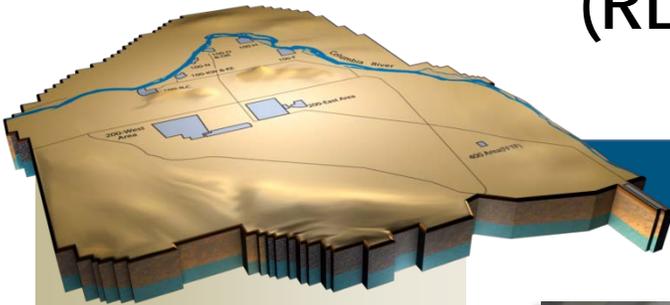


Section D

Soil and Groundwater Remediation Project (RL-0030)



Monthly Performance Report

D. L. Foss
Vice President and
Project Manager for
Soil and Groundwater
Remediation Project

M. N. Jaraysi
Vice President for
Environmental Program
and Strategic Planning

K. A. Dorr
Vice President for
Engineering, Projects
and Construction

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In April the final three government furnished equipment tanks were installed in the Bio-Process Building of the 200 West Groundwater Treatment Facility.

PROJECT SUMMARY

American Recovery and Reinvestment Act (ARRA)

Progress through the end of the fiscal month April is summarized in the table below.

Activity	April		Cumulative	
	Planned	Completed	Planned	Completed
Well Drilling (number of wells) -303	1	0	303	300
Well Decommissioning (# of wells) -280	10	19	221	221
100 DX Packaging and Transportation (P&T) – Construction/Startup (percent)	-	-	100	100
200 West P&T – Final Design (percent)	-	-	100	100
200 West P&T – Construction (percent)	8	8	63	63
200 West P&T – Testing/Startup (percent)	7	4	59	64

Base

Base work included pump-and-treat operations, Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) remedial processes, and documentation for the River Corridor and Central Plateau. Sampling and groundwater treatment completed in April includes the following:

- 238 well locations were sampled with a total of 1,077 samples being collected
- 84 aquifer tube samples collected from 29 tubes at 24 locations
- 17.0M gallons groundwater treated by ZP-1 treatment facility
- 18.6M gallons groundwater treated by KX treatment facility
- 8.51M gallons groundwater treated by KW treatment facility
- 9.70M gallons groundwater treated by KR-4 treatment facility
- 8.0M gallons groundwater treated by HR-3 treatment facility
- 0.0M gallons groundwater treated by DR-5 treatment facility. The DR-5 system is being replaced by the DX system.
- 17.2M gallons groundwater treated by DX treatment facility
- 79.01M gallons of groundwater treated total

EMS Objectives and Target Status

Objective#	Objective	Target	Due Date	Status
11-EMS-SGWR-OB1-T1	Take actions necessary to protect the Columbia River by fiscal year (FY)2012	Treat 500,000,000 gallons of 100 Area (D, H & K Area) groundwater	9/30/11	On schedule
		Review and tally total number of gallons treated	Monthly	Treated 383.2 M gal FY2011 through 4/31/11
10-EMS-SGWR-OB2-T1	Construct a new GW treatment facility that satisfies the P&T component of the 200-ZP-1 Operable Unit (OU) Record of Decision (ROD) selected remedy	Construct new 200 West Area P&T facility to remediate GW which was impacted from past plutonium production operations	12/31/11	On schedule
		Start construction of road crossings	11/30/09	Complete (11/2/09)
		Start early civil construction	3/30/10	Complete (3/19/10)
		Start construction of GW extraction buildings	3/30/10	Complete (3/19/10)
		Complete treatment facility construction	12/31/11	On schedule
10-EMS-SGWR-OB4-T1	Reduce Project Waste Generation	Track & quantify project cost savings from on-going waste reduction initiatives	1/31/11	Closed (2/10/11)
		Track, quantify & report on drill cuttings RTed in lieu of disposal at ERDF	30 days after CY Qtr-end	Complete
		Track, quantify & report on use of ERDF boxes in lieu 55-gallon drums	30 days after CY Qtr-end	Complete
		Track, quantity & report on purgewater generation avoidance	30 days after CY Qtr-end	Complete

TARGET ZERO PERFORMANCE

	CM Quantity	Rolling 12 Month	Comment
Days Away, Restricted or Transferred	0	3	N/A
Total Recordable Injuries	2	13	4/21/11 – Sudden gust of wind shut trailer door on lower right leg of employee. Employee was driven to CSC and then admitted to emergency care. Diagnosed with contusion on right leg and given clearance to return to work. 21919 (S&GRP) 4/26/11 – As employee was welding studs into building, a chip of metal flew up and struck employee's left eye. 21932 (EPC)
First Aid Cases	8	118	4/7/11 – Employee twisted left elbow as a result of holding on to a drill that was hung up in the cement. 21889 (EPC) 4/8/11 – While getting up from a seated position, the employee hit his knee against the corner of the desk. 21890 (EPC) 4/12/11 – Employee had irritation in his eye the evening after grinding paint off welds on a beam. 21889 (EPC) 4/18/11 – Employee took step up a stationary ladder and felt pain in knee. 21905 (EPC) 4/20/11 – After drilling pilot holes into an overhead structural steel temporary wall plate, metal shavings dislodged from employees Anti-C protective hood and fell into right eye. Employee was wearing safety glasses and face shield. 21917 (EPC) 4/21/11 – Wind gusts blew unknown particles into employee's eye. 21940 (EPC) 4/26/11 – As employee was descending from the concrete pad his left knee struck a form brace attachment. 21927 (EPC) 4/26/11 – Employee applied excessive force on a spud wrench to a break a bolt, causing pain to left shoulder. 21928 (EPC)
Near-Misses	0	2	N/A

