which focused on finish and trim work.

It wasn’t long, however, before they began tackling bigger projects, such as remodeling kitchens and bathrooms. Eventually, the company started constructing houses and small commercial buildings. And Morales had her hand in everything – writing proposals, handling the billing and procurement, delivering materials, and even doing the finish carpentry. At the same time, she earned a business degree.

Morales later founded ABC in Wasilla, Alaska, which focuses on federal government projects, and later opened an office in nearby Pasco, Washington. No matter where the job takes her, Morales sticks with the hard-working, hands-on approach.

“I’ve never wanted to be a figurehead or anything like that,” she said. “I like being involved in all the aspects of the job. That’s the only way I want to run a business.”



100-F Area

WCH and subcontractor Ojeda Business Ventures continued to make considerable progress with remediation of 19 waste sites at 100-F Area. Field work began in September and will conclude this spring.

The project team began a sampling campaign at 100-F-57, where stained concrete was discovered in December. Earlier this month, the presence of hexavalent chromium was confirmed to be in the area of the concrete slab and underlying soil. The sampling campaign was developed after consultation with the EPA to characterize the nature and extent of hexavalent chromium.

Excavation and loadout continues from 100-F-47 (electrical substation foundation), while excavation and stockpiling is under way at 100-F-61 (stained oil site) and 100-F-49 (old maintenance garage lube pit foundation, pipelines, and drywells). An old underground storage tank was discovered at 100-F-49. The tank will be sampled.

The project team also began overburden removal at 100-F-26:7. The site contains sodium dichromate and sodium silicate pipelines that will be sampled.



100-F Area (Continued)



Washington Closure Hanford subcontractor Ojeda Business Ventures uncovers sodium dichromate and sodium silicate pipelines at 100-F-26:7. (Photo 6)

100-F Area (Continued)



Ojeda personnel work to prepare a pipe for sampling at 100-F-26:7. (Photo 7)

100-F Area (Continued)



A worker uses a hot tap to drain a pipe for sample at 100-F-26:7. (Photo 8)

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.

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 sites are:

- 100-F-26:4 (process sewer pipeline section)
- 100-F-26:7 (sodium dichromate and sodium silicate pipelines)

100-F Area (Continued)

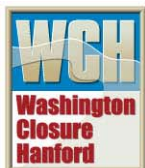
- 100-F-44:8 (fuel oil pipelines)
- 100-F-44:9 (process sewer pipeline)
- 100-F-45 (buried riverbank effluent pipeline)
- 100-F-47 (electrical substation foundation)
- 100-F-48 (coal-pit debris)
- 100-F-49 (maintenance garage lube pit foundation, pipelines, drywells)
- 100-F-51 (fish laboratory footprint, 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

- Begin test pit campaign at 100-F-57.
- Continue excavation and loadout from 100-F-47.
- Begin excavation and stockpiling at 100-F-61.
- Continue excavation and stockpiling at 100-F-49.
- Continue overburden removal at 100-F-26:7.

Video

[Click here to view remediation activities at 100-F Area.](#)



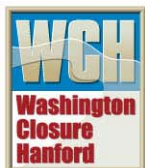
IU 2 & 6 Segment 1

WCH completed revegetation of the five IU 2&6 waste sites on November 30. Segment 1 encompasses about 23 square miles of the northwestern portion of the Hanford Site, away from the nine surplus plutonium production reactor areas. The waste sites were unique because they were primarily used for housing and support areas.

The remediation sites were:

- 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.



Confirmatory Sampling

WCH completed confirmatory sampling of 40 sites in November. Sampling was performed by 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 cleanup standards are being recommended for closeout with no further action.



General

Media, Visits, Press Releases

- A meeting was conducted with DOE Richland Operations Office and other Hanford contractors to discuss the Hanford Site public tour schedule for 2011. The schedule calls for 60 public tours to be conducted from April through September. The tour makes a 30-minute stop at ERDF where visitors are briefed on the facility's operations.

Contracting Actions

No significant contacting actions this week.

