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**FINAL**

Office of River Protection  
Consent Decree 08-5085-FVS  
Monthly Summary Report  
August 2012

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Monthly Summary Report  
August 2012

Page	Topic	Leads
3	Statistics / Status	James Lynch / Dan McDonald / Jeff Lyon
5	SST Retrieval and Closure – D-00B-01, -02, -03, -04	Chris Kemp / Jeff Lyon
6	Tank Waste Retrieval Work Plan (TWRWP) Status – Consent Decree Appendix C	Chris Kemp / Jeff Lyon
7	SST Retrieval Monthly and Fiscal Year EVMS Data	Janet Diediker / Jeff Lyon
9	WTP - Immobilization Plant Project – D-00A-06, D-00A-17, D-00A-01	Delmar Noyes / Dan McDonald
11	WTP Pretreatment (PT) Facility – D-00A-18, -19, -13, -14, -15, 16	Wahed Abdul / Dan McDonald
14	High-Level Waste (HLW) Facility – D-00A-20, -21, 02, 03	Wahed Abdul / Dan McDonald
17	Low-Activity Waste (LAW) Facility – D-00A-07, -08, -09	Jeff Bruggeman / Dan McDonald
20	Balance of Facilities (BOF) – D-00A-12	Jason Young / Dan McDonald
22	Analytical Laboratory (LAB) – D-00A-005	

Milestone	Title	Due Date	Completion Date	Status
<b>Fiscal Year 2012</b>				
D-00C-02L	Submit to Ecology and Oregon Monthly Summary Reports	10/31/11	10/25/11	Completed
D-00C-02M	Submit to Ecology and Oregon Monthly Summary Reports	11/30/11	11/21/11	Completed
D-00C-02N	Submit to Ecology and Oregon Monthly Summary Reports	12/31/11	12/27/11	Completed
D-00C-02O	Submit to Ecology and Oregon Monthly Summary Reports	01/31/12	01/25/12	Completed
D-00C-01D	Submit to Ecology and Oregon Semi-Annual Report Documenting Progress During Previous 6 Month Period	01/31/12	01/27/12	Completed
D-00C-02P	Submit to Ecology and Oregon Monthly Summary Reports	02/29/12	02/22/12	Completed
D-00C-02Q	Submit to Ecology and Oregon Monthly Summary Reports	03/31/12	03/31/12	Completed
D-00C-02R	Submit to Ecology and Oregon Monthly Summary Reports	04/30/12	04/26/12	Completed
D-00C-02S	Submit to Ecology and Oregon Monthly Summary Reports	05/31/12	05/29/12	Completed
D-00C-02T	Submit to Ecology and Oregon Monthly Summary Reports	06/30/12	06/29/12	Completed
D-00C-02U	Submit to Ecology and Oregon Monthly Summary Reports	07/31/12	07/26/12	Completed
D-00C-01E	Submit to Ecology and Oregon Semi-Annual Report Documenting Progress During Previous 6 Month Period	07/31/12	07/27/12	Completed
D-00C-02V	Submit to Ecology and Oregon Monthly Summary Reports	08/31/12		On-going
D-00C-02W	Submit to Ecology and Oregon Monthly Summary Reports	09/30/12		On-going
<b>Fiscal Year 2013</b>				
D-00C-02X	Submit to Ecology & State of Oregon Monthly Summary Report	10/31/2012		On-going
**D-00C-02Y	Submit to Ecology & State of Oregon Monthly Summary Report	11/30/2012		On-going
** Future Monthly Reports will be added as necessary to maintain a two-months ahead activity.				
D-00A-05	LAB Construction Substantially Complete	12/31/2012		On-going
D-00A-12	Steam Plant Construction Complete	12/31/2012		On-going
D-00A-21	Complete Construction of Structural Steel to EL. 37' in HLW Fac.	12/31/2012		On-going

Milestone	Title	Due Date	Completion Date	Status
<b>Fiscal Year 2013 Continued</b>				
D-00C-01F	Submit to Ecology & State of Oregon Semi-Annual Report	01/31/2013		On-going
D-00C-01G	Submit to Ecology & State of Oregon Semi-Annual Report	07/31/2013		On-going
D-006-00-A1	Provide State of Oregon Notice of Meetings	09/25/2013		On-going

## Reports

**D-00C-01 series, Submit to Ecology & State of Oregon Semi-Annual Report**, Due: Semi-Annually – January 31<sup>st</sup> and July 31<sup>st</sup> of each year. Status: On-going

**D-00C-02 series, Submit to Ecology & State of Oregon Monthly Summary Report Documenting Progress During Previous Month**, Due: End of Each Month, Status: On-going

**D-006-00-A1, Provide State of Oregon notice of meetings in D-006-00-A, etc. no less than 30 days before they are scheduled**, Due: 9/25/2013, Status: On-going

**D-006-00-A, Meet Approximately Every Three Years After Entry of Decree to review requirements of the Consent Decree**, Due: 10/25/2013, Status: On-going

## SST Retrieval Program

**D-00B-01, Complete Retrieval of Tank Wastes from 10 Remaining SSTs in WMA-C, Due: 9/30/2014, Status: On-going**

**D-00B-01A thru J, Submit Tank Retrieval Complete Certification, Due: TBD**

Pursuant to the requirement in Section IV-B-5 of the Consent Decree (CD) DOE must submit to Ecology a written certification that DOE has completed retrieval of a tank in accordance with the requirements of Appendix "C", Part 1, of the CD. Tanks currently in retrieval status are C-104, C-107, C-108, C-109, C-110, C-111, and C-112.

**D-00B-02, Advise Ecology of the 9 SSTs from which Waste Will Be Retrieved by 2022, Due: 9/30/2014, Status: Complete.** ORP and Ecology began meeting in December 2010 to discuss the selection of the next nine tanks from which waste will be retrieved and why ORP believes those nine tanks should be in A/AX Farms. The last meeting was held on August 24, 2011. At this meeting, Ecology stated that it believes the requirements of D-00B-02 of the Consent Decree have been met.

**D-00B-03, Initiate Startup Retrieval in At Least 5 of 9 SSTs in D-00B-02, Due: 12/31/2017, Status: On-going**

**D-00B-04, Complete Retrieval of Tank Wastes from the 9 SSTs in D-00B-02, Due: 9/30/2022, Status: On-going**

**D-00B-04A thru I, Submit Tank Retrieval Complete Certification, Due: TBD**

### Significant Past Accomplishments:

1. Completed removal of legacy (long length) equipment at C-101.
2. Continued procurement for C-101 & 102 modified sluicing retrieval systems.
3. Continued removal of legacy (long length) equipment in C-102.
4. Continued hard heel retrieval activities on C-104 with recirculation of caustic.
5. Continued construction activities for removal of equipment at C-105 to support large riser installation.
6. Continued modifying ventilation system to add C-105 to the new exhaust system installed for C-102.
7. Continued C-107 retrieval utilizing the MARS system (approximately 80% of waste retrieved).
8. Completed removal of failed C-109 slurry pump to support hard heel removal.
9. Completed installation of new C-109 slurry pump and initiated hard heel retrieval by transferring 55K gallons of dissolution water to AN-106.

### Significant Planned Activities in the Next Six Months:

1. Complete construction/installation of the modified sluicing system in C-101.
2. Complete removal of legacy equipment at C-102.
3. Complete construction/installation of the modified sluicing system in C-102.
4. Complete hard heel removal of waste at C-104.

5. Complete installation of the C-105 ventilation system and removal of equipment.
6. Complete installation of the large riser in C-105.
7. Complete C-107 bulk retrieval.
8. Complete C-107 hard heel retrieval.
9. Obtain C-108 Post-Retrieval samples using the Off Riser Sampling System.
10. Complete discussions with Ecology on the retrieval certificate of completion.

**Issues:**

None.