KEY ACCOMPLISHMENTS

ARRA - GW CAPITAL ASSET

Drilling	April		Cumulative	
	Planned	Completed	Planned	Completed
M-24 -5 wells	0	0	5	5
200-ZP-1 West P&T Expansion -17 wells	0	0	17	17
Drilling Total	0	0	22	22

Engineering Projects and Construction (EPC) Projects in Support of Soil and Groundwater Remediation Project (S&GRP) - ARRA

- 200 West Area Groundwater Treatment Facility –All the major process government furnished equipment (GFE) have been placed in the six buildings. Continued execution of Construction Acceptance Test (CAT) for the extraction wells and initiation of CAT for Extraction Building #1

EPC Projects in Support of S&GRP – Base

- 100-HX Groundwater Treatment Facility – Equipment installation in the Treatment and Transfer Buildings is on-going. All tanks (2 influent, 1 effluent, and 2 chemical storage tanks) have been set. All process pumps have been set and anchored. Electrical terminations to instruments and mechanical tie-ins between process equipment in both buildings is on-going. All 27 road crossings have been completed. Crews are working high-density polyethylene (HDPE) piping tie-ins at the buildings and hooking up electrical racks at the well heads. All software addressing that can be done prior to energizing the buildings and well heads has been completed.

ARRA - GW OPERATIONS

Well Drilling and Decommissioning – ARRA

	April		Cumulative	
	Planned	Completed	Planned	Completed
KR-4 Remedial Investigation/Feasibility Study (RI/FS) – 13 wells	0	0	13	13
100-NR-2 Barrier Emplacement – 171 wells	0	0	171	171
100-HR-3 H Area Remedial Process Optimization (RPO) – 40 wells	0	0	40	37
100-HR-3 D Area RPO – 30 wells	0	0	30	30
200-BP-5 “K” Well – 1 well	0	0	1	1
200-BP-5 “L” and “M” Well – 2 wells	0	0	2	2
100-BC-5 RI/FS – 10 wells	0	0	10	10
100-FR-3 – 3 wells	0	0	3	3
300 FF-5 RI/FS – 11 wells	1	0	11	11
Drilling Total	1	0	281	278
Decommissioning Total	10	19	221	221

Per a baseline change request, a number of installed wells were transferred to base funding, changing the number of total wells installed with Recovery Act funds.

BASE - GW OPERATIONS

Environmental Strategic Planning:

- Completed DOE/RL-2011-50 “Regulatory Basis and Implementation of a Graded Approach to Evaluation of Groundwater Protection for the Hanford Site Central Plateau”, Draft A, and transmitted it to RL, meeting the Hanford Senior Executive Committee commitment to produce the document

Integration Management:

- Provided RL and Mission Support Alliance, LLC (MSA) with CHPRC’s Segment 1 Transition Turnover Package information for four waste sites that will be transitioned to MSA for long-term surveillance and maintenance – along with several Washington Closure Hanford, LLC (WCH) sites.
- Completed RL/PRC/WCH meeting to identify key themes and focus areas that will be addressed in River Corridor RI/FS documents
- Waste Information Data System (WIDS) Version 6.0 was implemented on April 15, 2011 and

constitutes a major redevelopment of the WIDS application including requirements defined by the WIDS Advisory Group.

Risk and Modeling Integration Group:

- Completed evaluation of soil sample analytical results, selected 70 samples for testing, and initiated bioassay testing at Applied Sciences Laboratory in Corvallis, Oregon

Document Review & Standardization

- Completed coordination and submittal of Environmental Program and Strategic Planning document reviews and consolidated responses for seven environmental documents
- Created draft annotated outline for writing a sampling analysis plan using GRP-GD-001 guidance document

River Corridor**100-BC-5 Operable Unit - Base**

- Multiple chapters now complete of the RI/FS report internal draft. On schedule for internal review in May.
- All 100-BC RI/FS field work scope is complete.

100-KR-4 Operable Unit - Base

- Completed drilling of second of four, Phase 3 RPO well for KR-4 and initiated well construction
- Completed internal review of 100K Area RI/FS report and currently preparing decisional draft
- Completed realignment of well 199-K-152 to convert the well to an extraction well and connect to the KX pump-and-treat facility
- Completed redevelopment of extraction well 199-K-178 and well is pumping at 70 gpm

100-NR-2 Operable Unit - Base

- RI/FS well drilling and sampling activities concluded at wells C8185 and C8187, with well construction completed at well C8187 and initiated at well C8185. Drilling and sampling was initiated at well C8184. Samples collected at three of eight wells.

100-HR-3 Operable Unit - Base

- The new DX Pump-and-Treat System continued operating at ~400 gpm.
- RI/FS well drilling and sampling continued with sixteen wells completed.
- The 100-D-12 test pit was installed and sampled by WCH in support of the RI/FS.

100-FR-3 Operable Unit - Base

- Multiple chapters of the RI/FS report internal draft are now complete.

