

## Soil and Water Remediation, Groundwater/Vadose Zone (RL-0030)

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*Injection Test for K-West  
Pump and Treat*



*Drilling 300-FF-5  
Treatability Test  
Well*

## Overview

This section addresses Project Baseline Summary (PBS) RL-0030, *Soil and Water Remediation, Groundwater/Vadose Zone*.

NOTE: Unless otherwise noted, all information contained herein is as of the end of November 2006.

## Notable Accomplishments

- **Drilling**
  - Four wells that support the characterization and long-term monitoring and remediation of carbon tetrachloride and technetium-99 in the 200 West Area are in various stages of drilling and final completion (200-ZP-1 Operable Unit).
  - Two wells supporting the investigation of uranium and technetium-99 contamination to the north of the 200 East Area are being drilled (200-BP-5 Operable Unit).
  - Six new wells have been installed in the 300 Area to support the testing of a new technology (calcium polyphosphate) to immobilize uranium in groundwater.
- **River Corridor**
  - A contractor has been selected to design, install, and test a new-to-Hanford technology for removing chromium from groundwater (electrocoagulation).
  - Construction began on three new buildings that will be used to expand the existing chromium treatment capability in the 100-K Area.
  - Construction of a new chromium treatment system in another part of the 100-K Area is nearing completion. New injection well locations are being identified to support the system.
- **Integration**
  - Integrated High Resolution Resistivity (HRR) field work between Groundwater Remediation and Tank Farms to identify contamination in the soil zone is continuing around the B-BX-BY Tank Farms (200 East Area). Electrodes are being installed, and transect lines are being run. Approximately 1900 electrodes are being installed within the tank farms, and 6500 electrode outside the tank farms.
  - Resampling of well 299-E33-9 (inside the tank farm fenceline) is being coordinated between Groundwater Remediation and Tank Farms. Recent results show unique groundwater chemistry in the well that may help resolve the source of contamination.
- **Central Plateau**
  - Drilling of a new borehole to characterize the 216-A-4 waste site began. Last year a borehole was started but not completed due to encountering high radioactivity levels.

## FY 2007 Funds vs. Spend Forecast (\$M)

	Projected FY 2007 Funding	FY 2007 Fiscal Year Spend Forecast	Variance
Soil & Water Remediation, Groundwater/Vadose Zone	\$ 79.6	\$ 78.3	\$ 1.4

## FY 2007 Schedule/Cost Performance (\$M)

	Budgeted Cost of Work Scheduled	Budgeted Cost of Work Performed	Actual Cost of Work Performed	Schedule Variance \$	Schedule Variance %	Cost Variance \$	Cost Variance %	Budget At Completion
Soil & Water Remediation, Groundwater/Vadose Zone	\$10.2	\$8.9	\$8.2	-\$1.3	-12.5%	\$0.7	7.5%	\$68.8

Numbers are rounded to the nearest \$0.1M and include the Closure Services allocation.