**Tank Waste Retrieval Work Plan (TWRWP) Status**

<b>Tank</b>	<b>TWRWP</b>	<b>Expected Revisions</b>	<b>Retrieval Technology</b>	<b>Second Technology</b>	<b>Third Technology</b>
C-101	RPP-22520	Complete	MRS (per 10/7/10 agreement, to be Modified Sluicing)	Chemical Dissolution	-
C-102	RPP-22393	Complete	Modified Sluicing	Chemical Dissolution	-
C-104	RPP-22393	In Process	Modified Sluicing	Chemical Dissolution	-
C-105	RPP-22520	In Process	MARS-V	High pressure water spray/M A RS platform	-
C-107	RPP-22393	In Process	MARS-S	MARS-High Pressure	-
C-108	RPP-22393	In Process	Modified Sluicing	Chemical Dissolution	-
C-109	RPP-21895	After evaluation of C-108 hard heel retrieval	Modified Sluicing	Chemical Dissolution	-
C-110	RPP-33116	After evaluation of C-108 hard heel retrieval	Modified Sluicing	None (to be revised to In-Tank Vehicle)	-
C-111	RPP-37739	After evaluation of C-108 hard heel retrieval	Modified Sluicing	None (to be revised to In-Tank Vehicle)	-
C-112	RPP-22393	In Process	Modified Sluicing	Chemical Dissolution	-

**Significant Accomplishments**

None.

**Significant Planned Activities in the Next 6 Months:**

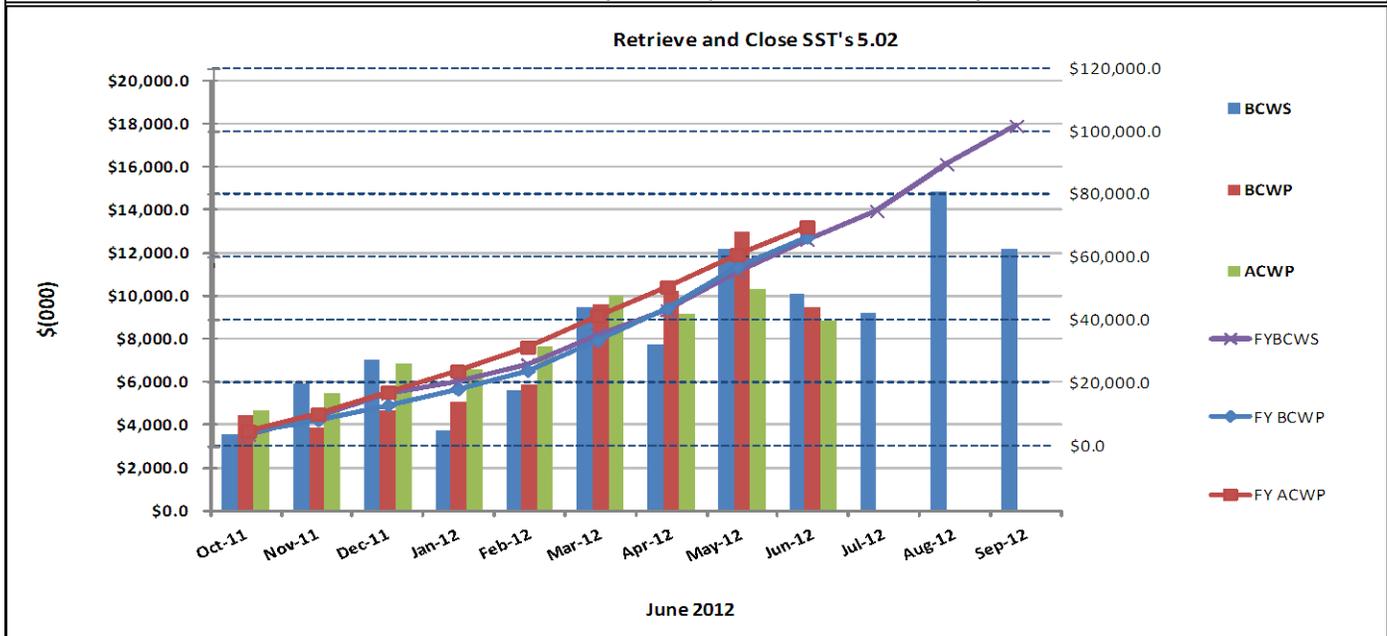
Work with Ecology on updates to TWRWPs RPP-22520, RPP-22393, and RPP-37739 for tanks C-101, C-102, and C-111, respectively.

**Issues:**

None.

### SST Retrieval Monthly and Fiscal Year EVMS Data

Office of River Protection (ORP-0014) Fiscal Year 2012 - Monthly EVMS



June 2012

Earned Value Month	BCWS	BCWP	ACWP	SPI	CPI	FYBCWS	FY BCWP	FY ACWP	FY SPI	FY CPI
Oct-11	\$3,580.0	\$4,402.2	\$4,709.1	1.23	0.93	\$3,580.0	\$4,402.2	\$4,709.1	1.23	0.93
Nov-11	\$5,940.2	\$3,864.7	\$5,462.1	0.65	0.71	\$9,520.2	\$8,266.9	\$10,171.2	0.87	0.81
Dec-11	\$7,038.0	\$4,650.9	\$6,844.4	0.66	0.68	\$16,558.2	\$12,917.8	\$17,015.6	0.78	0.76
Jan-12	\$3,732.7	\$5,070.3	\$6,601.7	1.36	0.77	\$20,290.9	\$17,988.1	\$23,617.3	0.89	0.76
Feb-12	\$5,629.0	\$5,885.6	\$7,633.1	1.05	0.77	\$25,919.9	\$23,873.7	\$31,250.4	0.92	0.76
Mar-12	\$9,484.6	\$9,596.9	\$9,999.9	1.01	0.96	\$35,404.5	\$33,470.6	\$41,250.3	0.95	0.81
Apr-12	\$7,717.2	\$10,237.2	\$9,151.0	1.33	1.12	\$43,121.7	\$43,707.8	\$50,401.3	1.01	0.87
May-12	\$12,189.8	\$13,026.7	\$10,318.8	1.07	1.26	\$55,311.5	\$56,734.5	\$60,720.1	1.03	0.93
Jun-12	\$10,070.2	\$9,493.6	\$8,872.0	0.94	1.07	\$65,381.7	\$66,228.1	\$69,592.1	1.01	0.95
Jul-12	\$9,234.0	\$0.0	\$0.0	0.00	0.00	\$74,615.7			0.00	0.00
Aug-12	\$14,859.9	\$0.0	\$0.0	0.00	0.00	\$89,475.6			0.00	0.00
Sep-12	\$12,201.8	\$0.0	\$0.0	0.00	0.00	\$101,677.4			0.00	0.00
CTD	\$304,728.7	\$301,530.6	\$301,417.9	0.99	1.00					

#### Single-Shell Tanks

##### Schedule Variance (-\$576.46K):

The unfavorable schedule variance is primarily due to:

- C-101 Retrieval due to delays in receiving long-lead procurements, specifically the Extended Reach Sluicer Systems (ERSS), which were planned for May and June. The first two ERSS' will be delivered in July. Hose testing issues, including kinking of replacement hoses during June, have contributed to delays. In addition, equipment removal activities were delayed by unfavorable weather, ventilation availability, and an obstruction in riser 1. Issues have been resolved and new equipment installation activities started in early July.
- C-102 Retrieval due to delays in the receipt of the ERSS's which were planned to be received in June but due to hose testing issues they are not expected until August. In addition, equipment removal activities were delayed due to unfavorable weather, ventilation availability and work on riser 2. The new riser has been successfully welded and crews will return to completing the balance of equipment removals activities.

Cost Variance (\$621.9K):

The favorable cost variance is primarily due to:

- C-107 Retrieval due to cost-efficient retrieval operations using the new MARS-V system. Retrieval operations resumed in late May and continued throughout June.
- C-101 Retrieval due to efficiencies achieved in Retrieval System Installation. A subcontractor construction forces crew of limited size was deployed on three tank projects (C-101, C- 102, and C-105). When contaminated soil was encountered on C-102 riser 2, an additional crew was deployed to reduce personnel radiological exposure, which reduced the remaining crew on C-101. The crew worked very efficiently on C-101 and completed equipment removal with less labor than planned.