300-FF-5 Operable Unit - Base

- All permanent and temporary monitoring wells have been drilled, installed and placed in the schedule for sampling.
- Laboratory data for soil and groundwater is complete in Hanford Environmental Information System.
- All RI/FS work scope field work has been completed in the 300 Area. Work remaining includes three boreholes at the 618-10 and 618-11 Burial Grounds after WCH intrusive field work is complete.

Central Plateau**200-BP-5 Operable Unit – Base**

- Completed the final design package for the 200-BP-5 Treatability Test extraction system

200-UP-1 Operable Unit – Base

- The 200-UP-1 OU Proposed Plan was revised to support a standalone final ROD for 200-UP-1, rather than amend the 200-ZP-1 ROD.
- Construction of the S-SX extraction system continued. The transfer building shell was completed and installation of building components was initiated. Initiated pipeline installation and well drilling.

200-ZP-1 Operable Unit - Base

- System is online pumping water at 395 gallons per minute (gpm).
- The two T Tank Farm Tc-99 wells are pumping water to the Effluent Treatment Facility at ~50 gpm.
- 2010 annual performance summary report has been revised based on internal review comments. Will be issued for RL review shortly.
- Fifteen extraction and five injection wells have been installed. Injection well C8064 is at 93 feet and injection well C8065 is at 422 feet. Injection well C8066 is at 80 feet.

Deep Vadose Zone - Base

- Submitted the data quality objective information package for the waste sites in the B-Area Complex to Ecology on April 15, 2011.
- Submitted the revised deep vadose zone technology tables and information sheets to Ecology on April 28, 2011 in preparation for the June 7, 2011 public information exchange.
- The Desiccation Test is now 70 percent complete. All responses to date indicate the process is working as anticipated.

MAJOR ISSUES

Issue: The 200W Pump-and-Treat Project is currently forecasting a negative Variance at Completion for RL0030-R1.1 ARRA subproject due to increased ARRA contingent scope and the baseline does not fully account for the corresponding budgeted cost of work scheduled (BCWS).

Corrective Action: The ARRA contingent scope will be transferred from the R1.1 to R1.2 subproject in May and BCWS incorporated into R1.2 for the increased scope.

Status: Additional corrective actions are under review.

Issue – During routine groundwater sampling activities, a nuclear chemical operator sampler received a low voltage shock while operating a dedicated electrical well pump. The subsequent investigation determined the network of monitoring wells having dedicated electrical pumps did not meet the National Electrical Code (NEC) standard for grounding all exposed non-current carrying metallic parts that could become energized. A temporary grounding strap has been approved by the NEC authority and has been deployed to the field allowing sampling of some dedicated electric pumps. Sampling with non-electrical pumps and portable electrical pumps is continuing.

Corrective Action – The available pneumatic pumps deployed to the field are being redeployed to most efficiently support near-term sampling needs. Additional pneumatic pumps will be purchased to expand the network of non-electric pumps as appropriate. Wells requiring electrical pumps to support sampling activities will be properly grounded per NEC requirements.

Status – A temporary grounding strap has been approved for use on some monitoring wells with dedicated electric pumps. Grounding design for well heads has been completed. Plant forces work review for bonding work is in preparation. Redeployment of pneumatic systems is underway. Vendor quotes for additional pneumatic pumps have been received and procurement under consideration.

RISK MANAGEMENT STATUS

Unassigned Risk
Risk Passed
New Risk

 Working - No Concerns
 Working - Concern
 Working - Critical

 Increased Confidence
 No Change
 Decreased Confidence

Risk Title	Risk Strategy/Handling	Assessment		Comments
		Month	Trend	
SGW-001: 100-D Treatment Technology Selection Change	Review draft RD/RAWP with regulators; maintain close interface to minimize impact of changes.			No significant issues.
SGW-050: Regulatory Strategy for Decision Docs	Continue to support RL in strategy negotiations with Agencies.			CPCS and Mod 95 Proposal and BCR are being evaluated and developed.
SGW-069: 100-HR-3 ISRM Barrier Amendment - Hexavalent Chromium Continues to Move Through Barrier	Monitor zero valence iron injection; add four wells to P&T.			DOE and Ecology have agreed to the strategy and signed a memorandum documenting the changes as insignificant. For wells will be used to supplement the barrier and capture down-gradient chromium. DX system is on line with extraction wells down gradient of the ISRM barrier.
SGW-080: 100-BC-5 Pump and Treat Required	This risk is accepted as written and will be monitored throughout work execution.			EPA concurred that need for pump and treat will be evaluated as part of RI/FS process; existing sample data indicate a treatment system may be required.
SGW-081: 100-FR-3 Pump and Treat Required	This risk is accepted as written and will be monitored throughout work execution.			EPA concurred that need for pump and treat will be evaluated as part of RI/FS process but based upon current sample data, the need for treatment is not considered likely.
SGW-003: Central Plateau Well Drilling Demands	Adjust drilling schedules; cross-train workforce; evaluate sample parameters.			No significant issues.
SGW-003A: Central Plateau Drilling - 200W P&T	Utilize rotary drilling and cable-tool; work closely to resolve subcontractor issues and manage schedule.			Drilling, construction and development has been completed on the first 20 wells. The next 6 (4 with option of 2 more wells) contract has been awarded to a new subcontractor to Hanford, so therefore the assessment will remain yellow until a performance record is established.
SGW-008B: Regulatory Document Comments for 100-HR-3	Routine meetings are being held with regulators during document development; no additional mitigation is feasible.			The RI/FS Work Plan Addendum and SAP were approved and issued; nothing else to report. Field activities are almost complete, and work is progressing on the RI/FS Report.
SGW-008U: Regulatory Document Comments for 200-SW-1/2	Routine meetings are being held with regulators during the SW-2 Work Plan development; no additional mitigation is feasible. For SW-1 the project team is supporting RL in the revised Interim EA and MOA for the Borrow Area C.			For SW-1 Agency workshops have been completed and the NRDWL/SWL closure plan was revised to incorporate Ecology comments. Ecology approval of this final closure plan is pending their final review of the revised plan and RL's NEPA determination.
SGW-016: 300-FF-5 Infiltration Barrier Treatability Test	Review BPA river level projections to time treatability test; accept risk.			After multiple unsuccessful attempts to get the infiltration gallery functional, PNNL has developed a parallel approach, looking for shallow test sites in other locations and alternative emplacement technology development. A joint CHPRC/PNNL path forward has been developed and vetted by RL and EPA. Infiltration work has been deferred to FY12 – this does not support development of the PP or ROD. It is best positioned as a Treatability Test specified in the ROD or abandoned as part of a Technical Impracticability argument in the RI/FS.
SGW-017 - Groundwater Flow Less Than Planned - 200 West P&T (Phase I)	Project has accelerated drilling of 6 injection wells to ensure adequate injection capacity.			Hydraulic analysis was performed and as a result, project is revising pump header configuration to accommodate startup and operations at ITB #1 and ITB #2.
SGW-018: 100-HR-3 P&T Operating Efficiency	Add four wells to the baseline to increase the likelihood of meeting production rates at startup. Connect DR-5 wells to DX P&T. Add 100-H wells to HX P&T (under construction).			HR-3 early utilization has been cancelled due to the HX project schedule. Replacement of the HR-3 system by HX will significantly increase system capacity. Realignment and shutdown of HR-3 is beginning to accommodate HX construction completion in early June.