### Schedule Performance (-\$1.3M/-12.5%).

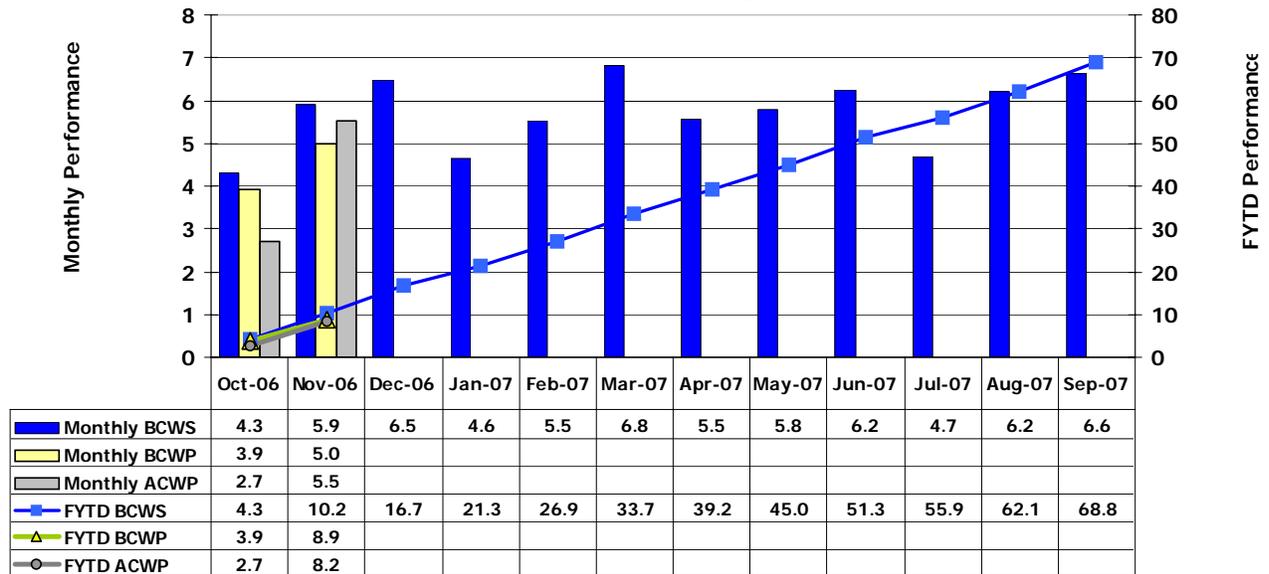
The schedule variance is being driven by four contributors:

- Groundwater/Vadose Zone Integrations (-\$0.3M)
  - Competing priorities on the finalization of strategy and issuing of subcontracts; technology development, and the Deep Vadose Zone Technical Task Package (TTP)
  - Initiation of the Technical Peer Review was delayed while discussions occurred with RL and the Washington State Department of Ecology (Ecology) regarding the panel/workshop strategy re-time phasing of work by Pacific Northwest National Laboratory (PNNL) and understated earned value by PNNL
  - Environmental Databases is behind schedule primarily due to the effort to finalize subcontracting strategy (identifying scope, etc.) with Lockheed Martin Information Technology, Inc. (LMIT)
- Groundwater Monitoring and Performance Assessments (-\$0.2M)
  - Library move postponed until January; aquifer tube sampling not started
- 100-NR-2 Operable Unit (-\$0.3M)
  - Field was not preparing for injections to start in November and December; change in field implementation plan; BCR forthcoming
- 200-ZP-1 Operable Unit
  - Recovery of FY 2006 Remedial Investigation/Feasibility Study (RI/FS) activities (offsetting); less progress than planned for Waste Sampling and Characterization Facility (WSCF) analysis due to late start in drilling two T-Farm wells; behind on feasibility study due to risk modeling delays; proposed plan behind schedule; less progress taken on Abiotic Degradation Rates due to Baseline Change Request cost reduction

**Cost Performance (+\$0.7M/+7.5%).** Variance is within threshold; no explanation required.

## FY 2007 Schedule/Cost Performance (\$M), continued

Performance Analysis  
FYTD and Monthly (\$M)



## Milestone Achievement

Number	Milestone Title	Type	Due Date	Actual Date	Forecast Date
RL-30					
M-013-06B	Submit the 200-BP-5 OU RI/FS Work Plan to EPA	TPA	3/31/07		3/31/07
M-016-14A	Complete Construction of a 300 foot Permeable Reactive Barrier Utilizing Apatite Sequestration at 100-N	TPA	5/31/07		5/31/07
M-015-48B	Submit the 200-ZP-1 OU Feasibility Study Report / Proposed Plan to EPA	TPA	9/30/07		9/30/07
M-013-10A	Submit the 200-PO-1 OU Remedial Investigation/Feasibility Study to Ecology	TPA	9/30/07		9/30/07
M-024-57M	Install a Cumulative of 60 Wells	TPA	12/15/07		1/31/07
M-015-50	Submit a Treatability Work Plan for Deep Vadose Zone Technetium and Uranium to Ecology and EPA	TPA	12/31/07		12/31/07