**WASTE TREATMENT AND IMMOBILIZATION PLANT (WTP) PROJECT**

<b>Number</b>	<b>Title</b>	<b>Due Date</b>	<b>Status</b>
D-00A-06	Complete Methods Validations	12/31/2017	On-going* (see issues below)
D-00A-17	Hot Start of Waste Treatment Plant	12/31/2019	On-going* (see issues below)
D-00A-01	Achieve Initial Plant Operations for WTP	12/31/2022	On-going* (see issues below)

The WTP Project currently employs approximately 2,515 Full-Time Equivalent (FTE) contractor (Bechtel National, Inc. [BNI]) and subcontractor personnel, including 591 craft, 534 non-manual, and about 140 subcontractor personnel FTEs working at the WTP construction site (all facilities). As of June 2012, the project was 65 percent complete overall, design and engineering was 86 percent complete, procurement was 70 percent complete, construction was 62 percent complete, and startup and commissioning was 15 percent complete.

The overall WTP Project schedule variance in June was a negative \$63.7 M; the cost variance was a negative \$47 M. The cost variance was primarily related to Engineering Design, Construction Crafts, and Plant Equipment; and the schedule variance was primarily related to Engineering Design, Plant Equipment, VCT & Process Technology and Environmental & Nuclear Safety.

Following is the status through the end of June for current project issues.

**Significant Past Accomplishments:**

- Completed the High Level Waste (HLW) vessel RLD-00008 weld discrepancies Extent of Condition review and evaluated the results (PT)
- Completed installation of HDH-VSL-1 on trolley in canister rinse tunnel (HLW)
- Completed installation of platform steel to support CO<sub>2</sub> decontamination piping (LAW)
- Completed 8 week walk down for WTP switchgear building 87 (BOF)
- Completed installation of Crane #13 at the south end of the hotcell (LAB)

**Significant Planned Actions in the Next Six Months:**

- Issue the final report documenting the results from the entrainment coefficient testing for the PVV system (PT)
- Receive Plant Wash and Drains vessel (RLD-VSL-8) (HLW)
- Complete 37' structural steel (HLW)
- Complete installation of melter power supplies (LAW)
- Complete installation of autosampler (ASX system) (LAW)
- Complete construction of the cooling tower (BOF)
- Complete construction of the switchgear building (BOF)
- Complete mechanical installation of autosampling system (LAB)

**Issues:**

- \* Technical issues relevant to the PTF and HLW facilities include, among others, pulse jet mixers, corrosion/erosion in piping and vessels, hydrogen accumulation, and waste feed issues.
- There are no significant technical issues in LAW, LAB or BOF at this time.

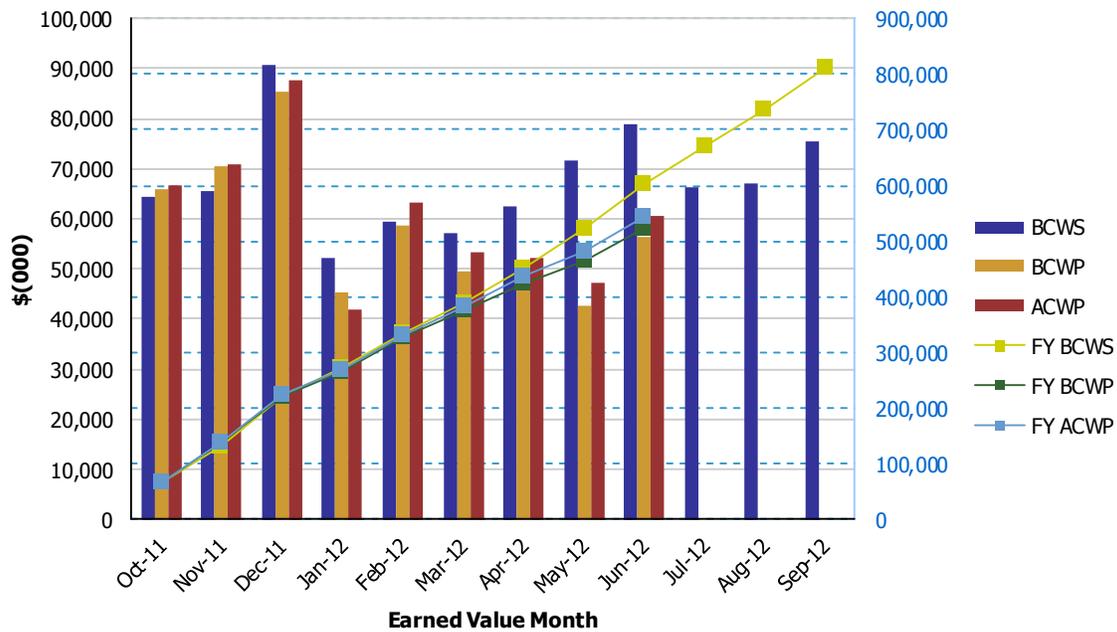
**EXC-01a: Fiscal Year Cost and Schedule Report**

Data Set: FY 2012 Earned Value Data

Data as of: June 2012

**River Protection Project  
Waste Treatment Plant (WTP) Project**

EVMS Monthly and Fiscal Year Values



Earned Value Month	BCWS	BCWP	ACWP	SPI	CPI	FY BCWS	FY BCWP	FY ACWP	FY SPI	FY CPI
Oct 2011	\$64,411	\$65,869	\$66,670	1.02	0.99	\$64,411	\$65,869	\$66,670	1.02	0.99
Nov 2011	\$65,647	\$70,625	\$70,879	1.08	1.00	\$130,058	\$136,494	\$137,549	1.05	0.99
Dec 2011	\$90,699	\$85,246	\$87,845	0.94	0.97	\$220,757	\$221,740	\$225,394	1.00	0.98
Jan 2012	\$52,248	\$45,149	\$41,816	0.86	1.08	\$273,005	\$266,889	\$267,210	0.98	1.00
Feb 2012	\$59,271	\$58,579	\$63,201	0.99	0.93	\$332,276	\$325,468	\$330,411	0.98	0.99
Mar 2012	\$57,285	\$49,398	\$53,161	0.86	0.93	\$389,561	\$374,866	\$383,572	0.96	0.98
Apr 2012	\$62,378	\$47,517	\$52,149	0.76	0.91	\$451,939	\$422,383	\$435,721	0.93	0.97
May 2012	\$71,778	\$42,759	\$47,365	0.60	0.90	\$523,717	\$465,142	\$483,086	0.89	0.96
Jun 2012	\$78,891	\$56,530	\$60,446	0.72	0.94	\$602,608	\$521,672	\$543,532	0.87	0.96
Jul 2012	\$66,388			0.00		\$668,996			0.00	
Aug 2012	\$66,879			0.00		\$735,874			0.00	
Sep 2012	\$75,468			0.00		\$811,342			0.00	

PTD	\$7,066,356	\$7,002,626	\$7,049,557	0.99	0.99
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**PRETREATMENT (PT) FACILITY**

<b>Number</b>	<b>Title</b>	<b>Due Date</b>	<b>Status</b>
D-00A-19	Complete Elevation 98' Concrete Floor Slab in PT Facility	12/31/2014	On-going* (see issues below)
D-00A-13	Complete Installation of Pretreatment Feed Separation Vessels	12/31/2015	On-going* (see issues below)
D-00A-14	PT Facility Construction Substantially Complete	12/31/2017	On-going* (see issues below)
D-00A-15	Start PT Facility Cold Commissioning	12/31/2018	On-going* (see issues below)
D-00A-16	PT Facility Hot Commissioning Complete	12/31/2019	On-going* (see issues below)

The Pretreatment (PT) Facility will separate radioactive tank waste into High Level Waste (HLW) and Low-Activity Waste (LAW) fractions and transfer each waste type to the respective vitrification facility for immobilization. Through June 2012, the PT Facility was 53 percent complete overall, with engineering design 80 percent complete, procurement 52 percent complete, construction 42 percent complete, and startup and commissioning 4 percent complete.