RISK MANAGEMENT STATUS – Cont.

Unassigned Risk
Risk Passed
New Risk

 Working - No Concerns
 Working - Concern
 Working - Critical

 Increased Confidence
 No Change
 Decreased Confidence

Risk Title	Risk Strategy/Handling	Assessment		Comments
		Month	Trend	
SGW-025: Industrial Accident During Drilling	Subcontractors are evaluated on safety performance prior to contract award and are required to work under CHPRC safety procedures, including using appropriate safety equipment and conducting pre-job briefings. No further mitigation is warranted. Risk is accepted.			No issues or incidents this month.
SGW-031: P&T Design Changes - 100 D	Minimize parallel design/construct/ regulatory activities; finalize design prior to contract award; coordinate well locations with WCH.			DX project was turned over to operations on 12/17/2010. HX design has been modified to include transfer building and an eighth train.
SGW-031A: P&T Design Changes - 200 West	Identify required design changes early in the process to minimize schedule impact. Work closely with the client and regulators to minimize impact to schedule. Incorporate design changes quickly to minimize cost impacts and avoid rework. Supplement Eng/QA/QC support and contracts for special inspection so as to finalize engineering requirements.			The baseline has incorporated the realized risk from the final issuance of the "issued for construction" drawings. As the scope is being constructed in the field the impact of design changes continues to be monitored.
SGW-033: Well Casing Size/Screen Length	Ensure that sufficient budget is provided to cover drilling cost increases for larger diameter completion. Adjust schedules to account for additional drilling durations.			No issues at this time.
SGW-037: 100-NR-2 Infiltration Gallery Pilot Test	Risk accepted without mitigation.			Alternative technology (jet injection) with higher likelihood of success has been successfully pilot tested and is being optimized for larger-scale implementation under an approved design optimization study (DOS) (this optimization work is currently being deferred to FY12 due to RL funding prioritization). The actual infiltration tracer tests were conducted in the field and demonstrated very low infiltration rates (less than 0.8 cm/hr). The ability of this method to treat the soil evenly is in question and will likely not be pursued to support interim remedial action. Instead, jet-injection technology will likely be pursued to treat the upper vadose zone (as currently proposed in a Draft A revision to the NR-2 RD/RA Work Plan for Interim Action, submitted to the regulators on March 25, 2011).
SGW-051: Compressed Schedule for 200 West P&T Project Due to TPA Commitment	Project team will work closely with RL and the regulators to minimize the potential of unexpected design changes and to implement any required design changes quickly so as to minimize the schedule impact. Additional funding will be required to mitigate these issues. Contractor schedule compression will be supplemented with appropriate detail over time. Design schedule has been extended and has overlapped construction and no constructability reviews have occurred. Include funds to account for changes and claims in budget, compare design and estimate costs for changes, perform phased constructability reviews. Project is already exploring options to accelerate schedule more so than what was delivered in general contractor's proposal.			ETB #1: Energized with replacement transformer. ETB#2, ITB #1-2: Transfer pumps installed. BIO: Piping installation (10'+) 80% complete. BIO Pad: Continued steel installation on utility racks, hand rails, base plates. RAD: VOG ductwork, process piping, instrumentation & controls ongoing. Progress is consistent but delays associated with the issuance of IFC are already being experienced. Project is utilizing additional resources and working overtime to mitigate this risk. The concern is reviewed daily with the General Contractor to recover critical path work activities.

RISK MANAGEMENT STATUS – Cont.

Unassigned Risk
Risk Passed
New Risk

 Working - No Concerns
 Working - Concern
 Working - Critical

 Increased Confidence
 No Change
 Decreased Confidence

Risk Title	Risk Strategy/Handling	Assessment		Comments
		Month	Trend	
SGW-056A: 300-FF-5 Infiltration Not Feasible for Wide-Spread Application	An infiltration test is being performed at 300-FF-5 for the contaminants of concern.			Alternatives to widespread application of infiltration from the surface are being developed in parallel with searching for candidate sites for surface infiltration tests. None of the candidate technologies can be tested in time to support the PP or ROD. Alternative technology testing has been deferred to FY12. Recommend focusing available funding on one technology approach with a Technical Impracticability argument for the OU should it not prove feasible.
SGW-065: Bio/Chemical Remediation Fails	A design test is being planned for 100-D Area. This should eliminate some of the uncertainties with the potential side effects.			Well alignment for the test was revised to accommodate new modeling results and increase potential performance for the pump and treat system. The bioremediation TTP has been postponed until FY13, since the TTP is a post-ROD design test, and new data is not yet required to make remedial decisions in support of the FS.
SGW-091: Material Procurement - 200 West P & T	Work closely with the BTR to ensure timely placement of procurement contracts, including any necessary expediting. Supplement engineering support for RCI submittal resolution, on-site focus review including vendor participation as needed. Provide incentives for vendors to compress schedule.			A majority of the Long Lead Equipment (LLE) has been received and installed in the field awaiting testing. The remaining LLE is being closely monitored with daily to weekly contact with responsible vendors. All GFE will be delivered by July 2011.
SGW-098: 200-W P&T - Schedule Impacts Due to Scope Increases	Contractor will hold periodic discussions with client and regulators to maintain a clear understanding of scope changes. As these issues are identified, they will be listed with other emerging issues. At this point, further mitigation tactics will be determined.			The project is working closely with subcontractors to understand and work through impacts from design changes and maintain the accelerated project schedule. OT and additional shifts have been utilized in certain areas to ensure schedule requirements are met. Work continues to support software, simulator, procedures, and CAT/ATP development.
SGW-108J: 200-UW-1 Increased Characterization Required	Incorporate additional deep boreholes into the baseline.			This risk has been realized and the project is working the issue.
SGW-108L: 200-IS-1 Increased Characterization Required	Work closely with the regulators to expedite resolution of characterization requirements in order to minimize cost and schedule impacts.			Disagreement regarding lead regulatory agency authority and acceptability of existing characterization; expectation that additional characterization will be required.
WSR-042: Multi-Incremental Sampling - Increased Waste Sites	MIS Project designed to meet requirements; no further mitigation warranted.			No issues at this time.
WSR-043: Multi-Incremental Sampling - Hazard Categorization	Adjust baseline cost/schedule to reflect Haz Cat III categorization.			No issues at this time.

PROJECT BASELINE PERFORMANCE

Current Month

(\$M)

WBS 030/RL-0030 Soil and Groundwater Remediation	Budgeted Cost of Work Scheduled	Budgeted Cost of Work Performed	Actual Cost of Work Performed	Schedule Variance (\$)	Schedule Variance (%)	Cost Variance (\$)	Cost Variance (%)
ARRA RL-0030.R1.1 GW Capital Asset	10.8	10.8	12.3	(0.0)	-0.0	(1.5)	-13.9
ARRA RL-0030.R1.2 GW Operations	1.9	2.1	3.1	0.2	11.8	(1.0)	-46.3
ARRA Total	12.7	12.9	15.4	0.2	1.7	(2.5)	-19.2
Base	14.1	14.8	14.7	0.7	4.8	0.1	0.5
Total	26.8	27.7	30.1	0.9	3.4	(2.4)	-8.7

Numbers are rounded to the nearest \$0.1M.

ARRA

CM Schedule Performance: (+\$0.2M/+1.7%)

All current month schedule variances are within thresholds.

ARRA RL-0030.R1.1 GW Capital Asset (-\$0.0M)

All current month schedule variances are within thresholds.

ARRA RL-0030.R1.2 GW Operations (+\$0.2M)

All current month schedule variances are within thresholds.

CM Cost Performance: (-\$2.5M/-19.2%)

The primary contributors to the current month negative cost variance that exceed the reporting thresholds are as follows:

ARRA RL-0030.R1.1 GW Capital Asset (-\$1.5M)

200-ZP-1 OU (-\$1.4M)

The negative cost variance is due to delayed cost transfers associated with implementation of Baseline Change Request Administrative (BCRA)-R30-11-003R0 ("Transfer of Scope Between ARRA Subprojects, RL-30") (-\$840K) and performance being under stasured resulting in a budgeted cost of work performed (BCWP) that is lower than the actual cost of work performed (ACWP) for the primary construction contractor (-\$550K). The contractor accruals have been verified and work has been performed, the under stasured performance will be corrected in the next period.

ARRA RL-0030-R.1.2 GW Operations (-\$1.0M)

Drilling (-\$0.3M)

Labor is higher than planned, requiring additional Health Physics Technician, Buyer's Technical Representative and other support on each rig due to potential concerns at the decommissioning sites. Work will be completed within budget.

200-ZP-1 OU (-\$0.4M)

The negative cost variance is due to BCRA-PRC-11-003R0; cost transfer was completed in the month of April and performance was claimed in March.