**Significant Past Accomplishments:**

The Extent of Condition review from the HLW vessel RLD-00008 weld discrepancies has been completed and the results evaluated. Based on the results, a more extensive inspection plan involving the entire black cell and hard to reach vessels has been initiated.

The key on-going activities in Pretreatment are related to the resolution of the Pretreatment Vessel Vent Process (PVP) system design, Hydrogen in Piping and Ancillary Vessels (HPAV), erosion/corrosion and vessel mixing technical issues.

The small scale test report documenting the results to determine realistic entrainment coefficient for the Process Vessel Vent Exhaust (PVV) system was issued in July 2012. The medium scale testing was completed and the report documenting the results will be issued in August 2012. The preliminary results for both the small and medium scale tests resulted in an entrainment coefficient smaller than expected, which supports less extensive modification to the PVV system design.

The Hydrogen Generation Rate (HGR) calculations for HLP-22, HLP-27/28 and HFP have been completed and will be issued in September 2012 after V&V of the software. The remaining calculations in support of resolving the HPAV issue are currently planned to be completed in November 2012.

The implementation plan for the Preliminary Design Safety Analysis (PDSA) update, which will integrate the nuclear safety activities with the vessel design confirmation activities, is scheduled to be issued in September 2012.

The construction of the facility for the 14 foot vessel testing is progressing well.

A revision to the 2010-2 Implementation Plan (IP) is in progress and will address the changes in strategy, approach and expectations. The plan is expected to be issued to the DNFSB in the last quarter of calendar year 2012.

The draft alternative study to identify options for the path forward on the non-Newtonian vessels was completed and the options are being evaluated.

The revised erosion/corrosion action plan is scheduled to be issued in August 2012, and a corrosion test scoping document is expected to be issued in December 2012 to address the material selection issue.

The NQA-1 Computational Fluid Dynamics (CFD) Verification and Validation (V&V) simulant tests will start after the resolution of DOE/NETL comments on the test plan. DOE and BNI have been having meetings and the NETL team is coming to the Hanford site in August to facilitate resolution of the comments. Informational testing in preparation for CFD V&V simulant tests started in July.

#### **Significant Planned Actions in the Next Six Months:**

- Issue the final report documenting the results from the entrainment coefficient testing for the PVV system
- Complete Hazards and Operability Analysis (HAZOP) for (PVP) system
- Issue the implementation plan for the PDSA update
- Complete the HPAV HGR rate calculations
- Issue the technical scaling selection basis document
- Submit the 2010-2 Implementation Plan revision
- Issue the corrosion test scoping document
- Complete the single PJM (pump down) tests for the 8' vessel in support of the V&V of the CFD program
- Issue jumpers phase 2 frame design for hot cell areas 29, 30 and 33

#### **Issues:**

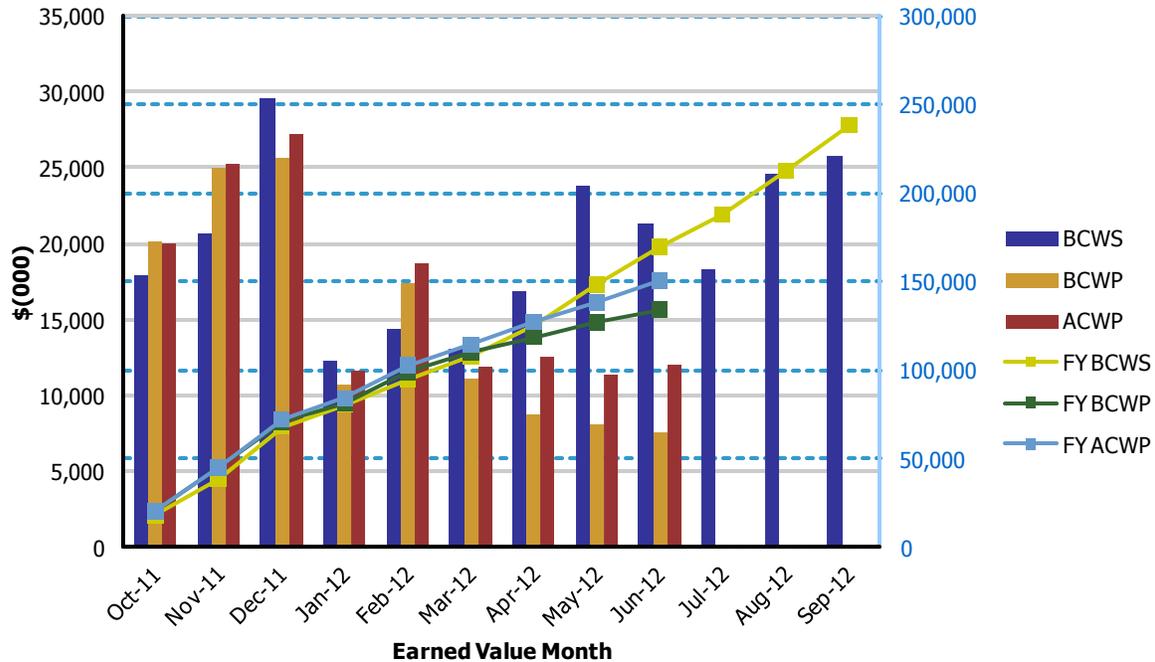
\* Technical issues relevant to the PTF and HLW facilities include, among others, pulse jet mixers, corrosion/erosion in piping and vessels, hydrogen accumulation, and waste feed issues. .

Data Set: FY 2012 Earned Value Data

Data as of: June 2012

**River Protection Project  
Pretreatment Facility**

EVMS Monthly and Fiscal Year Values



Earned Value Month	BCWS	BCWP	ACWP	SPI	CPI	FY BCWS	FY BCWP	FY ACWP	FY SPI	FY CPI
Oct 2011	\$17,935	\$20,110	\$20,000	1.12	1.01	\$17,935	\$20,110	\$20,000	1.12	1.01
Nov 2011	\$20,616	\$24,945	\$25,222	1.21	0.99	\$38,551	\$45,055	\$45,222	1.17	1.00
Dec 2011	\$29,580	\$25,673	\$27,175	0.87	0.94	\$68,131	\$70,728	\$72,397	1.04	0.98
Jan 2012	\$12,292	\$10,751	\$11,583	0.87	0.93	\$80,423	\$81,479	\$83,980	1.01	0.97
Feb 2012	\$14,371	\$17,367	\$18,675	1.21	0.93	\$94,794	\$98,846	\$102,655	1.04	0.96
Mar 2012	\$13,101	\$11,054	\$11,874	0.84	0.93	\$107,895	\$109,900	\$114,529	1.02	0.96
Apr 2012	\$16,877	\$8,730	\$12,488	0.52	0.70	\$124,772	\$118,630	\$127,017	0.95	0.93
May 2012	\$23,773	\$8,080	\$11,320	0.34	0.71	\$148,545	\$126,710	\$138,337	0.85	0.92
Jun 2012	\$21,271	\$7,567	\$12,061	0.36	0.63	\$169,816	\$134,277	\$150,398	0.79	0.89
Jul 2012	\$18,266			0.00		\$188,082			0.00	
Aug 2012	\$24,560			0.00		\$212,641			0.00	
Sep 2012	\$25,838			0.00		\$238,479			0.00	
PTD	\$1,412,989	\$1,383,776	\$1,371,011	0.98	1.01					

**HIGH-LEVEL WASTE (HLW) FACILITY**

<b>Number</b>	<b>Title</b>	<b>Due Date</b>	<b>Status</b>
D-00A-21	Complete Construction of Structural Steel to 37' in HLW Facility	12/31/2012	On-going
D-00A-02	HLW Facility Construction Substantially Complete	12/31/2016	On-going* (see issues below)
D-00A-03	Start HLW Facility Cold Commissioning	6/30/2018	On-going* (see issues below)
D-00A-04	HLW Facility Hot Commissioning Complete	12/31/2019	On-going* (see issues below)

The High Level Waste (HLW) Facility will receive the separated high-level waste concentrate from the Pretreatment (PT) Facility. This concentrate will be blended with glass formers and converted into molten glass in one of the two HLW melters and then poured into cylindrical stainless steel canisters. After cooling, the canisters will be sealed and decontaminated prior to shipment to interim storage. The HLW Facility is 60 percent complete overall, with engineering design 87 percent complete, procurement 76 percent complete, construction 42 percent complete, and startup and commissioning is 4 percent complete.

**Significant Past Accomplishments:**

Excellent progress is being made on completion of the Consent Decree Milestone (D-00A-21) "Complete Construction of Structural Steel to 37' in HLW Facility." The current forecast for construction completion is September 2012 compared to the consent decree compliance date of December 31, 2012. All of the materials to complete this milestone have been delivered and are on site. The remaining steel erection consists primarily of 4 beams in the Rinse Tunnel. Prior to setting this steel, work at lower elevations is proceeding in order to utilize efficiencies gained by being able to lift materials in through the roof.

The seismic rails for the decontamination rinse bogie have been set. The Dangerous Waste Permit change notification has been approved so that the rinse bogie can be installed. The rinse bogie and decontamination vessel have been installed in the canister rinse tunnel. The rails will be installed following the setting of the decontamination rinse bogie for final alignment.

75% of the concrete has been poured in the facility with 58ft elevation walls continuing and a majority of the 37ft slabs complete.

Fabrication of Plant Wash and Drain Vessel (RLD-VSL-08) in England was completed; and it was delivered to the Mid-Columbia Engineering Facility in April for further inspection prior to being received and accepted by Bechtel. At this time, Bechtel and the vendor are working on a Corrective Action Plan for RLD-VSL-08 vendor welding issues. The project completed factory acceptance testing on Thermal Catalytic Oxidizers (TCO) which are being fabricated in Colorado. The TCOs are scheduled for delivery to the site in August.

**Significant Planned Actions in the Next Six Months:**

- Complete 37' structural steel
- Receive Thermal Catalytic Oxidizers
- Receive Plant Wash and Drains Vessel (RLD-VSL-8)
- Receive Acidic Waste Vessel (RLD-VSL-7)
- Receive Primary Off-gas Vessel HEME Vessel

**Issues:**

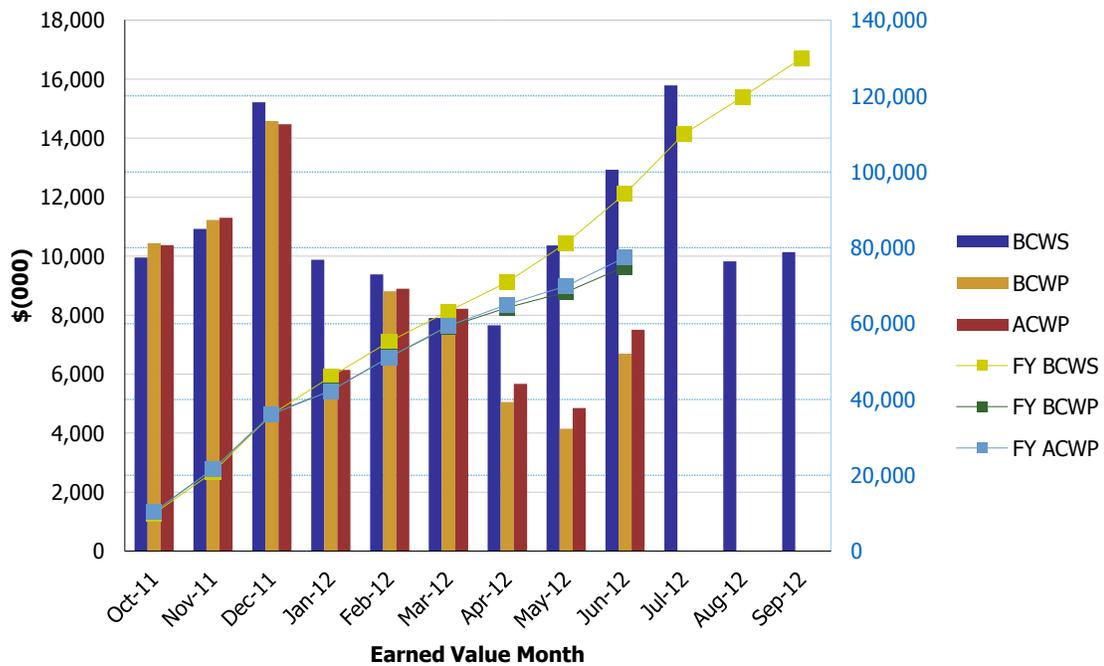
\* Technical issues relevant to the PTF and HLW facilities include, among others, pulse jet mixers, corrosion/erosion in piping and vessels, hydrogen accumulation, and waste feed issues.

Data Set: FY 2012 Earned Value Data

Data as of: June 2012

**River Protection Project  
High-Level Waste Facility**

EVMS Monthly and Fiscal Year Values



Earned Value Month	BCWS	BCWP	ACWP	SPI	CPI	FY BCWS	FY BCWP	FY ACWP	FY SPI	FY CPI
Oct 2011	\$9,953	\$10,437	\$10,368	1.05	1.01	\$9,953	\$10,437	\$10,368	1.05	1.01
Nov 2011	\$10,920	\$11,224	\$11,295	1.03	0.99	\$20,873	\$21,661	\$21,663	1.04	1.00
Dec 2011	\$15,209	\$14,578	\$14,472	0.96	1.01	\$36,082	\$36,239	\$36,135	1.00	1.00
Jan 2012	\$9,878	\$6,187	\$6,142	0.63	1.01	\$45,960	\$42,426	\$42,277	0.92	1.00
Feb 2012	\$9,383	\$8,807	\$8,891	0.94	0.99	\$55,343	\$51,233	\$51,168	0.93	1.00
Mar 2012	\$7,900	\$7,901	\$8,221	1.00	0.96	\$63,243	\$59,134	\$59,389	0.94	1.00
Apr 2012	\$7,652	\$5,055	\$5,676	0.66	0.89	\$70,895	\$64,189	\$65,065	0.91	0.99
May 2012	\$10,364	\$4,150	\$4,849	0.40	0.86	\$81,259	\$68,339	\$69,914	0.84	0.98
Jun 2012	\$12,929	\$6,691	\$7,502	0.52	0.89	\$94,188	\$75,030	\$77,416	0.80	0.97
Jul 2012	\$15,787			0.00		\$109,975			0.00	
Aug 2012	\$9,818			0.00		\$119,793			0.00	
Sep 2012	\$10,133			0.00		\$129,926			0.00	

PTD	\$923,681	\$906,656	\$902,474	0.98	1.00
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**LOW-ACTIVITY WASTE (LAW) FACILITY**

<b>Number</b>	<b>Title</b>	<b>Due Date</b>	<b>Status</b>
D-00A-07	LAW Facility Construction Substantially Complete	12/31/2014	On-going
D-00A-08	Start LAW Facility Cold Commissioning	12/31/2018	On-going
D-00A-09	LAW Facility Hot Commissioning Complete	12/31/2019	On-going

The Low-Activity Waste (LAW) Facility will vitrify LAW from the Pretreatment (PT) Facility. Waste will be mixed with glass formers, vitrified into glass at a design capacity of 30 metric tons per day, and placed in stainless steel containers that are anticipated to be disposed on the Hanford Site in the Integrated Disposal Facility. The LAW Facility is 69 percent complete overall, with engineering design 85 percent complete, procurement 88 percent complete, construction 71 percent complete, and startup and commissioning is 5 percent complete.