PBS RL-30 G&A and Direct Distributables (-\$0.3M)

The negative cost variance is discussed in Appendix C.

Base**CM Schedule Performance (+\$0.7M/+4.8%)**

The primary contributors to the positive schedule variance that exceed the reporting thresholds are as follows:

Drilling (-\$0.4M)

Drilling of UP-1 wells was delayed due to contract initiation. This schedule slippage will be recovered. Also, there have been delays in ZP-1 drilling due to a broken 16" casing as well as shipment delays in receiving the under reamer tool for the 12" casing. It is anticipated that some of the ZP-1 drilling will slip into FY2012.

100 HR-3 Operable Unit (+\$0.6M)

HX construction activities for Procure/Install Equipment, Distribution of Electricity and Piping, and Transfer Building Construction are being performed ahead of schedule to support the completion of construction activities by September 2011. Project is currently forecast to complete ahead of baseline schedule.

200-ZP-1 Operable Unit (-\$0.3M)

Procurement of sludge stabilization (lime) system equipment occurred in a previous month resulting in a negative current month schedule variance this month where it was originally scheduled to occur.

Regulatory Decisions and Closure Integration (+\$0.4M)

The primary driver for the positive schedule variance is under reporting of performance of Outer Area work scope and B Plant decisions documents during March. The performance status was corrected in April resulting in the current month positive schedule variance with no impact to project completion.

Deep Vadose Zone Treatability Tests (+\$0.4M)

The Uranium Sequestration Treatability Test work was put on hold due to funding priorities and Baseline Change Request (BCR)-030-11-012R0 was processed in April to move the scope into FY2012. The current month positive schedule variance is a result of implementing the BCR.

CM Cost Performance (+\$0.1M/-0.5%)

The primary contributors to the positive cost variance that exceed the reporting thresholds are as follows:

Integration and Assessments (+\$0.3M)

The current month underrun reflects a cost correction for subcontract costs to the Science and Technology account in March that were subsequently corrected in April. In addition, labor costs were lower due to the direct charging to the projects.

GW Monitoring and Performance Assessments (-\$0.3M)

The negative cost variance for the month is due to the additional cost associated with laboratory analysis and sample collection. Costs were higher than normal this month because of the significant number of reports submitted and approved through the document control process. An overrun is expected for this account at year end but will be partially offset by a passback from the MSA for services provided fiscal year to date.

100 KR-4 Operable Unit (-\$0.3M)

The negative cost variance is due to:

- Labor support to complete the document preparation and review of the RI/FS report
- Delayed cost for Inter-Company Work Exchange Agreement charges
- P-Card laboratory analysis cost overruns in KR-4 are not recoverable this fiscal year within the KR-4 OU and will be funds managed.

100 HR-3 Operable Unit (-\$0.6M)

Primary drivers for the current month negative cost variance are as follows:

- Additional time and resources being spent on internal CERCLA (RI/FS) document development that will be recovered in completed Draft A document
- Alignment of wells from the DR-5 system to the DX system and corrective maintenance on the acid and caustic lines as well as trouble shooting pH probe issues
- HX design increase in level of support to construction due to schedule acceleration and complexities of the project

200-ZP-1 OU (+\$0.9M)

The positive cost variance is due to a low accrual by the construction contractor in the period, which will be corrected in the next period.

Regulatory Decisions and Closure Integration (+\$0.7M)

The primary driver for the cost variance is BCWP for the Outer Area and B Plant decisions documents was understated in March and a correcting adjustment was made in April causing a positive cost variance. There is no impact to overall project completion cost.

PBS RL-30 UBS, G&A, and DD (-\$0.5M)

The negative cost variance is discussed in Appendix C.

Contract-to-Date (\$M)

WBS 030/ RL-0030 Soil and Groundwater Remediation	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 (BAC)	Estimate at Completion (EAC)	Variance at Completion (VAC)
ARRA RL-0030.R1.1 GW Capital Asset	125.1	124.9	134.5	(0.2)	-0.2	(9.6)	-7.7	175.0	175.0	0.0
ARRA RI-0030.R1.2 GW Operations	71.3	71.2	66.1	(0.2)	-0.3	5.1	7.2	83.1	88.8	(5.7)
ARRA Total	196.5	196.1	200.5	(0.4)	-0.2	(4.5)	-2.3	258.1	263.8	(5.7)
Base	343.3	346.0	352.0	2.7	0.8	(6.0)	-1.7	1,283.4	1,232.7	50.8
Total	539.7	542.0	552.5	2.3	0.4	(10.5)	-1.9	1,541.5	1,496.5	45.0

Numbers are rounded to the nearest \$0.1M.

ARRA**CTD Schedule Performance: (-\$0.4M/-0.2%)**

All Variances are within Thresholds.

ARRA RL-0030.R1.1 GW Capital Asset (-\$0.2M)

All Variances are within Thresholds.

ARRA RL-0030.R1.2 GW Operations (-\$0.2M)

All Variances are within Thresholds.

CTD ARRA Cost Performance: (-\$4.5M/-2.3%)

The primary contributors to the ARRA CTD cost variance that exceed the reporting thresholds are:

ARRA RL-0030.R1.1 GW Capital Asset (-\$9.6M)200-ZP-1 Operable Unit (-\$8.3M)

The negative cost variance is due to performance being under stated resulting in a BCWP that is lower than the ACWP for the primary construction contractor (The contractor accruals have been verified and work has been performed, the under stated performance will be corrected in the next period); increased costs associated with civil/site work and procurement/installation of prefabricated metal buildings impacted by design changes; delayed cost transfers associated with BCR-030-11-012R0 implementation in the current month; and increased project management resource requirements caused by the implementation of IFC Design.