**Significant Past Accomplishments:**

Electrical systems design continues in support of all equipment, controls, and lighting throughout the facility. The system design document for the C1 Ventilation (C1V), C2 Ventilation (C2V) and LAW Stack Discharge Monitoring (SDJ) systems were issued. New configuration data indices were issued for the DC 125-Volt Electrical (DCE), Low-Voltage Electrical (LVE), Medium-Voltage Electrical (MVE), LAW Concentrate Receipt Process (LCP) and Uninterruptible Power Electrical (UPE) systems. Confirmed calculations were issued for the Code Case 2211-1 Overpressure Protection Evaluation of the LAW Primary Off-Gas (LOP) system and Code Case UG-140 Overpressure Protection Evaluation of the LAW Secondary Off-Gas (LVP) system.

New anchorage drawings for elevation +48' rooms L-0309, L-0311 and L-0313 were issued. Piping isometric drawings for the LAW Chilled Water (CHW), Steam Condensate Water (SCW), Radioactive Liquid Waste Disposal (RLD), LAW Melter Feed Process (LFP), and the Carbon Dioxide Gas (CDG) systems were issued. Piping support drawings were issued for the Instrument Service Air (ISA), CHW, CDG, and Autosampling (ASX) systems. Public review of the LAW-027 permit package for the LVP Carbon Bed Adsorber and the LAW-026B permit package for the LVP HEPA Housings ended on July 20, 2012. There were no public comments, the effective date of the permit and the date the equipment can be installed is August 20, 2012. Approval was received from the Washington State Department of Ecology (Ecology) on July 19, 2012 for Hanford Resource Conservation and Recovery Act (RCRA) permit modification 24590-LAW-PCN-ENV-11-055, to incorporate enhanced LAW Melter Feed Process (LFP) system Piping and Instrument Diagrams (P&IDs) into the permit.

Procurement activities for the LAW facility are currently focused on the LVP system components. Engineering review of vendor calculations and vendor interactions continued as a major emphasis during the ongoing procurement of LVP system components. Bubbler density transmitters for the LAW Melter Feed Process (LFP) system were received and three-way plug control valves for the Plant Cooling Water (PCW) system.

The primary areas of construction focus continued to be LAW facility partition wall installation and equipment installation for the Container Finishing Handling (LFH) system. Installation of the decontamination manipulators, finishing line dual-rail hoists, and the trolley/bogie cars for the LFH system continued.

Construction activities were initiated to install structural steel for the fire riser room on the west side of the annex and floor coatings were applied on the second floor of the annex. Leveling pour cave steel plates in the melter bays at elevation +3'. Other on-going construction activities included installation of instrument tubing, scheduled conduit in various planning areas along with unscheduled lighting conduit at elevation +48', and platform installation in the southeast corner of the facility for the CDG system. Electrical work activities continued on LAW Container Pour Handling (LPH) system crane in the buffer storage room and LAW Container Finishing Handling (LFH) system hoist at elevation +28'.

Installation activities were completed for the CDG pipe rack.

Comments were resolved for software functional requirements for the following systems:

- LAW Melter Feed Process System (LFP)
- Carbon Dioxide Gas System (CDG)

**Significant Planned Actions in the Next Six Months:**

- Complete installation of melter power supplies
- Complete installation of Auto Sampling (ASX) system
- Receive HEPA Pre-heaters for LVP system
- Receive HEPA Housings for LVP system
- Receive Thermal Catalytic Oxidizer (TCO) for LVP system

**Issues:**

No major issues at this time.

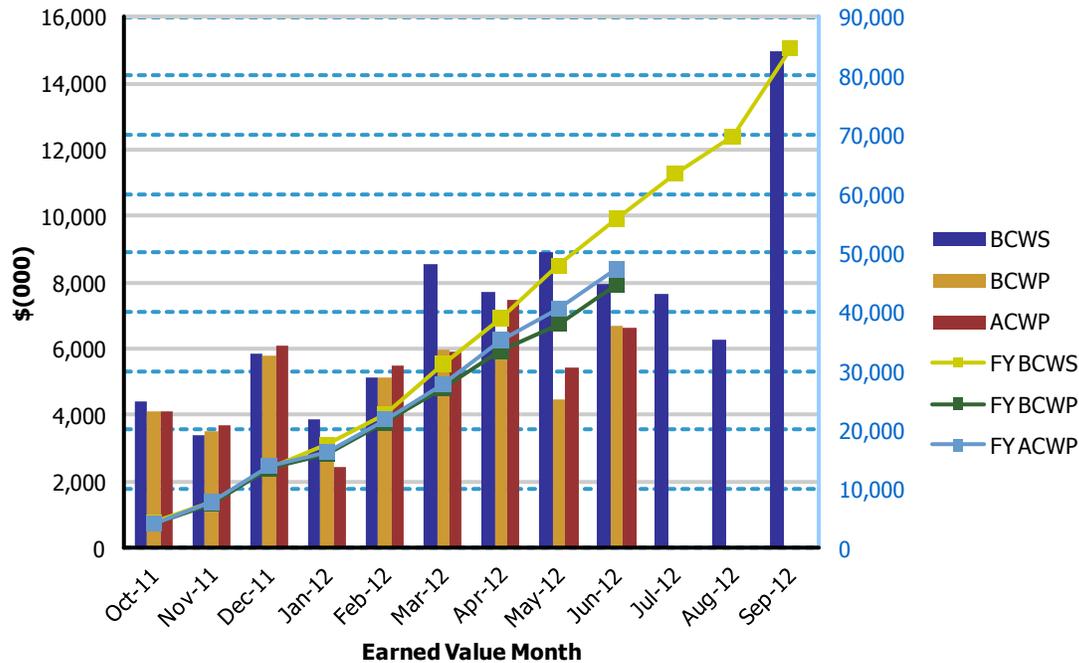
### EXC-01a: Fiscal Year Cost and Schedule Report

Data Set: FY 2012 Earned Value Data

Data as of: June 2012

**River Protection Project  
Low-Activity Waste Facility**

EVMS Monthly and Fiscal Year Values



Earned Value Month	BCWS	BCWP	ACWP	SPI	CPI	FY BCWS	FY BCWP	FY ACWP	FY SPI	FY CPI
Oct 2011	\$4,415	\$4,115	\$4,104	0.93	1.00	\$4,415	\$4,115	\$4,104	0.93	1.00
Nov 2011	\$3,404	\$3,510	\$3,704	1.03	0.95	\$7,819	\$7,625	\$7,808	0.98	0.98
Dec 2011	\$5,827	\$5,807	\$6,123	1.00	0.95	\$13,646	\$13,432	\$13,931	0.98	0.96
Jan 2012	\$3,886	\$2,617	\$2,412	0.67	1.08	\$17,532	\$16,049	\$16,343	0.92	0.98
Feb 2012	\$5,140	\$5,117	\$5,472	1.00	0.94	\$22,672	\$21,166	\$21,815	0.93	0.97
Mar 2012	\$8,531	\$5,960	\$5,900	0.70	1.01	\$31,203	\$27,126	\$27,715	0.87	0.98
Apr 2012	\$7,735	\$6,351	\$7,469	0.82	0.85	\$38,938	\$33,477	\$35,184	0.86	0.95
May 2012	\$8,906	\$4,481	\$5,425	0.50	0.83	\$47,844	\$37,958	\$40,609	0.79	0.93
Jun 2012	\$7,945	\$6,685	\$6,619	0.84	1.01	\$55,789	\$44,643	\$47,228	0.80	0.95
Jul 2012	\$7,638			0.00		\$63,427			0.00	
Aug 2012	\$6,263			0.00		\$69,690			0.00	
Sep 2012	\$14,932			0.00		\$84,622			0.00	

PTD	\$692,373	\$681,905	\$729,764	0.98	0.93
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**BALANCE OF FACILITIES (BOF)**

<b>Number</b>	<b>Title</b>	<b>Due Date</b>	<b>Status</b>
D-00A-12	Steam Plant Construction Complete	12/31/2012	On-going

The Balance of Facilities (BOF) provides services and utilities to support operation of the main production facilities – PT, HLW, LAW, and LAB. The BOF is 50 percent complete overall, with engineering design 74 percent complete, procurement 49 percent complete, construction 65 percent complete, and startup and commissioning is 9 percent complete.