100 HR-3 Operable Unit (-\$0.9M)

The negative cost variance for 100DX is the result of increased installation costs on the pH adjustment system, and the impacts of weather on completing construction punch-list items and the Acceptance Test Plan for the facility/process.

ARRA RL-0030.R1.2 GW Operations (+\$5.1M)Drilling (+\$2.6M)

Efficiencies and savings obtained in drilling for 100-NR-2 and 200-BP-5 wells. Cost efficiencies have been obtained through an aggressive drilling schedule with savings in support personnel and faster drilling methods. Well decommissionings have also been completed for less than planned.

200-ZP-1 Operable Unit (+\$0.6M)

Delayed cost transfers for the BCR implemented this month resulted in the positive cost variance, which will be corrected in the next period.

Regulatory Decision and Closure Integration (+\$1.7M)

Completing work scope more efficiently than planned, primarily in the areas of multi-incremental sampling (using existing documentation and direct haul rather than staging), and borehole drilling and landfill characterization (competitive subcontracting of drilling support and efficient field support).

PBS RL-30 UBS, G&A, and DD (+\$1.8M)

The positive cost variance is discussed in Appendix C.

Base**CTD Schedule Performance (+\$2.7M/+0.8%)**

The primary contributors to the Base CTD schedule variance that exceed the reporting thresholds are:

100 HR-3 Operable Unit (+\$3.1M)

HX construction activities for Procure/Install Equipment, Distribution of Electricity and Piping, and Transfer Building Construction are being performed ahead of schedule to support the completion of construction activities by September 2011. Project is currently forecast to complete ahead of baseline schedule.

CTD Cost Performance (-\$6.0M/-1.7%)

Primary contributors to the CTD negative cost variance that exceed the reporting thresholds are as follows:

100-NR-2 OU (+\$1.6M)

Chemical treatment and maintenance scope, jet grouting pilot test work, RI/FS Work Plan and Interim Proposed Plan Reporting were performed more efficiently than planned leading to the positive cost

variance.

100 HR-3 Operable Unit (-\$3.2M)

Primary contributors to the negative cost variance are as follows:

- 100 DX - extensive effort required to design the pH adjustment system, cost overruns in completing the OU Remedial Process Optimization studies.
- 100 DX unplanned modifications on the system after completion of construction and higher than expected cost to complete the operational test plan.
- Cost of realigning wells from DR-5 to 100 DX
- 100HX Construction cable cost increased due to increases in copper prices
- Additional time and resources being spent on internal CERCLA (RI/FS) document development that will be recovered in completed Draft A document

200-ZP-1 Operable Unit (+\$3.3M)

Major contributors to the variance are as follows:

- Interim Operations reflects significant progress and cost underruns achieved to date for System Calibration
- Design of the permanent hookup of well EW-1 was lower than planned as only minor changes were needed to an existing design
- Cost for performing general operating and maintenance and minor modification activities have been lower than planned as the system has been running smoothly
- Cost for collecting depth-discrete groundwater and soil samples during the installation of new wells was less than planned
- Development of construction acceptance test plans are lower than planned
- EPC - Positive cost variance is due to a low accrual by the construction contractor in the period, this will be corrected in the next period.

200 PW-1 OU (+\$0.8M)

Labor and subcontract cost for general operations and minor modifications support is less than planned. In addition, efficiencies and savings experienced with the Soil Vapor Extraction (SVE) system testing prior to March 2010 as well as the removal of two old SVE units.

Usage Based Services (-\$1.7M)

Increased cost associated with training due to the additional ARRA work in FY2010 and fleet services costs that occurred in FY2009 and FY2010. Overruns will continue to be funds-managed within the S&GRP project.

Contract Performance Report Formats are provided in Appendices A and A-1.

Estimate at Completion (EAC)

ARRA – The projected variance at completion is negative 2.2 percent. Efforts are in place to mitigate this variance to the extent possible.

Base – The small projected variance at completion of positive 4.0 percent is spread among several operational areas and is not considered significant.

ARRA – The 200 West Pump-and-Treat Project EAC increased \$2.7M from March to April due to final value of change order negotiations was higher than forecast, the resin purchase price has been contracted higher than the forecasted value, the project received an unexpected price adjustment to subcontracted labor and self performed construction costs were higher than anticipated.

Base – The primary drivers for the \$5.2M increase to the base EAC are as follows:

- Additional bargaining units were added back to the forecast as no changes to overall bargaining unit personnel will be made until FY2011 year end.
- S-SX project estimate was revised by construction management
- Additional cost associated with CERCLA- RI/FS document preparation for modeling efforts
- Increase associated with the Displaced Workers Medical Benefits that will occur from FY2012 through FY2014 to be implemented in September 2011(\$4.8M).

FUNDS vs. SPEND FORECAST (\$M)

WBS 030/ RL-0030 Soil and Groundwater Remediation	FY2011		
	Projected Funding	Spending Forecast	Spend Variance
ARRA	157.6	157.1	0.5
Base	170.0	174.4	(4.4)

Numbers are rounded to the nearest \$0.1M.