**Significant Past Accomplishments:**

Oversight efforts are focused on identification of individual facility requirements within BOF to support facility completion and turnover to the startup organization. As necessary to support facility completion, the WTP contractor initiates a weekly or bi-weekly meeting approximately 12 months prior to the scheduled turnover date. The meetings focus on schedule reviews and punch list development for the remaining construction activities. Regular meetings are currently being held for the WTP site switchgear buildings (87 and 91), Chiller Compressor Plant (CCP), and a meeting is currently being established for the Non-radioactive Non-Dangerous Liquid Drains (NLD) facility.

Recent accomplishments for the BOF team are:

- Completed 8 week walk down for WTP switchgear building 87
- Began issuing system flushing sketches for the Plant Service Air (PSA) system and the Plant Cooling Water (CHW) system
- Began excavation for the Potable Water (DOW) tie-in at the PTF and the Sanitary Disposal system (SND) tie-in between the LAB and LAW facilities
- Began installing structural steel for pipe rack connection from the LAB to the LAW facility
- Continued installing PSA system piping in the Glass Former Storage Facility
- Continued installation of pressure safety valves in the CHW and PSA systems for the CCP

**Significant Planned Actions in the Next Six Months:**

- Complete construction of cooling tower
- Complete construction of BOF switchgear building
- Install structural steel for anhydrous ammonia facility
- Turnover WTP Switchgear (Bldg 87) from construction to the startup organization

**Issues:**

No major issues.

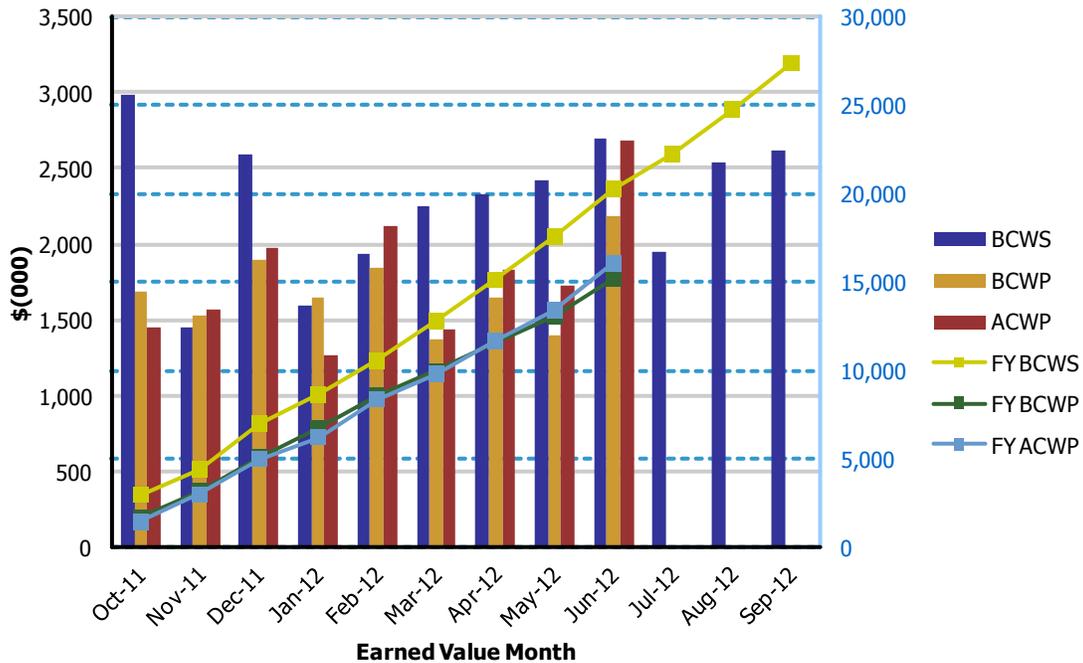
### EXC-01a: Fiscal Year Cost and Schedule Report

Data Set: FY 2012 Earned Value Data

Data as of: June 2012

**River Protection Project  
Balance of Facilities**

EVMS Monthly and Fiscal Year Values



Earned Value Month	BCWS	BCWP	ACWP	SPI	CPI	FY BCWS	FY BCWP	FY ACWP	FY SPI	FY CPI
Oct 2011	\$2,980	\$1,685	\$1,454	0.57	1.16	\$2,980	\$1,685	\$1,454	0.57	1.16
Nov 2011	\$1,455	\$1,524	\$1,564	1.05	0.97	\$4,435	\$3,209	\$3,018	0.72	1.06
Dec 2011	\$2,594	\$1,895	\$1,981	0.73	0.96	\$7,029	\$5,104	\$4,999	0.73	1.02
Jan 2012	\$1,597	\$1,652	\$1,262	1.03	1.31	\$8,626	\$6,756	\$6,261	0.78	1.08
Feb 2012	\$1,939	\$1,841	\$2,123	0.95	0.87	\$10,565	\$8,597	\$8,384	0.81	1.03
Mar 2012	\$2,248	\$1,376	\$1,444	0.61	0.95	\$12,813	\$9,973	\$9,828	0.78	1.01
Apr 2012	\$2,331	\$1,651	\$1,835	0.71	0.90	\$15,144	\$11,624	\$11,663	0.77	1.00
May 2012	\$2,421	\$1,399	\$1,725	0.58	0.81	\$17,565	\$13,023	\$13,388	0.74	0.97
Jun 2012	\$2,698	\$2,188	\$2,685	0.81	0.81	\$20,263	\$15,211	\$16,073	0.75	0.95
Jul 2012	\$1,950			0.00		\$22,213			0.00	
Aug 2012	\$2,533			0.00		\$24,746			0.00	
Sep 2012	\$2,615			0.00		\$27,361			0.00	
PTD	\$274,106	\$267,322	\$265,130	0.98	1.01					

**ANALYTICAL LABORATORY**

<b>Number</b>	<b>Title</b>	<b>Due Date</b>	<b>Status</b>
D-00A-05	LAB Construction Substantially Complete	12/31/2012	On-going

The Analytical Laboratory (LAB) will support WTP operations by analyzing feed, vitrified waste, and effluent streams. The LAB is 55 percent complete overall, with engineering design 80 percent complete, procurement 77 percent complete, construction 85 percent complete, and startup and commissioning is 10 percent complete.

**Significant Past Accomplishments:**

The LAB team continued to focus on the LAB Construction Substantially Complete milestone. Weekly meetings are held to evaluate construction progress and challenges that arise. Major structures of the building are in place including the interior partition walls which segregate the various analytical stations for LAW sample analysis. Within the individual analytical areas, detail/finishing work continues with emphasis on the installation of commodities to support laboratory cabinets and analytical equipment. Recent accomplishments for the LAB team are listed below:

- Began installing shower/eyewash stations throughout the facility
- Began testing of the Chill Water system
- Continuing RLD system installation in the southeast corner of the facility
- Continued installing hotcell lighting receptacles

**Significant Planned Actions in the Next Six Months:**

- Complete mechanical installation of Autosampling System
- Set pumps in C5 pit
- Install Hot Cell import/export motors
- Progress Analytical Laboratory Construction to “Substantially Complete”

**Issues:**

The LAB schedule was recently affected by an issue concerning valve internals. There is the potential that as many as 275 valves could have had their internal components damaged due to excessive temperatures caused by welding during installation. BNI plans to examine 65 of the valves and base the recovery plan upon the inspection results. While this will delay the goal of early LAB construction completion, there is currently no impact to the Consent Decree milestone (D-00A-05) or contract milestone completion dates.

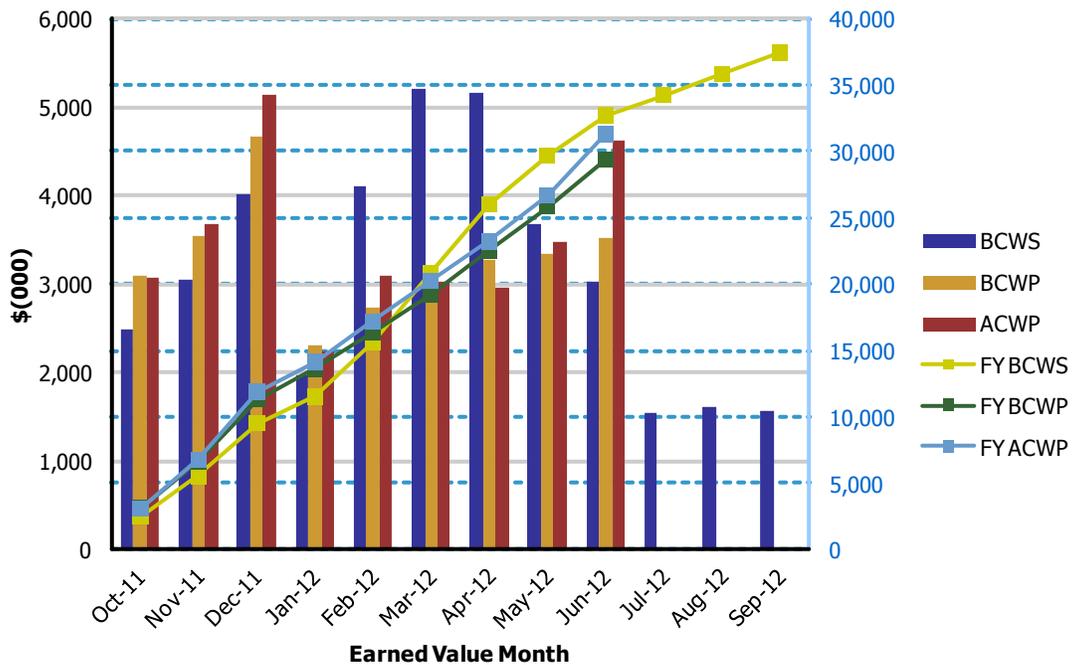
### EXC-01a: Fiscal Year Cost and Schedule Report

Data Set: FY 2012 Earned Value Data

Data as of: June 2012

**River Protection Project  
Analytical Laboratory**

EVMS Monthly and Fiscal Year Values



Earned Value Month	BCWS	BCWP	ACWP	SPI	CPI	FY BCWS	FY BCWP	FY ACWP	FY SPI	FY CPI
Oct 2011	\$2,489	\$3,092	\$3,063	1.24	1.01	\$2,489	\$3,092	\$3,063	1.24	1.01
Nov 2011	\$3,040	\$3,551	\$3,680	1.17	0.96	\$5,529	\$6,643	\$6,743	1.20	0.99
Dec 2011	\$4,005	\$4,676	\$5,128	1.17	0.91	\$9,534	\$11,319	\$11,871	1.19	0.95
Jan 2012	\$1,970	\$2,318	\$2,242	1.18	1.03	\$11,504	\$13,637	\$14,113	1.19	0.97
Feb 2012	\$4,113	\$2,725	\$3,091	0.66	0.88	\$15,617	\$16,362	\$17,204	1.05	0.95
Mar 2012	\$5,203	\$2,860	\$3,036	0.55	0.94	\$20,820	\$19,222	\$20,240	0.92	0.95
Apr 2012	\$5,167	\$3,265	\$2,954	0.63	1.11	\$25,987	\$22,487	\$23,194	0.87	0.97
May 2012	\$3,685	\$3,349	\$3,486	0.91	0.96	\$29,672	\$25,836	\$26,680	0.87	0.97
Jun 2012	\$3,020	\$3,531	\$4,627	1.17	0.76	\$32,692	\$29,367	\$31,307	0.90	0.94
Jul 2012	\$1,540			0.00		\$34,232			0.00	
Aug 2012	\$1,612			0.00		\$35,843			0.00	
Sep 2012	\$1,572			0.00		\$37,415			0.00	
PTD	\$202,494	\$197,837	\$212,077	0.98	0.93					

Waste Treatment Plant Project - Percent Complete Status Through June 2012															
(Dollars - Millions)	Overall Facility Percent Complete Unallocated Dollars			Design/Engineering Unallocated Dollars			Procurement Unallocated Dollars			Construction Unallocated Dollars			Startup & Plant Operations Unallocated Dollars		
	Performance Measurement Baseline (PMB)	Budgeted Cost of Work Performed (BCWP)	% Complete	Performance Measurement Baseline (PMB)	Budgeted Cost of Work Performed (BCWP)	% Complete	Performance Measurement Baseline (PMB)	Budgeted Cost of Work Performed (BCWP)	% Complete	Performance Measurement Baseline (PMB)	Budgeted Cost of Work Performed (BCWP)	% Complete	Performance Measurement Baseline (PMB)	Budgeted Cost of Work Performed (BCWP)	% Complete
Low-Activity Waste	993.7	681.9	69%	250.8	212.4	85%	242.1	213.0	88%	350.5	249.8	71%	150.3	6.8	5%
Analytical Lab	360.6	197.8	55%	57.9	46.3	80%	56.2	43.2	77%	109.9	93.5	85%	136.6	13.9	10%
Balance of Facilities	538.9	267.3	50%	89.0	65.5	74%	81.4	39.6	49%	231.8	149.5	65%	136.7	12.7	9%
High-Level Waste	1,516.3	906.7	60%	355.9	308.7	87%	458.2	349.2	76%	582.3	243.9	42%	120.0	4.8	4%
Pretreatment	2,588.5	1,383.8	53%	774.0	619.1	80%	713.5	371.1	52%	914.6	386.6	42%	186.4	7.1	4%
Shared Services	4,720.2	3,565.1	76%	1,005.1	922.6	92%	471.7	404.7	86%	1,432.9	1,126.1	79%	455.9	136.4	30%
<b>Total WTP w/o UB</b>	<b>10,718.2</b>	<b>7,002.6</b>	<b>65%</b>	<b>2,532.6</b>	<b>2,174.6</b>	<b>86%</b>	<b>2,023.2</b>	<b>1,420.7</b>	<b>70%</b>	<b>3,621.9</b>	<b>2,249.5</b>	<b>62%</b>	<b>1,185.8</b>	<b>181.7</b>	<b>15%</b>
Undistributed Budget	0.3	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
<b>Total WTP</b>	<b>10,718.5</b>	<b>7,002.6</b>	<b>65%</b>	<b>2,532.6</b>	<b>2,174.6</b>	<b>86%</b>	<b>2,023.2</b>	<b>1,420.7</b>	<b>70%</b>	<b>3,621.9</b>	<b>2,249.5</b>	<b>62%</b>	<b>1,185.8</b>	<b>181.7</b>	<b>15%</b>

Source: Preliminary WTP Contract Performance Report - Format 1, Data for June 2012

Note: Starting with the June 2009 report, facility Construction percent complete values decreased significantly, and a couple of Design/Engineering facility percent complete values went down as well. The decrease in values was tied to Phase I of BNI's elimination of WBS 1.08, Plant Wide EPCC; scope from WBS 1.08 was moved to facilities as appropriate or to WBS 1.90, Shared Services. This resulted in an increase in the facility construction budgets, which has correspondingly reduced the to-date percent complete values. In July 2010 the allocation of 1.90 to the facilities was removed to show true facility percent complete. This report does not show the LOE budgets that are not associated with a specific EPCC function, these include, Finance, Project Management, etc, but are included in the total Overall Facility Percent Complete for Shared Service.