Funds/Variance Analysis

Funding includes FY2010 carryover and FY2011 new Budget Authority. CHPRC has requested a reallocation of funding among PBSs to meet projected funding reductions and to help resolve the RL-0030 funding shortfall.

Critical Path Schedule

Critical path analysis can be provided upon request.

Baseline Change Requests

BCR-030-11-012R0, Additional S&GWP FY11 Scope Adj Part II

BCR-PRC-11-021R0, Transfer of Workforce Restructuring to ARRA Only

BCR-PRC-11-032R0, 200W P&T IFC Cost Schedule Revision

FY2011 Management Reserve (Funded):

ARRA = \$0.0M

Base = \$0.0M

In April \$3.392M of management reserve was used. See management reserve table in the CHPRC Overview.

MILESTONE STATUS

The Tri-Party Agreement (TPA) milestones represent significant events in project execution. DOE Enforceable Agreement milestones were established to provide high-level visibility to critical deliverables and specific status on the accomplishment of these key events. The PRC Baseline Revision 2 Update, implemented in September 2010, and subsequent approved BCRs define CHPRC planning with respect to TPA milestones. The following table is a one year look ahead of key milestones.

Number	Title	Type	Due Date	Actual Date	Forecast Date	Status/ Comment
M-024-58D	Initiate Discussions of Well Commitments	TPA	6/1/11		6/1/11	On Schedule
M-091-40L-030	Submit January to March 2nd Quarter FY2011 Burial Ground Sample Results	TPA	6/15/11	4/28/11		Complete
M-015-90	Submit RCRA Facility Investigation/Corrective Measures Study (RFI/CMS) and RI/FS work plan for 200-IS-1 OU to Ecology	TPA	6/30/11		6/30/11	On Schedule
M-015-82B	Initiate 200-BP-5 Aquifer Tests Within 6 months of TTP Approval	TPA	8/1/11		4/30/11	On Schedule
M-024-62-T01	Conclude Discussions of Well Commitments	TPA	8/1/11		8/1/11	On Schedule
M-091-40L-031	Submit April to June 3rd Quarter FY2011 Burial Ground Sample Results.	TPA	9/15/11		8/30/11	On Schedule
M-015-66-T01	Submit CERCLA RI/FS Report and PP for the 100-KR-1, 100-KR-2 and 100-KR-4 Operable Units for groundwater and soil	TPA	9/21/11		9/13/11	On Schedule
M-015-70-T01	Submit Feasibility Study Report and Proposed Plan for 100-HR-1/2/3 and 100-DR-1/2 OUs	TPA	11/24/11		9/15/11	On Schedule
M-015-68-T01	Submit CERCLA RI/FS Report and Proposed Plan for the 100-BC-1, 100-BC-2 and 100-BC-5 Operable Units for groundwater and soil.	TPA	11/30/11		11/30/11	On Schedule

Number	Title	Type	Due Date	Actual Date	Forecast Date	Status/ Comment
M-091-40L-032	PMM Submittal Jul-Sep 4th Qtr FY11 Burial Ground Sample Results	TPA	12/15/11		11/30/11	On Schedule
M-015-64-T01	Submit RI/FS Report and PP for 100-FR-1/2/3 and 100-IU-2/6	TPA	12/17/11		12/13/11	On Schedule
M-015-62-T01	Submit FS/PP for 100-NR-1/2 OUs Including GW and Soil	TPA	9/17/12		9/17/12	On Schedule
M-015-72-T01	Submit RI/FS Report and PP for 300-FF-2/5 OUs for GW and Soil	TPA	12/31/11		12/29/11	On Schedule
M-015-91A	Submit RI/FS Work Plan for the 200-WA-1 OU to U.S. Environmental Protection Agency (EPA)	TPA	12/31/11		12/31/11	On Schedule
M-015-93A	Submit Rev'd RFI/CMS & RI/FS Work Plan for SW-2 to Ecology	TPA	12/31/11		12/31/11	On Schedule
M-016-111C	Expand P&T System at 100-HR-3 OU to 800 gpm Capacity	TPA	12/31/11		10/15/11	On Schedule
M-016-120	GW Treatment System <50 gpm for Tc-99 Plume at S/SX Tank Farm	TPA	12/31/11		12/31/11	On Schedule
M-016-122	Begin Phase 1 Operation of 200W Pump-and-Treat System	TPA	12/31/11		12/31/11	On Schedule
M-085-10A	Submit RI/FS Work Plan for 200-CB-1 Operable Unit	TPA	12/31/11		12/31/11	On Schedule
M-091-40L-033	Submit Oct-Dec 1 st Quarter Burial Ground Sample Results	TPA	3/15/12		2/28/12	On Schedule
M-037-03	Submit revised closure plans to support TSD closure of two TSD Units: 216-B-3 Main Pond system and 216-S-10 Pond and Ditch	TPA	4/30/12		4/30/12	On Schedule

Number	Title	Type	Due Date	Actual Date	Forecast Date	Status/ Comment
M-015-38B	Submit a revised Feasibility Study Report and revised Proposed Plan (s) for the 200-CW-1, 200-CW-3 and 200-OA-1 OU for Waste Sites in the Outer Area of the Central Plateau to EPA	TPA	4/30/12		4/30/12	On Schedule

SELF-PERFORMED WORK

The Section H. clause entitled “Self-Performed Work” is addressed in the Overview.

GOVERNMENT FURNISHED SERVICES AND INFORMATION (GFS/I)

None currently identified.